

RADIO *and Television* TODAY

JANUARY, 1940

1940 — NEW RADIO OPPORTUNITIES

A thrilling decade has just closed for radio. And an even more promising period is ahead as 1940 opens.

Discharging its duty to the public in providing news, music, education, drama and light entertainment in a magnificent way, radio broke all records for sales in 1939. And now it stands to reap an even greater harvest, as listening increases and each person demands his individual set.

Meanwhile interest in larger receivers should grow, with marginal dollars more plentiful and the public's music appreciation constantly enlarging.

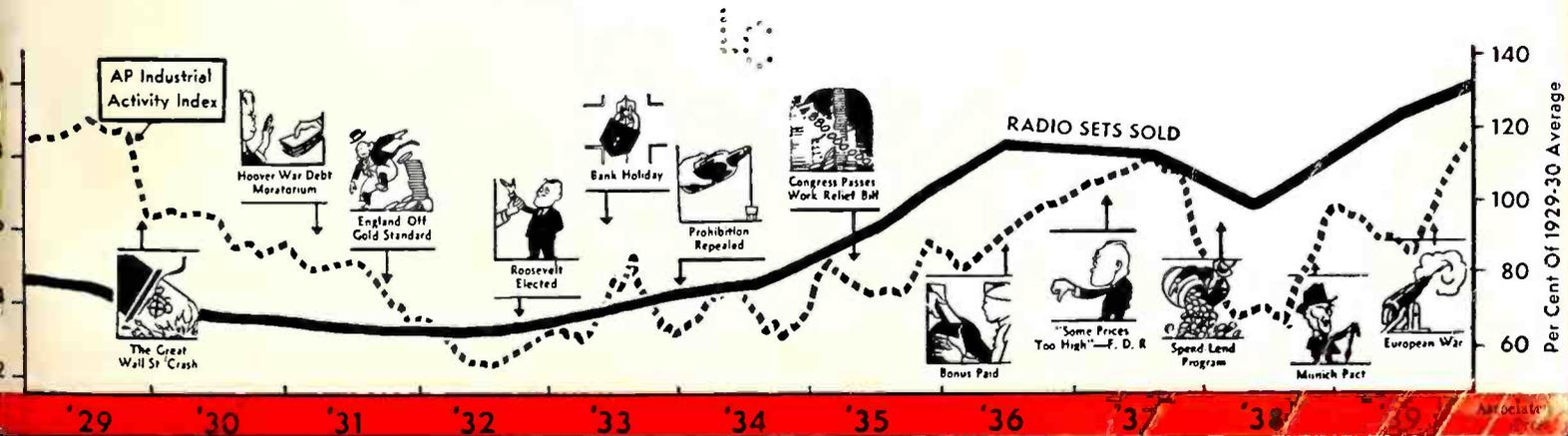
Demand for auto-radios and portables shows that more and more the public wants to be in touch with the magic

waves of broadcasting every possible hour of the day.

Television will find its rightful place in the months ahead. Frequency modulation will offer new delights in listening and new replacement opportunities. Phonograph combinations will carry record sales to new highs.

So 1940 should be a fortunate year for radio—and for all who are in radio. It will be a grand year, too, if every radio man will see that radio's business methods measure up, in integrity, to the bright opportunities we face.

O. H. Caldwell
Editor



TK6540
R28

"THE FIRST ISSUE IS WORTH THE COST OF THE ENTIRE SERVICE!"

"KEEPS GETTING BETTER WITH EACH ISSUE!"

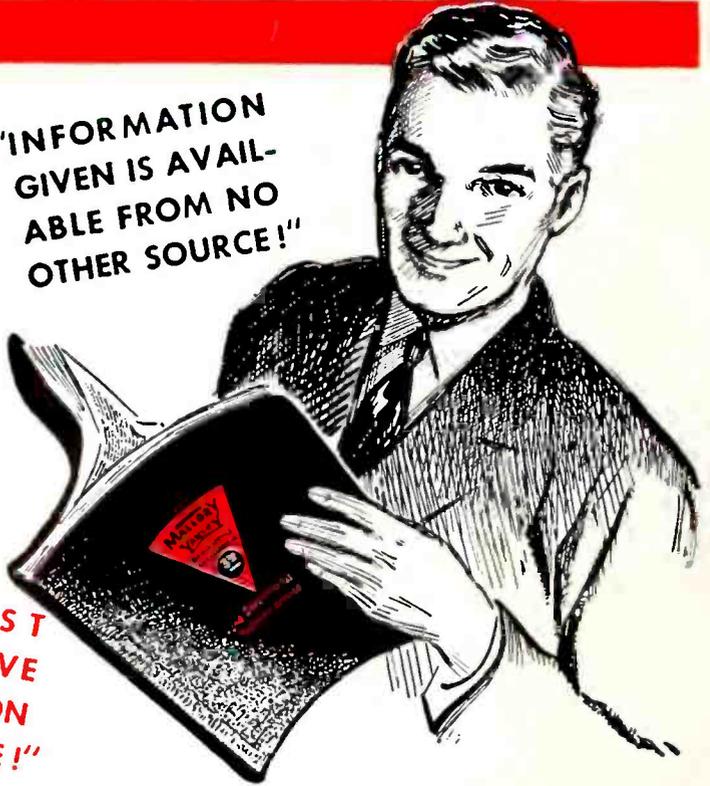
"EVERY RADIO SERVICE MAN NEEDS IT!"

"BEST LOW-COST TECHNICAL SERVICE I'VE EVER USED!"

"I'VE SAVED PLENTY OF TIME AND MONEY WITH IT ALREADY!"

"THE MOST EXHAUSTIVE COMPILATION EVER MADE!"

"INFORMATION GIVEN IS AVAILABLE FROM NO OTHER SOURCE!"



Comments Like These Prove Its Value

MALLORY Supplemental MYE MONTHLY TECHNICAL SERVICE



The Supplemental MYE Technical Service is "going like a house on fire." Radio service engineers, eager to keep abreast of current developments, tell us that every issue helps them solve problems not covered by any other service *regardless of cost.*

The first 4 issues, already published, contain: (1) Combined Tube Characteristics with complete tube charts. (2) Complete engineering data on Dry Electrolytic Capacitors. (3) Useful Servicing Information. (4) New Receiver listings covering all sets from June to December 1939.

A few copies of the first 4 issues in attractive leatherette, 3-ring binders are still available. Eight equally valuable issues; one a month right through the year are still to come.

HOW TO GET IT: obtain the complete service by sending in your check or money order for \$1.50 direct to us. Or . . . you can save 50c by having your Mallory-Yaxley distributor order the service for you.

Whether you are a service engineer, student, "ham" or experimenter you can't afford to be without this Mallory monthly technical service.

Order Today from Your Mallory-Yaxley Distributor — Save Money!

Use
P. R. MALLORY & CO., Inc.
MALLORY
 REPLACEMENT
 CONDENSERS... VIBRATORS

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

Use
YAXLEY
 REPLACEMENT
 VOLUME CONTROLS

4717
6414 J

Introducing for you

5

RECORD SMASHING WESTINGHOUSE RADIOS



MODEL WR-272 L

A beautiful two-band AC set with 6 station push-button tuning, built-in loop antenna and 6" electro-dynamic speaker. Includes 2 double-purpose tubes.



MODEL WR-173

AC or DC plastic. Electro-dynamic speaker. Built-in loop antenna. Two double-purpose tubes included.



MODEL WR-676

A strikingly finished portable radio. Operates on batteries or on AC or DC current. Loop antenna and 5" speaker.



MODEL WR-375

The New Year's greatest console value. 3-band set with 12" electro-dynamic speaker, six-station push-button tuning, and special rotatable loop antenna.

MODEL WR-168 A Walnut AC-DC model with 5" dust-proof dynamic speaker, built-in loop antenna, and edge-lighted glass dial.



DESIGNED for eye appeal
EQUIPPED for advance performance
PRICED for fast Profits

The 1940 Westinghouse radio line was a record-smashing series! New, all-time-high sales records were established. Factory and distributors' stocks were cleaned out! And orders for more radios are still pouring into headquarters!

This unprecedented demand for Westinghouse radios proves one point—the public demands *real radio values* . . . radios that stand-out in styling, performance and price!

To maintain this position Westinghouse now announces 5 new models. Here again are radios that lead in **EYE-APPEAL**. Exclusive designs. Exquisite, matched grain veneers. Master cabinet craftsmanship. All create favorable customer reaction.

And, they're packed with features to talk about. Their outstanding **PERFORMANCE** will back up your sales story with convincing proof.

As to **PRICE**, you be the judge! Every model is a price leader in its class. And you'll be enthusiastic about the profit margin. Complete details are available at your Westinghouse Distributor. Why not phone him **NOW**?

LISTEN TO THE NEW WESTINGHOUSE BROADCAST

COAST-TO-COAST

On January 25th, Westinghouse goes on the air with a coast-to-coast radio program. Tune in "Musical Americana," NBC Blue Network, Thursdays, 8 P. M. EST; 7 P. M. CST; 9:30 P. M. MST; 8:30 P. M. PST.

Westinghouse Precision RADIO

ERL 26 Jan 43

3/9/41

WAS

92

Again Emerson



Built-In Loop Antenna

Emerson Silver Jubilee Model 330

No Outside Aerial or Ground Needed.

AC-DC Superheterodyne with "Miracle Tone Chamber." Automatic Volume Control. Large Electro-Dynamic Speaker. "Eye-Ease" Dial and many other advance 1940 features.

SALES . . . When You Need Them Most!
January and February Promotion . . . in Celebration
of Emerson's 25th Anniversary.

With crowd-stopping window streamers, window and store displays, special price tags, wall broadsides, newspaper advertising and other helps, YOU can use this outstanding promotion to stimulate your entire business.

Retail prices of the Emerson "SILVER JUBILEE" Models featured in this promotion will definitely be restored to the original list and so advertised after the limited SALE period. Only a limited quantity is available for this event. Get ALL of the facts and—CASH IN!

Telephone, Write or Wire your EMERSON Distributor NOW!

EMERSON RADIO AND PHONOGRAPH CORPORATION • NEW YORK, N. Y.

"World's Largest Maker of Small Radios"

LIST PRICE \$19⁹⁵
To Retail at
\$9⁹⁵
FOR A LIMITED TIME ONLY

(Prices slightly higher in South and West)



Stimulates Sales!

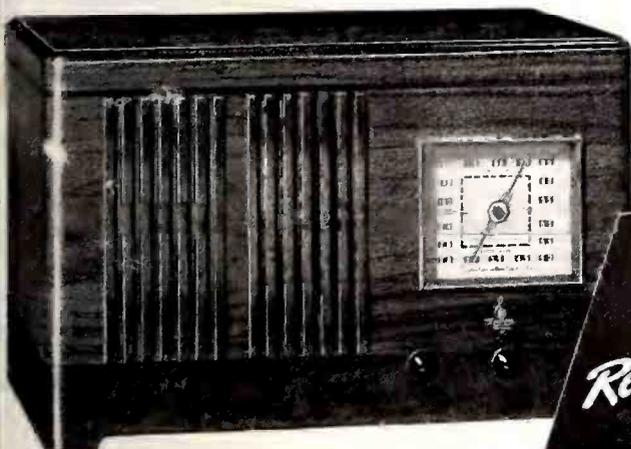
\$10⁰⁰

Featuring a **10** Retail Saving

in a Great "Silver Jubilee" Promotion!

Celebrate with Emerson! A limited-period—limited quantity—SALE of three new 1940 "SILVER JUBILEE" Models, featuring a \$10.00 retail saving on each set. A \$19.95 (list price) Model to retail for \$9.95—a \$29.95 (list price) Model to retail for \$19.95—a \$39.95 (list price) Model to retail for \$29.95! Ask your Emerson distributor Now for details of this most startling, most constructive mid-season promotion ever offered to the radio trade—

Backed by the Most Intensive Advertising and Sales Promotion Campaign in Emerson's History!



Emerson Silver Jubilee Model 331

Standard Broadcasts—All Police Bands—and American and Foreign Short Wave . AC-DC Superheterodyne with "Miracle Tone Chamber" . 8-inch Electro Dynamic Speaker . Automatic Volume Control . "Eye-Ease" Dial . Handsome hand-rubbed walnut cabinet.

(Prices slightly higher in South and West)

LIST PRICE \$29⁹⁵
To Retail at \$19⁹⁵

Emerson Silver Jubilee Model 332

EUROPE DIRECT!—Paris . London . Berlin—American and Foreign Reception . AC-DC Superheterodyne with "Miracle Tone Chamber" . 8-inch Permanent Magnet Dynamic Speaker . Automatic Volume Control . Tone Control . "Eye-Ease" Dial . Television Terminal . Handsome hand-rubbed walnut cabinet.



LIST PRICE \$39⁹⁵
To Retail at \$29⁹⁵

Telephone, Write or Wire your EMERSON Distributor NOW!

EMERSON RADIO AND PHONOGRAPH CORPORATION • NEW YORK, N. Y.
"World's Largest Maker of Small Radios"



These NEW STROMBERG-CARLSON THE

Here are new interim values that add fresh vigor to the volume and profit possibilities of the Stromberg-Carlson line!

There's the new 430-MM finished in mahogany, and the new 420-J, a 7-tube table radio in a stunning modern cabinet. To round out Stromberg-Carlson's complete line of automatic combinations there is the 430-PF in an Authentic Salem Chest design and the magnificent new 460-PF in Authentic Chippendale.

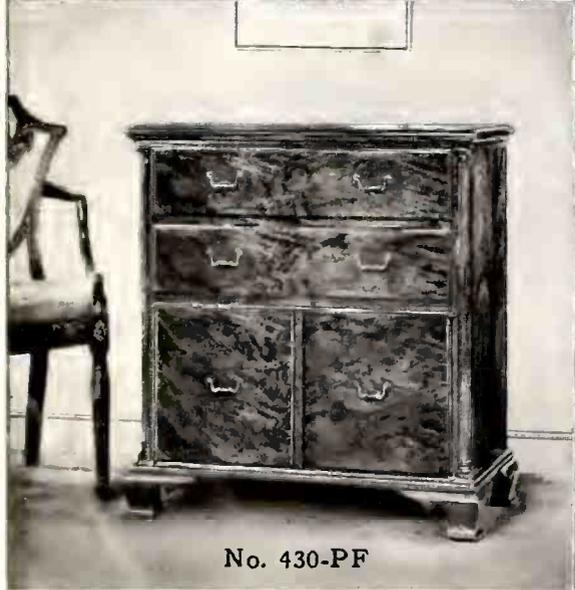
If you are a Stromberg-Carlson dealer you will profit immediately from the sales of these new standard radios and from the sales that Frequency Modulation broadcasting will create, for *Stromberg-Carlson also brings you a complete line of radios with the FM, Standard, and Short Wave bands.*

LOOK AT THIS FM LINE! There's the popularly priced No. 455-M console, the 455-PL automatic radio-phonograph, and the No. 480-M deluxe console with Coaxial Dual Speaker System. In addition, there's the Frequency Modulation band table radio, the 425-H, which may also be used to convert any standard console into an FM radio.

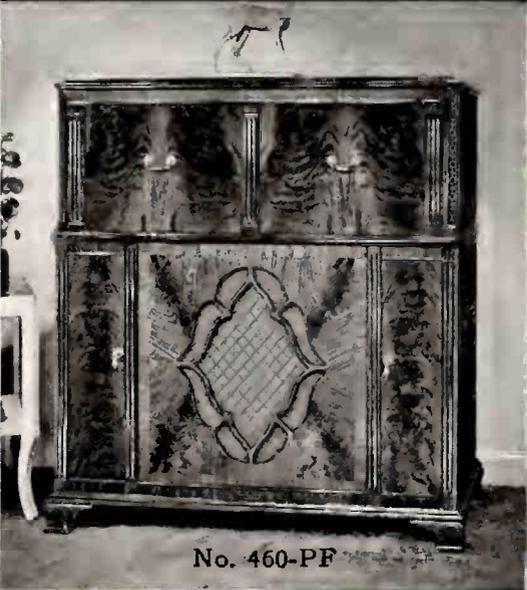


No. 420-J

4 NEW STANDARD MODELS



No. 430-PF



No. 460-PF



No. 430-MM

THERE IS NOTHING FINER THAN A

Stromberg

**5th ANNIVERSARY MODELS MAKE
LINE FOR VOLUME and PROFIT in 1940**

**2nd FREQUENCY
MODULATION
IS HERE too!**

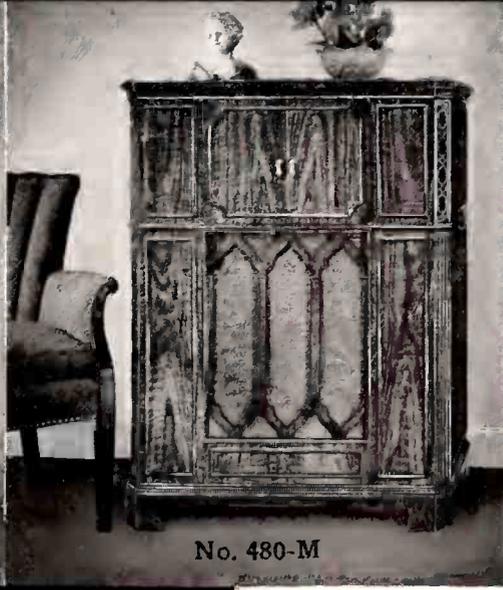
**BETTER TONE
LESS NOISE
NO INTERFERENCE**

If you want to jump ahead with Frequency Modulation, get set with Stromberg-Carlson — the FM line that's lengths ahead from the very beginning. The patented *Labyrinth* and *Carpinchoe Leather Speaker* in all these new Stromberg-Carlson FM consoles make it possible to capture the marvelous extra fidelity of FM broadcasts. They add *Super-Hi-Fidelity* to staticless reception of FM programs.

**... AND THE LABYRINTH
PUTS FREQUENCY MODU-
LATION RIGHT DOWN
STROMBERG-CARLSON'S
ALLEY!**



NEW FREQUENCY MODULATION MODELS



Carlson

*Mail this
Coupon*

Stromberg-Carlson Telephone Mfg. Co., 252 Carlson Road, Rochester, N. Y.
Send full information on Radio's Profitable Volume Line.

Name _____
Street _____
City _____ State _____

These **NEW** 5th ANNIVERSARY MODELS MAKE
THE LINE FOR VOLUME and PROFIT in 1940



Here are new interim values that add fresh vigor to the volume and profit possibilities of the Stromberg-Carlson line!

There's the new 430-MM finished in mahogany, and the new 420-J, a 7-tube table radio in a stunning modern cabinet. To round out Stromberg-Carlson's complete line of automatic combinations there is the 430-PF in an Authentic Salem Chest design and the magnificent new 460-PF in Authentic Chippendale.

If you are a Stromberg-Carlson dealer you will profit immediately from the sales of these new standard radios and from the sales that Frequency Modulation broadcasting will create. *For Stromberg-Carlson also brings you a complete line of radios with the FM, Standard, and Short Wave bands.*

LOOK AT THIS FM LINE! There's the popularly priced No. 455-M console, the 455-PL automatic radiophonograph, and the No. 480-M deluxe console with Coaxial Dual Speaker System. In addition, there's the Frequency Modulation band table radio, the 425-H, which may also be used to convert any standard console into an FM radio.

4 NEW STANDARD MODELS



No. 430-PF



NEW FREQUENCY MODULATION MODELS



No. 425-H

FREQUENCY MODULATION IS HERE too!
BETTER TONE LESS NOISE NO INTERFERENCE

If you want to jump ahead with Frequency Modulation, get set with Stromberg-Carlson — the FM line that's lengths ahead from the very beginning. The patented *Labyrinth* and *Carpinchoe Leather Speaker* in all these new Stromberg-Carlson FM consoles make it possible to capture the marvelous extra fidelity of FM broadcasts. They add *Super-Fi-Fidelity* to staticless reception of FM programs.

... AND THE LABYRINTH PUTS FREQUENCY MODULATION RIGHT DOWN STROMBERG-CARLSON'S ALLEY!

THERE IS NOTHING FINER THAN A

Stromberg Carlson

Mail this Coupon

Stromberg-Carlson, Telephone Mfg. Co., 252 Carlton Road, Rochester, N. Y.
 Send full information on Radio's Profitable Volume Line.

Name _____
 Street _____
 City _____ State _____

1940's Golden Opportunity for Manufacturers and Dealers— ELECTRONIC MUSIC!



Electronic pianos, organs and fretted instruments have revealed a new world of music and a new field of profit for radio manufacturers and their dealers. A substantial demand is actually being met by the Miessner licensees—yet a far greater market is waiting to be served.

Public and professionals alike are captivated by the glorious new tone quality of the electronic instrument, with its unlimited, uncanny control of tone-power and timbre. And everyone is surprised, too, at the reasonable cost.

Radio factories have nothing to fear in making electronic musical instruments. They mean no disturbance to current production, no capital investment, no risk. None of the evils that beset radio! No yearly models, no obsolete inventories, no dumping, no trade-ins, no price competition.

It is not even necessary to engage in development work, for this has been done, completely, by Miessner. Forty patents have been issued and others are pending, affording adequate protection to present and future licensees.

MANUFACTURERS LICENSED UNDER MIESSNER PATENTS

Piano Manufacturers (listed alphabetically)

Ansley Radio Co., Bronx Blvd. & 238th St., New York City
Hardman, Peck & Co., 33 W. 57th St., New York City
Krakauer Bros., Cypress Ave. and 136th St., New York City
Packard Bell Radio Co., Los Angeles, Cal.
Story & Clark Piano Co., 64 E. Jackson Blvd., Chicago
Winter & Co., 849 E. 141st St., New York City

Foreign

August Forster Piano Fabrik, Germany
Mason & Risch, Ltd., 642 King St., W. Toronto 2, Canada
Sherlock Manning Co., Clinton, Ontario

Organ Manufacturers

Everett Piano Co. (The Orgatron), South Haven, Mich.
Sebastian Gundling & Sons, Lancaster, Pa.

Fretted Instrument Manufacturers

Epiphone, Inc., 142 W. 14th St., New York

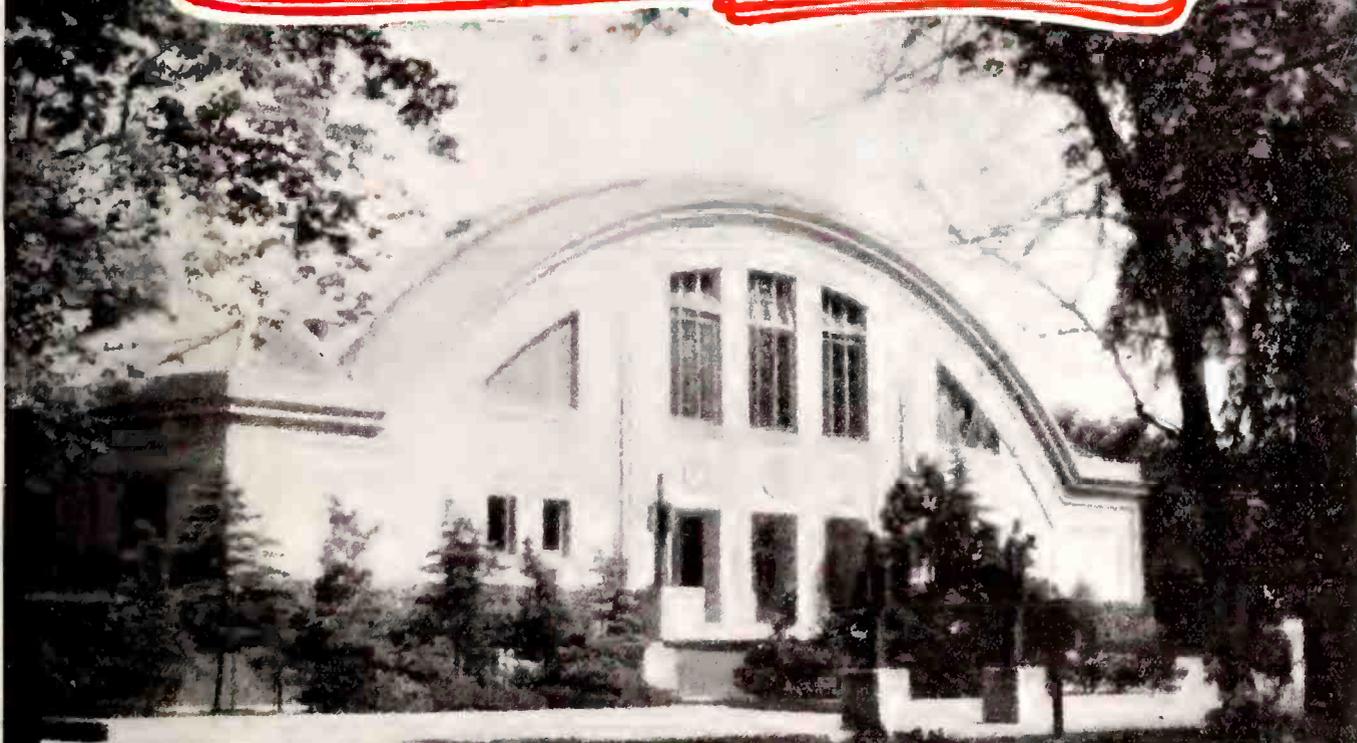
MANUFACTURERS—For license data, write us direct. DEALERS—Write to any of the above licensees.

MIESSNER

MIESSNER INVENTIONS, Inc.

MILLBURN, NEW JERSEY

always *Thrills* at
**NORTHWESTERN
 UNIVERSITY GAMES**



**...and a highly efficient P. A.
 system is one of the reasons**

Northwestern, one of the great Universities of the nation, is famed for its high standards in every phase of its activities. And this is reflected in its top notch teams in various collegiate sports.

In Patton Gymnasium, the fastest, hardest fought college games seen anywhere take place. Here the roar and din of the huge crowds give its P.A. System the hardest test imaginable. Yet it functions perfectly. That's because the tubes are good—the very best. RAYTHEONS are used!

Remember—these are *stock* RAYTHEONS, the kind that thousands of servicemen and dealers use for replacements on the toughest jobs or in the little radio in the home.

Their long life of outstanding service makes satisfied customers and attracts new ones. And, equally important, their dependable performance attracts big tube users, like Northwestern . . . replacement business you couldn't get with inferior tubes. So business grows! Profits, too! *Yet RAYTHEONS cost no more!*



RAYTHEON

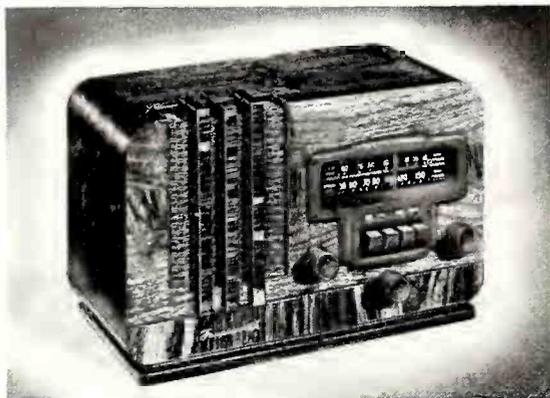
NEWTON, MASS. • NEW YORK • CHICAGO • SAN FRANCISCO • ATLANTA

"WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS"

Again Farnsworth



▲ Model BT-20. A marvel of radio design and engineering. Magnificently styled in plastic. An AC-DC 6-tube superheterodyne circuit. 2 bands. Automatic volume control and Bilt-in-Tenna. An eye-catcher that will move in large volume with minimum selling effort.



▲ Model BT-22. An ideal number for your hottest table model bracket. 6-tube AC-DC superheterodyne circuit. 2 bands. Bilt-in-Tenna, and push-button tuning for four stations—everything your customers want in a table model.

THE tremendous public acceptance of the Farnsworth Line last Fall was not a matter of chance.

For the Farnsworth organization had been picked from the leading executives of the entire radio industry. Years of experience backed their judgment in anticipating markets . . . in creating the Farnsworth Line . . . and in developing a sound merchandising program to move it.

Farnsworth Radios were winners . . . outstanding buys in the radio business.

Forward with Farnsworth in '40

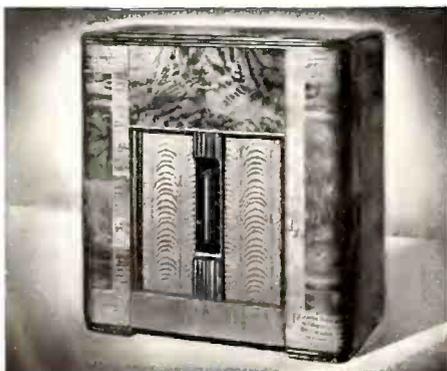
Today, Farnsworth is far in front again . . . anticipating public taste at the strategic moment by adding new models to its comprehensive line. A number of these smart new models . . . together with *proved sellers* of the past season . . . are shown here. Look them all over. They're going to move fast because they're what your customers want.

They follow the Farnsworth policy of working from *the dealer's point of view* . . . giving him new merchandise at the strategic time when he can use it . . . and putting more dealer profit back into the radio business. See your Farnsworth distributor immediately. Get the details of the profitable Farnsworth program for the months ahead.

Farnsworth Television & Radio Corporation, Fort Wayne and Marion, Indiana

FARNSWORTH ALSO LEADS IN THE COMBINATION FIELD

Model AK-59. This beautiful radio-phonograph combination proved to be the hit of the season. Plays 10 twelve-inch or 12 ten-inch records automatically. 7 tubes. 2 wave bands. Bilt-in-Tenna. Push-button tuning. Television-sound connection. And priced to sell on sight!



Model AK-86 is another "hot" model in the Farnsworth "step-up" combination line. Charming cabinet. Plays 10 twelve-inch or 12 ten-inch records automatically. Drawer for records. 8 tubes. 3 wave bands. Push-button tuning. Television-sound connection. A big bargain.



Your hard-to-please customers—those who want the finest, will buy the authentic Chippendale period design of radio-phonograph model AK-96. Plays 10 twelve-inch or 12 ten-inch records automatically. 10 tubes. 3 wave bands. Push-button tuning. Television-sound connection.



Anticipates Popular Demand

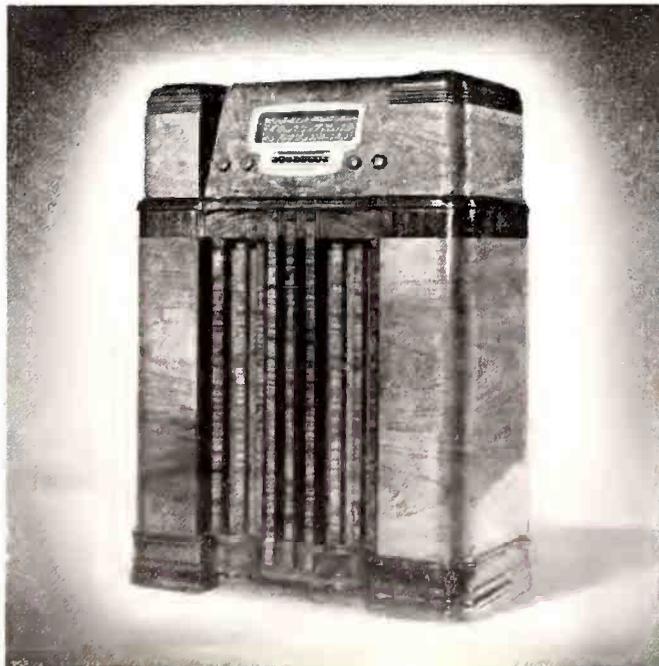


It's still the greatest value in radio. Model AC-70 has proved it's the best bargain in the business. Here's a real traffic producer . . . priced to compete with anything on the market in its class. Read over the features that make it a lot of radio for the money: A distinguished cabinet. 8 tubes. 3 wave bands. Flo-Lite dial. Shielded rotatable Bilt-in-Tenna. Automatic volume control. 12-inch electro-dynamic speaker. Phonograph and television-sound connections . . . all at a price that says "Buy me."



Model BC-81 in tune with the times—a new note in cabinet design, packed with eye-appeal that makes it the show spot in any line-up of radios. 8 tubes. 3 bands. Automatic volume control. Continuously variable tone control. Shielded rotatable Bilt-in-Tenna. 12-inch electro-dynamic speaker. Phonograph and television connections. See it, hear it, and you will sell it.

Model BC-102. Massiveness combined with dignity in cabinet styling for those who want a big package—big in appearance, big in value, and outstanding in performance. 10 tubes. 3 bands. Shielded rotatable Bilt-in-Tenna. Automatic volume control. Continuously variable tone control. 12-inch speaker. Television and phonograph connections. Even its low list provides a wide margin for trade-ins—a natural step-up model.





Get off to a Big Start

with these

RCA Victor

LITTLE NIPPERS!

Begin the New Year with a bang! Feature these brand-new RCA Victor Little Nippers and you will start your 1940 sales the profit way! Because these splendid big little

radios are the sort that sell themselves! Low in price, sparkling with beauty and little wonders in performance—they are "just what we want" to your prospects!



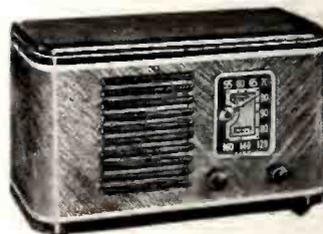
Finished back makes this set a beauty from any angle!

Model 46X3 is ideal for desk and table use where it may be seen from any side because its delightful cabinet of rich woods and selected veneers has a finished back. Other features of this fine instrument include Built-in Magic Loop Antenna, 5 RCA Victor Tubes (7-tube performance), Pentode Beam Power Output for greater volume and purer tone, Plug-in Ballast Resistor, Underwriters' Approval. AC-DC operation.

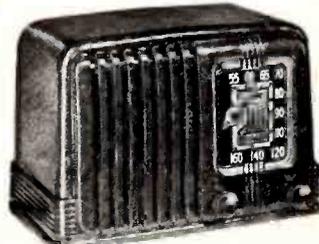
For finer radio performance—RCA Victor Radio Tubes



Model 45X1. Extra large, Edge-lighted Dial... Pentode Beam Power Output for greater volume, purer tone... AC-DC operation... 5 RCA Victor Tubes, 2 double-purpose, giving set equivalent of 7-tube performance. Mahogany plastic cabinet. Available in Ivory as Model 45X2.



Big set features in Model 45X13 include Built-in Magic Loop Antenna... Easy-reading, clock-type Dial... Super-sensitive Electro-dynamic Speaker... Superheterodyne Circuit with Power and Selectivity. Beautiful cabinet constructed of fine woods and veneers.



Model 45X11 has Built-in Magic Loop Antenna... Easy-reading clock-type Dial... Electro-dynamic Speaker... selective Superheterodyne Circuit. Rich Mahogany plastic cabinet with easy-grip, plastic knobs. Also available in Antique Ivory plastic cabinet as Model 45X12.



This brilliant Model 46X13 tunes in Standard Broadcast, Police, Amateur and International Short-wave Bands. Beautiful wood cabinet, extra large Built-in Magic Loop Antenna and super tone make it a natural seller!

Trade-mark "RCA Victor" Reg. U. S. Pat. Off. by RCA Mfg. Co., Inc.



Model 46X11 tunes in Standard Broadcast, Police, Amateur, International Short-wave Bands. Handsome plastic cabinet. Remarkably good tone. Also available in Ivory as Model 46X12.



RCA Victor

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

RADIO *and Television* TODAY

STATISTICS OF THE INDUSTRY

U. S. Annual Radio Bill

Sale of time by broadcasters, 1939.....	\$170,000,000
Talent costs.....	35,000,000
Electricity, batteries, etc., to operate 38,400,000 receivers.....	165,000,000
9,000,000 radios sold in 1939 at retail.....	289,000,000
36,000,000 replacement tubes @ \$1.25.....	45,000,000
Radio parts, supplies, etc.....	50,000,000
Servicing radio sets.....	60,000,000
U.S. Public paid for radio in 1939.....	\$814,000,000

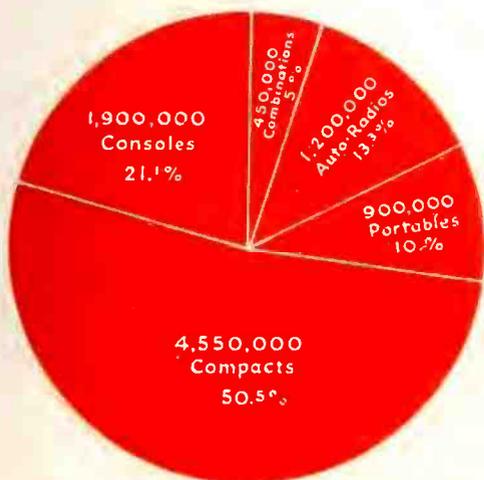
Radio Sets in Use

	Jan. 1, 1939	Jan. 1, 1940
U.S. homes with radios.....	27,500,000	28,700,000
"Secondary" sets in above homes....	7,500,000	9,200,000
Battery Portables.....	200,000	900,000
Auto-radios.....	5,800,000	6,500,000
Total sets in use, U.S.....	40,800,000	45,200,000
Total homes in U.S.....	32,250,000	33,000,000
Total homes with autos.....	19,000,000	20,500,000
Total residence telephones.....	13,250,000	13,500,000
Total homes with electricity.....	24,000,000	24,450,000

Radio Receivers—Sales and Volume in 1939

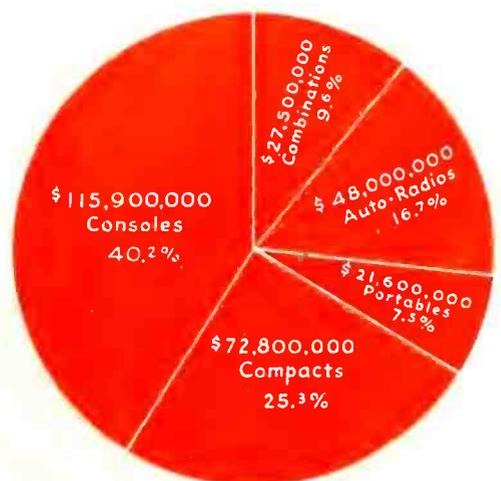
	Number	% of Total	Average Value (Retail)	Total Retail Value	% of Total
Radio Consoles.....	1,900,000	21.1	\$61.00	\$115,900,000	40.2
Radio Compacts.....	4,550,000	50.5	16.00	72,800,000	25.3
Table Combinations.....	250,000	2.8	30.00	7,500,000	2.6
Console Combinations.....	200,000	2.2	100.00	20,000,000	7.0
Total Combinations.....	450,000	5.0	61.00	27,500,000	9.6
Portables.....	900,000	10.0	24.00	21,600,000	7.5
Auto Radio.....	1,200,000	13.3	40.00	48,000,000	16.7
Total Radios.....	9,000,000	289,000,000
Total Tubes.....	91,000,000				
Total Records.....	50,000,000				

Nine Million Sets—



Sold for \$289,000,000

TOTALS ON THE 5 TYPES OF SETS



EDITOR, Orestes H. Caldwell; PUBLISHER, M. Clements; Managing Editor, Darrell Bartee; Merchandising Editor, H. L. M. Capron; STAFF, N. McAllister, G. H. Mayorga, William E. Moulie, M. H. Newton, R. A. Neubauer, B. V. Spinetta; SALES MANAGER, M. E. Herring, R. Y. Fitzpatrick, 201 N. Wells St., Chicago, Ill.; CALDWELL-CLEMENTS, INC., 480 Lexington Ave., NEW YORK, N. Y. Telephone PLaza 3-1340. Copyright 1940. Member Audit Bureau Circulations Vol. 6, No. 1, January, 1940

Cheery 1940 for Radio and Radiomen

With the year just closed breaking all records in number of radio sets sold, as well as in volume of broadcasting, listening audiences, and listener interest, industry leaders look to 1940 to set further new highs in radio.

The European War and U. S. elections are expected to make the American public more dependent than ever on radio news reports, while new musical and dramatic features are planned for the vast army of broadcast listeners with its 45,200,000 receivers. Television is promised a big push during 1940, particularly in the New York and Los Angeles areas. Frequency-modulation too is attracting wide attention as some forty stations evince FM interest, with many new transmitters going on the 40-meg. channels during the coming year.

That "AP" Industrial-Activity Chart on Our Cover

Thanks of RADIO TODAY are due to the Associated Press and the Newark (N. J.) Evening News for the AP chart of industrial activity reproduced on our front cover, showing the course of American industry "during the ten troubled years" and illustrating some of the major news events which influenced the industrial and business curves.

With this AP industrial-activity graph, RADIO TODAY has combined its own graph recording the total production of radio sets during the same years, thus showing the interesting relationship between world events, U. S. business, and radio-set production and sales.

Parts Show Heads for Success

Vigorous planning for the National Radio Parts Show, to be held at the Stevens Hotel June 11-14, goes forward in Chicago. The Sixteenth An-



Sayre M. Ramsdell of Philco, one of the company's executives on the program at the firm's big convention of distributors now meeting at Palm Beach, Fla.

nual Convention of the Radio Manufacturers Association will be held there on June 11 and 12, while the main parts exhibition event runs from noon on Tuesday, June 11, to 10 p.m. on Friday, June 14.

The Show is under the joint sponsorship of RMA and the Sales Managers Clubs, with Paul V. Galvin of Galvin Mfg. Corp. as chairman of the RMA Convention Committee and Ken Hathaway as managing director of the Show. The all-radio industry banquet is all set for Wednesday evening, June 12, and the industry golf tournament is scheduled for June 13.

Tube Ad Rule Stands

The Federal Trade Commission in a letter to the RMA denies the request for modification of the Trade Practice Rules in respect to advertising of tubes.

The Commission reiterates that

"References to rectifier tubes, and to tubes, devices or accessories which do not serve as signal amplifying or detecting tubes or heterodyne oscillator tubes, should be such as to clearly avoid misunderstanding or deception of purchasers."

This clearly means that in any reference to the number of tubes in a radio receiver, rectifier tubes tuning resonance indicators, ballast or resistance tubes, must either be indicated separately, or not included in the total tube count.

"MAGIC WAVES"

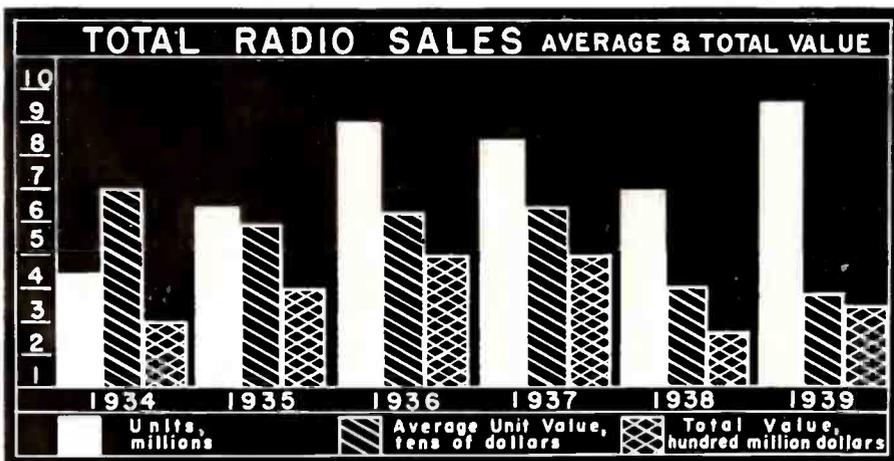
New Things in Radio. Present and Future Uses of Radio Tubes.

Weekly Broadcasts by
Dr. O. H. Caldwell
Editor of *Radio Today*

NBC Blue Network, Saturdays
5 p. m. E.S.T. 4 p. m. C.S.T.

- Jan. 20—How Tubes Make Long-distance and Overseas Telephony Possible. Putting 200 Conversations Over a Single Wire. Secrecy Through "Scrambled Speech."
- Jan. 27—Tubes as Traffic Police. Signal Lights Operated by Electric Eyes and Space Controls. Electronic Timers. "Clocking" Speeders. Counting Cars.
- Feb. 3—Magic Waves and the Stage. Sound Effects. Reinforcement. "Off-Stage" Casts. New Opera Technique. Chorus Girls for Looks and Singing! Coaching.
- Feb. 10—Electrons and Weather. Predicting Changes. Reporting Air Movements. Ionization and General Optimism. Purifying Air by Electronic Action.
- Feb. 17—"Lost Melodies." Forgotten Arias of Musical History. Tone Qualities that Are Lost. Today in Present Radios. Getting the Full Measure of All that the Broadcasters Send You.
- Feb. 24—Super-clocks with Radio Gears. Measuring Time to within One-ten-Millionth of a Second. How Tubes and Crystals Keep the Nation's Time.

"Magic Waves" programs are arranged by Gerald Holland, talented NBC dramatist, and produced by Sherman MacGregor, NBC ace director. Announcer William Spargrove and selected NBC actors and actresses take part in each presentation.



In addition to describing new uses of radio equipment each program takes up some aspect of the listener's own radio and explains how to get more satisfactory reception.

RMA Short Wave Lists to Circulate

Radio dealers and distributors will now be able to get hold of weekly schedules of short-wave broadcast events—those very valuable ones issued by RMA. Retailers can use them to interest the public, and jobbers can use them to intrigue their dealers.

Doubtless this new service by RMA will assist in the sale of more and better radios, while the national appetite for foreign broadcasts is at a peak. The new plan provides for distribution of the schedules to RMA member manufacturers who will scatter them to dealers and distributors.



R. C. Cosgrove, long a Westinghouse executive, has joined Crosley Corp. as vice-pres. in charge of radios, refrigs., washers, ranges, etc.

Making More Money and More Friends for Radio

Some very proud reports are coming from the Middle West, to the effect that trade evils arising from "discount" selling and industrial group buying have been substantially cut down. In the Milwaukee and Chicago areas, conditions are greatly improved, compared with a year ago. Figures prove it.

Trade organizations there, such as the Wisconsin Radio, Refrigeration & Appliance Association, are now beginning to harvest the benefits of their fight for cleaner business. The Mil-



The news is that Peter L. Jensen, center, has joined up with Utah Radio Products Co., as a vice-president of the greatly enlarged firm. At the left is G. Hamilton Beasley, Utah president; right, Odin Jester, gen'l. sales mgr.

waukee group points out that similar benefits will be forthcoming to any bunch of dealers who will get together and really labor for an honest clean-up.

Buck Benny Rides Again

The laugh-packed radio performances of Jack Benny have again been voted the favorite broadcast program, by the radio editors of the U.S. and Canada who annually vote in the poll conducted by the *N.Y. World Telegram*

Ranking next to the Jello comedian were Information Please, Charlie McCarthy, Fred Allen, Bing Crosby, Kay Kyser's College, Bob Hope, WABC Monday Radio Theater, Orson Welles, Toscanini Concerts, America's Town Meeting, and One Man's Family

Other winners were Guy Lombardo, Frances Langford, Bill Stern, Lowell Thomas, Don Wilson, Nelson Eddy, Let's Pretend, Fred Waring and Alec Templeton.

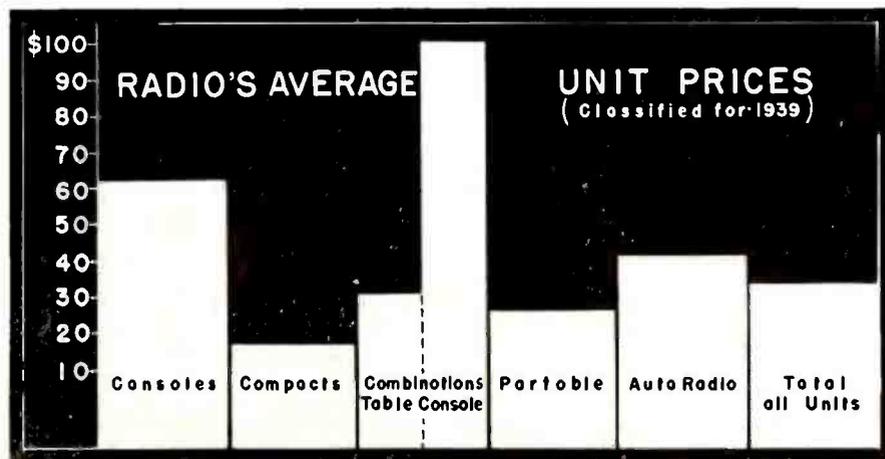
Entertainment Preference Is Positively Radio

That the modern American has a substantial preference for what radio offers, is revealed in another of the public opinion surveys conducted by *Fortune Magazine*. A cross-section of the public was asked, "If you had to give up either going to the movies or listening to the radio, which would you give up?" and 79.3 per cent said that they'd rather give up the movies.

Only 13.9 per cent said that they'd be willing to give up radio, and the other 6.8 per cent declared they would make no choice. *Fortune* concluded that "among the breakdowns it appears that not a single group of people . . . votes less than 70 per cent for giving up the movies rather than the radio."

George Scoville Dead

As we go to press, word comes of the death of George A. Scoville, general manager of Stromberg-Carlson, at Rochester, N. Y., Jan 14, following a four-month illness.





**MORE
CONTACTS
IN THE
STORE**
plus

PEAK SALES EVERY

To cuddle up to more radio prospects every day

When you stop to think about it, there are only three basic ways of doing a retail business:

1. Bringing people to your store, where they are exposed to your merchandise displays, through advertising.

2. Taking your selling story to the prospective customers' home by personal call.

3. Sending your merchandise displays and your selling story into the home via catalogs.

Department stores, drugstores, hardware stores, ready-to-wear stores, in the first class above, must make people come to their store through continuous advertising of *sales* of every conceivable kind.

The great mail order houses are on the opposite extreme. They must plan their assortment, fix their prices, arrange their selling stories and displays, for six months periods. Their catalogs "go home" only twice a year—but they *do* "go home."

In between these two great classes is the radio-appliance dealer, with selling opportunities unequalled by his major competitors.

Radio and appliances together provide products with complementary seasonal demands which can produce

an almost uniform monthly business, and with a high gift value for Christmas.

Not that all dealers take advantage of their position, but it is a fact that dealers are in a unique position to acquire and to hold customers, superior in many ways to that of the other two classes of retailers.

A GOOD SPOT

When the radio-appliance dealer realizes that his most important competition is not those who sell the same merchandise that he does, but rather the automobile dealer, the ready-to-wear dealer, the furniture dealer and all others who seek the customer's marginal dollar, he will see his op-

portunities in a new light.

Instead of newspaper advertising and "sale" merchandising, he will try to build his store traffic through stocking low-priced repeat items—such as phono-records, films, photo finishing, gift merchandise.

He will see that all people who come into his store are exposed to attractive selling displays of radio and appliances, in a pleasant, personal atmosphere. And all people who pass his store will be exposed to window displays which "get the eye" and "tell a story."

THE CALLS COUNT

Instead of sending catalogs into the home every six months, his salesmen will keep constantly calling on homes, house to house, as well as on the suggestion of leads from many sources, to locate those who *have* marginal money to spend.

With a broad assortment of radio and appliances, every *customer* will be called on, at home, at least every three months, to make certain the customer is satisfied, and to sell *another* appliance or radio.

This personal contact is one vital factor in dealer-customer relations in

AMONG RADIO DEALERS

- 81% sell refrigerators**
 - 75% sell washing machines**
 - 43% sell dry shavers**
 - 17% sell cameras.**
-

... . MORE
CONTACTS
IN THE
HOME



Photos from GE film by AudiVision

MONTH IN 1940!

this year, remember how seasonal appliances help

which the position of the department, chain or catalog organization is much inferior to the independent dealer.

Back up this personal contact, with an assurance of personal satisfaction and support that good-will with such an assortment of merchandise that you always have something to sell *any* customer, and you have a condition of vital importance in the conduct of your business, particularly now that the replacement market bulks so large.

It is this fact which makes the regular and frequent direct-mail support of your personal customer follow up so important. Keeping your name, and your product, and the convenience of use, constantly before your prospective customer goes a long way.

ECONOMICAL CONTACT

When you sell radio alone, or refrigerators alone, or any other single product, you can not economically keep in contact with your customer. New customers must constantly be located and sold. Sales come in seasonal peaks, fall sharply in seasonal declines, while expense goes on forever.

In radio, records and appliances,

you find a combination of products the seasonal peaks of some complementing the seasonal declines of others with a resultant steady and uniform saleability.

Such an assortment of products will support your continuing personal contacts in the home, provide a new and strong appeal to your customers and prospects alike, each month.

Contacts in the home for satisfaction follow ups, new selling efforts,

are vital forces and factors available to the radio appliance dealer, yet denied to those whom he looks upon as his most serious competition. This method of selling, too, brings many a consumer's marginal dollar into the radio-appliance dealer's cash-register which otherwise would find its way to the furniture, floor-covering, drug (?), chain or department store, or one of the big catalog houses.

(Please turn to page 45)



WINDOWS THAT WORKED

Ideas on how to use your plate-glass salesmen



Window Waltz

A dance team glided through the window at Platt Music Co., Los Angeles, and won plenty of attention for a display of Radio-bar models.



Gulliver's Hand

Gigantic illustration of a familiar object made a prize winner of this window at Buffalo Niagara Elec. Corp. and drew eyes to GE products. A radio, too, would fit nicely in the palm.



Gunning for Sales

The map of Europe, where the guns boom and the broadcast news comes from, is the back-drop for this timely display of sets by Chas. Begg & Co., Ltd., of Timaru, in New Zealand.



A Tale of Tone

With a top-money set in the center, Kennedy-Clark, Inc., Rochester, N. Y. took quiet and dignified display materials to get across the matter of tone quality.



All Lit Up

Expert spotlighting lends an eye-grabbing glow to this window at Wood's Radio & Elec. Co., Seattle.

IT'S TIME TO "CHANGE THE SCENERY!"

HOW can we make our new radios *look* different from those of last year and the years before?

This season's automobiles reveal their 1940 lines at a glance. Cars a few years old are hopelessly dated, and "cry out loud" for replacement.

Pianos have been restyled into distinctive new "verticals," and as a result the piano industry has had its biggest year since 1925.

Kitchens have been streamlined, and new modes introduced in ranges, refrigerators, sinks and other equipment—all now as sharply "styled" as any of milady's dictates from Paris.

"NEW SETS DON'T LOOK DIFFERENT"

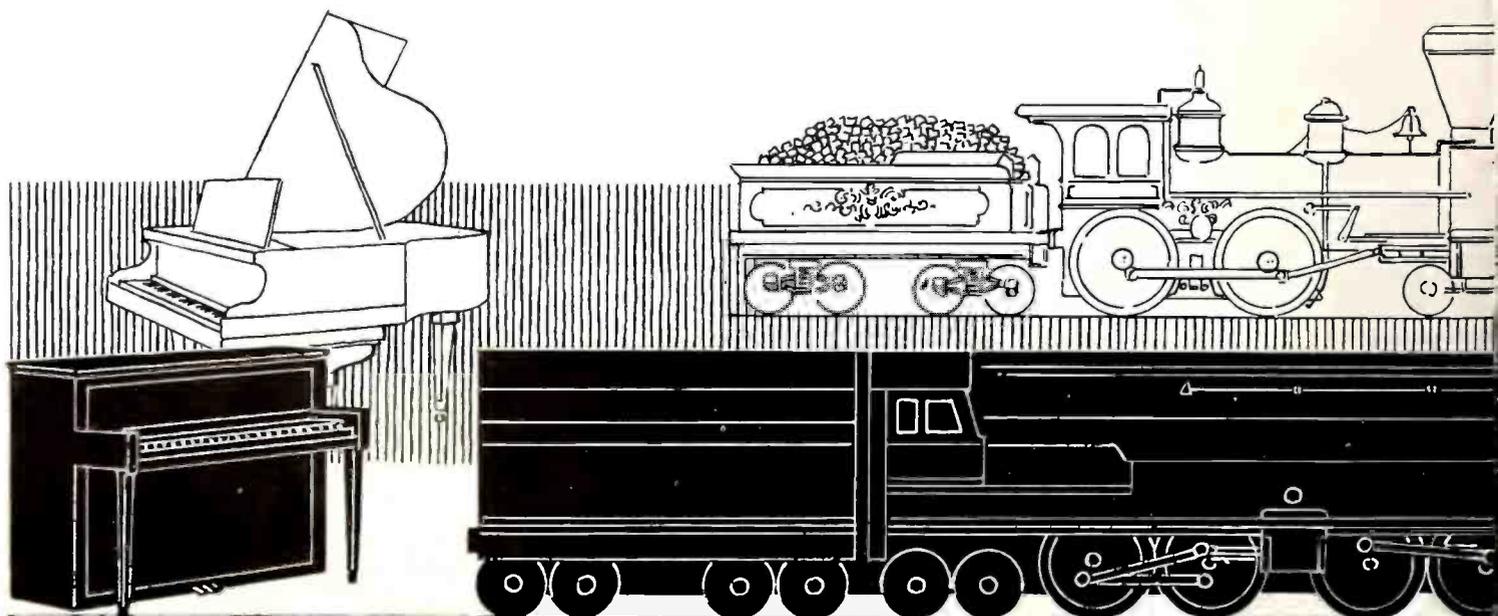
But in radio, most sets of this year look very little different from those of the last three or four seasons. Even an experienced radio man can hardly tell at a casual glance

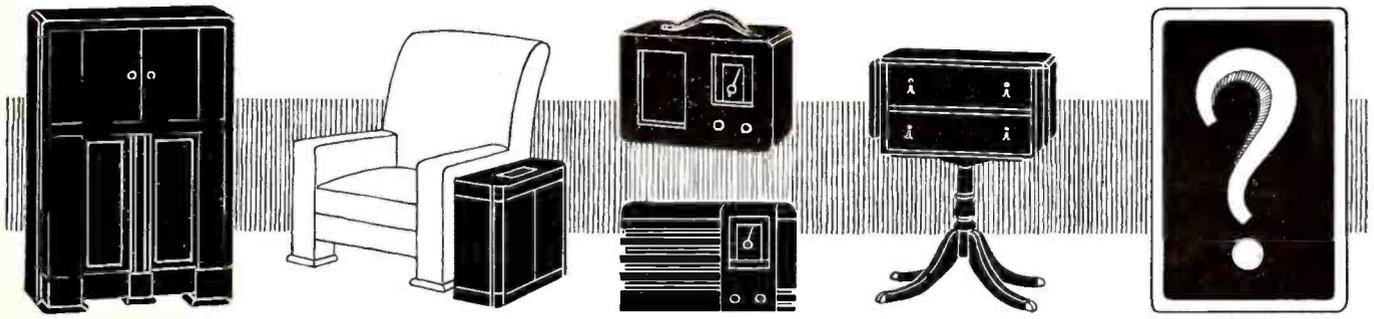
whether he is looking at a 1940 or a 1937 model, unless he knows the particular *line*. Certainly no layman can distinguish any striking earmark of the 1940 radios, though he instantly recognizes "up-to-the-minuteness" in autos, pianos, refrigerators, ranges, cameras, etc.

A QUALITY RECEIVER FOR EACH HOME

With 45,000,000 radios now in use, the grim problem of saturation may soon be faced by the radio industry. Of course, for some years yet we will go on adding the smaller radios until there is at least a personal radio for each of our 130,000,000 U.S. inhabitants.

But adequate listening requires that every family and individual who can afford it, should have a large full-toned radio, to enjoy the great music on the air. Saturation is almost upon us in this higher-bracket





field, unless we can "change the scenery" of the console classification.

Unless we can, as an industry, offer something entirely different as being new and better and "styled for 1940-41!"

Unless we can appeal in new ways to the pride of possession of present radio owners—and accelerate the replacement of the "family sets" in millions of American homes!

CHAIRSIDES, "FURNITURE," NEW MATERIALS?

What direction should this new cabinet style take? Frankly, we don't know.

Should the industry adopt some striking new cabinet form and material?

Should "furniture" models with remote control be promoted?

Are "chair-side" models, with their handiness of control, and double usefulness as

convenient furniture—the radio sets of the future?

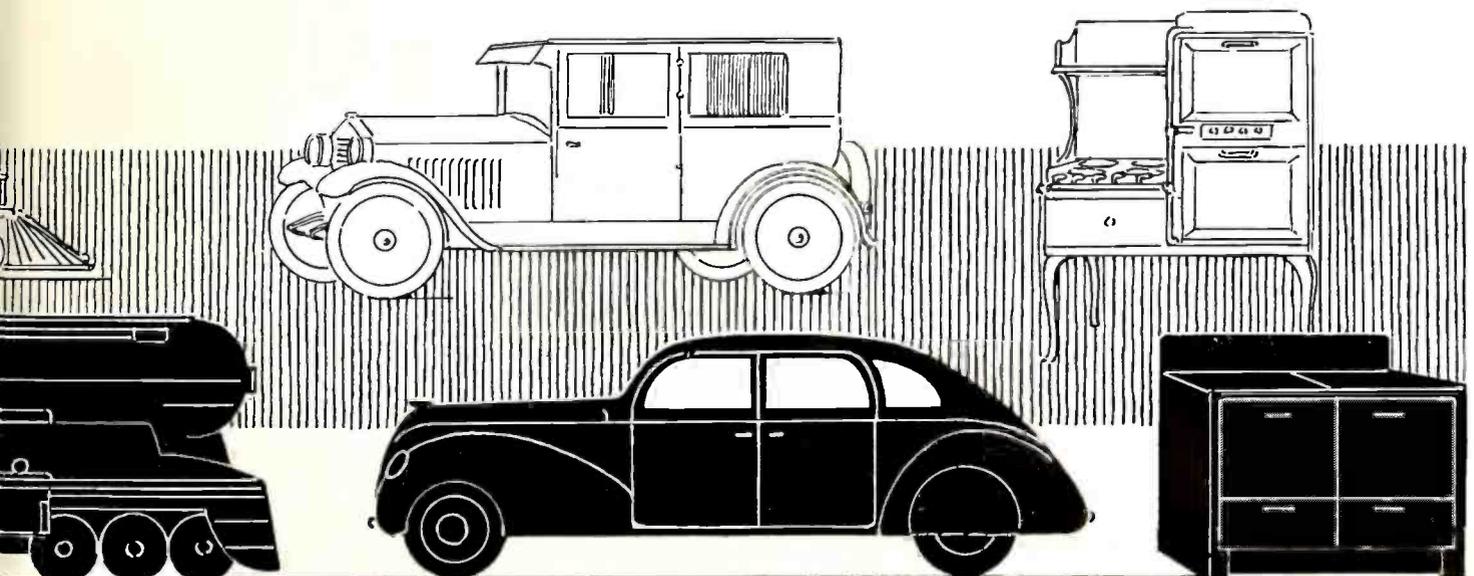
Again, we say, we don't know. But two points are clear. 1. *It is time* the radio business "sidestepped saturation," as other industries have, by a *radical restyling all along the line*. 2. Any such new style to be offered *must be promoted by a majority of the manufacturers*. No one maker can lead the way, even with the best idea in new models!

It is time that the *radio set's outer appearance* became as up-to-the-minute as its marvelous "innards!"

It is time to dike out our darling in a *new 1941 dress!*

It is high time to *change the scenery!*
How?

RADIO
and Television
TODAY



PEPPER IN PROMOTION

Radio merchandising ideas from 8 states, for timely use during the first period of 1940

BOSTON, MASS.—Start showing at last one extra-expensive radio receiver, to keep people thinking in big money. It will be easier for you to sell an \$80 set, rather than a \$10 job if a \$1,500 tag is present at your store.

PHILADELPHIA, PA.—Make a huge window poster which displays the fact of your best sales record. If you have recently sold 50 receivers during a single month, tell the world about it in large lettering and dramatic language. It will mark your store as an aggressive and popular place.

OMAHA, NEB.—Build yourself an enormous, cardboard clock for display among your new receivers. Each day, turn the hands to the local time for the leading program on the air, so that your prospects will be aware of a single highlight for the daily radio entertainment schedule. The name and the features of the show can be revealed on a "fresh daily" placard placed near the clock.

NEW YORK, N. Y.—The newest of your radio models can be given a real break via an "invitation" theme in your window. By placing a gigantic envelope (at least 3 x 3 ft.) in the center, and showing its card with a script-lettered invitation to come into the store to look over the latest stocks, you get an atmosphere of hos-



"I like this one—talk me into it!"

pitality and friendliness. It's a chance to get away from the "price" appeal and to introduce a more dignified type of promotion.

NEWARK, N. J.—Dig up an "antique" radio or phonograph, preferably one which has the familiarly old-fashioned characteristics, and show it among your newest radios. In scroll form, list the facts about the ancient instrument, and wind up with the conclusion that spectacular progress has been made in improvement of home reception.

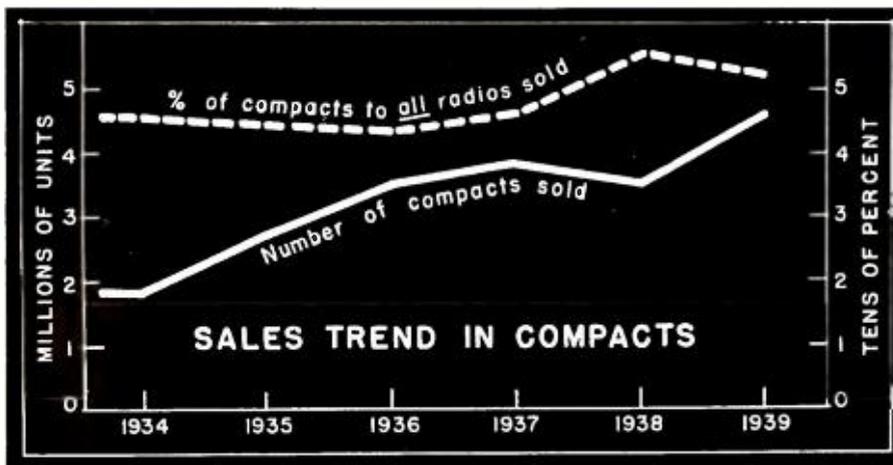
DALLAS, TEX.—Get together with one of the local orchestra leaders playing at a night spot, and arrange to have regular "guessing contests" on the titles and the musicians on various popular records. The night club guests will be entertained by trying to guess the titles, and will at the same time hear about your store and your record department.

WICHITA, KAN.—Regular news broadcasts—the kind which offer radio listeners the red hot facts on the developments in the war zones abroad, can be nicely publicized on give away cards cut in the shape of a radio tube. This will have the effect of keeping your store name in the minds of radio listeners, as the connecting link between reception facilities and the much-wanted broadcasts.

BALTIMORE, MD.—A merchandising link between Valentine's Day and radio sales can be effectively dramatized by using material concerned with the "romantic" programs on the air. The "sweetheart" interest is universal and will give you a chance to go to publicize some of the very interesting radio shows which are not known as headliners.

NEW YORK, N. Y.—For novelty in your price tags and descriptive placards, get some imitation wood-finish paper and use it to replace all the old cards. It will attract more attention than ordinary paper, and it helps to convey the idea that the woods and the finishes used in new radio cabinets are worth the customer's special attention.

DORCHESTER, MASS.—To give a temporarily different twist to your advertising, use the names and the pictures of your store personnel. Present the main figures of your sales group as pleasant personalities whom prospects would like to meet, and remember that this is one quality of your house which cannot be duplicated by any of your competitors.



Admiral

BRINGS YOU WAR NEWS DIRECT FROM EUROPE

AT THE UNHEARD OF PRICE OF

\$12.95

LIST

(Slightly higher in
Far West and South)



Model 12-B5—5 Tube AC-DC Superhet • Band coverage: 540-1730 KC (Broadcast) and 5.65-17.1 Meg. (Gets all the 19-31-49 Meter Foreign Reception) • Special Built-in Antenna • Black Plastic Cabinet • P.M. Dynamic Speaker • Television Sound Connections • Other Models from \$9.95 and Up • See Your Jobber.

CONTINENTAL RADIO & TELEVISION CORP.

3800 WEST CORTLAND ST., CHICAGO, ILL.
Export Office: 116 BROAD ST., NEW YORK, N. Y.

THE CARS ARE COMING

New outlook for sales of car radios seen as market reveals its size for the coming year

Now that the automobile industry has come out with the brisk announcement that its production during the year just finished has slanted upward to the extent of 40 per cent, radio dealers can see better business ahead in auto radio.

At the moment, registration of motor cars in the U.S. amounts to 26,250,000—a fine, fat figure to start with. There are approximately 6,500,000 auto radio in use; apparently there are nearly 20,000,000 cars running around without sets. Any prospect group of this size deserves a spirited sales attack by the radio dealer organization.

DEALER'S ADVANTAGE

If some radio men have been indifferent to auto radio possibilities, it may be that they have not reviewed the field as it stands; this month, 1940. Besides the increase in car registrations, there are at least three new developments which brighten the prospects of the radio man who will aggressively sail into the matter of car receivers.

The first is that the introduction of push buttons on car radios has greatly helped to establish the identity of the auto sets as *radio* rather than *automotive* products. Consumers are getting used to push-button conveniences on their home sets, and when they need new auto sets, or service on their car receivers, they are likely to contact the radio man, rather than the auto dealer.

HOW RADIO MEN ARE SELLING AUTO SETS

1. *By demonstrations from cars parked in front of store.*
2. *Dramatic announcements of new improvements in car receivers.*
3. *Constant contact with car dealers, for names of prospects.*
4. *Suggestions on "best buys" to purchasers of other radio products.*

Push buttons have offered the modern radio listener a more tangible and more direct relation with the local stations. Most of these listeners realize that the radio dealer is the man who knows most about these buttons, even if they are to be used in a car.

Certainly another factor in the automotive radio field today, is the public's terrific appetite for broadcast news. Drivers want to be in on the flashes coming from the war zones abroad, and they want a good radio to keep them informed while they wheel along.

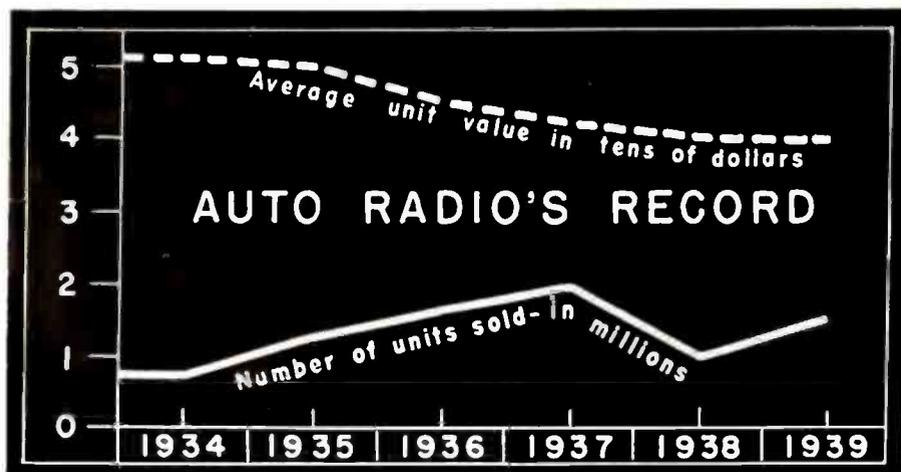
These days, thousands of business men consider it important to tune in the news while driving to the office. It is hotter than the morning paper, and it often has a bearing on the business of the day. This news trend in broadcasting has greatly increased the listening hours spent with home receivers, and obviously people do not want to interrupt the flow of news and entertainment when they step out of their homes and into their cars.

SPECIAL PROFITS

One of the new jobs of the radio dealer is therefore to keep his auto-driving prospects comfortably and dependably informed about the news events of the world, and it will mean new profits for the retailer's till. He knows how to do this, from his experience with home sets.

The third element in the situation today concerns the matter of custom-built jobs which are more important today than ever before. The demand for special radio installations in cars whose owners want extra speakers, extra dials, etc., is strongly increasing. This is due partly to the general refinement of the interiors of cars, where all luxuries are appropriate, and partly to the fact that radio men have been able to offer some very attractive special installations as they got further into the business. Certainly this trend to complete driving comfort is a strong and serious one, and radio men can use it to their advantage.

Experienced radio dealers who have dealt in auto radios for many years will point out, too, that the merchandising of car receivers represents another way for retailers to get more contacts with more people. They declare that their work on the car sets has netted them many prospects for new home receivers, and for whatever else they have in the store.



PROFIT WITH

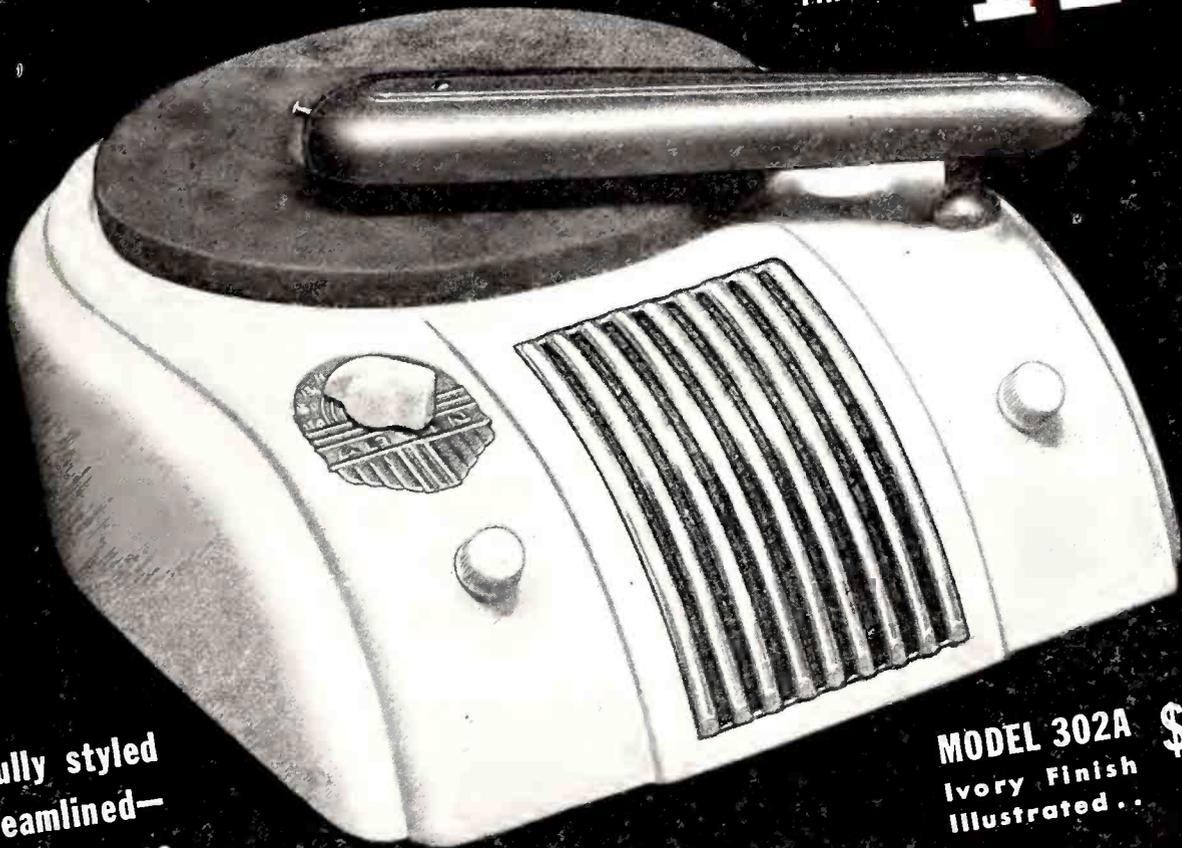
ARVIN

HOT NUMBERS

Radio-Phonograph Combination

MODEL 302
Deep Brown
Finish

\$14.95



Beautifully styled
and streamlined—
with performance
to match its strik-
ing appearance

MODEL 302A **\$16.95**
Ivory Finish
Illustrated . . .

Never Before Have You Had A Value Like This to Offer!

Four-tube radio (including rectifier) with power output of 2.25 watts.

Self-starting phonograph motor with constant speed of 78 r.p.m.

Unbreakable case. Model 302 finished in deep brown with

ivory trim—Model 302A in ivory with chrome trim.

Permanent magnet speaker with special audio system built-in for surprising tone reproduction.

Single control for volume of both radio and phonograph.

Play 10" and 12" records or brings in radio broadcasts with fine, rich tone.

Attached aerial for radio, 20 feet long.

Carrying case for radio-phonograph and records only \$2.95 extra.

NOBLITT-SPARKS INDUSTRIES, INCORPORATED, COLUMBUS, INDIANA

All prices slightly higher in West and extreme South.



NEW ARVIN CAR RADIOS

MODEL 510, a compact but powerful superhet with illuminated thumb-wheel dial for fast, easy tuning. Easily installed under instrument panel of all cars. Marvelous performance—exceptional value **\$14.95**

MODEL 610 with 4 push buttons and thumb-wheel dial tuning **\$17.95**
Remote Control Models with matching dials for instrument panel as low as **\$29.35**



ARVIN MODEL 402A

A small but mighty AC-DC radio illustrated at left. Unbreakable cabinet. Ivory finish (Model 402 Walnut). 20-ft. aerial attached. **\$6.95**

MODEL 402A larger, more powerful superhet. Illuminated dial **\$9.95**

MODEL 602 in plastic cabinet with carrying handle. Built-in aerial and tone control. An extra-fine table set **\$16.95**

MODEL 802 battery-electric (AC-DC) portable. Illustrated at right. Complete with batteries **\$24.95**

MODEL 803—Same as above, except Underwriters' approved for AC or battery operation **\$26.95**



RADIO
TODAY'S

"CLEAR THE AIR" CAMPAIGN

**How average dealer or serviceman can pick up
thousands of dollars worth of "Noise Elimination"
business from local territory and past customers**

With over 45 million radio sets in use in the United States, RADIO TODAY believes the time has come to give these 45,200,000 set owners clear, noise-free reception.

The public is in sore need of this relief from radio noises. To the radio trade it will mean hundreds of thousands of profitable service jobs. To parts jobbers and manufacturers it will mean the sale of millions of dollars worth of condensers, filters, resistors, tubes and other replacement parts.

To receiver manufacturers, it will mean clear, satisfactory reception for present users of quality sets, and the enhancement of future receiver sales, in higher price brackets. And for the broadcasters it will mean vast extensions of listener audience, as radio sets now intolerable because of noise, are restored to service.

In short, from this "Clear-the-Air" Campaign, all will benefit.

ALL CONSTRUCTIVE FORCES TO HELP

RADIO TODAY is therefore marshalling every possible resource behind this "Clear-the-Air" Campaign.

Each month authoritative articles on interference elimination will appear in special form in RADIO TODAY, followed by the announcements of cooperating manufacturers. In this way, the 22,000 radio dealers and service men will be reached monthly, with reminder messages on how to sell clear-reception service and how to correct difficult cases of interference.

Linked with the campaign will be special broadcasts on leading networks and stations, including the regular Saturday 5-to-5:15 p.m. NBC Red Network "Magic Wave" series, supervised by Dr. O. H. Caldwell, editor of RADIO TODAY. In these broadcasts Dr. Caldwell, (who was summoned by Herbert Hoover to Washington in 1927 to clear the air of broadcasting chaos through the medium of the Federal Radio Commission.) will explain to the public how relief can be obtained from radio noises by calling in competent radio service men.

Meanwhile RADIO TODAY is also cooperating with the Radio Servicemen of America, Inc. in building

membership to extend its valuable association work for reducing interference. In the direction of the utilities and radio manufacturers RADIO TODAY cooperates with the Joint Coordination Committee on Radio Reception of the Edison Electric Institute, N.E. M.A. and R.M.A.

Thus in one great campaign all the constructive and corrective forces of the radio industry are being collected and focussed on the problem of reducing radio interference and clearing radio reception for every listener, for every owner of the 45,000,000 radios in the U. S.

"THERE'S GOLD IN THEM THAR NOISES"

Month in and month out radio presents the "greatest show on earth" to the owners of these 45,000,000 radio receivers.

Yet it is conservatively estimated that the reception of U. S. broadcasting marvelous programs is marred by interference at least one fourth of the

listening time to an extent which restricts the use of the set.

Thus millions of sets are calling for help, with a variety of noises, and a language all their own.

"There's gold in them thar noises."

The average radio dealer, with a business of some \$20,000 per year, serves a community of 4,000 families, who own 6,400 radio sets.

Here then in every average dealer's "back yard" are 1,600 "noisy" radio sets waiting—and crying—to have their noises removed.

NOISE-REMOVAL BUSINESS

The average income from a noise-removal job, which runs all the way from installing a new antenna and line filter, to replacing a tube, resistance, condenser, speaker or other part, is \$5.00.

In other words, there's \$8,300 worth of "noise business" waiting for the average dealer to pick it up.

That's "money in the bank" any way you look at it.

To get this business will take a lot more than just wishing for it.

In more ways than one, you've got to know what it's all about, and knowing, sell your services with confidence and guaranteed results.

EVERYBODY PROFITS

"Clear the Air" of the distracting noises, and everybody gains.

The customer gets better reception, and uses her sets more.

The broadcaster has more listeners and draws better results for the sponsors.

Getting better results, sponsors will pay to put on more and better programs.

The dealer will have more service work, more set sales, more satisfied customers, more profits.

Parts and set manufacturers too will feel the accumulated effects of the dealer improved sales.

With everything to gain, and nothing to lose, RADIO TODAY urges all branches of the radio industry to get together, and "Clear the Air," for mutual profit and benefit.

The public must be told that it can be done, that it's being done—by radio, by advertising, by direct mail.

RADIO NOISY?

BUZZ **NOISE** **SO-CALLED STATIC**

No need to be bothered with radio noises caused by nearby electric motors, appliances, flashing signs, etc.! Our amazing new method, developed by makers of world-famous Sprague Condensers, makes it easy to "cure" such interference once and for all. Generally, the work need not be done in your radio. It is done right where the noise originates. Quick—economical—effective. Phone or write for details.

Manufacturers help servicemen to stir up local interest in good reception by supplying ad plans like this one.

“Rain-In-The-Face”
might have been
Liquidated by Radio

Misled by faulty information from his scouts, General Custer was trapped in ambush at the junction of the Big Horn and Little Big Horn rivers on June 25, 1876. Modern communications might have prevented this tragedy. Scouts

could have reported the vast number of Indians present under the command of the Chief, Rain-In-The-Face, and stayed Custer's attack. Custer could have sent word back to the main army of which he was the advance guard.



How the Family of RCA would save Custer



WHEN General Custer arrived at the junction of the Big Horn and Little Big Horn rivers, he'd send up scouting planes immediately. Pilots noting the vast numbers of the enemy, would report back to Custer by means of a light, efficient airplane radio transmitter designed in RCA Laboratories built by the RCA Manufacturing Company, one of the members of the family of the Radio Corporation of America. General Custer would, of course, abandon his intention to attack. Using portable RCA broadcasting equipment

he'd radio back to the main army for help, and dig in to await rescue.

Word of his plight would be broadcast to the whole nation by the two great NBC networks which provide the broadcasting service of the Radio Corporation of America. Forty-three foreign nations would listen via RCA Communications, the world-wide radio message service of RCA.

Tens of thousands of listeners would sit glued by their RCA Victor Radios. And shortly motion picture audiences throughout the world would see and

hear talking pictures describing the rescue of General Custer . . . the scenes voiced by the RCA Photophone Magic Voice of the Screen.

Naturally there would be a great rush on Victor Record Dealers for Victor and Bluebird Records of patriotic character. And Americans everywhere would play these records on RCA Victrolas.

. . . Since, fortunately, no American General is now in need of rescue . . . RCA stands ready to serve the American people in every other respect in every field of radio.

Trademarks "RCA Victor," "Victor" Reg. U. S. Pat. Off. by RCA Mfg. Co., Inc.



Radio Corporation of America

RADIO CITY, NEW YORK

RCA Manufacturing Co., Inc.
Radiomarine Corp. of America

National Broadcasting Company
R.C.A. Communications, Inc.

RCA Laboratories
RCA Institutes, Inc.

Frequency Modulation Expands

A new method of broadcast transmission—frequency modulation—is becoming an increasingly important factor in the radio industry.

Requiring new transmitters as well as receivers, its promoters declare it to be the potential means of making obsolete all existing broadcasting equipment, if "FM" can be proven to be definitely superior, and wanted by the public.

Demonstrations of frequency modu-

lation evidence a startling tonal fidelity and realism, and the complete absence of static and interference.

FIFTY STATIONS BUILT OR PLANNED

With but a single experimental station a year ago, there are now some fifty stations, built, building, or in immediate contemplation.

Seventy-three persons, representing 43 such stations met in Washington, Jan. 6, and associated themselves together in F.M. Broadcasters, Inc., with J. M. Poppele, WOR, 1440 Broadway, New York, as secretary.

Frequency-modulation stations are now in operation at Alpine, N. J.; West Springfield, Mass.; Paxton, Mass.; Washington, D. C.; Rochester, N. Y.; Long Island City, N. Y.; Schenectady, N. Y.; Albany, N. Y.; and Meriden, Conn.

Broadcast stations which have secured FM construction permits and will shortly have FM programs on the air, include WOR, New York; WHEC, Rochester, N. Y.; WBNJ, Columbus, Ohio; WGN, Chicago, Ill.; KNBC, Kansas City, Mo., and WTMJ, Milwaukee, Wis.

LOOKING AHEAD

Television Advances in 1939 and 1940

Television has now been before the New York public for eight months, since the RCA-NBC transmitter on the Empire State tower began official operation in the metropolitan area, April 30, 1939.

During the intervening period sales have been disappointingly scarce (barely 1,200 sets and 1,000 kits), though public interest in many cases was excellent. Quality of television programs and the high prices of televisions were largely responsible for the poor sales response. is the feeling of local dealers who essayed the sale of sets.

Programs are now growing progressively better and more interesting, and more stations will soon be on the air: CBS and WOR in New York, Philco in Philadelphia. Prices of television sets are also coming down to within the reach of most people. With a 1940 price range from \$400 to \$175.

The test campaign made by RCA-Victor in the Poughkeepsie-Newburgh area, where prices were cut by 30 per cent, and a 40-per-cent discount was allowed dealers, produced such encouraging sales, that a similar cam-

paign will shortly be undertaken in the metropolitan area, it is rumored.

In the opinions of industry leaders, television will play a more important role in 1940 than it did in the twelve months just closed.

EXPECT BIG THINGS IN 1940

"Television-program quality has improved steadily," declares David Sarnoff, president of RCA, adding: "On the technical side, NBC television images have shown striking improvement in brilliance and clarity." Expect great things of television in 1940, is the message of this leader in television pioneering.

"Revolutionary developments in television will occur in 1940," predicts Larry Gubb, Philco president. "1940 will bring television much closer to reliable reality."

"Television is destined to make important advances during 1940" comments Farnsworth's president, E. A. Nicholas, though he cautions that "In an industry which has such tremendous potential possibilities as television, progress should be made slowly."

In a recent demonstration by the Allen B. DuMont Laboratories, the FCC and RMA saw a 20-inch tube, a high-persistence fluorescent screen.

and a new vertical synchronizing pulse, which answered many questions, offered many possibilities, in the flexibility it provided for improving transmissions without receiver obsolescence.

1940 Opportunities for Radio-tube Musical Instruments

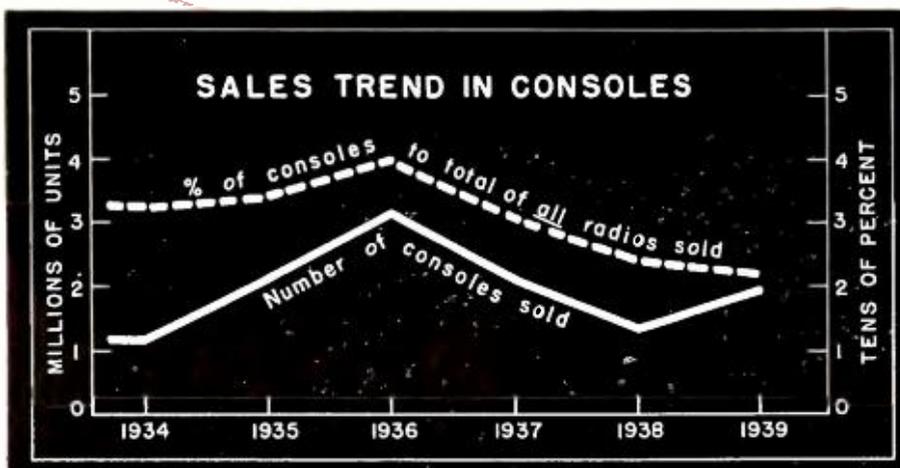
With the radio industry looking to new developments to increase its volume of sales, Ben F. Miessner, pioneer in electronic musical instruments, Millburn, N. J., points out the opportunities in this home application of radio tubes and amplifiers in opening up new fields for manufacturer, distributor and dealer.

Electronic musical instruments, explains Mr. Miessner, (1) extend the tonal range of traditional instruments, (2) provide new types without the limitations of the traditional instruments, (3) give the composer more varied and beautiful tonal colorings, with more expressive means for reproducing them and a wider dynamic range, (4) afford the artist more complete and intimate control, and (5) make the larger instruments smaller, cheaper and more efficient producers of musical tones.

PIANO AND ORGAN MILLIONS

The piano sales peak was reached in the U. S. just before broadcasting appeared, when 230,000 pianos were sold yearly at a total retail value of \$150,000,000. Since 1932 from the low of \$30,000,000 there has been an upswing, and recent sales have run around \$100,000,000.

With the greater interest in music on the part of the public, as the result of 18 years of broadcasting, and the greater amounts of general leisure, Mr. Miessner feels that the field of electronic or radio-tube musical instruments is one which radio men should get into without loss of time—in this way adding millions in sales to present radio-set volume.



Will this be *your* advertisement?

THE SATURDAY EVENING POST

January 20, 1940

From top to floor there's space galore



Superb refrigerators in which, from top to floor, there's space galore . . . extra space set free by Rollator simplicity. See the new Norge at your Norge Dealer's after January 20

The Greater **NORGE** *for 1940*



Many dealers have gone NORGE!

There still may be an opening in your community . . . an opportunity to be with Norge in 1940. For complete information, wire or

Sign and mail the coupon today!

This *full color* advertisement in the *Saturday Evening Post* for January 20 opens the greatest magazine campaign in Norge history. Note that it tells women to see *after January 20* the greater Norge in which, from top to floor, there's space galore. Will women in your community be attracted to *your* store?

NORGE DIVISION, BORG-WARNER CORPORATION
670 East Woodbridge, Detroit, Mich.

Without obligating me in any way, let me have complete information about Norge for 1940.

Name _____

Address _____

City _____ State _____

RT-102

NIFTY NEW SETS

Big selection of radios
for every customer's
taste

Farnsworth 10-tube console

Four new models have been added to line of receivers, one of which is illustrated. BC-102, a 3 wave band, push-button tuning superhet with Bilt-In-Tenna, A.V.C. and television-sound connection.



RCA Opera Box

★ Model 46X3 is completely finished, front and rear. Claro walnut veneer bands set off the neat cabinet. The chassis contains 5 tubes and a ballast resistor, self-contained loop antenna, and 4-color dial. Tunes from 550 kc. to 1,600 kc. $8\frac{1}{4} \times 14\frac{1}{2} \times 7\frac{1}{2}$. Magnetite core IF's. RCA Mfg. Co., Camden, N. J.—RADIO TODAY.



Majestic push-button portable

★ Model 5BD, 5-tube, superheterodyne with 3 double purpose tubes. Single wave band for standard American broadcasts, dynamic speaker, automatic volume control. AC-DC, and battery, operated by push button control and with a battery regenerator. Self-adjusting handle. Panel protects face, and slides into top of case. Slide rule dial, 2 knobs for manual control, 2 push buttons. Steerhide or rawhide. Majestic Radio & Television Corp., 2600 W. 50 St., Chicago, Ill.—RADIO TODAY.



Westinghouse receiver

★ WR-173, 5-tube, AC-DC superheterodyne, single band receiver. Built-in loop antenna. Automatic volume control, electro-dynamic speaker. Two double purpose tubes. 105-125 v., 50-60 cycles. Soft ivory plastic, \$12.95; grained walnut plastic, \$9.95. Westinghouse Electric Supply Co., 150 Varick St., New York, N. Y.—RADIO TODAY.



Belmont radio clock

★ Model 571, combination 5-tube superhet radio, and self-starting electric clock. Powerful dynamic speaker, A.V.C. Non-directional built-in plate antenna. 60 cycle, 110 v., AC. Rubbed walnut cabinet. Tunes entire American broadcast and upper police—540-1,720 kc. Belmont Radio Corp., 1257 W. Fullerton St., Chicago, Ill.—RADIO TODAY.



Knight 5-tube superhet

★ A10830, Knight AC-DC radio, featuring built-in "Air-Magnet." 4 station push-button tuning, illuminated airplane dial, television sound connection. 5 in. P.M. dynamic speaker; full-acting A.V.C. Ivory or walnut molded plastic cabinet. 110 v., 40-60 cycles. Allied Radio Corp., 833 West Jackson Blvd., Chicago, Ill.—RADIO TODAY.



Stromberg-Carlson table radio

★ Model No. 420-J, 7-tube set, one of 8 Interim models, 4 with FM band. Standard and short wave bands. Walnut cabinet. 6 electric flash tuning buttons. Automatic drift compensator. Bi-focal tuning indicator. A.V.C.; tone control; phonograph and television connection. \$59.95. Stromberg-Carlson Tel. Mfg. Co., 100 Carlson Rd., Rochester, N. Y.—RADIO TODAY.



Westinghouse 6-tube console

★ WR-375, 3 band, AC only, superhet. Automatic volume control, 2-position tone control for radio, television, & phonograph. 6-station push-button tuning. Rotatable loop antenna. Electro dynamic speaker. 540-1,550 kc., 1,500-4,200 kc., 5,800-18,000 kc. 105-125 vo., 50-60 cycles. Walnut, hand rubbed finish. \$54.95. Westinghouse Electric Supply Co., 150 Varick St., New York, N. Y.—RADIO TODAY.

Lafayette console

★ Model BB-11, 11 tubes, 3 bands, built-in loop antennas. 6 push buttons. Large slide-rule dial with inset tuning eye and sloping panel. 4-position tone control. Static control circuit. 4-tube audio system, 12 in. electro-dynamic speaker. Grained burl walnut. Radio Wire Television, Inc., 100 Sixth Ave., New York, N. Y.—RADIO TODAY.



DeWald universal portable

★ Two new triple power—triple purpose superhet portables, 545 and 545SW. 5 low drain tubes, beam power output, 5 in. PM dynamic speaker. Built in "Looptenna." A.V.C. Battery, AC-DC. Tuning controls on top of case. Covered with durable simulated cowhide leather in natural or blue, contrasting bands of rawhide. Speaker on one side. Model 545, 170-555 meters. \$29.95; 545SW, 15-55 and 170-5555 meters, \$34.95. DeWald Radio Mfg. Corp., 440 Lafayette St., New York, N. Y.—RADIO TODAY.



Admiral table model

★ Model 25-Q5, one of 12 new models ranging in price from \$9.95 to \$26.95. 5-tube Superhet, automatic tuning, Aeroscope loop antenna cabinet. \$14.95. Continental Radio & Television Corp., 3800 Cortland St., Chicago, Ill.—RADIO TODAY.



Farnsworth model BT-22

★ Six-tube, superheterodyne circuit, 2 wave bands, 540-1,580 kc. & 5.8-18.1 mc. Automatic volume control, 4 station push button tuning; 5-inch electro-dynamic speaker. Bilt-In-Tenna, connections for outside antenna and ground. Cabinet front, striped American walnut, top and ends, sliced American walnut. Overlay trim and grille bars, simulated Brazilian rosewood. Farnsworth Television & Radio Corp., 3700 Pontiac St., Extended, Fort Wayne, Ind.—RADIO TODAY.



Sonora portable

★ KB-73, 5-tube portable radio operates from 110 v., 50-60 cycles AC., 110 v. DC or from self-contained batteries. 1,720-535 kc. Superhet circuit. Built-in loop, 5-in. P.M. dynamic speaker, speedometer dial with rotating needle. Pilot light for AC-DC. Indicator showing "off," "electric," "battery" operation. Luggage-type case with set-back control panel. Sonora Radio & Television Corp., 2626 W. Washington Blvd., Chicago, Ill.—RADIO TODAY.

FOR

1940

SALES

**Better values to draw
more buyers during this
year**

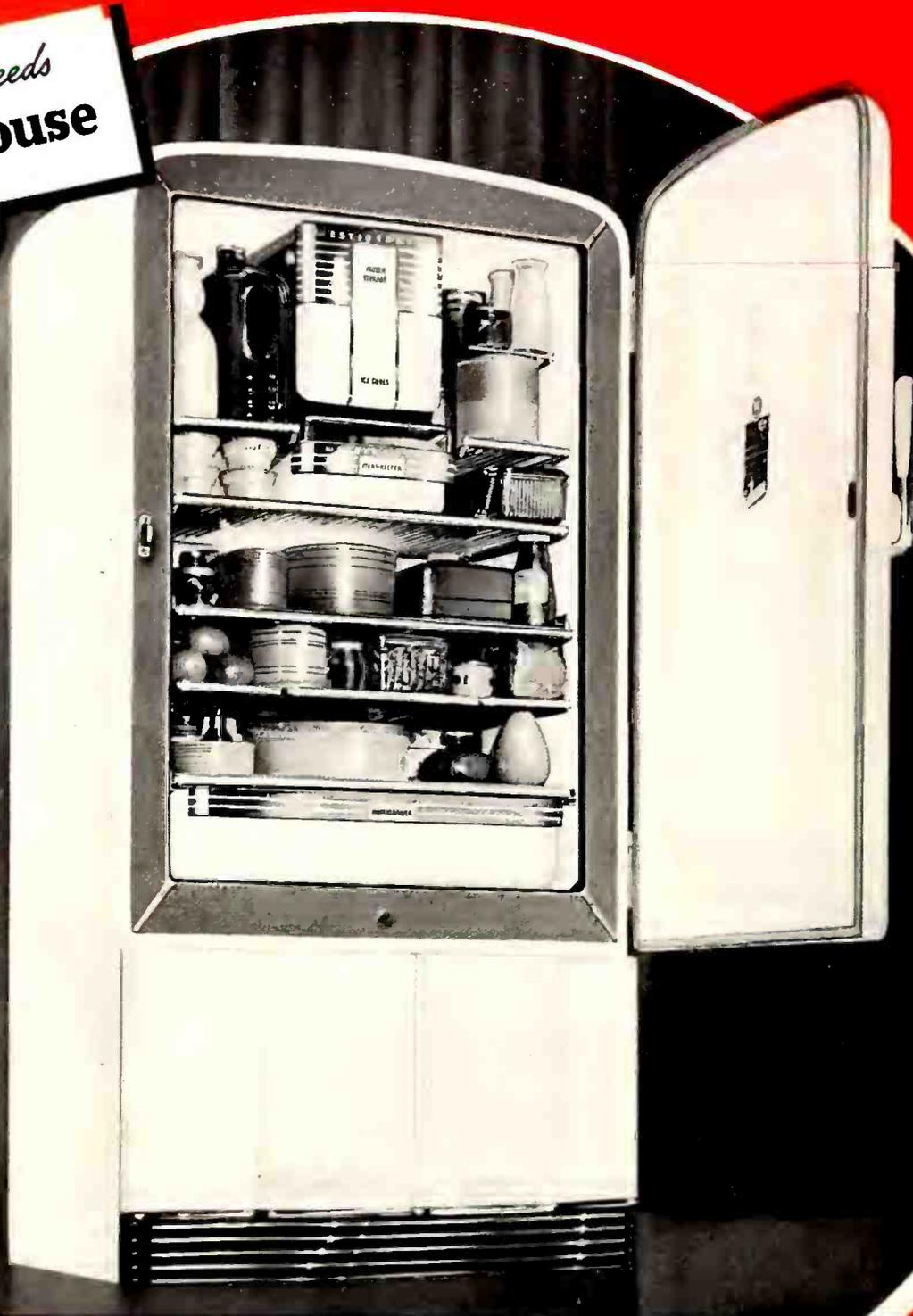
Stromberg-Carlson FM combination

Presenting No. 455-PL, one of 8 new Interim models, 4 with frequency modulation band. Shifts and plays 10 or 12 in. records. Standard, short wave and FM bands. 12 tubes. \$275.



FASTER FOR '40

Every house needs
Westinghouse



Westinghouse

"The Line of Least Resistance"

! NEW!

1940 PACEMAKER with Exclusive

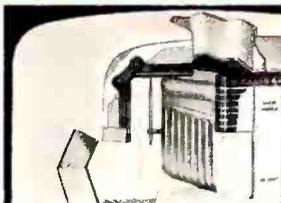
TRU-ZONE COLD

the SUREST, STEADIEST food protection
temperature control in any home refrigerator

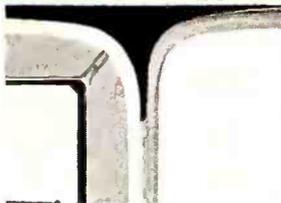
... plus striking new beauty in interior design ... adds up to a new sales-winning combination for 1940



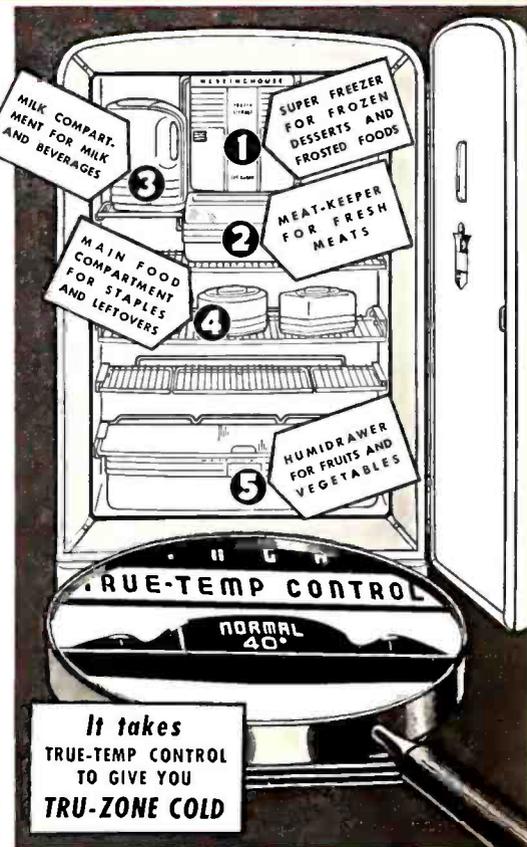
TRUE-TEMP CONTROL lets user dial exact temperature—holds it true no matter how hot the kitchen gets.



FIBERGLAS INSULATION is 10% more efficient than previous insulation—holds its efficiency for life.



MICARTA DOOR LINER is 6 times more resistant than steel to heat penetration—combines lightness with rigid construction.



1 MILK COMPARTMENT FOR MILK AND BEVERAGES

2 SUPER FREEZER FOR FROZEN DESSERTS AND FROSTED FOODS

3 MEAT-KEEPER FOR FRESH MEATS

4 MAIN FOOD COMPARTMENT FOR STAPLES AND LEFTOVERS

5 HUMIDRAWER FOR FRUITS AND VEGETABLES

It takes TRUE-TEMP CONTROL TO GIVE YOU TRU-ZONE COLD



HUMIDITY FOR MEATS averages 85% in the big new sliding MEAT-KEEPER with crystal clear window-front.



HUMIDITY FOR FRESH FRUITS AND VEGETABLES averages 90 to 95% in the big glass-top Humidrawer.



LEFTOVER DISHES of Peasantware are Hall Oven China. Set includes 2 leftover dishes, 1 butter dish, 1 water server.



FROZEN FOODS in liberal quantities can be safely stored in the double-height top compartment of the Super Freezer.



MILK AND VEGETABLES are protected by extra cold but not freezing temperature in the large milk compartment.



LOW COST OPERATION is big sales advantage with the famous Economizer Sealed-in Mechanism, improved for 1940.

Refrigerators

FASTER FOR '40..



WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY

MANSFIELD, OHIO

REFRIGS. ARE RARIN'

*How to pick the men to sell them, plus
a review of more new-featured models.*

The refrigerator season is still a few months away, but it's rushing at us fast.

This year a larger proportion of total sales will be replacements than ever before.

To get your full share of this business you'll have to be prepared to do *more selling* and *less ordertaking* than before.

That means plainly that your men should be

better *salesmen*
better *trained*
work on a better *plan*
with better *supervision*.

Perhaps that sounds like a tall order, but it's really not as tough as it sounds.

First, you must have good *men*, before they can be better salesmen. That means a process of selection, and it's not too early to start selecting them *now*.

YOU STAND OR FALL

Every salesman represents his employer in all of his contacts with the customer. He should be clean cut, of good appearance, with pleasing personality, intelligent, honest, and not afraid of long hours or hard work.

Previous selling experience may, or may not, be an advantage.

In any event, you should select your men first, then train them.

The second important consideration is an honest, economically sound basis of compensation.

One reason so many good salesmen are leaving the appliance field is that too many dealers fail to treat their men as they would like to be treated themselves.

A dealer who wants to keep good salesmen must be *willing and able*, to *teach* them, *supervise* them, and *pay* them.

A man must eat, whether business is good or not. A small salary will do that.

A man should be paid fairly proportional to the kind of a job he is doing. A reasonable commission will do that.

Any man needs periodic stimulation, and a bonus fits in there very nicely.

REWARD FOR EFFORT

But above all, don't try to figure out a plan which penalizes your good men, to protect *you* from your *own errors in judging men*, or which fails to protect your new men in their missionary and promotional work.

But beyond compensation, not one real salesman in ten is at his best without supervision.

That means that a dealer who wants to get the best out of the good salesmen he has, must give them continuing, intelligent, honest guidance and supervision.

The dealer must know at least as much as his men, should counsel and guide his men, as men—not minions.

The dealer should have his selling plans carefully made, and see that they are followed out.

LIVE INSTRUCTIONS

Training embraces a lot of ground. Your men must be trained—

(a) to represent you.

(They must be told and *shown*, just how you want your prospects approached, and your customers treated.)

(b) to locate prospects, where to look, how to work.

(c) to sell your products, the full story of its use, in terms of convenience of the prospective customer, and how and when to ask for the order.

(d) to satisfy your customers, how to follow them up, see that they understand the use of the refrigerator, and its care, how to get new leads from old customers.

You must *lead* your men to better

results; you can't *push* them and keep them happy.

The dealer himself is at least as much responsible for the results of his salesmen as are the men themselves.

You must not think so, at first, but that fact has been proven time and time again. You will seldom see a salesman "on his toes" selling, when the boss is at the "ball game."

Not all men are leaders, and it's no disgrace if you're not. A smart man knows, down in his heart, whether he is a leader of men or not.

If he is, he leads them, and stays high in their esteem and loyalty by the example he sets. If he is not, he employs one who is, and does himself, the job he can do best.

Success in refrigerator selling is seldom a matter of chance. The vital factors are a sound selling plan, the manpower to carry it out, constant, intelligent supervision, and never-ending hard work.

Sales will be fairly proportional to the number of people you ask to buy—properly.

PARADE OF NEW NUMBERS



Kelvinator's new line

★ The "Moist-Master" system, standard on 3 models, HS-6, HD-6 and HD-8 is feature of the new 1940 Kelvinator refrigerators (5 sizes, 3 eights). Sixes range in price from \$119.95 to \$209.95; eights, \$189.95 to \$239.95. These new models incorporate such features as un-refrigerated vegetable bin, sliding glass covered vegetable crispers, built-in meat compartment in freezer, twin dome lights, porcelain sliding Cold Chest, automatic return from defrosting in Kelvin Cold Control, adjustable shelves, sealed Polarsphere unit. Kelvinator Division, Nash-Kelvinator Corp., Detroit, Mich.—RADIO TODAY.



Dayton electric refrigerators

★ Dayton 1940 Diamond Jubilee models from 4 ft. to 10 ft. capacity. "Speed Freezer" contains large oversize frozen food compartment. Dual position porcelain meat keeper beneath the speed freezer. Dual position shelf supports and lift-out shelf sections to accommodate various size foods. Bottom shelf is one-piece, heavy plate glass, giving full vision into two over-size porcelain crispers, which slide on runners. Non-refrigerated dry storage compartment in lower section. Powered with conventional open-type units or self-contained hermetic units. Heinz & Munschauer, 20 Superior St., Buffalo, N. Y.—RADIO TODAY.



Westinghouse "Tru-Zone Cold"

★ The 1940 Westinghouse line consists of 3 Aristocrat models, available in the Emperor line with porcelain finish, 2 Hostess models, and 4 special models. The feature "Tru-Zone-Cold" is a definite temperature in each of 5 food-keeping zones for each setting of the True-Temp control. Fiberglass insulation. The 5 zones of cold are the sup-freezer, meat-keeper, milk compartment, food compartment and Humidrawer. Froster door, meat-keeper handle, humidrawer handle and edge of sliding shelves are chrome trimmed. Cushion mounting of mechanism reduce vibration and noise. Simple piston-type compressor. Westinghouse Elec. & Mfg. Co., 246 E. Fourth St., Mansfield, Ohio.—**RADIO TODAY.**



Leonard 1940 refrigs.

★ Line includes 8 new models—5 sixes and 3 eights. "Hi-Humid" system of controlled humidity is standard feature on 3 models, LHD-6, LHS-6, and LHD-8. Low-priced (\$119.95) six, LSS-6 has finger-tip regulation of freezing speeds, 4 trays, 2 freezing shelves. Rustproofed steel welded cabinet. Permalain finish. Other models feature sliding porcelain crisper with sliding glass cover serving as extra shelf, uncooled vegetable bin. LR-6 is equipped with 2 crispers with glass covers, extra deep meat file, and automatic return from defrosting, etc. LHD-6 (\$209.95), top six incorporates all features of the LR-6 plus the "Hi-Humid" system. The 3 eights include features of the sixes, priced from \$189.95 to \$239.95. Leonard Division, Nash-Kelvinator Corp., Detroit, Mich.—**RADIO TODAY.**



Gale's refrig. line

★ Two new lines of Gale 1940 refrigerators, comprising 16 models just announced. "Special" and "Deluxe" lines, each including 4, 5, 6, and 8 ft. cabinets. (Deluxe 6 ft. model shown.) Cabinets are available with only evaporator and shelf hangers. All food compartment equipment is packaged in "kits" for each size refrigerator. Four distinctly different models may be created from the same cabinet with these kits. Gale Deluxe models have full crown doors, massive chrome plated hardware, chrome plated louvres. Evaporators are offset for more usable space. All cabinets are of heavy porcelain interiors with acid-resisting bottoms. "Mechanical Iceberg" unit now available in either conventional or hermetically sealed types. Gale Products, Galesburg, Ill.—**RADIO TODAY.**



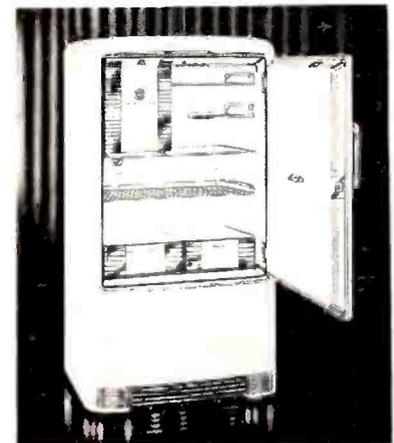
GE 1940 refrigerators

★ GE presents three new lines, thirteen new models, "De Luxe," "Standard," and "Special." (Standard Model SB6-40 shown.) The top, or De Luxe line's appearance has been changed in respect to name-plate, latch handle, grille base, illuminated control, evaporator door, and stainless steel shelves. Two glass covered vegetable pans with individual humidity control, automatic humidity control for cold storage compartment and an air filter for removing food odors have been added. On both Deluxe and Standard lines is Tela-Frost indicator, stainless steel evaporator. The Special has a completely new exterior design. Quick trays, evaporator doors, and automatic interior light, standard equipment. General Electric Co., 1285 Boston Ave., Bridgeport, Conn.—**RADIO TODAY.**



New Hotpoint line

★ Fourteen models are presented in four groups, Imperial, DeLuxe, Standard, and Special. All units have 1 piece cabinets, all-steel, bonderized. Calgloss finish, except all-porcelain Imperial models. Thermocraft insulation. Pop ice trays standard on all. Deluxe & Imperial except 5 cu. ft. has half-gallon dessert tray and removable shelf. Vacuum sealed Thriftmaster equipped with forced draft cooling. Clear plastic dial and temperature control, with edge lighting. Defrost indicator on left side of Speed Freezer. Humidity control in meat storage pan. Tip-up shelf. Food safety gauge inside door. Imperial models have multi-colored refrigerator dishes: Deluxe models have glass water bottle. Edison GE Appl. Co., Inc., 5600 W. Taylor St., Chicago, Ill.—**RADIO TODAY.**



1940 Frigidaires

★ A total of 16 models offered this year by Frigidaire in standard and Cold Wall series. Standard includes 1 Table Top, 4 Super Value, 2 Master, and 2 Deluxe models. Cold Wall series includes 2 Master, 2 Deluxe, and 3 Imperial Porcelain models. Standard Deluxe exterior finish used for all lines except the Imperial Porcelain. Cold Wall models have two separate compartments, providing different food keeping conditions, divided by "dew fresh seal" glass shelf equipped with humidity control. Annealed glass Meat Tender below the freezer which slides out like a drawer. Every model has stainless chromium finished shelves, door that opens flush. Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton, Ohio.—**RADIO TODAY.**

**Now—the Most
SENSATIONAL NEWS
IN REFRIGERATION
Is Ready!**

**PHILCO
REFRIGERATOR
for 1940**

*The Most Profitable
Franchise of the Year!*

Philco All Year 'Round for Profits All

PHILCO DISTRIBUTORS NOW IN CONVENTION

Right now, Philco distributors from all parts of the country are attending the biggest Mid-Winter Convention in Philco's history, at Palm Beach, Florida, and Coronado, California. There, for the first time, they are seeing the sensational new 1940 Philco Refrigerator . . . getting the full story of the greatest refrigeration line ever to greet the eyes of the trade.

And what a story it is! A completely new refrigerator that smashes all tradition . . . that brings to the buying public a new idea of refrigerator service and value. An advertising, promotion and merchandising program that sets a new pace—a *Philco* pace—in refrigeration. And a dealer *contract* that offers a balanced, permanent, *All Year 'Round* source of profits!

Your Philco distributor will be back home in a few days, bursting with the news and primed to give it to you in his local dealer meeting. Don't fail to attend and hear first hand the most important refrigeration profit story of 1940.

*Be Sure to Attend
Your Local Meeting!*

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

NEW MODELS



Belmont table model

★ Model 629, 6-tube, AC superheterodyne engineered for maximum shortwave (foreign) reception as well as American broadcast. 6 in. electro-dynamic speaker. Variable tone control. Automatic volume control. 2 band, slide rule dial. Two-tone walnut cabinet. Belmont Radio Corp., 1257 W. Fullerton, Chicago, Ill.—RADIO TODAY.



Emerson table models

★ One of three featured models offered in Emerson's Silver Jubilee 2 month mid-season promotion. Sets are combined into one dealer display and advertising "package." Price range; \$29.95, \$19.95 (model illustrated), and \$9.95. First two sets have wood cabinets; two band tuning. Low priced model is in molded plastic. Emerson Radio & Phono. Corp., 111 8th Ave., New York, N. Y.—RADIO TODAY.

Ansley Dynaphone

★ Two new high fidelity radio chassis in Dynaphone combinations. One covers broadcast band only, other, 3 bands. AC or AC-DC types. Separate bass and treble tone controls. Modern cabinets, choice of 12 finishes, several period styles. The Ansley Co., 4377 Bronx Blvd., New York, N. Y.—RADIO TODAY.

RCA combination

★ Now ready for your record-conscious customers—the new deluxe RCA model U-46 in 18th Century dress. It's walnut, with new black-and-chrome disc changer.

RME high freq receiver

★ Model HF-30X is 11-tube super designed to cover 27.8 to 41.5 mc. and 40.8 mc. to 60.3 mc. Uses high gain rf stage with 1852 tube. Beat oscillator and improved noise suppressor is incorporated. Built-in speaker delivers 2.5 watts. Radio Mfg. Engineers, 306 1st Ave., Peoria, Ill.—RADIO TODAY.

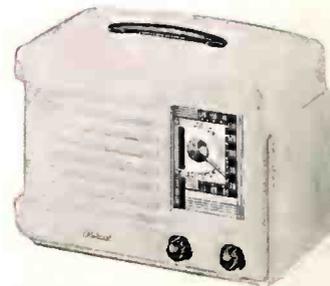


Sonora three purpose portable

★ First of a series of new portables is the Triple-Play model. Designed to operate from 110 volts AC-DC and self-contained batteries. Tunes 1,720 to 535 kc. on speedometer type dial. 6-tube superhet housed in luggage type case. Hinged front cover. Pilot light on power line. Sonora Radio & Tele. Corp., 2626 W. Washington Blvd., Chicago, Ill.—RADIO TODAY.

Admiral plastic model

★ Model 14-C5, one of Admiral's new line, is a 5-tube superheterodyne set of ivory plastic. Has



Aeroscope loop antenna. 150-1,700 kc. tuning range. List \$14.95. Continental Radio & Television Corp., 3800 Cortland St., Chicago, Ill.—RADIO TODAY.



Philco wireless record player

★ Improved Philco wireless record player, Model RP-1 features a streamlined case and more effective operation. Gum wood, walnut finished cabinet. Crackle finish tone-arm. Plays 10 and 12 in. records through any radio without any wire connections to the set. \$19.95. Philco Radio & Television Corp., Tioga & C Sts., Philadelphia, Pa.—RADIO TODAY.



NEW SOUND PRODUCTS

Equipment for every sound job



Clarion portable system

★ Four channel amplifier delivers 40 watts flat and 62 watts peak. Gain of 128 db. Simultaneous mixing of any five channels including either of two phono inputs. Output impedances from 2 to 500 ohms. Two heavy duty PM speakers, and choice of mikes are included with floor stand, cables, and output meter. List, \$236.39. Transformer Corp. of America, 69 Wooster St., New York, N. Y.—RADIO TODAY.

Shure cable transformer

★ Cable type mike transformer to match 35-50, 200-250 ohm low-impedance dynamic mikes or lines to high-impedance amplifier inputs. Model A86A transformer may be located within 25 feet of amplifier. Compression fittings seal-in mike and amplifier cables. Complete with 7-foot single conductor cable for connection to amplifier. List, \$8.50. Shure Bros., 225 W. Huron St., Chicago, Ill.—RADIO TODAY.

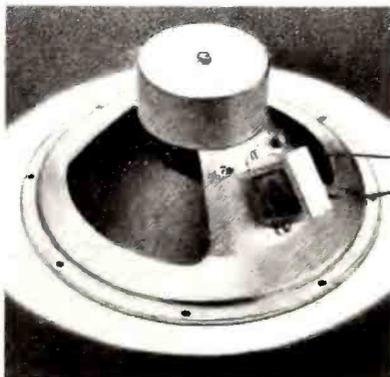


Erwood mobile amplifier

★ Combination 6-volt DC-115-volt AC public address amplifier with 20 watts output. Either mike or phone input. Various output impedances. Attractive portable carrying case measures 16 x 16 x 12 inches. Erwood Sound Equipment Co., 224 W. Huron St., Chicago, Ill. RADIO TODAY.

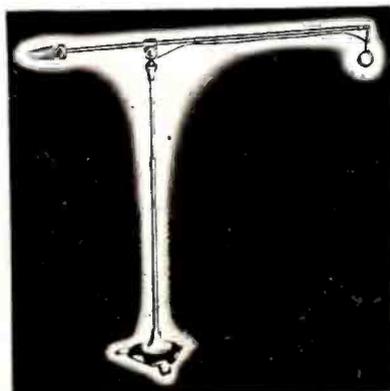
Amperite mike plug

★ Station type mike plug makes cable replacements easy; eliminates cable breaks at connector. Cable is held in 1/2 inch sleeve bearing and strain is taken off connection. Amperite Co., 561 Broadway, New York, N. Y.—RADIO TODAY.



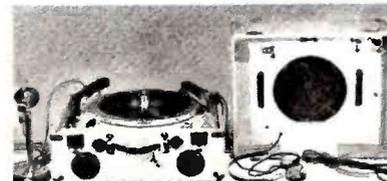
Quam 12-inch PM

★ One of three new speakers added to Quam line is this 12-inch permanent magnet model M120. Equipped with 28-ounce magnet, the frequency range of this unit is 70 to 7,500 cycles. Load capacity of 15 watts. Interchangeable output transformers. Other models include two 8-inch high fidelity speakers. Quam-Nichols Co., Cottage Grove at 33rd Pl., Chicago, Ill.—RADIO TODAY.



Atlas mike boom stand

★ New "floating action" microphone boom has adjustable counter-balance arm for light or heavy mikes. Base span is 17 inches and legs are rubber cushioned. Boom may be removed and stand used as standard mike support. Finished in chrome. Price, \$45. Model BS-35. Atlas Sound Corp., 1447 39th St., Brooklyn, N. Y.—RADIO TODAY.



Universal recording machine

★ Unicord recording machine is a complete professional unit in miniature size. Records at 78 rpm. Synchronous motor, headphone monitoring. Optional crystal, dynamic, or velocity mike. In portable or console model. Universal Microphone Co., Inglewood, Calif.—RADIO TODAY.



Knight sound system

★ Portable PA system with 30-watt high gain amplifier, crystal mike, floor stand, two 12-inch PM speakers, and cables for mike and horns. For operation on 110 volts, 60-cycle AC. Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill.—RADIO TODAY.



Talk-A-Phone intercom system

★ Model LP-5 is of the master selective station type. Works with up to 5 sub-stations. Substations may be called independently or together and have talk-back facilities. Persons may speak as far as 50 feet from substation. 110 volt AC-DC. Talk-A-Phone Mfg. Co., 1847 S. Millard St., Chicago, Ill.—RADIO TODAY.

The new Crosley Freezorcold selling features are dealers'

Crosley 1940 Freezorcold Shelvadors are **QUIET***, are priced for **ACTION** and **PROFIT**, and are built of quality material and by quality methods throughout, even where skimping can be hidden, so that Crosley dealers may say with conviction to the thousands of prospects Shelvador features will attract, "you can buy no better refrigerator anywhere at any price."

*The 1940 Crosley Freezorcold Shelvador is practically noiseless. A metal flue-like envelope around the condenser and lined with sound insulation contributes to this new silence. Sound that travels from compressor to the outside via the condenser is muffled in this hush-a-bye feature. Engine compartment is also insulated for sound. Stroboscope studies of oil splash inside sealed unit enabled engineers to eliminate further noise in unit operation.



6 CU. FT.
FREEZORCOLD
SHELVADOR

**NEW
1940
MODEL**

MODEL MW9-60A—Important talking points of the new 1940 Crosley Freezorcold Shelvadors apply to this model . . . Quietness of operation, the economy and usefulness of the miniature cold storage plant—the Freezorcold, the convenience of the Shelvador, the quiet, economical power of the hermetically sealed Electro-saver Unit, the porcelain lining in the food compartment and the brilliant baked-on Dulux finish.

\$124⁵⁰

*Delivered and installed . . . 5-year protection plan \$5.00 additional . . . prices slightly higher in south and west.

Shelvadors with **4** exclusive sure source of profit in 1940

1 The **PATENTED** Shelvador

The Shelvador is an advantage no other refrigerator has

It is the most convenient feature a refrigerator has ever had because it keeps small things constantly in sight and because it makes efficient use of all storage space. It is an economy feature, too. It shortens the time the refrigerator door need stand open when food is sought or being put away. This saves power.

It does not cut into the space inside the refrigerator. It holds more than a shelf full of small food items which removed from the inside shelves, provides that much more room for bulky foods and articles.



2 The Freezorcold

A Miniature Cold Storage Plant

This new idea introduced by Crosley into domestic electric refrigeration is exciting all women who see it. It stores frozen foods—freezes fresh meat, game, poultry, fish . . . keeps ice cream. This Freezorcold compartment permits women to buy frozen food specials at lowest prices and store them until wanted. It holds from eight to twelve pounds of meat. It's a fine place to chill salads quickly. Fresh meat can be frozen and aged in it. It has tremendous sales appeal because it offers possibilities of a much wider variety in the family diet and, at the same time provides for definite economies in food purchases.

3 The Cold Drawer

With Self-Lifting Lid

This drawer, just below the evaporator, is a degree or two above freezing. That makes it ideal for beverages. It can be used as an auxiliary to the REAL meat keeping feature,—the Freezorcold. The COLD-DRAWER will keep meat fresh for several days but the Freezorcold will keep it many days. The COLD-DRAWER is handy and easy to operate with one hand. It slides out smoothly and the lid lifts itself automatically when you pull out the light porcelain drawer. This drawer lid is perforated to catch water in the drawer during the defrosting process.

4 7 zones of refrigeration

Various foods keep best at different temperatures. Thrifty and efficient housewives will respond to such a feature. They will be quick to take advantage of refrigeration characteristics that provide maximum safety and preservation for ALL foods.

Crosley 1940 Shelvadors begin with the 3 Cu. Ft. Apartment House Model at \$99.50. 4 and 5 Cu. Ft. Shelvadors at \$114.95 and \$127.50 respectively, attract price-conscious prospects. 6 Cu. Ft. Freezorcold Shelvador tops Special MA9 line at \$137.50.

Three MB9 models step from the low price MA9 line into the deluxe MI9 line of five models which present every refinement and luxury of household refrigeration that ingenious engineers and home scientists can conceive. Top model of the deluxe line is the super-Freezorcold Shelvador in which the general food compartment presents a high humidity or moist cold maintained by secondary coils for most efficient food preservation.

*Delivered and installed . . . 5-year protection plan \$5.00 additional . . . prices slightly higher in south and west.

THE CROSLY CORPORATION
POWEL CROSLY, Jr., President CINCINNATI
Home of "the Nation's Station"—WLW-70 on your dial.

NEW THINGS



Weston circuit tester

★ High sensitivity volt, ohm, milliammeter is incorporated in model 785. DC: 1-1,000 volts at 20,000 ohms per volt. AC: 5-500 volts at 1,000 ohms per volt. DC current from 50 microamps to 10 amps. AC current from 0.5 to 10 amps. Resistance to 30 megohms. Binding posts for current measurements. Weston Electrical Instrument Corp., Newark, N. J.—RADIO TODAY.



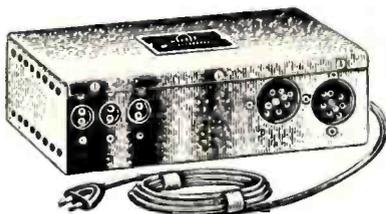
Eicor dynamotors

★ New line of dynamotor power supplies for aircraft, police, marine and amateur use. Designed for continuous service, light weight, low starting current. Eicor, Inc., 515 S. Laflin St., Chicago, Ill.—RADIO TODAY.



Philco tester modernizer

★ Designed to bring old tube testers up to date, the modernizer fits any tube tester having 6-prong socket and 7.5 volts for filament. Will check new tubes with high voltage filaments. Chart gives current settings for practically any tester in use. Philco Radio & Tele-Corp., Tioga & C Sts., Philadelphia, Pa.—RADIO TODAY.



Electro Products power pack

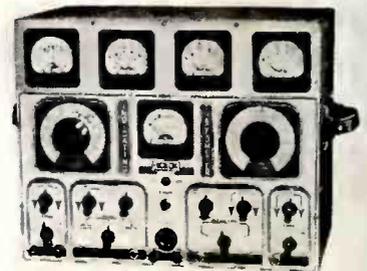
★ A and B battery eliminator for use with 4, 5, 6 tube sets using 2-volt filaments. Operates from 115-volt 60-cycle AC. Special socket arrangement enables its use with

all types of battery plugs. Model F weighs 4½ lbs.; list price, \$9.95. Electro Products Labs., 549 W. Randolph St., Chicago, Ill.—RADIO TODAY.

up to 200 lbs. (for appliance display), \$15 complete. DC or universal on request. Skeleton models available. Goodman's Rotary Displays, 19 W. 34th St., New York, N. Y.—RADIO TODAY.

Hickok Traceometer

★ Signal tracing instrument with five indicating meters arranged to measure RF-IF signal, oscillator volts, AF volts, DC volts,



and wattage. Ranges: 5,000 to 100M microvolts; 0-25 volts, in RF section. DC voltmeter to 500. Wattage range, 0-300. Frequency range, 600 kc. to 15mc. in oscillator section. RF-IF section, 100 kc. to 1,800 kc. Price, \$123. Hickok Electrical Instrument Co., 10514 Dupont Ave., Cleveland, Ohio.—RADIO TODAY.

Fisher metal locator

★ Radio receiver and transmitter in separate and connected units for use in location of pipes, cables, and other metal objects underground. Indication is given in the receiver by both headphone and meter. Model M-Scope. Fisher Research Labs., 745 Emerson St., Palo Alto, Calif.—RADIO TODAY.

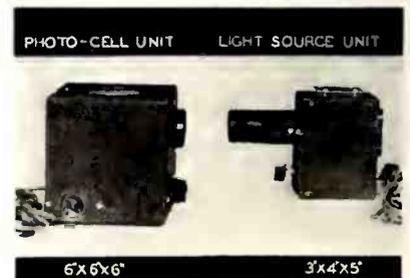
Non-ox contact cleaner

★ Contact cleanser-lubricant with many uses for the serviceman. Oxide coatings on switch contacts causing noise are quickly removed with this liquid cleaning agent. May also be used to lubricate condenser bearings and prevent tarnishing. Non-ox Co., 3533 E. Slauson Ave., Maywood, Calif.—RADIO TODAY.



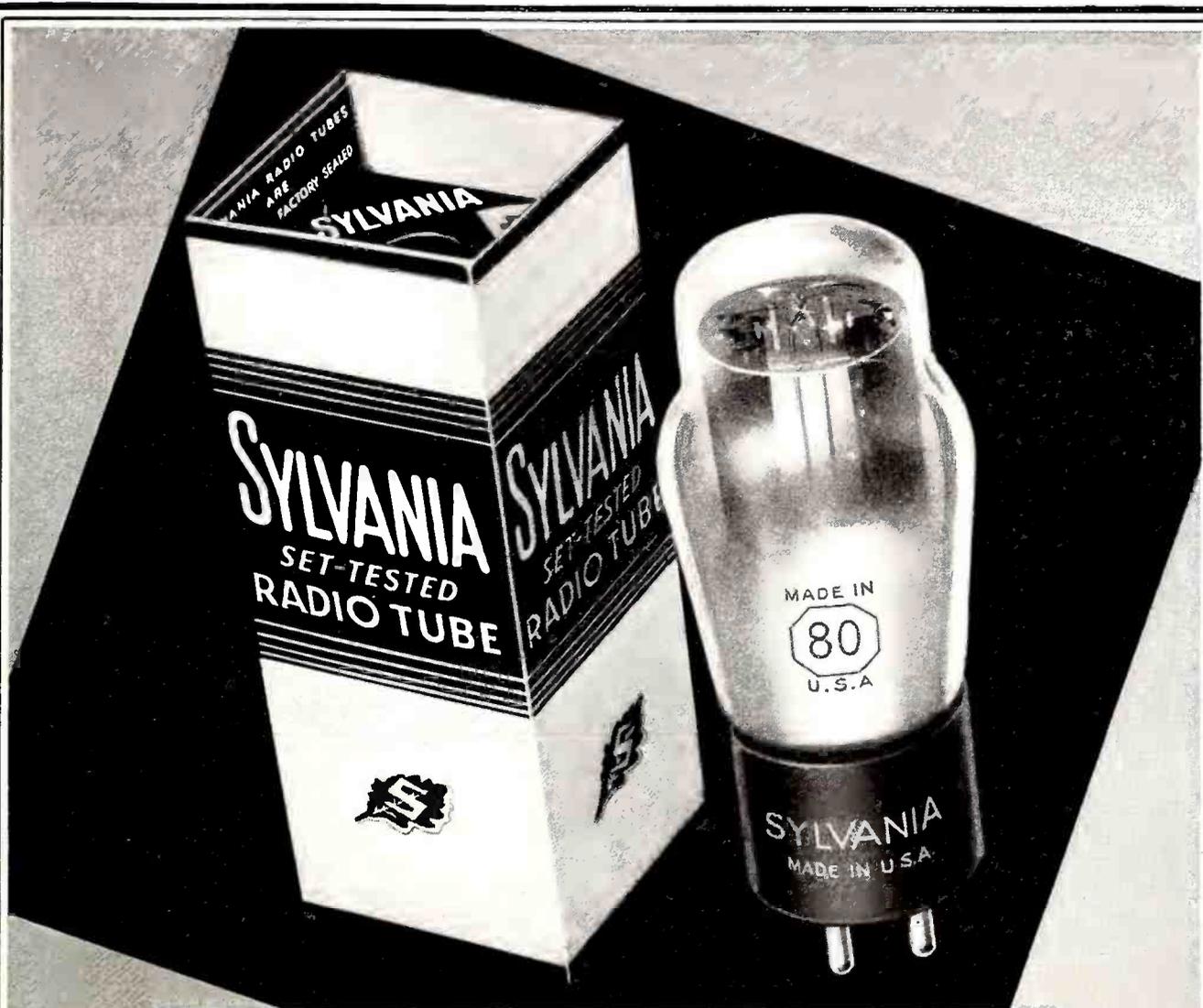
Goodman display turntables

★ Low-priced motion display, to get action into radio windows and store interiors. Performance guaranteed. Sturdy, silent, self-oiling, will carry up to 75 lbs., and has place for advertising message. Self-starting motor, 60 cycle, 110 v., AC only. Price with 12 in. top, \$10 complete. Larger platforms or superstructures of your own can be readily mounted. Heavy duty models carrying



Teletouch electric eye

★ Alarm, signal, and control unit consists of self-powered lamp house and photo-cell pick-up and relay. Largest unit is only 6 inches on an edge. May be used as counter, protection device, etc. List, \$49.50. Teletouch Industries, Inc., 37 W. 54th St., New York, N. Y.—RADIO TODAY.



Quality + Profit

Are you starting the year right? Do you have a line of tubes that is profit protected? Or, are you at the mercy of a line that appears in cut price windows and bargain newspaper advertising? Can you depend on the quality of your tubes to keep your work sold? Does your tube line give

you the sales help you need?

We sincerely believe SYLVANIA has the right answer to all these questions, and gives dealers and servicemen all these things,—repeat sales, dependable quality, and steady profit. If you handle SYLVANIA, we congratulate you—If not, let's talk business!

SYLVANIA

SET-TESTED RADIO TUBES

Hygrade Sylvania Corporation, 500 Fifth Avenue, New York City
Cable HYSYLVANIA, N. Y.



Benny Goodman and the singer Louise Tobin are favorite broadcast artists and they also turn out best-selling records. Mr. Goodman is the star whom Radio Today intended to feature on the cover of the December issue, but his photo was inadvertently switched with that of Tommy Dorsey.

RECORD PROFITS

New Jersey dealer tells how he makes a going business from the new disc titles

"We feel that our success in record selling has been due mainly to three factors, declares Robert Perdue, of Perdue Radio Company, Montclair, New Jersey:

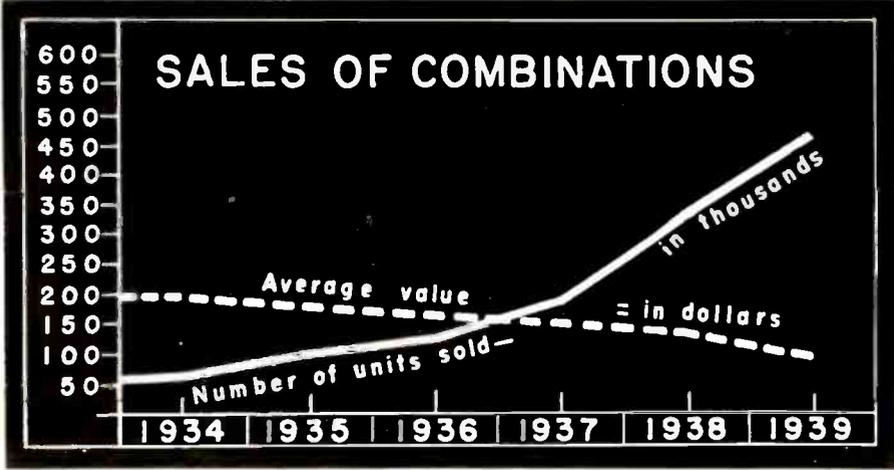
"First we carry a complete stock of Victor popular and Red Seal records which is equalled by few stores in New Jersey. This fact alone would tend to make us a logical buying center for the better type of customer. Further than this we carry all of the currently popular Decca, Bluebird, Vocalion and Columbia recordings. But even in this field we try to appeal to the people who want music rather than to the confirmed 'jitterbug' who could at best buy only a few so called 'killers' because the

quantity produced is proportionately small as compared with the ballad and smooth swing dance records which comprise the bulk of our popular business.

"In order to satisfy those customers who demand the older popular records we carry the complete Victor listing in the popular field which covers every number for about two years back—after which time the Victor company revises the catalog to include only those that have shown repeated sale.

"Our classical division of the business, which is our most profitable end, receives our most studied attention.

"Our stock comprises almost every well known selection in both the individual record and the album sets.



Wax worth watching

MUGGSY SPANIER and his Ragtime Band playing *Relaxin' at the Touro*—Bluebird B10532.

EDDY DUCHIN and his orchestra playing *El Rancho Grande* with VC by Lew Sherwood—Columbia 35296.

LAWRENCE WELK and his Champagne Music playing *The Man on the Ferry* with VC by Jayne Walton and Parnell Grinna—Vocalion 5222.

DICK ROBERTSON and his orchestra playing *Are You Havin' Any Fun* with VC by Mr. Robertson—Decca 2827.

JIMMY DORSEY and his orchestra playing *My Prayer* with VC by Bob Eberley—Decca 2810.

GLENN MILLER and his orchestra playing *Oh Johnny Oh Johnny Oh* with VR by Marion Hutton—Bluebird B10507.

ALLAN JONES with orchestra singing *I'm Falling in Love With Someone and Thine Alone*—Victor 4446.

ANDREWS SISTERS singing *Oh Johnny Oh Johnny Oh*, with Vic Schoen and his orchestra—Decca 2840.

BENNY GOODMAN and his orchestra playing *Boy Meets Horn* (featuring Chris Griffin with trumpet)—Columbia 35301.

We also make it a point to carry many of the more obscure records. Even though their sale is infrequent the prestige we gain and the fact that we do not have to send our customers elsewhere makes it worth the investment.

"Then there is the children's record field which, although always a good profit maker, has been growing even stronger. This has been especially noticeable since added publicity was given it by the overwhelming success of the Snow White sets.

"Besides the records there are many profitable accessories such as needles, (Please turn to page 44)

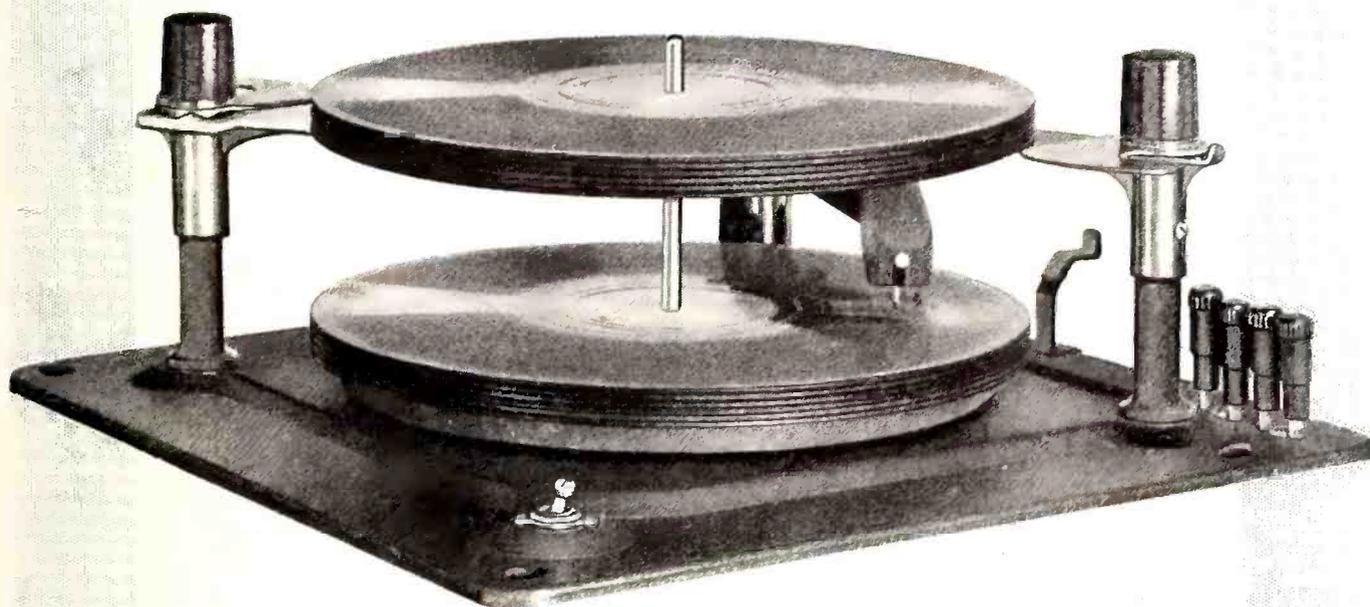
"Record Bar" Gets More Action

Several important sales developments have appeared in the use of the "Record Bar," according to executives of the A. Bitter Construction Co., manufacturers of the new fixture which is being marketed as a complete unit for the display, demonstration and stock-keeping of records.

Record dealers who have tried the "Bar" report that it provides a more direct contact with the customer, and that demonstrations move along faster and more successfully than if the prospect was encouraged to listen in private booths. The "Bar" has four listening stations—two speakers and two earphones—so that record buyers all remain near the salesman in attendance.

Retailers of records also say that they have been surprised at the volume done in record-playing accessories such as needles, brushes, record racks, etc., partly as a result of the fact that the "Record Bar" offers improved display and stock-space facilities for these items.

THE Record Changer hits Main Street!



To the crowds on Main Street has come the crowning luxury of home entertainment: the full hour of music **automatically played as pre-arranged to the individual taste** of the hostess or of her guests.

Webster-Chicago's sturdy, dependable, **jam-proof** record changer at moderate cost has opened the door wide, to **volume** sales of "luxury" instruments. (And to bigger sales of records, singly and in series.)

Get your share for 1940! The best-engineered and fastest-moving radio lines today have their phono combinations Webster-Chicago-equipped. **See that yours features the Webster-Chicago record changer,** and assure yourself a leader!

A complete line of record-playing and sound equipment **manufactured for and distributed through the radio trade.** Catalog No. 139 on request. The Webster Company, Sec. J-9, 5622 Bloomington Ave., Chicago.

WEBSTER-CHICAGO
"The Sound of Tomorrow"

"CAP" SAYS —

Manufacturers! Dealers! Don't look now, but

We sure did a job in 1939!

Or did we?

The number of radios sold in 1939 reached an all time high, and that's something. But the average unit price sank to a new low and that's something else.



H. L. M. Capron,
Merchandising
Editor

WHY?

Did we "plan it that way"? Or did it just happen? Can dealers continue to "swap dollars" and do an honest selling and promotion job? Or do you think radio is too big for that now?

Why did consoles show the smallest increase, in units sold, and the largest decrease in average value, or don't you care?

There's a story in the figures for 1939, which we should learn, and profit by.

A story

of a great profit opportunity lost, of sound merchandising conspicuous by its absence, of selling degenerated into price-cutting and order taking,

of real leadership gone into hiding, of volume rampant—profits prostrate.

The radio business should be as profitable as it is glamorous; as sound as it is beneficial to the public. And it can be, if we will think and act, together, stop worshipping at the shrine of volume.

Profits, not volume, is the keystone of a capitalistic economy. Measured by this yardstick the radio industry is not too proud of its 1939 job.

Dealers and manufacturers should think more, in terms of the customer. Americans are always willing to pay for better things, but you've got to prove to them that they are better.

We must have constructive, creative, selling.

Dealers must have a profit to do this kind of a job.

Manufacturers must produce new, different, better radio in the middle and upper price levels to make the customer want to buy them, want to replace her old console, with a better radio.

There is still time to turn the tide, if leaders will prove their leadership.

whom we send regularly at the beginning of each month the new record listing put out at that time by the different record companies, also including from time to time leaflets and announcements which we ourselves have printed. Further than this when we have something special to offer, or during the active buying seasons, as at Christmas and at the beginning and end of summer when the young folks are home from school we get out an additional circular containing a list of dance and classical records which are currently popular.

SERVICE COUNTS

"The third and we feel one of the strongest factors for success is the type of service we give.

"The first rule we abide by is to make no promises which we cannot fulfill and to make sure that the ones we make are kept. I stress this point particularly because it seems to be the main reason why we have held so many of our original customers.

EDUCATION ON NEW CLASSICAL RELEASES

"Next we have found it imperative to be familiar with our stock to enable us to suggest what we have on hand. Each month when the new records are released we play over each work, try to understand it, and read the accompanying literature. In this way we are able to offer symphonies, operatic arias, etc., with some degree of authority. In addition, being well versed in musical knowledge is a great aid in recommending the type of music with the greatest appeal for the individual so that we don't discourage a person with Bach who has only progressed as far as Victor Herbert. Also we have found it wise to be up on the current musical films and stage shows, the hit tunes of which have been recorded."

Thus Mr. Perdue outlines his formula for a successful record department—complete stocks, intelligent salesmanship, friendly service, and hard work.

RECORD PROFITS

(Continued from page 42)

record albums, record racks, carrying cases, record brushes, etc.

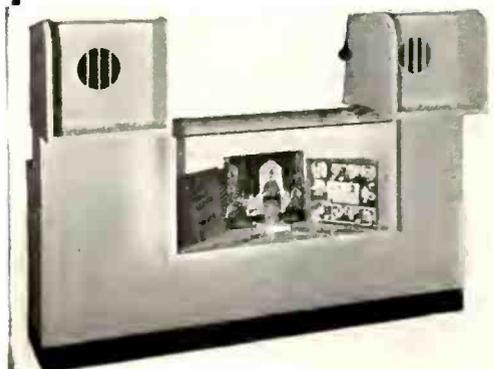
"The second factor which we feel has contributed to the success of our record department is our consistent advertising.

"The chief channel through which we carry on our campaign is by direct mail. This method we have found to net us a much greater return per dollar spent than newspaper or magazine advertising, consequently we have practically stopped the latter.

"For our direct mail we use a carefully selected list of record buyers to

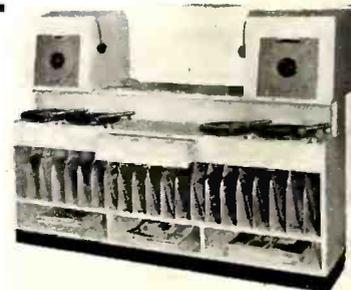
The RECORD BAR you've been waiting for!

THE COMPLETE RECORD DEPT. IN THE SPACE REQUIRED BY AN ORDINARY COUNTER AT A COST OF 25% OF THE USUAL RECORD DEPT.



← FRONT VIEW . . . BACK VIEW →

- Ideal unit for small dealers needing maximum economy in equipment and floor space. Takes only 12 sq. ft. floor space—Fits any size or shape of store—Island fixture or against wall.
- Provided with record bins to hold 500—either 10" or 12" records and albums.
- Four listening stations with separate turntables and amplifiers. Two earphones and two speakers. (Available with or without EQUIPMENT.)
- Enclosed glass showcase for display of albums, accessories.
- Provided with needle and accessories drawer; space for wrapping material.
- Latest releases under glass in each listening station.
- Standardized design. Add-a-unit when necessary. Retain original intact.



A. BITTER CONSTRUCTION CO., 2701 Bridge Plaza No., Long Island City, N. Y.
EST. 1920

Send for Free Folder

PEAK SALES EVERY MONTH

(Continued from page 15)

Being on the spot, when marginal money spending decisions are being made, to help influence those decisions to create new urges to buy, picture new personal comforts in your products, is far more important than price alone.

To be on the spot when such buying decisions are being made, means being in the home regularly and frequently, in person, by phone, or by mail.

REGULAR PROFIT

Being in the home regularly and frequently is economically possible only when new sales are possible.

New sales are possible at frequent intervals only when you have a diversity of products to offer.

And when you have the diversity of products to offer which radio and appliances afford, you have a strong strategic merchandising advantage over your department store, chain store, mail order, and other less favored competitors.

Your service department too, is an effective means of maintaining goodwill building, sales producing contacts, not only with your own cus-



This RCA phonograph needle, in a handsome clear plastic block designed by RCA Art Director, H. M. Rundle, has a special long life feature. Priced at \$1, this needle will run off 1,000 discs.

tomers, but also the customers of others.

DOLLARS EVERY SEASON

The combination of radio, appliances, and service offers alert dealers the opportunity of making every month a peak promotional month.

But if you let them sell themselves, if you wait for the customer to come in to your store and say "How much

is that?" you have lost all of the advantage which your merchandising opportunity offers.

Day by day, week by week, month by month, you've got to keep everlastingly telling people about your products, arousing interest in them asking people to buy them satisfying those who own them selling yourself, your products and the better living they bring.

And when you do that, you will have neither time nor reason to worry about the department store, or mail order store.

Coast-to-Coast Show by Westinghouse

Another big network radio program to be sponsored by a radio manufacturer starts on January 25th, when the Westinghouse company goes on the air with "Musical Americana." The show will be heard over 88 stations of the NBC Blue web, and will feature 119 Pittsburgh musicians, including a 95-piece orchestra under the direction of Raymond Paige, and a vocal chorus.

Deems Taylor will be master of ceremonies of the big show, and weekly guest artists will be named by the country's leading conservatories of music.

Majestic GREETS THE NEW YEAR WITH NEW MODELS

See the Display of Majestic Radios at the Drake Hotel, Chicago, Jan. 8-19.



MAJESTIC MODEL 5CAA

2 Wave band AC-DC table model for American and foreign reception, with full vision aero-type dial. 6 tube superhet with 8 tuned circuits.

● As new as 1940, designed right for quick sale, and priced right for quick profit, Majestic greets the New Year with brand new models to keep your radio profits on the upward climb. From the PUSH BUTTON PORTABLE—a Majestic first!—to the new price leader console, the new, improved, 1940 line of Majestic Radios gives you profit merchandise with added consumer appeal. Write for new literature and prices.

MAJESTIC RADIO & TELEVISION CORP.

2600 W. 50th Street, Chicago, Illinois



MAJESTIC CONSOLE MODEL 5CDC

5 tube superhet for American and foreign reception. Incorporates many Majestic features and has a real price appeal for quick sales.



MAJESTIC MODEL 5ADA

A 5 tube improved superhet with single wave band covering standard broadcast, as well as police calls. Incorporates distinctive Majestic radio features.



MAJESTIC MODEL 5BDA

5 tube superhet with push button control, permeability tuned stations and band switching. Two tuning bands.



MAJESTIC MODEL 5BD PUSH BUTTON PORTABLE

5 tube superhet AC-DC or battery operated with battery control. Includes battery regenerator and new portable radio features. Small view shows model closed.

MAJESTIC MODEL 5CEC

Same as Model 5CDC, except 110-115 volt, 50-60 cycle operation.

SELLING THE SOUND MARKET

**Go after commercial, school, and church jobs
as plans are made for 1940 season of events**

The remaining winter and coming spring and summer seasons offer an unprecedented opportunity for sound equipment sales, if the progressive sound merchant is in a position, and is willing—to go after them. This is the considered opinion of a successful sound specialist in a Mid-West city, whom **RADIO TODAY** has canvassed for those ideas which have built his own prosperous business.

Not only permanent installations are going to be sold during the coming months but plenty of prospects are available as rentals; others include a multitude of installations whose present equipment needs service and a general check-up.

GET BUSY RIGHT AWAY

Early action is essential, as the time is now ripe to contact prospects. Many customers are getting ready for new and bigger seasons, and are in a receptive mood for installing sound while their establishments are being improved and remodeled.

Wide-awake radio dealers are rapidly recognizing the value of having one specialist in their organizations in charge of sound equipment.

By devoting all of his time to contact and follow-up work in this field, this man comes to know sound equip-

ment, and can talk intelligently on the subject. Today, with sound equipment merchandising such a complex part of the radio business, constant study and understanding of new developments is essential.

However, it may not be possible to establish such a set-up in your respective case. Then, as an alternative, it is a good move to have one person devote at least a part of his time to sound equipment and installation problems.

RENTALS PAVE WAY

Selling sound rentals for various occasions has always been, and will probably be, the ultimate selling approach for permanent installations. For the rental use of sound equipment educates the prospect to the many advantages of its uses and the desirability of owning the equipment outright.

In this sound dealer's experience, rentals of sound equipment are to be credited as the means of selling over 76 per cent of the permanent installations. There is still a vast field for the rental use of sound equipment. Also by rental work, the newcomer as well as the more experienced sound man, quickly grasps new tricks of the game and can recommend permanent equipment more intelligently.

There are many approaches to this rental field. The one tried and proven method used extensively is direct-mail. This does not have to be elaborate to be effective. If used regularly with mailings, twice a month or more often, it keeps your name in front of the prospect—a result which cannot be so successfully accomplished by any other method than direct calls.

With 200 or more pieces of the same type of mail being accepted by the post office department at one cent each, this forms a valuable means of publicizing your name. Blotters likewise are generally productive as they are used for a time and not likely to be discarded as soon as is a card or leaflet. Any direct mail piece should be distinctive, and make a direct "use appeal."

DIRECT-MAIL AND PHONE

While personal and telephone calls are more productive than direct mail, the fact is present that direct mail can cover prospects more regularly, and more economically than personal contacts. The two methods should supplement each other for the best results.

Fraternal organizations, churches, schools, hospitals, hotels and amusement centers can be regularly sent mailings as mentioned. By following up the rental event prospect with contacts up to the actual event, it is possible to "get-in" and open the path to a permanent installation.

SEASON OF EVENTS AHEAD

Schools and churches will still go in for stage plays during the remaining winter months. Many will need sound amplification. The right party to contact in every case is the director of the play. Stress the desirability of having everyone in the audience hear all the players on the stage. The importance of sound effects and intermission entertainment are also big selling features.

Public schools will also continue their social events during the next few months. The parent-teachers' associations, and the various clubs connected with the schools will all need music. Soccer, ice hockey, basketball and other winter sport events all fall under the winter sound prospect classifications.

Mid-term graduations are close at

TIPS FOR PROFITS

- 1. Call on your old customers to inspect, service and modernize their PA equipment.*
 - 2. Contact prospects who are enlarging, or modernizing, school, church, store, night club, etc., and sell a sound installation to fit the requirements.*
 - 3. Contact dramatic clubs, social organizations, political groups, and sell rental sound systems to step-up their results.*
 - 4. Prepare mobile equipment for coming political campaigns.*
 - 5. Establish a direct mail system to advertise and sell your services.*
-

hand in many schools. Programs for these affairs are usually complete with music and oratory. Here is the ideal place to rent a PA system and demonstrate its many uses. Uniform sound coverage over the auditorium will prove the system and make it sell itself.

Many stores and institutions can be sold on the idea of using recorded music during special-event seasons. Last year saw more and more users of this medium of holiday decoration along their stores and business fronts.

SERVICE OPPORTUNITIES GALORE!

Many sound equipment dealers and servicemen completely overlook the vast servicing possibilities. Every amplifier in use over a period of a year needs inspection, testing of tubes, and possible replacing of filter condensers and other parts. Volume controls and tone controls need cleaning and replacing after several months of wear. Wiring should be inspected for connections and insulation. Shield cans should be tight and well bonded to the chassis. Microphone cables especially may be worn or frayed at the connectors and need replacing or repairing. The repair and check-up of present apparatus opens the way for additional accessories and replacement of items in existing sound installations.

Tube bias voltages should be carefully checked to insure the best quality of reproduction. Fixed resistors may change resistance and considerably impair quality. Electrolytic capacitors in the bias circuits should have a low power factor. If these units show too great a power factor, their resistance to the low audio frequencies may cause frequency distortion. If bias cells are used, do not measure the voltage unless VTVM is available. Check for correct plate current instead.

Where push-pull audio tubes are used measure the individual plate currents to check the matching of the tubes. Slight traces of hum at higher levels may be due to mis-matched tubes in the push-pull stages. Tubes should be bought at the same time for this service and of the same manufacturer.

STOP INTERNAL NOISES

Intermittent noises at full gain are sometimes caused by a faulty grid coupling resistor in the input stage. Certain types of resistors are noisy in this circuit. High grade units will cure this ill.

Noisy volume and tone controls are a nuisance. The insulated shaft-and-arm type are preferred since the control shaft may be grounded for all

types of circuits. Before replacing wire-wound units with composition types, check to see that the old unit was not carrying a fairly large DC current. While composition types are quieter, they are not designed to handle much current.

Electrolytic filter capacitors should be tested for capacity and power factor if a power ripple or hum is found. Replace defective units with dry units, especially if the amplifier is to be used outdoors in cold weather.

Speakers should be checked for connections and general condition. Dust and small magnetic particles should be removed. Loud scratching noises at low frequencies or loud passages are due to off-centered voice coils rubbing the pole piece because of the vibration.

Every owner of an installation can be shown how additional microphones and extension speakers will improve his sound reproduction with better coverage and versatility. New type baffle speakers will find favor among the discriminating users of sound equipment. Concealed speakers will greatly improve appearance.

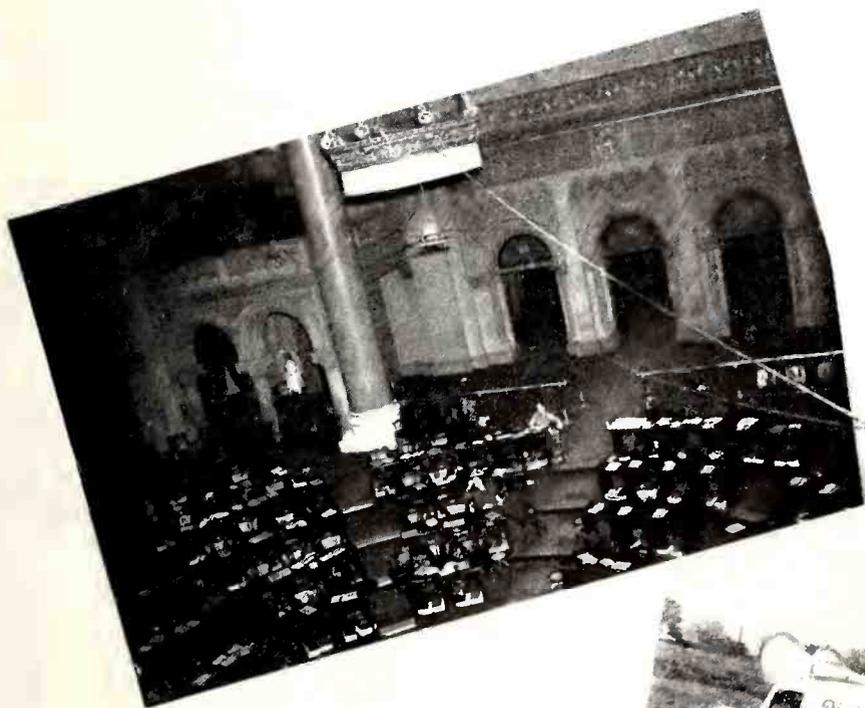
STEP-UP USABILITY

New type microphones that eliminate or reduce feed-back will also find favor in small rooms that require the use of sound amplification, and are troubled with this problem. A greater number of mikes will also step-up usefulness.

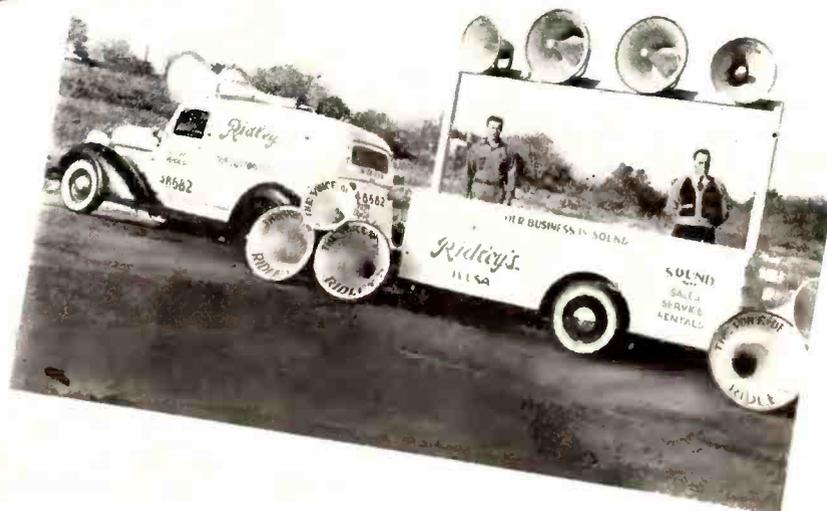
With 1940 promising to be a "corker" in the political and news field, sound equipment will be in for a big year. A group of small, complete systems should be prepared for rental use. Political clubs, business men's associations, churches, schools, expositions, stores having special opening, or promotional events, and any number of other affairs are excellent prospects for the sound man.

Now is the time to get ready to handle these jobs. Put your sound truck in condition, and prepare units for rental use.

In the words of this old-timer, "it's there to be had; go after it."



Political groups will get into full swing early this year. The New York State Assembly pictured above, has its proceedings delivered through the 360 degree Atlas speaker above the chamber.



Portable PA systems will reach a new peak in activity this year. This unique sound truck and trailer, owned by R. P. Ridley of Tulsa, Okla., features mounting facilities for 10 horns and a speaker's platform on the trailer.

UTAH *PLUS*



COMBINING TWO OF THE MOST SPEAKER



G. Hamilton Beasley
President

In announcing the association of Peter L. Jensen with the time-proved Utah organization, the consequent benefits to manufacturers, sound-men and service-men are undoubtedly obvious. Users of all types of speakers for original equipment or replacement requirements have long recognized the respective advantages and superiority of speakers bearing the Utah trademark and those carrying the name of this speaker pioneer.

Utah's background of 18 years of speaker designing, engineering and manufacturing skill will be

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inforced by the experience in speaker development and improvement which has won world-wide claim for this radio speaker authority, now a member of the Utah staff.

It is a foregone conclusion that Utah's policy of progressive research and product development will be maintained—that Utah products will continue to keep abreast of all industry developments—that Utah will serve you better than ever before.

(Signed) *W. Hamilton Brasley*
President, Utah Radio Products Company



Peter L. Jensen
Vice-President

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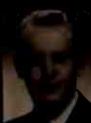
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EASY

Servicemen's profits hiked by simple plan

A recent national survey conducted by RADIO TODAY revealed that the average radio serviceman was not making the money he should and that he spends too much in proportion to what he takes in. Anyone associated with radio servicemen knows that a large majority of them do not know how much money they are making. In fact, there are a great many that cannot say what their gross monthly business amounts to. Still more of them cannot say how much they owe, or how much it costs them to operate a month.

These facts have been confirmed by Harold Davis, Inc., jobber of 428 W. Capitol St., Jackson, Mississippi, in a personal survey among servicemen.

Realizing that most servicemen haven't time or the need for elaborate bookkeeping, Mr. Davis developed the system presented here. It has enjoyed excellent success and is recommended to busy servicemen who want to increase their profits by keeping check on expenditures and receipts.

WRONG PROFIT BASIS

A majority of radiomen base their percentage of profit on the ratio of the cost of the parts used in the job to the total amount received for it. Very few of them seriously consider the overhead expense. Few servicemen can say exactly how much it costs to do a repair job less the cost of parts and labor.

Bookkeeping does represent a problem for the small business. There is not enough of it to warrant hiring a bookkeeper, and the average man doesn't know enough about the task to do it himself. Even if he engages a bookkeeper to help him get started,

Occupancy: Rent	12.00
Heat	3.00
Light	2.00
Telephone	7.60
Advertising	1.50 (phone book)
Time Payments: Test Instruments	5.12
Car - Notes	27.50
Wages: Owners Drawing Account	\$65.00
Helpers Wages	27.50
Total	\$123.72
<i>Total daily expense \$4.75</i>	

Receipts		Expenses	
J. Cummings	2.50	OVERHEAD	4.75
Smith Furniture	1.50	Deadline	1.10
C. L. Lane	3.50	Radio Supply Co	1.36
S. C. Liles	1.50	Parts, Inc. COD	.86
J. L. Jones	10.00		
Total	\$19.00	Total	\$8.07
Receivable Today: \$1.50	Paid Today: \$17.50	Payable Today: \$6.11	Paid Today: \$1.96
Total: \$18.65	Total: \$48.20	Total: \$26.81	Total: \$15.72

Sept. Date	Receipts Account	Paid	Payable	Expenses Account
7-6	22.64	56.55	23.15	13.11
8-14	25.72	40.23	12.27	16.43
16-22	18.65 8.65	48.20 58.20	20.81 2-00	15.72 26.53
24-30	17.45 79.46	38.55 195.31	10.21 80.63	17.72 71.45
Total	-58.23 -20.23 -20.23 0-00	54.13 244.54 269.77	7.42 7.42	7.92 73.21 177.64 7.92

Weekly Report is used for period of one month. Dates in the left column are days covered by report.

The essential forms for this bookkeeping system are 5 x 8 record cards obtainable with a file box at any book store. Rule up several at a time. The Daily Report card is kept on the service bench for handy use.

Inventory on	Parts Purchased	Parts Used
1-6 \$75.00	\$17.50	\$16.50
8-14 \$76.00	\$15.00	\$16.25
16-22 \$74.75	\$16.75	\$15.25
24-30 \$76.25 Inventory Increase \$1.25		

BOOKKEEPING

the system is usually far too complicated for him to carry it on.

Two essential factors to conducting a small business, are gross income, and gross expenditure. Break these down into "how much do I owe," and "how much is due me," and you have the small business in the palm of your hand. Also remember that "how much do I owe" is far more important than "how much is due me."

GROSS INCOME AND GROSS EXPENDITURES

A radio business taking in \$400 per month and spending \$200 makes just as much money as one taking in \$1,000 and spending \$800. In fact it makes more, especially if the aspirin for the additional headaches is taken into consideration.

In the system presented here, the items of importance are the gross income and gross expenditures. The system is designed to increase the serviceman's income.

The first step in setting up this system is to make an itemized list of every expense directly connected with the business. This is illustrated on the card headed Monthly Expense. This includes any item of a known amount that is paid by the month.

Also included in the Monthly Expenses is the item, Owner's Drawing Account. Too many servicemen draw out of the "till" as they need funds and keep no accurate record.

MAKE OVERHEAD ACCOUNT

The owner's drawing account is a justifiable charge for management. By allowing for it each month, the serviceman insures himself a salary and at the same time keeps a record of the net profits of the business.

Helper's wages if any, should also be included in monthly expenses.

Total these expenses and divide them by the number of working days in the

month. This is the figure you go to bat with the first thing each morning. In other words, when you unlock your door, you have already spent this.

If you desire to keep this system in books, it is suggested that one book be used for the Daily Report, and another for the other reports. The procedure is the same. Cards are preferred, because the Daily Report form can be kept in its place on the work bench, and all entries made at the time they occur with a minimum of time and bother.

The Daily Report card is divided into two sections, headed "Receipts" and "Expense." The first item on the expense side is the daily overhead figure. On the illustration, it is \$4.75. Sounds paltry, but it amounts to \$123.72 in the course of the month.

TIME PAYMENTS IN OVERHEAD

Following this is an itemized list of all expenditures for the day. This includes the gasoline for the service car, all parts bought, whether cash or charge, the advertising bill from the newspaper, the check that bounced, (if you ever collect it you can re-enter it on the receipt side), and anything else for which money has to be paid in connection with the service business.

If a new instrument is purchased, or anything on the time-payment plan, the down payment is entered on the daily report and the daily overhead figure increased to take care of the payments.

On the "Receipt" side of the card is an itemized list of all the day's receipts. It is recommended that the only credit work that is entered here, is that done for dealers or customers who pay by the month. The account of the fellow who is going to pay you Tuesday is to be kept elsewhere, and when he does pay, it is then entered on this card.

This system should discourage credit

work, which is as it should be. The small business man cannot afford credit work. First, because he needs the money in his business, and second, because he does not have time to run around, making collections.

CREDIT ENTRIES

The little "x's" on each side of the card identify other than cash transactions. At the end of the day, a total is taken and entered on each side. The "x" accounts are totaled and entered in their respective places as shown. The last entry at the very bottom of the card is the total of the preceding days added to the total for this particular day.

The figures \$18.65, \$48.20, \$26.81, and \$15.72 are carried forward and added to the figures of the next day to form a new total of business done.

Analyzing this "Daily Report," we find that this serviceman on this particular day did \$19 worth of business, of which \$1.50 was a job done for one of his dealers, and since it was not paid, it went into the "Receivable" Column leaving his \$7.50 worth of cash work for the day.

Against this he spent a total of \$8.07, of which he paid \$1.96. He spent, including his overhead, \$6.11. His profit for the day is \$19 — \$8.07, or \$10.93.

OPERATING FIGURES AVAILABLE

His total receipts for the week are \$18.65 plus \$48.20 or \$66.85. His total expense is \$26.81 plus \$15.72, or \$42.53. His net profit is \$66.85 less \$42.53 or \$24.32. The figures are such that the operator can look at the card at any time and tell exactly the condition of his business. He can tell how much he can afford to spend and how much he is making any day, any week, month or year. He knows how much he owes, how much is due him, to whom he owes it, and who owes him.

WEEK AND MONTH RECORDS

This card may be run a week or a month, depending on the size of the business. If kept by the week, at the end of such time the figures may be transferred to another card or page, called the Weekly Report. Here alterations can be made as shown in the third week's entries. During this particular week, \$10 was collected on accounts receivable. It was subtracted from "Receivable" and added to "Paid." Likewise \$4.81 was paid on accounts payable. This figure was subtracted from "Payable" and added to "Paid."

After the totals for the months are
(Continued on page 53)

MONTHLY REPORT				
Month	Receipts	Expenses	Gross Profits	
			This Month	Year to Date
July	\$ 216.37	\$ 125.13	\$ 91.24	\$ 521.36
August	\$ 256.25	145.13	110.42	631.80
Sept.	269.77	150.03	118.94	750.74

SERVICING CIRCUITS

Locating set troubles in less time by testing stage networks.

A great many systems for testing all types of electronic equipment have been proposed, used, and tested by servicemen. A few of these systems include voltage measurement, point-to-point resistance measurement, electrode current checking, dynamic testing, or observing and measuring the signal voltages, and currents controlled by it in the receiver, and last but not least, the "part substitution" method.

Each of these systems has been hailed in its prime as the ultimate and cure-all for sick receivers, amplifiers, etc. The introduction of still better methods of putting your finger on the "bugs" has proven that just as electronic equipment develops, the techniques of keeping that equipment in the pink will also advance.

ONE SYSTEM NOT SUFFICIENT

Servicemen have found by daily experience that any one system does not produce cures *every* time. Each method has certain limitations. The voltage, resistance, and current measurement systems all take into account only direct current values. This is static testing and neglects the effect of the alternating signal voltages and currents. Dynamic testing ferrets out the trouble by going after the signal and its components. Magnitude and wave shape of the signal voltages are observed with vacuum tube voltmeter and oscilloscope. Deviations from nor-

mal are interpreted and the various possible causes of the deviation in signal magnitude or wave shape are left to be *definitely located* and repaired.

The usual attempt is to operate the systems independently, and make certain allowances for the effect of signal or DC voltages as the case may be.

STAGES NOT UNITS

The result of using either of these systems alone is only a partially satisfactory servicing technique. Complex troubles cannot be isolated by either of the systems *alone*. If the magnitude of the signal in any portion of the set disappears or reaches such a low value that the set does not perform, further testing in the other stages of the receiver for the presence of a signal will give no indication as to the source of trouble. Auxiliary means of finding the fault must be used.

The inter-relation of the various stages in a receiver make it difficult to isolate the trouble in one particular stage. Power failure due to shorts and leakage in capacitors may stop the signal in the first stage of a set and yet the part at fault is located in a by-pass block nowhere near the suspected stage. Of course, DC measurement of the electrode voltages will indicate the incorrect value of screen, plate, or cathode potential. Static and dynamic testing *must* be used in conjunction with each other.

Such a simple case of part failure stopping the signal in a stage not physically related to the part, only demonstrates the possibilities of interaction of stages. Stages of a set cannot always be considered individually and their failure to function definitely pinned on one.

In Fig. 1, the partial circuit for Silvertone models 6438, 6438A, and 5439 is shown. This figure shows the DC screen and plate circuits and how each stage is tied to the others. The two arrows indicate the junction point between the plate and screen circuits. The first three tubes are in the RF end of the set and the last two are the second detector and phase inverter. The plate circuits of the triode drivers and power output tubes also connect on to the plate bus.

CIRCUITS ARE COMMON ELEMENTS

All of the common wiring and dropping resistors so interlink the various stages that trouble in any *circuit* may kill one or more stages.

Any change in the value of the 33M ohm resistor will affect the screen voltage, and cathode current of *all* RF tubes. The plate voltages will be changed also, but to a lesser degree. If the resistor changes in value so as to increase the screen voltage, the receiver might perform exceptionally well were it tested on the merit of the

(Continued on page 54)

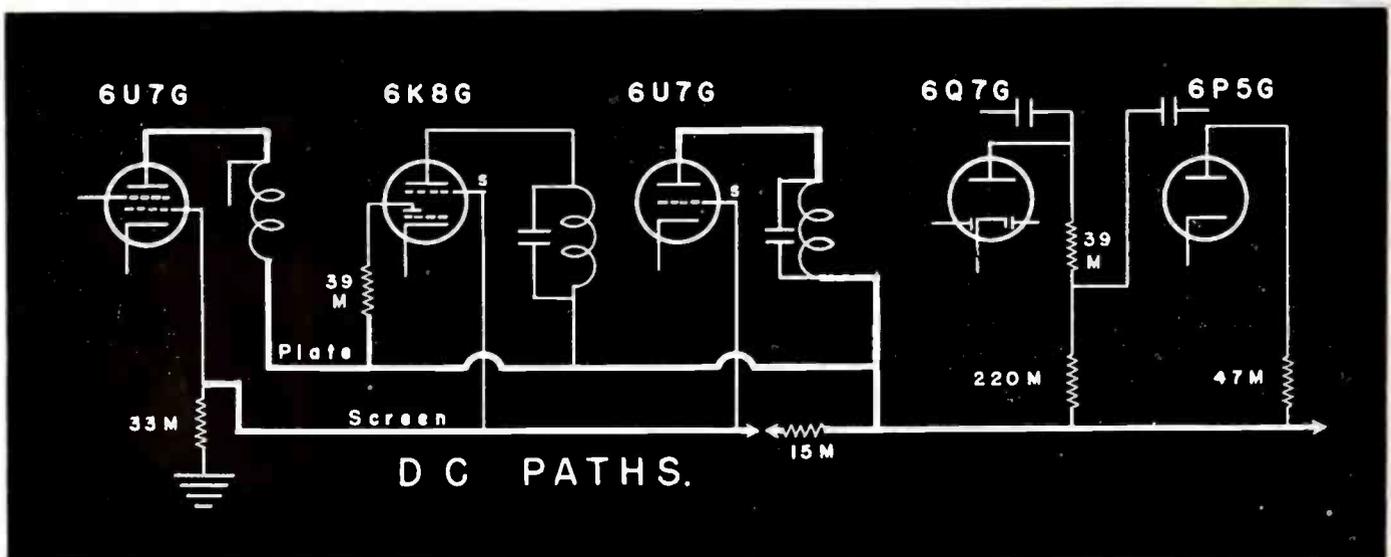


Fig. 1—Interconnection of stages made by the common screen, plate, and cathode circuits. Arrows indicate junction of the plate and screen paths. Circuits must be electrically correct before stages can function.

BOOKKEEPING

(Continued from page 51)

entered, the accounts may still be altered as shown. When all accounts are collected and paid, the card will show only two sets of figures, total receipts and total expenses. Subtracting the expenses from the receipts gives the gross profit for the month.

A Weekly Inventory card may also be used to keep a running account of your tube and parts stock.

To start the inventory card, take a physical inventory and set down on the card its cost value. The net cost of parts and tubes purchased during the week (or whatever period of time parts are purchased) is entered on the form as well as the net cost of the parts and tubes used during the same period. At the end of a month, the difference between the opening and final inventory value is calculated. If the closing inventory is greater than the opening inventory, the difference is subtracted from the Expenses Paid on the Weekly Report form. If the net value of the inventory had decreased during the month, the difference is added to the Expenses Paid.

Another page or card is titled Monthly Report and here, the receipts and expenses for the various months are entered. At the end of the year, it is easily totalled, and by adding the inventory to the net profit, the net worth of the business can be determined. Of course, items not paid for, such as balance on automobile or testing equipment must be considered.

It is heartily recommended that all money collected one day be deposited the next, and that all bills be paid by check. If any cash is spent, a "cash" check should be written to cover it. If the stubs are kept carefully, they will furnish an accurate record of where the money went after it was made.

SPECIAL CREDIT FILE

It is also recommended that an alphabetical file be obtained and all invoices filed under the names of the firms from which they came. If any credit work is done for individuals, it should be kept in a separate book, and entered on the daily report only when paid for.

It may be necessary to vary the system to meet the individual need, but its flexibility will permit this without decreasing its efficiency. The operator will find that the few minutes a day required for its keeping will pay big dividends, because a well-managed business is a successful business.

Sylvania Serviceman's Coat

Utility shop coat for working around service shop has just been offered by Hygrade Sylvania, Emporium, Pa. The coat is herringbone weave of mixed green and white and is knee-length. Ample space for tools, wire and the miscellaneous things that find their way into the serviceman's pockets. Available for \$1.95 in popular sizes, 36, 38, 40, 42, 44. Sylvania emblem on upper left pocket.

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IN KIT FORM

BUILD IT YOURSELF

SAVE HALF THE COST

COMPLETE KIT ONLY

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FIVE CHANNELS

AUDIO
50-50000 cycles

VOLTS
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OSCILLATOR
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RF-IF
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A Complete Service Lab in One Instrument

The same tried and proven circuits—the same dependable components—the same time and money saving performance—now offered in a new dress—a new panel finish and design that makes reading and operation even easier than ever.

It is unnecessary to repeat the numerous advantages of signal-testing over old-time servicing procedures. It is a proven fact, however, that every day you try to get along without this remarkable instrument is costing you money! It will eliminate the

long hours frequently spent in trying to locate some obscure fault and will make trouble location the simplest part of your work. All measurements are made quickly, easily and accurately—during actual operation—without affecting the receiver circuits a bit. All channels of the receiver may be thoroughly tested—individually or simultaneously. A separate panel for every channel! Don't delay! See the Meissner Analyst at your Jobber's today—or write for fully illustrated descriptive folder.

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The Meissner Analyst and many other products may be purchased on easy monthly payment plan. Small carrying charge. See your jobber for details.

DEPT. T-1

Meissner MT. CARMEL ILLINOIS
"A FAMOUS NAME FOR TWO DECADES"

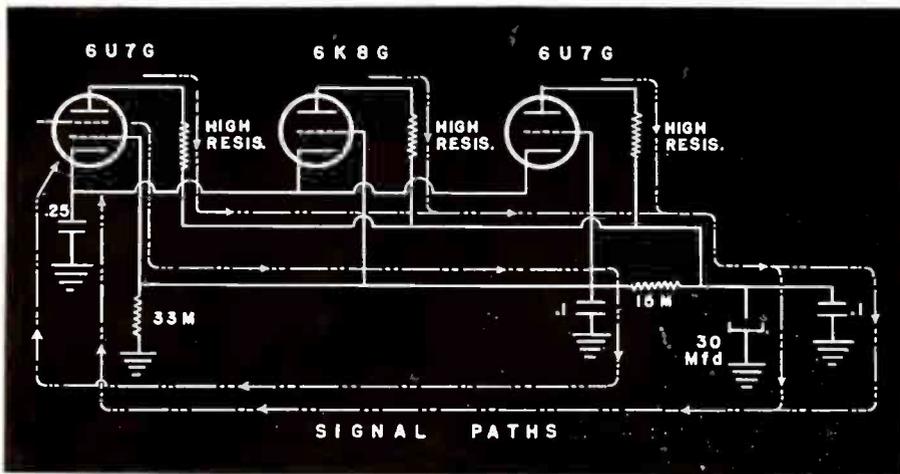


Fig. 2—Signal currents flow through part of the DC circuit and return through by-pass capacitors and receiver chassis. Circuits link stages for signal frequencies.

strength of signal alone. While the set would be performing, to all outward appearances, normally, breakdown of some part is imminent. While some may say, "let's fix it when it blows up," remember that your service is worth more if you guarantee it. Don't try to guarantee your work without knowing the exact condition of the set. Preventative service is more valuable to the customer and to you. Sell more of it.

AC PATHS INTER-LINK

Omitted from the DC paths are the by-pass capacitors. These are, of course, for the purpose of keeping RF current out of the DC systems. In their normal operation, the capacitors have no effect upon the DC networks. Excessive current leakage, which accompanies high power factor, and shorted capacitors will, of course, interrupt the DC system. Any electronic system may be separated into the DC power circuits and AC signal circuits. By analyzing the DC and AC circuits independently and together, the receiver, or amplifier, etc., may be efficiently tested. If each circuit is electrically correct for the current and voltage associated with it, the equipment must function properly as a unit.

The DC circuits of a receiver may be divided into grid, plate, screen, and cathode classifications. These circuits may be more or less interlinked depending upon the particular design of the receiver. Grid circuits are the most independent and they may be checked for proper DC conditions by several methods; resistance measurement, grid-bias voltage measurement with a vacuum tube voltmeter. Screen, plate, and cathode circuits may be likewise examined for DC conditions.

EXTERNAL POWER APPLIED

In the case of the circuit in Fig. 1, the plate and screen circuits may be quickly checked by applying a DC voltage equal to that for which the circuit was designed, and checking the current drain. This external voltage is applied with the set power off. If the current drawn for the testing power supply is low, 0 to 10 ma., the voltage applied should be raised 20 per cent. Any parts that are inter-

mittently faulty will give an indication of breakdown by a sudden change or a "fluttering" of the current, drawn. The major portion of "intermittents" will be found due to part failure under sudden peak voltages.

Fig. 2 is the circuit for the AC signal components in the Silvertone model 6438. The RF frequency currents in the 6U7G screen circuit, the mixture of IF, RF and combinations of these two currents in the 6K8G screen circuit and the IF frequency currents in the 6U7G IF tube screen are all common to the DC portion of the screen circuit. In addition, the AC RF currents have a path through the 0.1 mfd. capacitor and through the chassis of the receiver back to the cathodes of the various RF tubes. These AC currents are returned through the 0.25 mfd. capacitor common to the cathode circuit. The impedance of this path, or the opposition to the flow of the RF currents is quite low. In this particular circuit, the impedance of the screen circuit for currents of IF frequency is only 1 ohm.

The cathode capacitor is larger than the screen by-pass because it is more important to keep the voltage drop due to the RF currents through the cathode bias resistor low and prevent changes in the grid bias, than both

with the slight changes in the screen voltage. In checking the screen circuit for part efficiency at RF frequencies, the application of a small test voltage of the proper frequency will indicate a low impedance path, if the circuit is ok, by stopping the signal generator or giving no indication of voltage on the screen circuit wiring. If either the screen circuit by-pass or cathode by-pass capacitor were open or of a value too far from normal (low), a vacuum tube voltmeter would indicate a high (equal to test voltage) RF voltage across the faulty component. Such an open capacitor would also be indicated by the presence of RF in portions of the screen circuit not by-passed to ground through other capacitors. Measurement of the voltage across the capacitors in by-pass positions will indicate their working characteristics. If they are operating properly, the RF voltage will be very small or zero, across the capacitors, since the low impedance will stop the oscillator.

CHECK ALL CIRCUITS

Plate and grid circuits may be checked in the same manner. The circuits are analyzed for irregularities by the application of voltages of the nature found in that circuit in actual use.

The AVC circuit shown in Fig. 3 is that of the Philco model 40-88, battery portable. The AVC circuit delivers a bias voltage to the grids of the RF tubes. The magnitude of this bias voltage depends upon the average value of the rectified IF signal. The DC portion of this circuit consists of the filtering resistors, 2.2 megs and 4.7 megs and the wiring to the grids of the RF tubes. The AC or signal portion of the AVC circuit includes the two filter capacitors, 0.05 mfd. and 250 mmfd. The 0.05 mfd. capacitor is the return circuit for signal voltage on the grid.

The 250 mmfd. capacitor is the return path for the AC component of IF frequency in the AVC voltage.

ANALYZE CIRCUITS

This circuit may be tested in the same manner as the plate and screen. The application of a DC potential to the AVC bus should show a high resistance circuit (1 meg. or higher) if

(Continued on page 56)

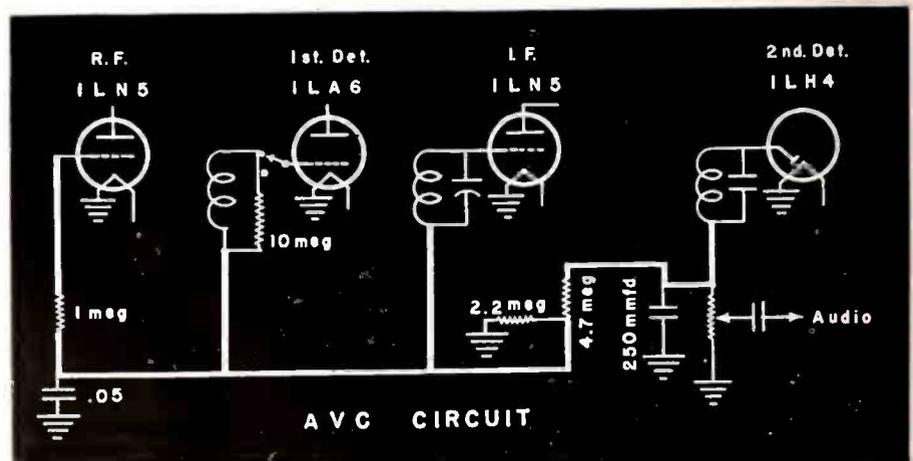


Fig. 3—AVC circuit is another sample of DC system. This circuit must operate properly for both DC and radio frequency currents. Checking circuit for both components insures operation.

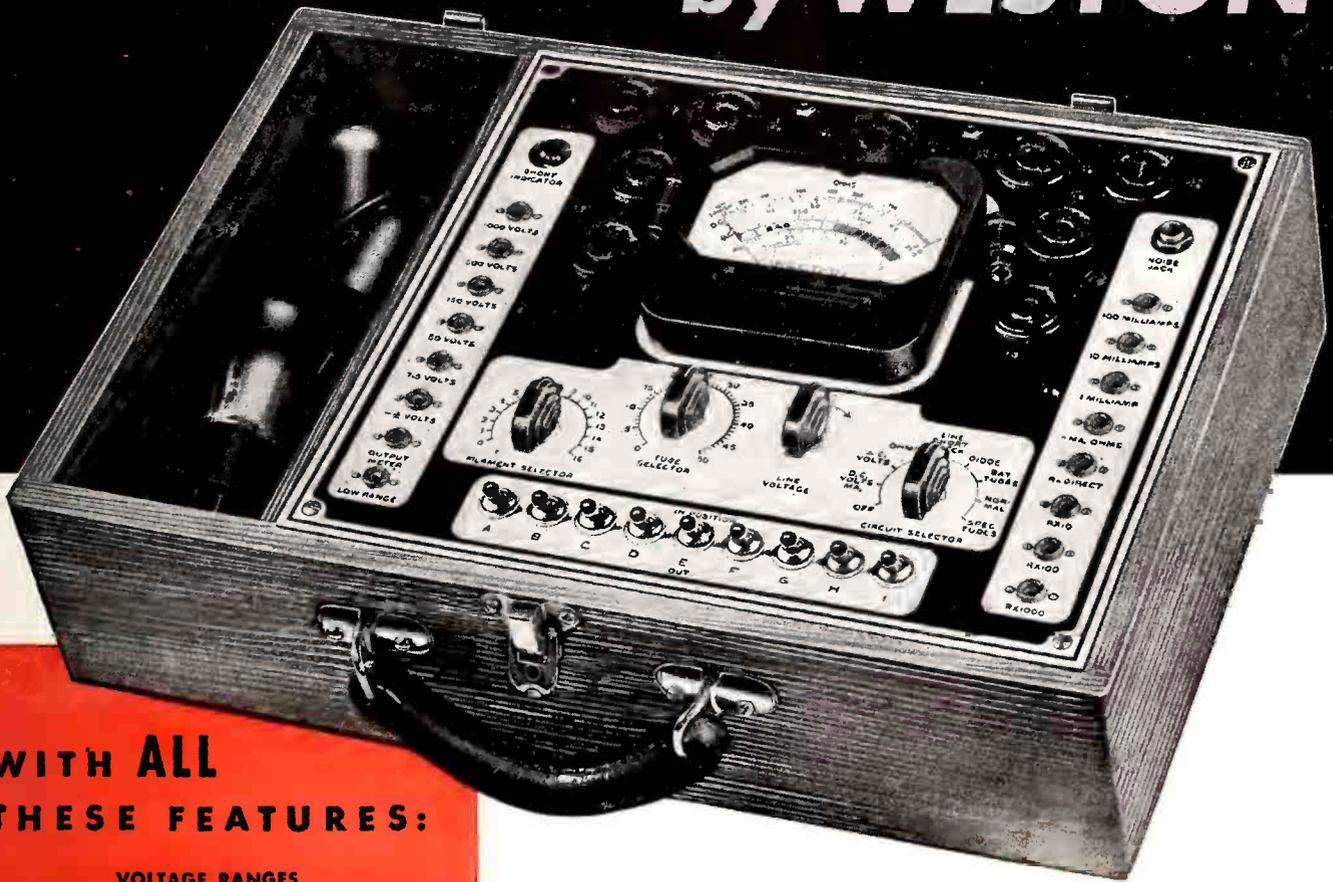
A TUBE CHECKER with COMPLETE ANALYZER RANGES!

The NEW

CHECKMASTER

(Model 774)

by **WESTON**



WITH ALL THESE FEATURES:

VOLTAGE RANGES

7.5-50-150-500-1,000 a-c and d-c
1.5*-7.5-50-150-500-1,000 Volts Output
*Approximate full scale value.

CURRENT, D-C

1.10-100 Milliampères.

RESISTANCE

0-10,000; 0-100,000; 0-1 Meg.; 0-10 Meg.

TUBE TESTING FEATURES

Tests Loktal, single ended, gas filled, ballast and normal diode and battery tubes.

Filament tests on 117 volt tubes.

Noise, short and leakage tests.

Individual electrode tests.

Open element test.

Spare socket.

Spare tube compartment.

Equipped for use with Model 666-1B.

Socket Selectors.

PRICE ONLY \$69.75

(net to dealers in U.S.A.)

All WESTON service units are standardized

With 23 circuit testing ranges...plus more than a dozen essential tube checking features...the new CHECKMASTER provides *everything* you need for years of dependable trouble shooting and estimating. And it's been made extremely compact, and light in weight...the panel measuring only 14" x 17". Thus it's ideal for field work, as well as for checking tubes and servicing in the shop. Best of all, the CHECKMASTER is WESTON *designed and WESTON built*. This means quicker, better servicing...for you'll have no doubts about your measurements. You'll *know* they're correct. It means you'll save money, too; for WESTON design forestalls obsolescence...gives many *extra* years of dependable service. Let us send you all the facts. Return the coupon, now!

WESTON ELECTRICAL INSTRUMENT CORPORATION

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Send literature on the new Model 774 CHECKMASTER.

Name.....

Address.....

City..... State.....

TODAY'S MOST POPULAR TUBE TESTER



MODEL 1612



COUNTER TYPE TUBE TESTER

\$29.84
DEALER NET

HERE is a "customer acceptance" tube tester that is impressive in the quick "readings" it gives with its fine, business-like appearing 7-inch meter. A quick spin of the Illuminated Roll-Dex Speed Chart will give you the settings in a flash. Entire chart scanned in less than 10 seconds. Has all tube sockets including Locals, new Bantam, Jr., and the new 1.4-volt Miniatures. Tests High Voltage series tubes including 117Z6C. Future tubes provided for by filament voltages in 20 steps from 1.1 to 110 volts. Noise test jack and separate line voltage control meter. Suede finish Silver Grey and Maroon case and panel of heavy, streamlined steel. With RED•DOT Lifetime Guaranteed Instrument . . . Dealer Net Price . . . \$29.84

Model 666

A complete pocket-size Volt-Ohm-Milliammeter with AC-DC Voltage ranges: 0-10-50-250-500-1000 at 1000 ohms per volt; DC Milliamperes 0-1-10-50-250; Low Ohms, 1/2 to 300; High Ohms to 250,000 with provisions for higher readings by external batteries. With RED•DOT Lifetime Guaranteed Measuring Instrument. . . Dealer Net Price \$14.00



WRITE FOR CATALOG

Section 191 Harmon Drive

THE TRIPLET ELECTRICAL INSTRUMENT CO.
Bluffton, Ohio

SERVICING CIRCUITS

(Continued from page 54)

it is ok for direct current. A signal of IF frequency applied to the bus should be by-passed out if the capacitor for this job is operating correctly.

In the servicing of any type of electronic equipment, it is necessary to remember that the vacuum tubes are connected into circuits which carry complicated combinations of AC and DC. By breaking down the set into its circuits and testing each for correctness on the various components of AC and DC it carries, the set may be completely analyzed and its condition proved. In the majority of radio frequency circuits, the AC voltage is so small in comparison to the DC potential that the sum of the two voltages on the positive AC peak will rarely breakdown a capacitor operating normally on the DC alone. The composite wave of both RF and DC will therefore not be necessary to test many circuits. In power audio stages, it is possible to breakdown a capacitor on the positive AF peaks since the total voltage applied to the unit would be the sum of the DC and AC peak voltages, and might easily reach 150 per cent the DC value.

Mallory Supplemental MYE Monthly Service

Following upon the announcement of the Mallory Supplemental MYE Monthly Technical Service, made in RADIO TODAY at the time of the appearance of the third edition of the Mallory-Yaxley Encyclopaedia, the first three issues of the new service have been mailed to interested members of the radio trade and industry.

Topics covered are as follows: October, Receiving Tube Characteristics. November, Dry Electrolytic Capacitors. December, Useful Servicing Information.

This new and valuable monthly technical service of supplements to the Mallory-Yaxley Radio Service Encyclopaedia, is made available to everyone who is interested, including radio service engineers, amateurs, experimenters and others. It may be subscribed

for in connection with the third edition of the Encyclopaedia, or separately. In either case the price of the full-year's subscription, it is explained, barely covers the actual printing and mailing costs.

P. R. Mallory & Co., Inc., Indianapolis, Ind., have made a sizeable investment in order to render this service to the radio field and the response to it has been exceptionally gratifying. As each issue has been released, the spontaneous acclaim has mounted. Subscribers in every phase of radio work have been quick to say that any one of the issues has been more than worth the whole subscription cost.

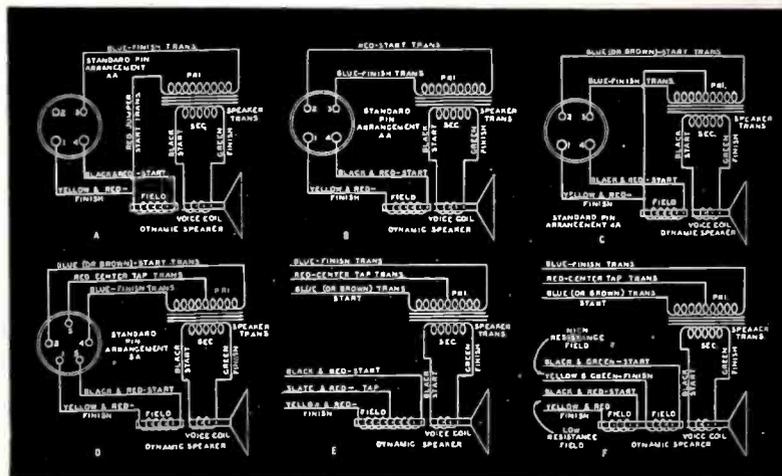
Record Changer Service Manual for New Webster- Chicago Unit

The reluctance of servicemen to tackle the innards of record changers now employed in popular phono-combinations, has been due to a great extent to the lack of servicing data on these units. A complete description of the functioning of the parts of record changers is essential to the proper maintenance and repair of these units.

The Webster-Chicago Co., 5622 Bloomingdale Ave., Chicago, Ill., have just issued a new Service Manual covering their record changers. With a series of photographs of the assembly clearly marked for identifications of the vital parts, the classified text completely covers the functions of all elements of the machine.

Typical of manual No. 210 are the following quotations which may readily prove of value to all servicemen.

Proper oiling is essential to the operation of all changers. If squeaks are heard, compare the squeak with and without a load of records; any stack of wax records in motion is likely to squeak a little against a pin through their center. See that all five wicks are in position, including three 1/4" round wicks in frame of motor. See that each wick is thoroughly saturated (as it may not be if insufficient oil or too heavy oil has been used). If motor wicks have become gummy (commonly due to use of low-grade oil), clean with kerosene. Saturate each with fresh oil and drop a little



Standard speaker wiring diagrams as included in the MYE supplement No. 3. A and B are color code connections for single; C and D are for push-pull stages.

oil into each hole before replacing wicks.

When replacing the motor, it is most important to see that the record pin is centered between the two posts of the changer, that it stands perpendicular to the main plate, and that it has not become bent.

Service Bulletins Issued by Wilcox-Gay

A series of Service Bulletins is now being prepared by the Wilcox-Gay Corporation of Charlotte, Michigan. Servicemen may obtain copies of these bulletins from the distributor in their territory, or by writing to the factory.

The information contained in these bulletins will be of the usual service data nature, including schematic diagrams, voltage data charts, circuit alignment instructions, etc. Considerable space will be devoted to a semi-technical discussion of the function of equipment employed in some of the models such as the Recordio, which is a radio-phonograph-home recorder combination.

Book Review

Radio Amateur Handbook

American Radio Relay League,
W. Hartford, Conn. Price, \$1

The seventeenth annual edition of the Radio Amateurs Handbook has just been released. Even larger than its predecessors, a new method of content arrangement is one of its many features. Fourteen chapters are devoted to construction, and adjustment of amateur receiving and transmitting equipment. Five chapters are devoted to antenna theory and construction, while all reference material including a most complete vacuum tube data section has been assembled into a single chapter. High frequency equipment description has been separated into two groups. One section pertains to 28 and 56 mc. gear, while the other chapter treats transmitters and receivers for 112 and higher frequencies. The essential data on operating procedure, FCC regulations, and basic theory is given in a concise useful form.

Simplified Filter Design

By J. Ernest Smith
RCA Institutes Technical Press,
75 Varick St., New York, N. Y.
Price, \$1.00

The subject of hand-pass filters for high frequency circuits is extensively covered in this new book. The various types of fundamental filter circuits are described, and their frequency-attenuation curves plotted. The text simplifies the design of low-pass, high-pass, and band-pass filters. Charts and tables calculated for various ratios of frequency cut-off make the job of designing a special filter much easier.

This new book is 8½ x 11 inches and has heavy board covers. A special section of blank graphs provides space for plotting various special filter characteristics.

Hickok Introduces New Service Instrument

Checking a receiver in several important stages at the same time is becoming easier with new instruments now on the market. The latest addition is the Traceometer, made by Hickok Electrical Instrument Corp., 10514 Dupont Ave., Cleveland, Ohio.

This instrument contains 10 tubes and a gaseous voltage regulator in a unique circuit of tuned RF-IF stages, oscillator, and vacuum tube voltmeters.

The RF-IF section of the unit consists of a capacity attenuator, input amplifier and two stages of tuned amplification which feed into a vacuum

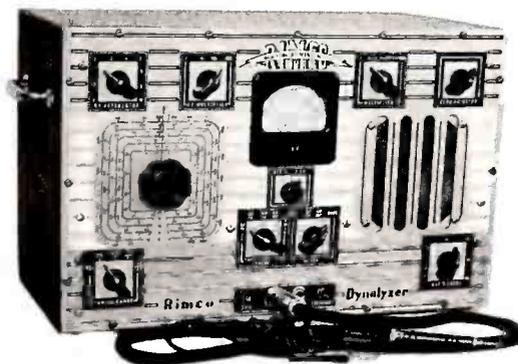
tube voltmeter circuit. The three ranges cover 100 kc. to 1,800 kc. The voltmeter has seven ranges from 5,000 microvolts to 25 volts.

The oscillator section tunes from 600 kc. to 15 mc. in three ranges and also has a vacuum tube voltmeter circuit with five voltage ranges from 0.3 to 150 volts.

The DC voltmeter section has six voltage ranges from 2.5 to 500 volts. This is also a vacuum tube circuit. All of the voltmeter circuits are designed to protect the meter in case of accidental overloading.

The AF section contains a vacuum tube voltmeter and monitor jack. AF potentials from 0.1 to 500 volts may be measured.

NATIONAL UNION GIVES DYNALYZER signal tracer on special LIMITED OFFER



\$3700 DEPOSIT!

(Regularly \$88.50 Dealer Price)

1600 points . . .
and this complete
3 channel tester
is yours!*

*Points are easy to make when you sell National Union Tubes and Condensers.

OFFER EXPIRES MARCH 15th . . . ACT NOW

Look at these great features. Read why you should own a DYNALYZER for better work!

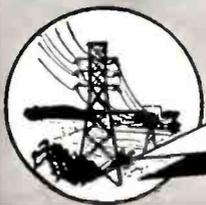
1. Accurately measures signals from 95 K.C. to 15 M.C. in ANY LF. or R.F. Channel—Only 1 tuning control required.
2. Meter enables visual tests of Osc. or Control Channels, voltage measurements up to 2,000,000 ohms per volt, and resistances up to 10 megohms.
3. Built-in Speaker enables "Listening in" on (1) any other channel while (2) meter being used for Osc. Tests and while (3) speaker of radio is used to listen to audio channel of radio.

It Pays to Sell National Union Tubes and Condensers!
National Union Equipment Offers Build Better Business! Ask Your Parts Wholesaler

Get COMPLETE information on the DYNALYZER and SPECIAL LIMITED OFFER now!

National Union Radio Corporation

Newark, New Jersey



RURAL ELECTRIFICATION

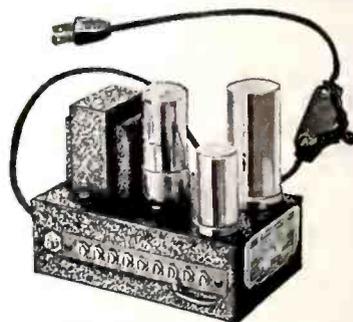
MEANS BIG PROFITS FOR YOU! THROUGH GTC MODEL "L" **PORTA-POWER**

EVERY FARM BATTERY SET OWNER IS A PROSPECT!

Everywhere the new highline is changing habits and customs. Wherever a highline goes in, Model "L" GTC Porta-Power is a necessity. This new Model "L" is charted to follow the sensational success of the original Model "U" Porta-Power, because it fills the needs of thousands of farm radio owners living in Rural Electrification districts. **Supplies "A", "B" & "C" power for any 4 to 8 tube farm battery set using 2 volt tubes. Free literature and further information on request.**

EASILY INSTALLED
List price \$9.95 — Serviceman's net price **\$5⁹⁷** f. o. b. Chicago

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Money-Making Suggestions
You can reap big profits by converting battery "traded-in" sets to all-electric radios.
A SERVICE BENCH NECESSITY

Mr. Serviceman: FOR BETTER BUSINESS— FOR BIGGER PROFITS DURING 1940— JOIN RSA!

★ You belong in this big, live servicemen's organization that is really doing things for its members! ★ RSA secured cooperation with broadcasters to sell servicing to the public over the air. ★ RSA helps you to solve many difficult technical problems. ★ RSA sends you technical bulletins. ★ RSA does many other beneficial things—for you.. Send now for complete details.



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in 1940!

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OF AMERICA, Inc.**

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MAIL THIS COUPON NOW!

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304 S. Dearborn St., Chicago, Ill.

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City..... State.....

I am interested in RSA Membership. Tell me about it.....

I am enclosing \$4.00 for National dues and initiation.....

(Does not include Local Chapter dues where Local Chapters are organized.)

RT-1-40



Charting their aggressive merchandising plans, the Majestic executives are, left to right, (seated) N. Byrne, asst. gen'l. sales mgr., and W. B. E. Norins, gen'l. sales mgr.; (standing) Chas. Hirsch, chief engineer; E. Fuchs, engineer, and H. Norins, designer. Featured model is 5ADA.

RCA Victor Launches "Opera Box" Promotion

The "Opera Box," unusual sales promotion plan backed by one of largest newspaper and radio advertising campaigns in radio history, has been launched by RCA Victor.

The "Opera" campaign is being headlined as "RCA Victor's Conception of the Ideal Small Radio," and includes ten other table radios. The "Opera Box," a 5-tube AC-DC super-heterodyne instrument with built-in Magic Loop antenna and housed in a wooden cabinet of massive appearance, is offered to dealers as a "sell-up" item. (\$19.95, FOB Camden, N. J.)

RCA distributors and key dealers are being informed of campaign via lavish 16-page, multi-color presentation piece which opens with foreword by Henry C. Bonfig, commercial vice-President, and includes four "Acts" of the "Opera Box."

The first "Act" presents the radio instrument itself. The second out-paign, and the third gives details of dealer promotion items to support the campaign, such as newspaper ad mats, island store displays, broadsides, window streamers, envelope stuffers, and cartoon cards. Fourth and most important "Act" tells the promotion's profit story for the dealer.

Advertising campaign includes weekly programs over 48 major radio stations with a potential listening audience of more than 92,000 000, and large ads in 32 newspapers with aggregate readership of 32,000,000.

Big Plans for Western Radio Show

The 11th Western Radio & Appliance Show is scheduled for Feb. 5 to 10 during the Western Spring Market at the Western Merchandise Mart, San Francisco. Announcements say that "radio displays will reflect the popular demand for receivers of better quality that has been noted by retailers as the average in unit sales runs 30-35 per cent ahead of 1938.

The Western Radio and Appliance Trade Dinner will be held Feb. 7, with special entertainment and addresses by national leaders in the trade.

Eastern Co. Takes Over Jappe Firm

The Eastern Co., one of the largest of the New England radio distributors has taken over the physical assets of the H. Jappe Co., prominent parts jobbers of Boston and Worcester, Mass. The new owners will retain the H. Jappe personnel and will continue to operate the Worcester branch, according to the announcement by Alan Steinert of Eastern and Henri Jappe of H. Jappe Co.

Mr. Jappe is now manager of the radio parts, accessories and amateur equipment department of the Eastern firm, assisted by Walter L. Brother.

Officials of the new combination declare that they will be able to offer dealers, servicemen, amateurs and engineers "a source of supply which is unequalled in New England."

Sonora Names New Officials

The president of Sonora Radio & Television Corp., Joseph Gerl, has announced a group of executive appointments, beginning with the naming of Ben Freund as vice-president in charge of factory operations. Don Fetterman becomes vice-president in charge of engineering.

Mr. Gerl reports that Sonora has doubled its production facilities in the last six months. A 1940 merchandising drive will be started shortly, and the firm will soon announce a number of new receivers.

Muter Co. Expansion

The Muter Co., Chicago, has announced that General Manufacturing Co. is now a division of The Muter Co. The General firm will now be known as the Gen-Ral Coil Division. The Muter Co., 1255 S. Michigan Ave.

EASY EXTRA SALES when you display PRESTO RECORDING ACCESSORIES

Thousands of home recording sets are now in use. Thousands more will be sold this fall. Every owner of Presto equipment is a prospect for steady, year 'round repeat sales of discs and needles. You can get your share of this highly profitable business if you display Presto recording accessories prominently in your windows and on your record counter. They are attractively packaged, easy to set up, take little space.



ORANGE SEAL DISCS are recommended for high quality recordings, Monogram Discs for educational recordings.

SIZE	PLAYING TIME PER SIDE	LIST PRICES	
		ORANGE SEAL	MONOGRAM
6"	1 minute	\$.40	\$.25
8"	2 minutes	.55	.40
10"	3 minutes	.80	.60
12"	4 minutes	1.00	.75

PRESTO STEEL CUTTING NEEDLES

\$1.00 a box of 3. Dealer carton contains 12 boxes. Each needle cuts 8 to 10 records.

Sapphire cutting needles are \$6.00 each, have an average cutting life of 5 hours. Resharpener charge, \$2.00.



PRESTO STEEL PLAYING NEEDLES

are highly polished and shaped to cause least wear on Presto recordings as well as ordinary phonograph records. Package of 25 needles, \$.25. Dealer carton contains 40 packages.



ORDER THROUGH YOUR JOBBER
OR WRITE DIRECT TO US

PRESTO RECORDING CORPORATION

242 West 55th Street, New York, N. Y.

"SORRY" — the TURN-DOWN THAT HURTS!

- "Sorry—Mr. Smith can't see you today" (But the RADIO YEAR BOOK is with Mr. Smith all year long.)
- "Sorry—We've just ordered all we need" (The Directory section of the YEAR BOOK tells WHERE TO BUY.)
- "Sorry—You'll have to wait till next year" (You just gotta get there IN TIME—or you're gonner lose out.)
- "Sorry—We didn't know you had such a thing" (They don't know as much about your product as you think they know. Tell 'em!)
- "Sorry—We don't send blueprints to strangers" (The RADIO YEAR BOOK is your best possible introduction.)
- "Sorry—We only buy advertised products" (You can get a quick acceptance through advertising in the RADIO YEAR BOOK.)

"SORRY" usually means that you've got a trade advertising job to do. The business that you are NOT GETTING is

Reason No. 1 for putting your advertisement in the 1940 - 41 RADIO YEAR BOOK and TRADE DIRECTORY

- Radio's only complete directory of manufacturers, products, trade names, etc. A real Buyer's Guide.
- To be issued in March as an integral section of RADIO TODAY.
- 25,000 circulation guaranteed, covering the buying power of the radio and electronic field.
- No increase in advertising rates. Regular rates of RADIO TODAY apply to the YEAR BOOK SECTION.
- Positions ALONGSIDE DIRECTORY LISTINGS if reservations are made now. Subject to prior orders.

Enter your order NOW and you wont be SORRY

CALDWELL-CLEMENTS, INC.
PUBLISHERS



480 LEXINGTON AVENUE
NEW YORK

Thayer Is Merchandise Manager for Belden



Les A. Thayer of Belden

The new manager of merchandise sales for Belden Mfg. Co., Chicago, is Les A. Thayer, according to news from Belden general sales manager H. W. Clough. Mr. Thayer will now be active in promotion of all of the firm's merchandise lines, including radio wires and antenna equipment, replacement electrical cords, automotive wires and cables, etc.

Mr. Thayer began his sales work for the company in Texas in 1930, after complete training in Belden servicing and engineering. He has been awarded more and more sales responsibility until he now occupies one of the top posts, with headquarters in Chicago.

Stromberg Promotes a Pair of Executives

A pair of experts on the Stromberg-Carlson sales staff have been promoted to new posts. Stanley H. Manson is now in charge of the company's Kansas City branch, and William C. Lewis has assumed Mr. Manson's former berth as sales representative in the western New York area. Mr. Manson takes over the duties of Kenneth Gillespie, now the manager of appliances for Jenkins Music Co.

The promotions, announced by Stromberg sales manager Lloyd Spencer, recognizes the merchandising ability of two successful and experienced executives in the radio sales field. Mr. Manson did his first work with the company in 1927, and Mr. Lewis started in 1928.

Radio's Riches Collected for Promotion

"Radio's Riches . . . How You May Bring Them to Your Home" is the dramatic new booklet issued by National Association of Broadcasters "to the American people in half million lots."

The extraordinary qualities of American radio are listed and illustrated in the roto-style volume which comes as a part of the NAB-RMA industry campaign. It includes discussion of "What Competitive Radio Means to You" and "Hints to Radio Receiver Owners."



OF SIMPSON LEADERSHIP

THE NEW MODEL 310 SIMPSON SIGNAL GENERATOR

THESE three recent additions to the Simpson line are three more proofs that Simpson Testing Equipment is showing the way. Each of these instruments incorporates features never before found in instruments of this kind.

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

Compare the design, workmanship, performance and beauty of Simpson Instruments with any testing equipment selling at any price. You will then decide to let Simpson speed, convenience and accuracy make your work easier and increase your profit.

Ask for catalog covering the Simpson line

SIMPSON ELECTRIC CO.
5216-18 Kinzie Street, Chicago



NEW MODEL 245 BATTERY TESTER

• Tests all dry batteries the right way—under load. Ranges have been selected so that useful limits of all A and B batteries fall within designated colored sectors of scales. Load is thrown on and off with convenient toggle switch. When "off," becomes accurate volt meter with ranges of 0-2.4-8-50-100-150 volts at 1000 ohms per volt. Pocket size, finely built. Dealers net price only . . . \$7.85



HIGH SENSITIVITY IN MODEL 260

• The compact set tester for television and general servicing. Ranges to 5,000 volts—both A.C. and D.C. at 20,000 ohms per volt D.C. and 1,000 ohms per volt A.C. Resistance readings from 10 megohms down to 1/2 ohm and five Decibel ranges from -10 to +52 D.B. Dealers net price . . . \$27.50

SIMPSON

INSTRUMENTS THAT STAY ACCURATE



Only 8 MODELS OF ALL SERVICE CALLS!
HANDLE 90% OF ALL SERVICE CALLS!

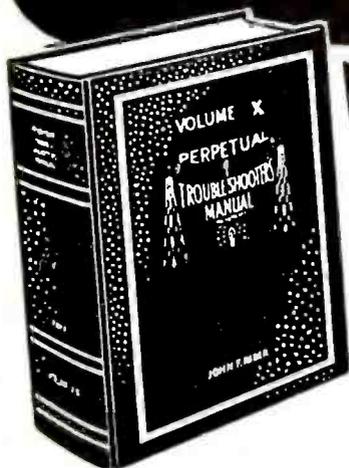
• For \$18.23 a service dealer can stock 8 models of Halldorson Transformers that will answer 90% of all radio service calls covering both power and audio requirements. And—the design of each transformer covers the requirements of all

the makes of sets for which it is intended. When the investment is so low, why not be prepared to give prompt transformer service with the outstanding Vacuum Sealed Transformer line?

Halldorson Transformers
Vacuum Sealed
THE HALLDORSON COMPANY
4500 Ravenswood Ave.
Chicago, Ill.

**"EVERYTHING I NEED..
NOTHING I CAN DO
WITHOUT!"**

*"... just bought Volume X
Rider's Manual... and be-
lieve me, I never saw a book
so crammed full of the kind
of stuff I've got to have! It's
a swell job... a book every
serviceman really needs."*



**RIDER
MANUAL
VOL. X**

1664 PAGES—PRICE \$10.00

**New Make-Up... Greater Coverage
Wins Prompt Approval of Thousands**

The credit for the new make-up of Volume X belongs to the hundreds of servicemen who suggested it. That it is a popular improvement is amply demonstrated by the letters and comments of enthusiastic approval already received. Elimination of duplicated data and all elementary, commonly-known information, permitted coverage of complete essential data on over 750 more sets than in any previous issue... making Volume X the greatest value ever offered in a RIDER MANUAL. Get your copy of Volume X now... and judge for yourself!

YOU NEED ALL TEN VOLUMES



The tremendous number of different and complicated models you are called upon to service, demand that you have complete, authoritative data in order to handle them efficiently, speedily and profitably. A complete set of ALL 10 RIDER MANUALS is vital—and mighty low-cost "profit insurance."

CHECK THIS LIST AND ORDER NOW

Volume	Price	Covering	Volume	Price	Covering
X	\$10.00	1939-40	V	\$7.50	1934-35
IX	10.00	1938-39	IV	7.50	1933-34
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TUBE TESTER**



MODEL 9000

TESTS Loktal Tubes
Single-Ended Tubes
117-Volt Tubes

Here is proof that Consolidated offers QUALITY at LOW PRICE. The Model 9000 tests the newest tubes, as well as the older ones, and yet is priced to dealers at only \$37.50.

See It at Your Jobber's Today!

**CONSOLIDATED
WIRE AND
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**WAXES
AND
COMPOUNDS
FOR
INSULATION & WATERPROOFING
of ELECTRICAL and RADIO
COMPONENTS**

● such as transformers, coils, power packs, pot heads, sockets, wiring devices, wet and dry batteries, etc. Also WAX SATURATORS for braided wire and tape and WAXES for radio parts. The facilities of our laboratories are at your disposal to help solve your problems.

Zophar MILLS, Inc. FOUNDED 1846
128 - 26th ST., BROOKLYN, N. Y.

Financing Plans Restyled for Dealers

A fresh approach to financing plans for appliance dealers is now being offered by C.I.T. Corp., in order to develop a new merchandising ease among retailers, both in their financial relations with their suppliers, and in their selling efforts with consumers. The new "Five Star Program" boasts lower financing rates and a limited recourse feature on household refrigerators, ironers, portable dish washers and room coolers.

Acceptable dealers start with a new floor plan which gives them a complete selection of all models at a minimum investment. To help him move the merchandise, the program offers lower time payment rates to the consumer (a saving of \$1 to \$5 per deal) plus a "home demonstrator plan" which allows the dealer to have up to 25 per cent of his appliances out on demonstration at one time. These home demonstrations may run a full week, and the C.I.T. makes no charge for the privilege.

Also, a new "Home Modernization Staff" has been organized by C.I.T. to blanket the country and work exclusively on sales problems of appliance dealers and contractors.

Officials declare that the plan will offer dealers a new freedom from financing problems, and allow them to concentrate on aggressive merchandising in 1940, with appropriate help from more than two hundred C.I.T. offices.

Sutton & Landay Plan Sales Expansion

Announcements from the West Coast reveal that Max Landay, well known manufacturers representative for radio and electrical lines, has merged interests with E. Lloyd Sutton, who for the past four years has been covering the seven Western States as sales representative for Detroit Vapor Stove, Universal Cooler, and American Ironing Machine.

Mr. Sutton is also widely known in the area, having worked with RCA for a period of 15 years prior to his start as manufacturers representative. He served as West Coast division man-

ager for the company, and now enjoys wide acquaintance in the radio and electrical trades.

Sutton & Landay, Inc., now have six men covering the West Coast territory and are planning further expansion as additional lines are taken on. The firm has showrooms and offices at 3625 S. Grand Ave., Los Angeles, and at the Western Furniture Mart in San Francisco.

Clarostat Chalks Up New Record

A check-up at Clarostat Mfg. Co., Inc., Brooklyn, N. Y., shows that the company's business for 1939 was several thousand dollars over its volume for any previous year.

"This past year," reports Vic Mucher, sales manager, "has been a fine radio year. Of course general conditions were largely responsible, notably the war situation and the marked improvement in American trade and employment. But we also helped ourselves with further refinements in our products, some new items, better sales promotion, still better relationships with our labor, and the outstanding service to our customers."

"And so we enter the new year with every confidence of an appreciable increase in business over the past twelve months, and that means boom times are here again."

Bullion Heads Sales for Detrola

The new vice-president in charge of sales and advertising for Detrola Corp., Detroit, is T. E. (Tom) Bullion, who has been the Detrola director of sales for the past year. He succeeds J. J. Davin, who has resigned.

The company has reported its sales for the year 1939 to be the largest of any year in its history.

Smith to JFD

H. H. Smith is the new sales manager for J. F. D. Mfg. Co., Brooklyn, N. Y. He has been in radio since 1926 and formerly worked with American Radio Hardware Co. In his new post, he will be in charge of the JFD national sales force.

Aladdin Never Had a Lamp Like This!

NEW OPPORTUNITIES FOR DISTRIBUTORS—We have just put on the market a new product, the **TELETOUCH ELECTRIC EYE**, list price \$49.50, for which we seek a distributor in your territory. • Write Dept. T for bulletin outlining the unlimited fields and profit possibilities of this amazing product.



TELETOUCH INDUSTRIES INC., 37 W. 54th ST., NEW YORK

ARCTURUS SOLVED MY EQUIPMENT PROBLEM!



Sell Quality Tubes... Get the Equipment You Need—Practically FREE!

Only ARCTURUS gives you so much for your money—a complete line of top-quality tubes. Radio's finest line of sales-pulling Dealer Helps and, best of all, the easy, practical, profitable ARCTURUS EQUIPMENT DEAL. Only ARCTURUS offers you such Low Down Payments, such Low Tube Requirements, such a wide variety of valuable equipment—and still sells you tubes at Standard Prices!

Mail the coupon today. Let us show you how your purchases of Arcturus Tubes make it possible to get your new store and testing equipment immediately—at practically no cost! If you're looking for a better, bigger, more profitable tube and service business this year... "Go Arcturus"!

MAIL THE COUPON

ARCTURUS

ARCTURUS RADIO TUBE CO., Newark, N. J. T-27
Without cost or obligation, send my copy of the ARCTURUS DEALER HELPS Folder and details of the ARCTURUS EQUIPMENT DEAL.

Name.....

Street.....

City.....State.....

I am a dealer I am a serviceman. My jobber is.....

Address.....

(Offer good in U. S. A. only)

with no
vital
SUBTRACTIONS



ACTUAL SIZE
450-450-25 volt
unit
10-10-25 mfd.

★ Yur darn tootin'—these jobs may all look alike but there can be a heap of difference beneath the label, can, base.

While achieving reasonable compactness and low price, AEROVOX Series F prong-base midgets contain a standard AEROVOX dry electrolytic section with approximately twice the foil area for given capacity and voltage, to insure long, dependable life. Nothing vital subtracted to meet any size or price. No ultra etching or tricky foil. No skimping on separators.

A nice choice of popular working voltages and capacities, in single and combination units.

Ask for CATALOG -

★ More pages, more items, more choice—the new 1940 Catalog is the best yet. Ask local jobber for copy—or write us direct. And ask your jobber to show you any AEROVOX condensers you may require.



A brand new company, United Teletone Corp., Stamford, Conn., has taken over Cinaudagraph loud speakers, and will be operated by the pair of executives shown here—I. A. Mitchell and S. L. Baraf, of United Transformer Corp.

Radio Parts Official Sees 1940 as Great Year

In a statement to RADIO TODAY on prospects for 1940, Arthur Moss, executive vice-president of the National Radio Parts Distributors Association, says that "we look ahead with optimism and confidence . . . the radio parts wholesaler has grown in stature and the whole parts industry can proudly say that it has put its house in order and built a strong foundation for the future."

Mr. Moss declared that "There has been a growing spirit towards greater cooperation between manufacturers, jobbers, and their customers. 'Live and let live' has replaced 'dog eat dog.' Greater volume, higher net profits were a natural sequence.

"Due to better trade conditions jobbers were quick to take advantage of the opportunity for wider service. Improvements in accounting methods were a healthy sign. Markets were analyzed for new outlets and many parts wholesalers have developed industrial sales through qualified technical salesmen. Improvement in the financial picture was reflected by easier credit.

Improvement in the financial picture was reflected by easier credit.

"In the merchandising field an outstanding event was the cooperative step taken by tube manufacturers to stabilize the replacement tube market. Reasonable list prices and sane trade discounts were initiated with a legitimate margin of profit for jobber and dealer alike.

"We expect a continuation of good business for 1940. The desire for cooperation so evident in 1939, will continue. Merchandising problems affecting both wholesalers and manufacturers will continue to be a subject of round table discussion rather than rugged individualism."

Elkan of Emerson Dies Suddenly

The sudden death of Harry S. Elkan, the veteran Emerson representative in eastern areas, was reported early this month. The well known radio executive succumbed to a heart attack at his home in New York City.

C-B

181,440 Switching Combinations

Your Best Insurance Against Obsolescence!

MOVING SWITCH, C-B designed and tooled, connects all present and future basing combinations to C-B DYNATEST CIRCUIT without wiring changes. * * * Tests open elements as well as shorts. * * * ALL FILAMENT VOLTAGES including 117 volts on 23 point switch with spare positions and dry filament winding for future additions. * * * All existing sockets, including midgets, with spares for future. RECORD DATA SYSTEM, new and exclusive, permits easy reference and replacement without reeling off yards of roll chart. * * * Portable RADIO BATTERIES TESTED under load on English-reading scale. * * * PORTABLE and COUNTER Testers combined in one. * * * DATA SHEET 225 has all information and discussion of obsolescence. A postcard will bring it to you.

The CLOUGH-BREngle CO., 5501 Broadway, CHICAGO, ILL.



T. A. White, Jensen sales mgr.



H. S. Knowles of Jensen.

and will continue as chief engineer and sales manager, respectively. A Leslie Oliver, who has been vice-president for 11 years, is now Chairman of the Board. Other officers remain at their posts except for Peter L. Jensen, who has resigned as president and director.

Norge Has Six New Managers

The selection of two new department sales managers and four new regional managers for Norge Division Borg-Warner Corp., is revealed by M. G. O'Harra, vice-president in charge of sales.

E. R. Bridge, former regional manager, has been named sales manager for the washer, ironer, and space-heater department. Paul Puffer, former regional manager becomes sales manager for the refrigeration department.

The four new regional managers are William H. Hanna, Harry Lewis, R. H. (Rube) Pizor, Ray C. Roy.

Mr. Hanna, with headquarters in Detroit, will cover Michigan, Ohio, Pennsylvania, West Virginia, and a portion of Virginia.

Mr. Lewis will have headquarters in Kansas City and travel Kansas, Colorado, Nebraska, Iowa.

Mr. Pizor, who will have headquarters in St. Louis, has a Norge territory of Kentucky, Tennessee, Mississippi, and a portion of Illinois.

Mr. Roy will work out of Chicago and cover northern Illinois, Wisconsin, Indiana, Minnesota, and North and South Dakota.

Jensen Co. Promotes Executives

A series of promotions, and a new product expansion program have been announced by Jensen Radio Mfg. Co., Chicago. Veteran Jensen executives have been boosted to new posts, and the company promises "a complete new line of Jensen loud speaker equipment and accessories."

W. E. Maxson was appointed president and general manager, after having been managing director for 10 years. Hugh S. Knowles and T. A. White were elected vice-presidents,

Sales Expert Ready for New Position

A sales executive, thoroughly experienced in the distribution of radio and major appliances through leading distributors and dealers throughout the East and Middle West, is now looking for a new post in these fields. He can furnish "excellent references from manufacturers, distributors and dealers," and those interested should address Box 54, Radio Today, 480 Lexington Ave., New York, N. Y.



• Old Man Centralab, in a nostalgic mood, dug up this famous "ad" of five years ago with this trenchant remark,

"It's as true today as it was then . . . you've got to be Centralab-equipped if you want to do a decent and satisfactory replacement job."

So be sure to have plenty of Centralab Radiohms, Fixed Resistors, and Wave Band Switches on hand for every service job.

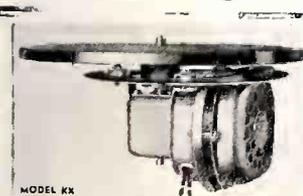


Centralab

Div. of Globe-Union Inc.
MILWAUKEE, WISC.

Power - Light Weight & Price

- for Small Phonographs



MODEL KK



MODEL RX

● Get sturdy, constant-speed General Industries "X" Series motors—models CX, KX and RX. Combining extra compactness, light weight, dependable performance and low cost. Induction type, self-starting, fan-cooled, gears running in oil bath. No overheating.

ORDER SAMPLES TO TEST

Use these motors in your phonograph and radio-phonograph combination. When ordering, state frequency and voltage of current you use and size of turntable wanted. Catalog and prices on request.

The GENERAL INDUSTRIES CO.

4038 TAYLOR STREET, ELYRIA, OHIO

MADE BETTER TO
WORK BETTER



• The combination of high tensile strength that assures a lasting bond, and faster, cleaner work made possible by quick acting flux of pure water white rosin, has given Gardiner Rosin-Core Solders an outstanding reputation for efficiency and economy on radio work by expert or amateur. Yet, due to modern production methods and big sales, Gardiner Solders cost less than even ordinary kinds. Made in various alloys and core sizes . . . and in gauges as small as 1/32 of an inch . . . in 1, 5 and 20-lb. spools.

Eastern Sales Office and Warehouse:
DAVID M. KASSON & CO.,
401 Broadway New York, N. Y.



4815 S. Campbell Ave., Chicago, Ill.

PINCOR ROTARY CONVERTERS

Engineered right . . . built right. That is why this complete line of Pincor Rotary Converters can always be depended upon to give thousands of hours of operation of public address systems, gaseous signs, fluorescent lights, power amplifiers, radios, A.C. motors, musical instruments and other electrical apparatus, even under the most adverse conditions. Available with or without filter for converting 6, 12, 32, 110 or 220 volts D.C. to 110 or 220 volt A.C. Capacities: 60 to 750 watts. Quiet, smooth, light weight and compact. Send for complete information today. Use coupon below.

PIONEER
GEN-E-MOTOR CORP.
CHICAGO, ILL.



PIONEER GEN-E-MOTOR CORPORATION
Dept. R-2A, 466 W. Superior St.
Chicago, Ill.

Please send me complete information on Pincor Rotary Converters.

Name
Address
City..... State.....

Philco Names New Execs for Middle West

Announcement has been made by Philco general sales manager T. A. Kennally that Jack Otter is now the Philco sales manager for the Middle West. Mr. Otter will be in charge of eleven middlewestern states. He had recently been general manager of Philco Distributors, Inc., Chicago.

Following the news of Mr. Otter's appointment it was revealed by Hal Sheer, general manager of all Philco distributing companies, that E. A. Orth will be general manager of the Chicago firm, and that C. E. Lindstrom will be sales manager there.

Ed Shepherd, Bill Campbell and Ted Pritikin continue as division managers in the areas covered by Mr. Otter and Herb Stickle continues in charge of sales promotion for the Middle West.

Miami Trip Set for GE Radio Dealers

For its successful radio dealers in metropolitan New York and in northern New Jersey, the General Electric Co. is making plans for the seventh annual winter vacation trip, to start Feb. 29.

Dealers will take the famous Seaboard Silver Meteor to the Miami-Biltmore hotel at Miami, Fla., for a 9-day excursion period, including side trips, tournaments and parties. GE officials making the arrangements are D. W. May and Earle Poorman.

O'Neill Goes to Hytron Corp.

Recently joining the Hytron Corp. as commercial engineer is Donald C. O'Neill, who had formerly held a similar post with Majestic Radio & Television Corp. He will spend the remainder of this month at the Hytron factory, Salem, Mass., and will then contact all set manufacturers. His headquarters will finally be at the I. L. Arkin Co., Inc., 1525 S. Newberry Ave., Chicago, sales representatives for Hytron.

California Supply Takes the Crosley Lines

Now to distribute the Crosley line of radios and appliances in Northern California and Western Nevada is the California Electric Supply Co., with showrooms at the Western Merchandise Mart, San Francisco. E. L. McDonnell is general manager, and A. M. Roberts has just been named sales manager for this jobbing firm.

"How to Keep Down Income Tax"

"Your Income Tax—How to Keep It Down" is the topic of a newly-revised book by J. K. Lasser, published by Simon & Schuster, 386 Fourth Ave., New York, N. Y. at \$1 per copy, which gives check-lists of all allowable deductions for business men and individuals. These include deductible taxes, charges and contributions. With increases in taxes predicted for this year, such a book has great practical usefulness to the radio businessman.

MUSICAL TOWERS

For Bigger Sales and Service Returns

Here's a sure profit-maker! Handle the complete Sunco amplifying system of tower and belfry chimes. It's the best sound installation proposition in the field—not only do you get the best equipment, but also expert technical assistance and sales help.



Sunco "Master" has wide range of usage. Broadcasts chimes or organ music. Powered for 2, 6, and 12 mile dia. coverage. Can be used as P.A. unit. Automatic records mixer play 10" and 12" record chng. We have many specially recorded low-noise acetate discs for this work. Ask about them. REAL MONEY FOR SOUND EQUIPMENT SPECIALISTS — Protected territory, everything furnished, speakers, accessories, installation and service directions. Get the facts about this

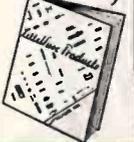
money-making offer. No obligation, WRITE TODAY!

SUNDT ENGINEERING COMPANY
4763 Ravenswood Ave., Chicago, Illinois

Sell & Use LITTELFUSES



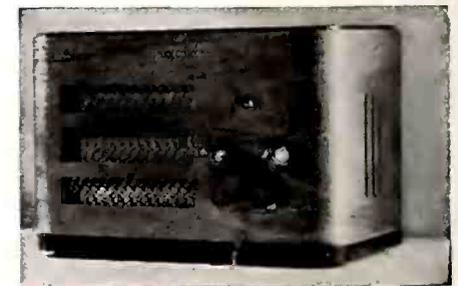
Write for
Catalog



Get this new catalog FREE. Shows complete line of Littelfuses for radio, transmitters, rectifiers, meters, instruments. FUSE MOUNTINGS—all kinds. When you want fuses — LITTELFUSE! See your jobber or write:

LITTELFUSE INC.
4763 RAVENSWOOD AVE. CHICAGO, ILL.

BEST BUY in Wireless INTERCOMMUNICATING Systems



CROSLY CHATTABOX

\$24.50 per pair, consisting of TWO COMPLETE MASTER STATIONS.
F. O. B. N. Y.

Complete two-way wireless loud speaking system. Perfect performance. Plug into any 110 volt socket, AC or DC. Equipped with CALL-LISTEN-TALK switch and volume control. Write for information or catalogue.

SOLD ON 10-DAY TRIAL WITH MONEY-BACK GUARANTEE. ORDER TODAY. JOBBERS, DEALERS AND DISTRIBUTORS WRITE FOR SPECIAL QUANTITY DISCOUNTS.

AMPLIFIERS-DISTRIBUTORS CORP.
DEPT. R. T; CHRYSLER BLDG., NEW YORK
Cable Address: DEBACK, N. Y.

Sole Distributors of the

CROSLY CHATTABOX

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While every precaution is taken to insure accuracy, we cannot guarantee against the possibility of an occasional change or omission in the preparation of this index.

Stromberg Set for Big Year of Sales

At an annual winter sales conference of distributors and representatives for Stromberg-Carlson, held early this month at Rochester, N. Y., general sales manager Lloyd Spencer predicted a great year of radio sales in 1940. He reported that Stromberg had sold 18 per cent more radios in 1939 than in the previous five years, but added that 1940 would be even better.

"Added to the general encouraging business outlook, interest in short wave and news programs occasioned by war in Europe and a coming presidential election will spur radio sales," he said.

Factors that strengthen Stromberg-Carlson's position in the industry, which Mr. Spencer pointed out, were a great increase in dealers during 1939 and the advent of frequency modulation broadcasting.

He said that during the past 12 months 49 per cent more dealers than in 1938 had chosen the Stromberg-Carlson line.

Nine new interim models were shown at the conference, and plans started for special winter promotions.

Salesmen Needed by Manufacturer

A well-known manufacturer of store record merchandise equipment is in need of salesmen to call on radio music stores, department stores and larger radio outlets.

The company has many hundred inquiries on hand, in response to a recent advertising campaign. Address replies to RADIO TODAY, Box No. 27, 480 Lexington Ave., N. Y. C., stating territory covered.

Smith for Speak-O-Phone

Maitland K. Smith, Atlanta, Ga., has just been named by the Speak-O-Phone Recording & Equipment Co., makers of recording equipment, as representative in North and South Carolina, Florida, Georgia and Tennessee. His headquarters are at 645 N. Highland Ave., N.E.

Cut down your
inventory with

OPERADIO Replacement Speakers

When you buy Operadio Replacement Speakers, you buy the type of Speakers MOST set manufacturers buy. More than a million O.P. Speakers are sold yearly, to makers of the finest radios and to dealers and servicemen who have learned that O.P. Replacement Speakers give that good as new reproduction—with less speakers to be stocked because of the Unimatch Transformer which can be used with as many as six different O.P. Speakers.

Write today to Dept. RT1
for Speaker Replacement Catalog

Export Division
145 West 45th St., New York

OPERADIO

MANUFACTURING COMPANY
ST. CHARLES ILLINOIS

*The Outstanding Name
in Speakers, Public Address
Equipment and Intercommu-
nicating Systems*

All Operadio Sound Systems are Licensed by Electrical Research Products, Inc., under U. S. patents of American Telephone and Telegraph Company and Western Electric Company, Incorporated.



Simplest

WAY TO REPLACE BALLASTS

- 4 STANDARD TYPES of Amperite Regulators replace over 200 types of AC-DC Ballast Tubes now in use.
- Not to be confused with ordinary dropping resistors. Amperite actually regulates.
- Amperite Regulators are equipped with a patented Automatic Starting Resistor which prevents initial surge and saves pilot lights.
- Amperite AC-DC Regulators; List \$1.00. Amperite Replacements for 2V Battery Set ballasts List \$1.25

WRITE FOR REPLACEMENT CHART "S"

AMPERITE Co. 561 Broadway, N. Y. C.

AMPERITE

1940 Radio Parts National Trade Show
Stevens Hotel - Chicago
Tuesday June 11 to Friday June 14

Jobber Days
Tuesday June 11 to Thursday June 13
Open House!
Friday June 14

Radio Parts National Trade Show
Executive Office
53 West Jackson Boulevard - Chicago

Hytron Has Record Year, Will Expand

An announcement by Lloyd Coffin, president of Hytron Corp., Salem, Mass., reveals that the firm closed the year 1939 with a new record of sales and profit. It was the 19th consecutive year that Hytron sales had outstripped the preceding year.

The report pointed out that since 1921 when the company was founded by Bruce A. Coffin, present general manager and treasurer, the products of the firm have been exclusively radio tubes, and that the Hytron success may thus be laid to "expert management and high quality of tubes."

Unusual progress of the Hytronic Laboratories Division, started two years ago in the transmitting tube field, was also highlighted.

During 1940, Hytron will vigorously enter the renewal tube sales business according to Vinton K. Ulrich, sales manager. Merchandising aids and technical material will be available.

Both receiving tube and transmitting tube promotions will be built around the slogan "For Those Who Want The Best."



Carl Lohman-Janik, formerly of Thor-darson, has been named export manager for Kenyon Transformer Corp. New York City.

NRPDA Announces Fourteen New Members

Membership in the National Radio Parts Distributors Association is almost 100 per cent of the eligible parts wholesalers, in the Eastern Pennsylvania and New England areas, according to news from the NRPDA executive vice-pres., Arthur Moss, who has just finished a trip through this territory.

Fourteen new members in these areas were lined up. The Philadelphia ones are M. H. Sporting Goods Co., Consolidated Radio Corp., Herbach & Rademan, and Eugene G. Wile. New members in Boston include A. W. Mayer Co., Radio Shack Corp., and Radio Wire Television, Inc. Others added to the NRPDA roll are J. R. S. Distributors, York, Pa.; Kratz Bros., Norristown, Pa.; Ware Radio Supply, Brockton, Mass.; Electrical Radio Supply, Cambridge, Mass.; Springfield Radio Co., Springfield, Mass.; Pittsfield Radio Co., Pittsfield, Mass.; and Wm. Dandreta Co., Providence, R. I.

"Kit Plan" Launched for Gale Refrigerators

A new wrinkle in refrigerator merchandising has been announced by Gale Products, Galesburg, Ill., designed to overcome dealers' objections to "high inventory," "too many models," and "no profit leader models."

The cabinets in the re-styled Gale line are available with only evaporator and shelf hangers, and all the food compartment equipment is packaged in separate kits. Using the items in these packages, dealers are able to "equip the refrigerators for easy price steps . . . to create as many as four different models from the same cabinet."

To install the equipment, no tools are required and it takes less than two minutes to put in a complete kit. When necessary, the dealer can create a lavishly deluxe job in a very short time.

C. P. Rossberg, Gale general manager, declares that the plan "takes the gamble out of the dealer's buying, cuts down model obsolescence, eliminates loss leaders and gives the dealer a new concept of volume and profits."

The new Gale lines are described in the refrigerator section of this issue.

Philco Simplifies Tube Set-Up

In an announcement to dealers and distributors, James M. Skinner, Jr., manager of tube sales for Philco, revealed that the firm's tube structure will now be simplified. The move was made to coincide with the industry trend in standardizing all tube lines, according to Mr. Skinner.

The Philco executive said that the revision was the second one in six months, and follows the addition of a number of new tube types. He described it as "merely the second step in completing the process of establishing a firm structure for the entire industry as well as for Philco."

Record Catalog Out

The new edition of the Victor Record catalog is now being distributed—the printing is one of the biggest in recent years and the book has been dressed up and improved to reflect the increasing interest in records.

Some 7,500 Red Seal and Black Label Victor records are listed, conveniently cross-indexed by composer and title, along with the usual fund of general information on recordings.

A new feature of the catalog—one which will be genuinely useful to salesmen—is "a complete pronouncing glossary of musical terms, composers' names and music titles."

C.I.T.'s *NEW* Financing Plan

**LOWER
RATES**

**LIMITED
RECOURSE**

HERE'S the biggest news of the year in the financing of major electric appliances. Instead of two plans—the usual “full recourse” or “limited recourse” at higher purchaser rates—C. I. T. now offers ONE PLAN for major appliance dealers.

That one plan is **LIMITED RECOURSE AT NEW RATES** which are lower by \$1 to \$5 a deal and are equal to or lower than former full recourse plan purchaser rates.

If you have been operating under the Limited Recourse Plan, you can now enjoy all its benefits at rates substantially lower... rates which make a difference of \$1 to \$5 on each transaction.

If you've been operating on Full Recourse, you can now limit your liability under the Limited Recourse Plan at rates never more than your former rates and in many cases at rates even lower.

Certainly here is the business builder you have been looking for!

And Now Look at These Star C. I. T. Special Services

LOWEST REFRIGERATOR PURCHASER RATES... as low as any offered by a national finance company today. With all the other advantages of C. I. T. service, you now get in addition the benefit of favorable rates... a rate structure which automatically attracts customers!



HOME DEMONSTRATION PLAN FOR FLOOR-PLANNED HOUSEHOLD MECHANICAL REFRIGERATORS... Close your sale right in the home where the final test comes. One out of every four C. I. T. floor-planned refrigerators may be out on home demonstration at any one time—25% of your floor-planned refrigerators become salesmen for you. Ask your C. I. T. branch for details.



SPECIAL HOME MODERNIZATION FIELD FORCE TO HELP YOU... Our trained Home Modernization Staff calling exclusively on contractors and appliance dealers, is going to blanket the country. Your representative will contact you closely and often, suggesting ways to make C. I. T. service of greatest value to you. Establish your account now with the nearest of C. I. T.'s more than 200 local offices to start taking advantage of these streamlined, high-g geared 1940 finance selling plans.



C. I. T. CORPORATION

A unit of Commercial Investment Trust Corporation. Combined capital and surplus over \$100,000,000. Branches in all principal cities
NEW YORK • CHICAGO • SAN FRANCISCO



"The RCA Franchise is the
Mainstay of
our Business

says Sam Zionts of Cameradio, Pittsburgh, Pa.



**Only RCA Offers
You All Three...**

**TEST EQUIPMENT
RECEIVING TUBES
POWER TUBES**

Transmitting, Cathode
Ray and Special
Purpose Tubes



"In our business, we've got to have Test Equipment, Receiving Tubes, and Power Tubes. And RCA is the only organization that offers us all three ... and the *best* in all three. RCA Test Equipment in my opinion is tops ... and sales prove it. As for receiving tubes ... well, RCA developed the business. Their tubes are the best known and the easiest to sell. And when it comes to Power Tubes ... RCA has many types no one else can give us ... types we need to do a profitable Power Tube business."



**RCA's Big Three
Means Business for You, Too**

We don't have to tell you who Sam Zionts is. You know him and we know him as one of the most able operators in the business. In calling the RCA Franchise the mainstay of the business, Sam is echoing the sentiments of leading distributors from coast to coast.

RCA Test Equipment, RCA Receiving Tubes, and RCA Power Tubes constitute the most valuable bread and butter franchise that's available to you today. It is without question the "Big Three" where profits are concerned ... the franchise that means well-ounded business in all three important phases of your radio business.



Tubes and Test Equipment

RCA MANUFACTURING CO., INC., CAMDEN, NEW JERSEY
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