

RADIO

*and
Television*

RETAILING

JULY • 1940



BUSINESS AND THE WAR

CONVENTION HIGHLIGHTS

NEW MODEL FEATURES

ALL ABOUT RECORDING

DISC DEPARTMENT DOPE

PORTABLE BATTERY DATA

SELLING A CITY F-M

LOFT DISCOUNT RACKET

MOVING SUMMER SOUND

PRACTICAL DEALER ADS

APPLIANCE SALES IDEAS

SIGNAL SEARCH SYSTEM

LATEST CIRCUITS

MECHANICAL ARMS for MODERN COMBINATIONS

Will Automatic Record-Changers Dominate This Season's Big Set Market?

A

McGRAW-HILL Publication

Price 25c

***FP** (*Fabricated Plate*)

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

CONDENSERS

made by

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

With over 5,000,000 FP Condensers in use as original equipment . . . the field returns on 1,000,000 . . . purchased by representative manufacturers were accurately checked. The answer has made radio history. Out of 1,000,000 FP Condensers made by Mallory only 512 were returned as defective. That's just 5/100th of 1%!

As a radio service engineer, this is news that you can't afford to overlook. FP Replacement Condensers, made by Mallory, are identical in every specification and quality to those used in original equipment—and made by Mallory. They offer you a replacement opportunity that to all practical purposes eliminates the possibility of troublesome call-backs.

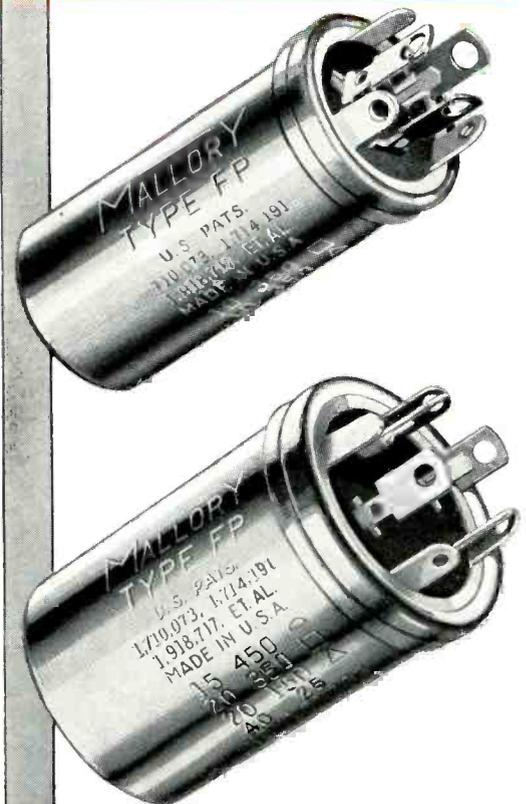
But there's this to remember. The outstanding success of FP Condensers has caused them to be imitated. But the imitation is only skin deep. So don't make the mistake of expecting Fabricated Plate performance from a condenser that merely *looks* like a genuine FP Condenser.

In the sets you service . . . you'll recognize genuine FP Condensers by the name MALLORY or by the figure (1) enclosed in a circle.

For all your other condenser replacement needs Mallory's full line offers similar opportunities for full profit and complete customer satisfaction. Get details on the entire line from your Mallory Distributor today.

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

**Put the Come-back Odds
2000 to 1
in Your
Favor**



**Not etched construction*

Use

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

Include

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

RADIO

and Television RETAILING



A McGRAW-HILL PUBLICATION

JULY 1940

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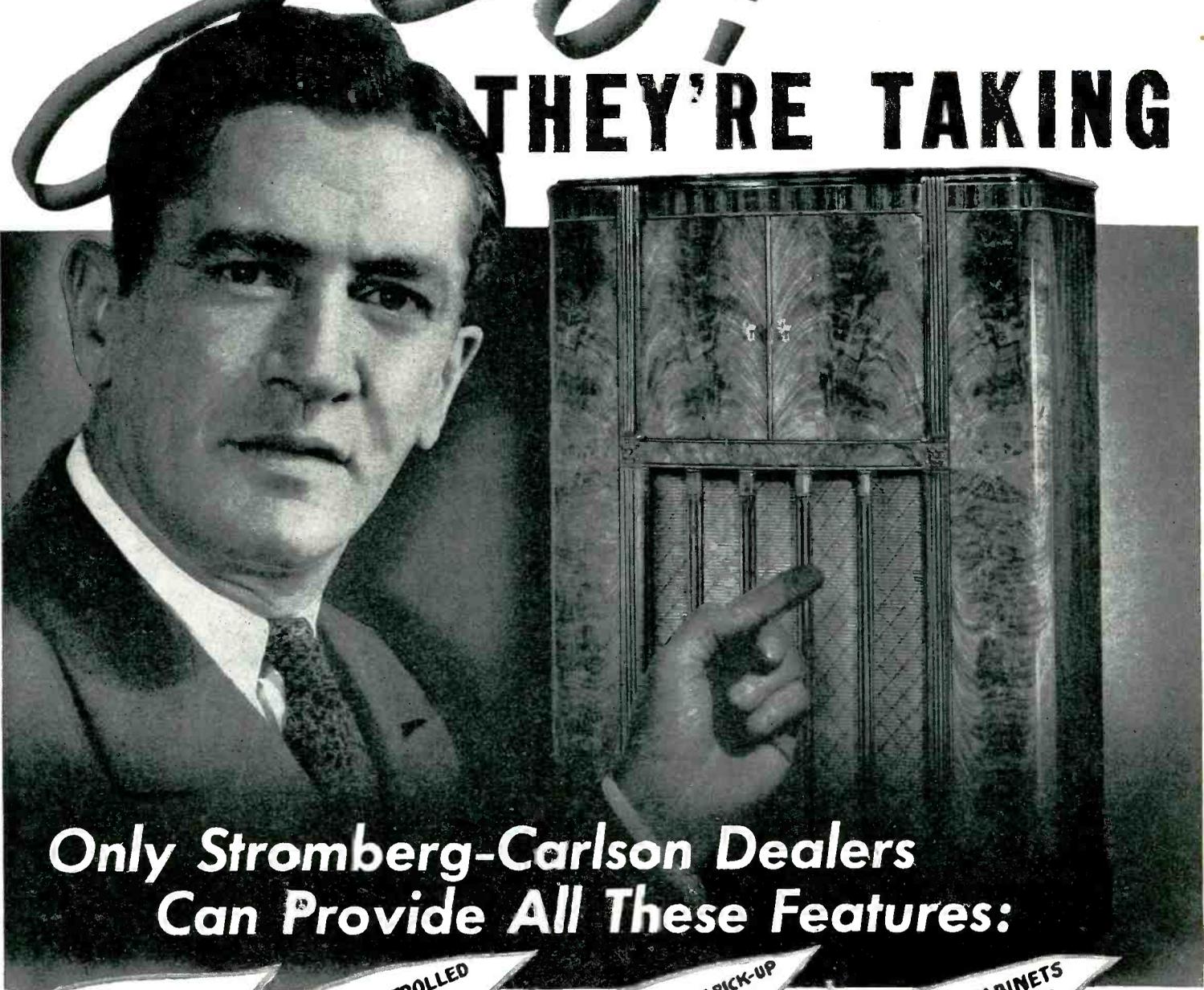
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FRONT COVER PHOTOS: Courtesy J. P. Seeburg Corp., General Industries Co., Webster-Chicago, RCA Mfg. Co., Farnsworth Corp. and Capehart Division, Garrard Sales Corp., New Products Corp.



Yes!

THEY'RE TAKING



**Only Stromberg-Carlson Dealers
Can Provide All These Features:**

- FM**
- LABYRINTH**
- CARPINCHOE SPEAKER**
- KNOB-CONTROLLED SHIELDED LOOP**
- BUILT-IN SHORT WAVE AERIAL**
- BUILT-IN FM AERIAL**
- FEATHER-LIGHT PICK-UP
10 TIMES RECORD LIFE**
- LONG LIFE SAPPHIRE-
NO NEEDLES TO CHANGE**
- AUTHENTIC PERIOD
CABINETS**
- STURDIER CABINETS
PLASTIC-BOUND PLYWOOD**
- 3-GANG
SELECTIVITY**
- PUSH BUTTON TUNING-
BOTH FM and AM**



No. 505-H Table Radio



No. 515-M Console



No. 585-M Console



No. 535-PS Radio-Phonograph



No. 535-PG Radio-Phonograph



No. 535-PL Radio-Phonograph

THE ONLY COMPLETE FM LINE...BACKED BY OVER A YEAR'S FIELD EXPERIENCE

THE COUNTRY BY STORM!

...Signed orders at Distributor Showings are ahead of last year **300%**

Labyrinth

RADIOS AND RADIO-PHONOGRAPHS WITH

FM

BY STROMBERG-CARLSON

Never before has a line of radios "clicked" so overwhelmingly as the new Stromberg-Carlsons for 1941! Distributors' orders are already three times greater than last year—with more arriving daily. And no wonder! For only Stromberg-Carlson offers a complete line of radios and radio-phonographs that include Frequency Modulation . . . backed by over a year's field experience.

But that's not all. In addition, Stromberg-Carlson brings you the exclusive Labyrinth and Carpinchoe Speaker System that captures, as nothing else can, the utmost of *Staticless Radio's* extended musical range.

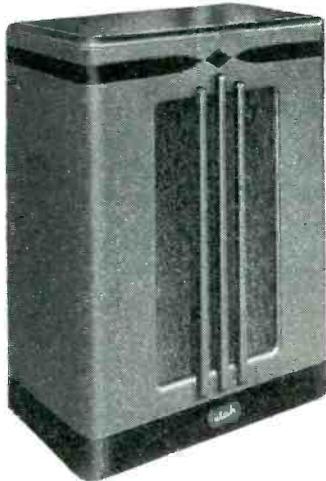
Get your share of the profitable, new FM business right from the start with the line that's right from the start . . . Stromberg-Carlson. See your distributor today—or write direct to STROMBERG-CARLSON TELEPHONE MFG. CO., ROCHESTER, N. Y.

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

There is nothing finer than a

Stromberg-Carlson

NO STATIC
NO INTERFERENCE
MORE BASS
MORE TREBLE



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

Through these new reproducers, Utah

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

Utah's NEW BAFLEX REPRODUCER

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

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

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

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

THE NEW Utah BI-DIRECTIONAL SPEAKERS

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

Their sturdy construction and improved

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



Utah's NEW WALL REPRODUCER

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

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

AND 107 OTHER UTAH SPEAKERS

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

WRITE FOR CATALOG

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

UTAH RADIO PRODUCTS COMPANY, 810 Orleans Street, Chicago, Illinois.
Canadian Office: 560 King Street, West, Toronto. In the Argentine: Ucoa Radio Products Company, S. R. L. Buenos Aires. Cable Address: Utaradio, Chicago.



SPEAKERS

VIBRATORS • TRANSFORMERS • UTAH-CARTER PARTS



Among the world's most scientific, highly developed precision instruments are the TAG Celectray Pyrometers for indicating, recording and controlling temperatures.

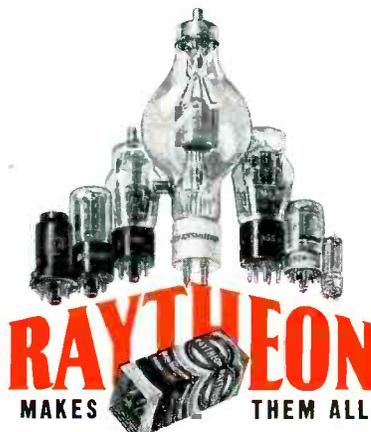
So accurate and sensitive in operation are these instruments that some of them sell for as much as \$600. In comparison with this price, the cost of the single tube used is trivial. Yet this one tube is vital to the accurate performance of the instrument. It must be as soundly engineered and as dependable in its function as the instrument itself. It must be rugged enough to stand up under 24-hour service, day in and day out. With these factors essential, it is not surprising that Celectray engineers should specify RAYTHEONS.

It is another example where nothing but the best will do. It is a RAYTHEON because RAYTHEONS are scientifically designed and constructed by engineers who specialize on tubes alone . . . engineers who are constantly

looking ahead, anticipating, developing! When a tube need occurs, new or old, there's always a RAYTHEON ready for it.

That is why thousands of servicemen who are real money makers depend on RAYTHEONS for all their tube requirements. They have found that the big service contracts are landed by men who use only the best of materials . . . and RAYTHEONS *cost no more!*

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



NEWTON, MASS. • NEW YORK • CHICAGO • SAN FRANCISCO
WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS
 ATLANTA

**A NEW
ALL-TIME
HIGH**

41,923

**NEW 1941 SETS
SHIPPED IN 1 DAY!**

53 CARLOADS... positive proof that Emerson for 1941 has what every dealer needs for big business.

Emerson

40%

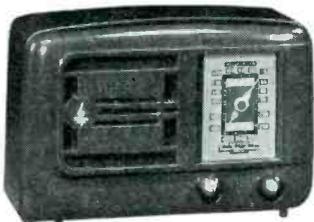
**MINIMUM DISCOUNT
ON ALL MODELS**

(except two crowd-stopping price leaders)

Prices slightly higher in South and West



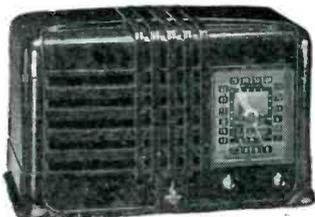
34 Table Models .. \$9.95 — \$59.95



MODEL 336. Superheterodyne. Super-Loop. Beam Power Output. Dynamic Speaker. Automatic Volume Control **\$9.95**

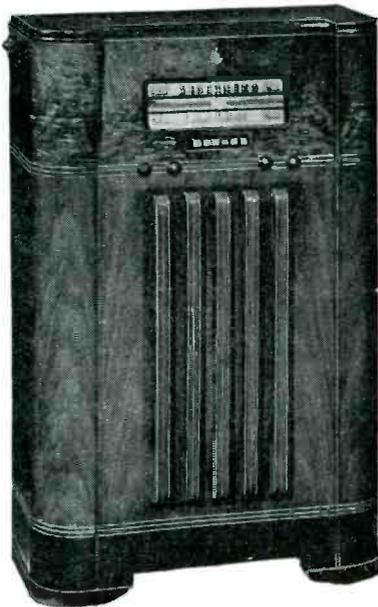


MODEL 375. Beautifully designed. Available in Mexican, Brazilian, Red or Blue Onyx Plastic Cabinets. Super-Loop **\$17.95**

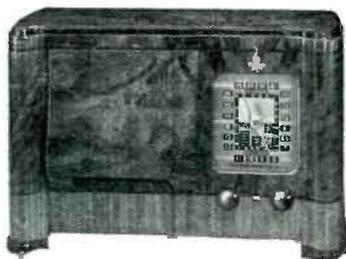


MODEL 343. Super-Loop. Day and Night Foreign-American Short Wave Bands. Tone Control. Beam Power Output. 6½" Dynamic Speaker **\$19.95**

3 Console Radios .. \$49.95 — \$99.95



MODEL 368. Super-Loop. Foreign-American Short Wave. Automatic Tuning. Beam Power 5-Watts Output. Tone Control. 12" Speaker. Hand-Rubbed Walnut . **\$49.95**



Model 352. AMERICAN and FOREIGN. De Luxe Cabinet of Selected Hand-Rubbed Walnut. 6½" Speaker **\$32.95**

2 High-Fidelity Radios . . \$59.95 — \$199.95



Model 365. HIGH FIDELITY . . . 20 WATTS OUTPUT. 8 tubes plus Electron Ray Tuning. AC Superheterodyne with 8" heavy duty Electrodynamic Speaker. Super-Loop. 3 gang condenser. Tone and Volume Control Indicators on Dial. Super-sensitive Connection for External Antenna. De Luxe Walnut Cabinet. The finest in tone reproduction . . **\$59.95**



EMERSON QUALITY TUBES. Factory tested. Mechanically and electrically perfect. Designed to improve radio reception from basic standpoints of sensitivity, selectivity and tone.

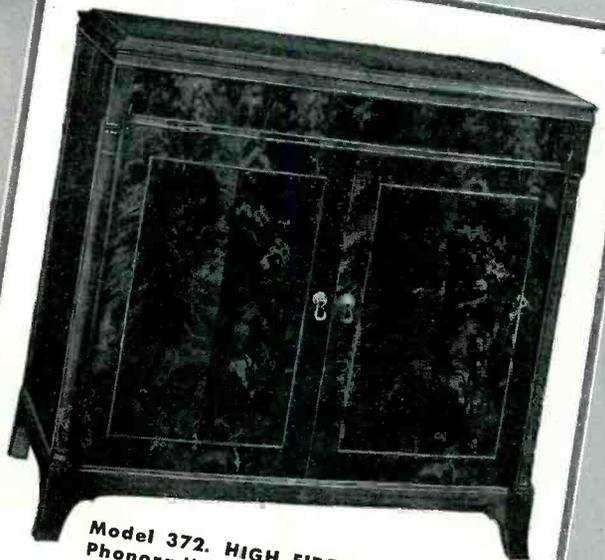
EMERSON RADIO AND PHONOGRAPH CORPORATION • 111 Eighth Avenue, New York, N. Y.

for 1941

WITH *Miracle Tone*

77 GREAT MODELS

The greatest line-up in radio history . . .
 DEALER advantages never before offered
 . . . the biggest national and cooperative
 campaign ever—EMERSON is YOUR best
 proposition for 1940-41! Get ALL of the
 facts from your EMERSON distributor now.



Model 372. HIGH FIDELITY Automatic Phonoradio. 20 Watts Output, 8-tube AC—plus Electron Ray Tuning, 12" heavy duty Speaker. Georgian Period Cabinet. \$199.95

NEW 1941 FEATURE!



No Outside Wires—Plug In And Play

14 "3-Way" Portables . . \$19.95—\$39.95
 2 Personal Portables . . \$19.95



Model 380—“PERSONAL” PORTABLE . . . Pocket size—weighs less than 5 pounds. Amazing power and sensitivity. Unique power hook-up and "B" Battery Saver Switch increases life three-fold, 4 Tubes, 4" Speaker. \$19.95 complete.



Model 385. "3-WAY" PORTABLE— plays on own power and AC or DC. 6 Tubes, 6½" Speaker. Smartly styled Aerocloth Cabinet. \$29.95 complete.

3 Console Phonoradios . . \$99.95—\$199.95
 2 Record Players . . \$19.95—\$29.95



Model 370. AUTO-MATIC PHONORADIO. 12 Watts Output. Super-Loop. 8 Tubes plus Electron Ray. Tuning Range 13 to 555 meters. Automatic Tuning. Hand-Rubbed Walnut. \$129.95



Model 382. PORTABLE PHONORADIO. Super-Loop. Beam Power Output. Self-Starting Constant Speed Motor. Plays 12" records with lid closed \$29.95

12 Table Phonoradios . . \$24.95—\$59.95
 3 Recording Phonoradios \$69.95—\$149.95

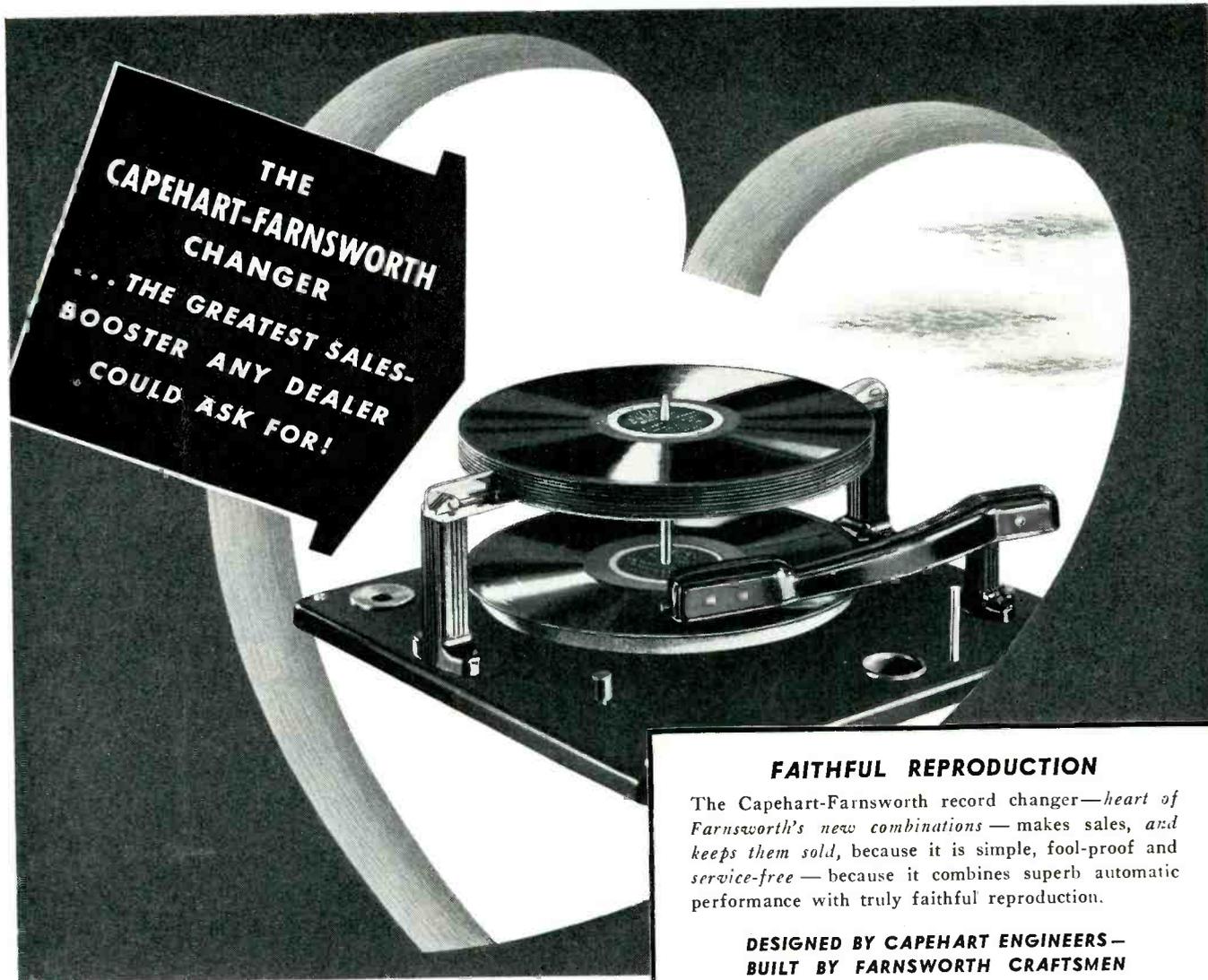


Model 384. PHONORADIO RECORDER. 6 Tube AC plus Electron Ray Level Indicator. Beam Power 5 Watts Output. Super-Loop. 6½" Speaker. Plays all size records \$69.95 complete.



Model 383. PHONORADIO. Super-Loop. Beam Power Output. 8" P.M. Speaker. De Luxe Walnut Cabinet. Plays 12" records with lid closed \$49.95

EMERSON RADIO AND PHONOGRAPH CORPORATION • 111 Eighth Avenue, New York, N. Y.



Farnsworth

THE LINE THAT HAS EVERYTHING!

FAITHFUL REPRODUCTION

The Capehart-Farnsworth record changer—*heart of Farnsworth's new combinations*—makes sales, and keeps them sold, because it is simple, fool-proof and service-free—because it combines superb automatic performance with truly faithful reproduction.

**DESIGNED BY CAPEHART ENGINEERS—
BUILT BY FARNSWORTH CRAFTSMEN**

SIMPLIFIED CONTROL—Plays up to 14 records automatically. Handles any standard-size record. Easy to load and unload. Only one adjusting lever. No knives to chip or jam records—even warped records. Its simple, fool-proof mechanism and free-floating tone arm end service problems, and assure much longer record life.

1 A BROAD, COMPLETE LINE—Combinations. Consoles. Table models. Record players. Home recorders. No Farnsworth dealer need ever lose a sale—there's a Farnsworth model for every conceivable desire and purse, and each cabinet style stands out as a *distinctive* model—individual in both design and features.

2 COMPETITIVE PRICES—Every model is priced so competitively that sales need never be lost because of price. Farnsworth discounts are based on the knowledge that dealers must make a *good profit*—including trade-in sales.

3 HOT SELLING FEATURES—Cabinets styled to the taste of today. COLORTONE, "Ampli-filter," "Tenna-Rotor" . . .

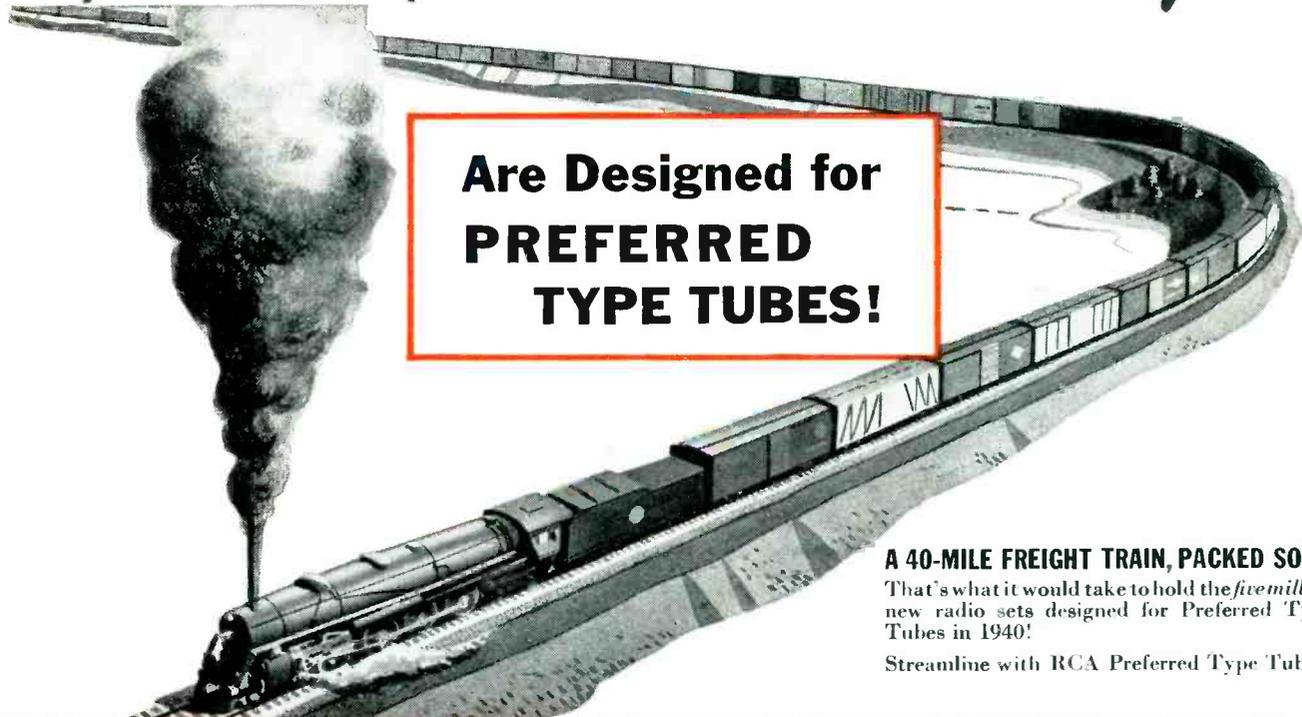
"Hi-Spot" Dial . . . "Tip-Top Tuning" . . . and many other features give Farnsworth dealers a competitive edge that closes more sales.

4 BACKED BY POWERFUL ADVERTISING—A continuous schedule of sales-creating advertisements in *The Saturday Evening Post*, *Life* and *Collier's*. Plus a **NATIONAL SPOT-RADIO BROADCAST CAMPAIGN**. Plus a powerful program of merchandising helps.

YES SIR . . . Farnsworth gives you **EVERYTHING** to go to town. Don't delay. See your Farnsworth distributor **NOW** and get the money-making facts. Farnsworth Television & Radio Corporation, Fort Wayne, Indiana.

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

5,000,000 SETS *this year*



**Are Designed for
PREFERRED
TYPE TUBES!**

A 40-MILE FREIGHT TRAIN, PACKED SOLID

That's what it would take to hold the *five million* new radio sets designed for Preferred Type Tubes in 1940!

Streamline with RCA Preferred Type Tubes!

WHO Prefers "Preferred Type Tubes" . . . ?
17 Manufacturers of radio receivers in addition to RCA Victor have publicly endorsed the RCA Preferred Type Tubes Program. 17 Manufacturers in addition to RCA Victor are engineering their current models around Preferred Type Tubes! Almost 5 million sets coming off the production lines this year will use Preferred Type Tubes—approximately half the industry's entire output!

HOW Has This Acceptance Taken Hold . . . ?
When the Program was first announced, only 32% of all RCA Tubes taken by manufacturers for new equipment were Preferred Types. By April, 1940, this percentage had spurted to better than 78%. Today, it is around the 90% mark!

WHY Has Such Backing Been Given . . . ?
Manufacturers were quick to agree that inventories could be simplified; warehousing costs lowered; deliveries speeded; and better, more uniform tubes turned out at lower costs, with fewer tube types in use. With preferred types, manufacturers can now design and build practically any type of radio receiver for best performance at lowest overall cost!

WHEN Will The Industry Benefit . . . ?
These manufacturers are benefiting *today*. They have found that the Preferred Type Tubes Program performs as promised! And as this year's 5,000,000 sets built around the program go into use, the *replacement* tube market will improve equally. Distributors, dealers and servicemen will all find that increased turnover of fewer, faster-moving types means more profitable business . . . better tubes *and* better service to consumers!



*Preferred
Type Tubes*

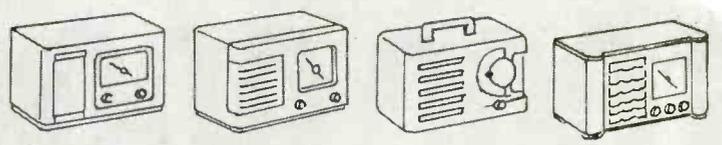
RCA Manufacturing Co., Inc., Camden, N. J.
A Service of Radio Corporation of America

See exhibit of all RCA services . . . including Television . . . at RCA Building, New York World's Fair — and Golden Gate Exposition, San Francisco, California.

N. Y. W. F.

Sonora for 1941

THE COMPLETE RADIO LINE
NEW "FIRSTS"—NEW WINNERS



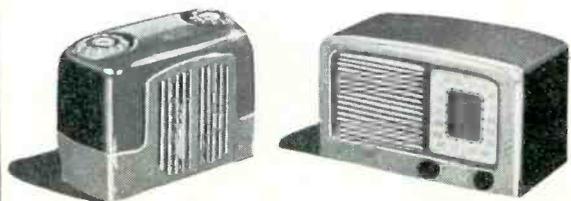
32 OUTSTANDING MODELS HOT "PACKAGE PLAN" NUMBERS COMPLETE JOBBER SERVICE

FIRST FOR 'FORTY-ONE! A once-in-a-blue-moon line—a COMPLETE in-demand line! Plastics, "Gems," wood table models, big console values, combinations, recorder, wireless players, electric phonographs, "CANDIDS," triple-play portables, farm radio, auto radio—SONORA has the right answer for every radio need! Yes, SONORA is "all there" for 1941—right in engineering, in styling artistry, in beauty of tone—right-priced, too, for today's market. And you can't beat the advantages of SONORA'S over-the-counter Package Plan and desirable jobber policy—they spell the outstanding Radio Profit Opportunity for 1941!



Model KXF-95. 6-tube A.C. Radio-Phonograph. Foreign and domestic bands. With built-in Sonorascope, 10-inch Speaker. Includes Automatic Mixer-Changer for 10 or 12-inch records. Massive console of choice walnut woods; 32" x 32" x 15".

\$9.97 to \$129 LIST
MODELS FOR
EVERY PURSE
AND PURPOSE



Model KFU. The "Little Gem." A new jewel-like note in radio styling! Plastic design in duotone colors—available in three striking 3-color combinations. 4 Tubes. Tunes 535—1720 K.C.; P.M. Speaker. Size: 5 1/8" x 7 3/4" x 4 1/4". The most striking compact ever designed!

Model KT. The "Cameo"—a 1941 Radio! New, original, beautiful. Available in unusual duotone effect—tan front, brown back—or in ivory. 5 Tube AC-DC Superhet; 535—1712 K.C.; 5" P.M. Speaker; built-in Sonorascope; big new dial. Size: 6 1/2" x 10 3/4" x 6 1/4".



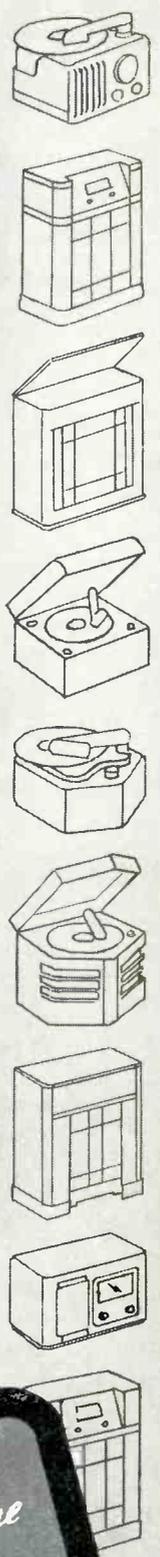
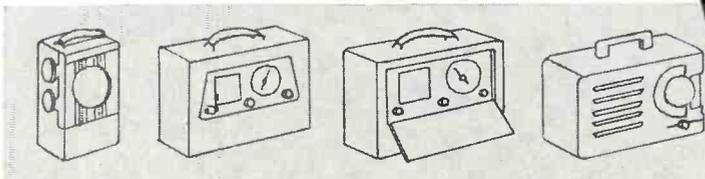
Model KY-94. 7 Tube A.C. Superhet Console de luxe. Three band coverage: 535—1720 K.C.; 2.2—7.5 meg.; 7.25—24.0 meg. Built-in Sonorascope—works on all bands; Push-Button Tuning—choice of six stations; 10" Dynamic Speaker; Slide-rule Dial; phono and television connection. Magnificent new walnut console, smartly styled and beautifully finished. Size: 37" high, 22" wide, 12" deep.



Model KNF-99. 5-Tube AC-DC Phonograph-Radio. Tunes 535—1720 K.C. Built-in Sonorascope; 5" P.M. Speaker; big Airplane Dial; 9" turntable; Crystal pickup; automatic record stop; plays 10" and 12" records with lid closed. Walnut cabinet; 10 1/4" x 14 7/8" x 11 3/8".

Model TT-128. 5 Tube A.C. Superhet. Tunes 535—1720 K.C. Has built-in Sonorascope; Slide-rule Dial; Push-Button Tuning; 5" Dynamic Speaker. Presented in a distinguished table model cabinet of fine walnut woods with sweeping end design. Size: 18" x 10" x 8 3/4".

See SONORA'S 1941 Radio Line at the National Music Trades Show, Stevens Hotel, Chicago, July 30, 31, August 1.
SONORA—A GREAT NAME SINCE 1914!



Frequency Modulation

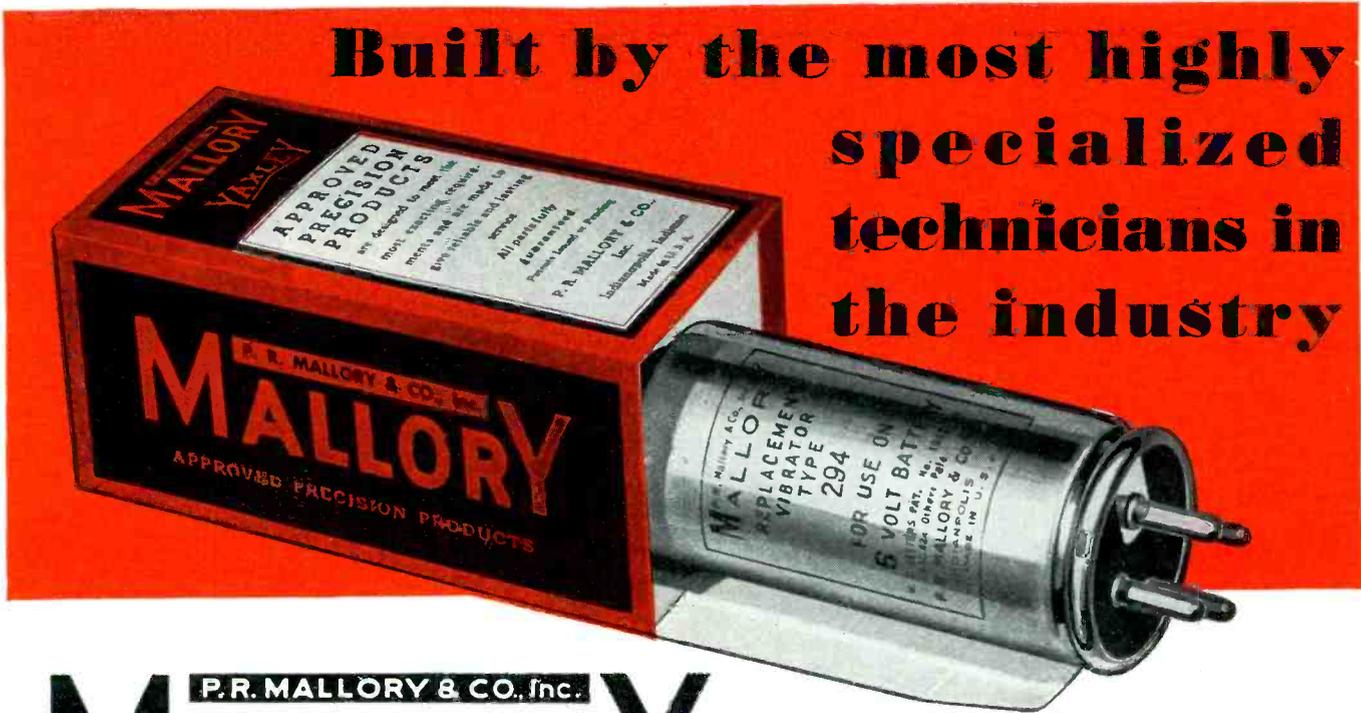
EXTENDED RANGE—HIGH FIDELITY

THERE is now available a complete family of special Jensen products for Frequency Modulation and Television receivers—as well as for monitoring and studio work. Illustrated below is the beautiful new Walnut "CA" type Bass Reflex cabinet—available in two sizes. One houses the new 12-inch PM extended range speaker. The other utilizes the new dual-unit 15-inch PM speaker complete with filter network. Below is also illustrated the "M" type Bass Reflex reproducer finished in brown lacquer—available with either the 8", 12" or 15" dual-unit extended range speaker. They are all extremely modestly priced. The three speakers are, of course, obtainable without the enclosures. The 15-inch dual-unit in Permanent Magnet design complete with filter network is only \$46.50 LIST. The 8" and 12" speakers show an extended high frequency response up to 10,000 cycles. The 15-inch dual-unit model is extended to 14,000 cps. Jensen Rad. Mfg. Co., 66C1 S. Laramie, Chicago.

Jensen
Bass Reflex
REPRODUCERS



Built by the most highly specialized technicians in the industry



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

Human fingers and mechanical hands . . . it takes a happy combination of both to make Mallory Replacement Vibrators. Skilled technicians, most of them with Mallory since the beginning of the vibrator industry, are employed in the fabrication of individual parts, assembly and inspection of every unit. Elaborate and delicate test equipment guards the precision of Mallory Vibrators through their entire production. Each unit must pass exhaustive electrical meter-board tests and then perform in an actual receiver before being shipped.

For longer life and better performance, insist on Mallory Vibrators . . . they cost no more than ordinary products.

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

Cable Address—PELMALLO



After assembly, every Mallory Vibrator mechanism is carefully checked to see that all mechanical adjustments are perfect.

Progressive assembly of internal mechanism. All parts are checked for thickness, being placed in order in this "trolley".

All coils in Mallory Vibrators are automatically wound on machines like this by skilled operators.

When assembled, every Mallory Vibrator is tested for electrical characteristics . . . output, balance, wave form, starting voltage and steady operation on this meter-board and cathode ray oscilloscope.

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

Ask your Mallory distributor for the Mallory Replacement Vibrator Guide

War Talk

WAR TALK and the hysteria that goes with it will do home specialty sales little good in the two or three months immediately ahead.

Radio will suffer least and may even profit during this temporary lull because heightened listener interest in news, be it good or bad, tends to lift our business by its own bootstraps.

Possibly by the time snow flies and almost certainly in 1941 there will be a buying boom. So, at least, think most manufacturers.

Here is their reasoning:

1. The initial, paralyzing shock of radically altered continental European geography will have worn off and the possibility of American participation overseas will appear still more remote.

2. As uncertainty declines, manufacturer and distributor and dealer energies temporarily dissipated to some extent in discussion of international affairs will, for lack of fresh fuel, swing back to "business as usual" and the promotional effort that goes with it.

3. Re-employment and use of raw materials by private industry, cooperating with government in its impending tremendous effort to bolster hemisphere defenses, will render such promotion particularly effective, men making money easily directly or indirectly through the manufacturing of munitions spending it as easily and particularly for entertainment.

IT'S AN ILL WIND that blows nobody good. For years the trade has begged manufacturers to hold down the number of models per line and now the president of one of the nation's largest set-making firms informs us that the government is quietly urging a similar course.

Obviously, limitation of models eased up on the hard-pressed machine-tool industry, makes most economical use of available raw materials, frees production facilities for manufacture of such things as bomb-fuses, releases design engineers for other work. All these things are particularly desired by the War Department as it focusses the vast resources of this

country upon production for defense.

Not so encouraging is the effect of recent FCC regulations upon manufacturers of amateur radio gear.

Some jobber cancellations have already been reported despite later softening of portable transmitter restrictions and, while most manufacturers in this branch of the business feel that the bump represents temporary timidity on the part of jobbers rather than amateurs, several are now covering up by diverting more of their effort toward production of shortwave receiver types useable by general consumers who want the best possible reception direct from foreign countries.

Even here the cloud appears to have a silver lining for someone. It is probable that jobbers retrenching in the amateur field will be better prospects for radio replacement parts and sound equipment.

WE DON'T PLAY THE MARKET but friends who do, tell us that the heaviest buying occurs when stocks are going up in price.

By the same token it appears likely that radio buying will increase as war hysteria tapers, for the extra excise tax just slapped on sets to help provide funds for the financing of defense measures is alone sufficient to raise future lists.

This suggests that neither distributors nor dealers need fear stagnation of stocks on hand or on order for models to follow will certainly cost the consumer more. Leading economists nevertheless advise against abnormal purchaser plunging to take advantage of existing prices, as they simultaneously advise against abnormal holding back.

Recommended is continued careful scrutiny of past performance and actual needs, purchasing on this normal, safe and sane basis until such time as the boost given to consumer purchasing power by defense material production and decline of unemployment begins to make itself felt.

Meanwhile, the best medicine for Americans and America is less war talk and more *sales* talk.

Mac
W. MacDonald
EDITOR

PHOTO *Shorts*

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

MILKMAN'S MATINEE

While the milkman makes his early morning calls the Philco portable radio, perched on the seat at his side, provides him with the owl programs of music and late news reports. Keeps a fellow happy, the old grey mare on the hop and who knows, may add that something extra to your milk



BEFORE

This is the store and window layout of R. C. Bender's radio shop of West Palm Beach, before business expansion demanded additional display space for portables and compacts. Available floor space already assigned to consoles



AFTER

Dealer's hobby is designing and installing displays and this space problem was right up his alley. He simply continued wall racks to end of window and improved floor display. Can now accommodate 65 units in floor space 6 by 30 feet



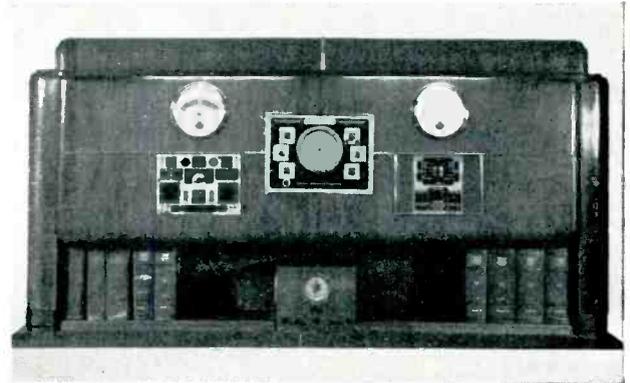


SOUND AND TRAFFIC TIE-IN FOR VISITOR INFUX

The bell like object installed atop of lamp post is a University Laboratories' radial type air column trumpet and dynamic driver unit. Coupled to a sound system it enabled traffic officer at one of Philadelphia's busiest street corners to direct and keep traffic rolling. Proves big help when national conventions, athletic events and like occasions jam streets with visitors

SMART IDEA FOR DEADWOOD

This novel and attractive service bench was made from discarded old radio cabinets by George Lengbridge of Buffalo's "Radio Exchange." He carefully matched the wood grain, mounted the testing equipment with planned neatness and installed two-20 watt fluorescent lamps beneath the top piece. Result, a service shop layout to be proud of and with plenty of eye appeal for the public



FAMED PRIEST RECORDS ESKIMO FOLKLORE

Father Bernard F. Hubbard shown at the controls of an RCA Victor portable recorder used on his latest expedition in the Arctic area to record the native music, chants and folklore tales of the primitive Eskimo. After months of travel, 100-12 inch transcriptions were made which Father Hubbard plans to use in lectures. Recordings disproved the theory that the American Indians and the Eskimos are related races



CONVENTION Highlights

QUALITY seen as keynote of 1941 receiver design, with price and gadgets playing second-fiddle. Promotional emphasis on combinations and better musical reproduction

By W. MacDONALD

“UNTIL NOW, manufacturers have made every effort to produce new radios *almost as good as the year before.*”

This cryptic remark, made by the merchandise manager of one of the country's leading music houses from a Chicago convention platform, paints a more vivid picture of the most important 1941 design trend than any catchphrase we could coin.

Quality is once again moving up into the headlines as an all-industry sales appeal. Price is dropping back, *where it belongs.*

Top Types Flashed First

Most striking reversal in staging methods noted at set unveilings attended in the last 30 days was the order in which new models were shown distributors.

Combinations almost universally got the spotlight first, or were emphasized heavily by sales managers if not initially displayed. Straight radio consoles were generally exhibited in the same group. Portables and the larger table types shared the stage next. Compacts were frequently held back for the final curtain.

Heretofore, distributors applauded most loudly for mere lowered lists. This year they whacked their palms together for cabinetry, plus basic performance features, plus *higher* prices.

Chief speculation among manufacturers contacted appeared to revolve around possible consumer preference for combinations versus straight radio consoles. Which basket should contain most of the manufacturer's eggs? Guessing favored combos, with and without recorders but almost always with automatic record-changers. Most factories included the straight radio jobs to play safe but showed fewer

in number. Not a few inferred in private conversation that business this season might divide largely between merchandise at the extreme ends, compacts and combinations, with middle-of-the-road models placing a poor second. Only time will tell whether or not this is a good production guess.

Increased manufacturer promotional emphasis on big sets leads us to the belief that outside selling and home demonstration must once again be carefully considered by the trade in its advance planning. Steps in this direction in behalf of combinations and particularly recording combinations will, incidentally, stand any dealer in good stead when spreading out into FM and will be still more essential later on in connection with television.

Manufacturers Get Religion

Illustrations printed with this report of general convention impressions show just a few of the many things the trade has been asking for . . . and now *has* in any number of lines.

There are more, put there by factories obviously checking actual consumer needs more closely this year than ever before. We like to think that our February and March articles outlining the wants of the consumer and trade helped in this direction but know that several leading companies conducted their own field surveys at about the same time. Hence the following:

The trade has been crying for more selectivity. Check up on new lines and you will discover that several manufacturers have gone back to t.r.f. stages almost whole-hog while practically all have included this important feature in at least a few more models.

Better tone has been another

dealer demand. Listen closely to distributors' salesmen now making the rounds and you will note that they are less blasé on the subject of quality than in past years. Note, also, that there are a number of sets which deliberately omit gingerbread features so that the cost of such gimcracks may be plowed back into parts, that most directly influence performance and particularly tone. Even pushbuttons have been crowded out in some instances.

Dealers have been critical of cabi-

*** What the Trade ASKED for . . .**

1

EASIER-TO-READ DIALS

2

**FRONT-OPERATING
COMBINATIONS**

3

**MORE DRAMATIC
TONE CONTROLS**

4

**CONVENIENT LOOP
ROTATION**

5

**ADDITIONAL AUTOMATIC
COMBINATIONS**

6

**SIMPLIFIED HOME
RECORDING**

net finishes. Run your eyes and hands over the new sets and it will be obvious that manufacturers have paid more attention to this detail not only in production but also in packing for shipment. More elbow-grease and less waxy "goo" in depressions.

Some retailers have contended that styles with a definite though perhaps limited market have been too often dropped in favor of "follow-the-leader" shapes. In this connection it is interesting to find that relatively large table models are once again seen in considerable number, for the man who doesn't want a console but does want maximum performance. Consoles which,

while not necessarily designed to "nest" alongside an armchair, permit easy operation from a sitting position are likewise encountered more frequently. It is also possible this year to buy more really well engineered yet relatively small consoles.

Trees Have Concealed Woods

Step up in quality all along the line is, in fact, the outstanding news of the season, perhaps not so dramatic as the trick whatzits of past years but certainly of far greater importance. This season sees the first concerted attempt to build back much the industry has lost in the

way of profits and prestige since the 1929 debacle.

Particularly significant was the rather widespread use of musical terms by men presenting new radio lines from convention platforms in the past month. This is a refreshing step in the right direction.

Until now, the whole radio industry has been "so close to the woods it couldn't see the trees," thinking and talking of its wares in terms of wood, metal, plastic and glass rather than in terms of performance. This in spite of the fact that the consumer is obviously interested in what comes out rather than what we put

(Continued on page 54)

NEW MODEL FEATURES

† A Few of the Things the Trade GOT . . .

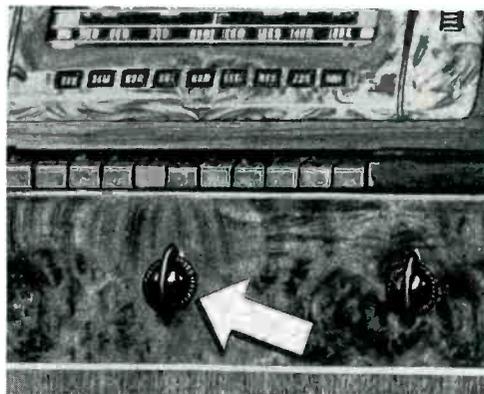


1 Large, clear but not gaudy

2 Top stays closed for vases



3 Separate treble and bass levers



4 No more fussing around back



5 Types for every pocketbook

6 Pushbuttons do all switching



*See articles "What the Public Wants for its Money", February, and "Designing Dealers Outline New Line Needs", March, *Radio Retailing*

†Typical 1941 receivers (RCA-Victor, Philco, Farnsworth, General Electric, Stromberg-Carlson, Automatic)



RADIO... RECORDS

THREE-WAY COMBINATIONS that take entertainment off the air, dish it up from discs and permit the customer to cut platters at home headlined by many manufacturers



PHILCO

Recorder Optional



WILCOX-GAY

CONCERT GRAND

A-93 DeLuxe

8R9

MOTOROLA

93FI



RADIO PHONOGRAPHS show much profit promise this season and the inclusion of home recording in some models may be just the extra feature needed to push replacement prospects teetering on the brink of small set acidity over to the alkaline side.

So where we had just a few three-way combinations that take entertainment off the air, dish it up from commercial discs and permit the customer to cut his own platters earlier in the year we now have any God's number of them. Many manufacturers have hitched up to this rising star, think it will pull more than a toy wagon.

From the standpoint of instrument design there is much to write about, even without discussing the various uses of such machines as home sound systems alone.

For one thing, motors and turntables intended for recording must be especially steady and rugged. This has led to improvement in both, a quality benefit automatically passed along by specializing suppliers to makers of combinations without recording as well.

Latest innovation in three-way combinations is the inclusion of automatic record players. This adds still an additional string to the dealer's sell-up bow. Seen also is a machine with two separate turntables, making it possible to duplicate discs if desired.

Both magnetic and crystal cutters are found in new lines, each type having its adherents.

Some extremely slick overload in-



HOWARD

302-RA

dicators have been evolved to insure recording at a more constant level by laymen. Some of them not only warn the user when volume is too great but to some extent automatically knock it down when the point of safety is exceeded.

Fading-mixing controls permit smooth blending of music taken off the air with a local voice in some instruments, with individual adjustment for each pickup level.

Switching has been kept simple, circuit modifications desirable when going from one type of service to another being almost universally accomplished by the mere pressing of buttons.

Microphones quickly removable from stand bases for hand use are among new mechanical features.

Then there is additional news in connection with recording discs and cutting needles, both accessories which represent profitable repeat business for the dealer.

Most noteworthy item concerning recording discs is probably the much wider variety of sizes now available, greatly extending the usefulness of home machines. Followed closely by the fact that such discs are also available in many different types of materials and surfaces.

Cutting needles, too, are now obtainable for all types of work and all types of surfaces. Dealers are, in fact, cautioned that this very variety of both discs and cutting needles makes it particularly advisable to use them in combinations recommended by machine manufacturers. To some extent this also applies to playback needles.

...or Roll Your Own



SENTINEL

216-J



PILOT

HD-191



STEWART-WARNER

6T8



FEDERAL

306



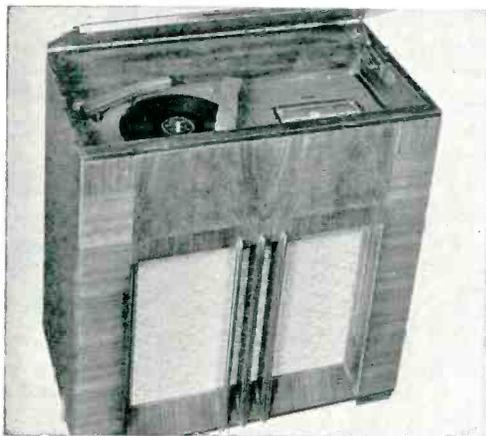
ADMIRAL

R59-B11



FARNSWORTH

BKR-84



DeWALD
BEE-MONT

907
797



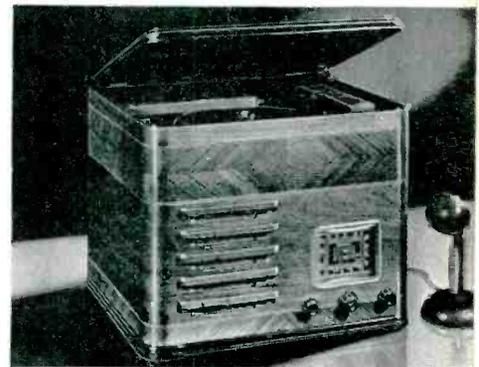
REMLER
FADA

471
RE197



AUTOMATIC

Recordex



CROSLY
EMERSON

33-BG
364



The

“UPSTAIRS”



“Dealers advertise, display merchandise and the discounter gets a free ride on this effort, selling right out of the packing-case . . .”

York trade, for example, recently inaugurated a cooperative movement to eliminate sales to the upstairs discount houses and others not properly equipped to merchandise standard brand products. Announcements have just been made of new policies on the basis of “selected dealership.” It is planned to franchise only dealers with proper facilities for displaying and demonstrating radios and allied equipment.

No Guarantee

Remedial efforts, says the trade, should not be on the style of a “Munich” promise. Action directed toward cleaning up this mess must be honest and lasting. The radio and appliance retailer needs a helping hand and it must be firm, not comparable to a sick patient where a half hearted push in the wrong direction would kick many a franchised dealer right out of the radio field.

The public has been educated

“The public fails to realize that he must pay cash-on-the-barrelhead, gets no trade-in allowance, no service, no installation and a questionable guarantee . . .”

RADIO and appliance dealers are mobilizing on all fronts to exterminate, quickly and completely, the “upstairs” discount racket. They are at last alert to the seriousness of this unfair competitive scourge which is slowly but surely squeezing out thousands of reliable and dependable franchised retailers throughout the country.

Heretofore, the small suburban

dealer passed off this discount evil with a shrug, contending that it only affected his city cousin, and had no direct bearing on his business. In the beginning this may have been true. The discount sharpshooter started price-cutting in the large industrial center, but, like a blitzkrieg, it has spread to the smaller cities and communities. Today the small-town customer knows where he can “get it wholesale.”

Undermining Business

The whole industry realizes that this discount racket, whether practiced upstairs, on the ground floor or in the basement, is a cancerous condition causing chaos in the entire radio field. Even the retailer who generally sits back waiting for the other fellow to clean up a mess, now advances the opinion that something had better be done about the situation, or Number 77B will spell finish for many a shop owner unable to stand the gaff.

The situation has reached the stage where it demands immediate and year around cooperative action on the part of the manufacturer, distributor and retailer. The New

WHAT IT COSTS LEGITIMATE DEALERS

200 OPERATORS

in the metropolitan New York City area alone is a conservative estimate

\$2,000,000 ANNUALLY

is the very least these operators by-pass around the established trade

10 PER CENT

mark-up is common and many frequently mark-up as little as 2 per cent



Discount Racket

over the past ten years not to be a sucker. "Why pay list? There's a beckoning source of supply somewhere, ready to chop the price down to your size." The public has to be re-educated to the facts that when he buys wholesale, be it a radio or appliance, it is in most cases not subject to exchange, there is no trade-in allowance, no guarantee, no terms, cash on the barrel-head, no service calls, no antenna installation and numerous other advantages that only the legitimate dealer can afford to give.

The dealer's pet peeve, and rightly so is the fact that he is carrying the torch for these discount gyms. The legitimate dealer pays higher rent, overhead, and incurs expense for fixtures and displays. Also must carry a large stock of radios which the general discounter does not require. Frequently, the prospective customer inspects the dealer's stock in the manner of an exhibitor's display and then tells the dealer he can get the article wholesale at 40 off, and if the dealer wants to meet the price, O.K., he can have the sale. That's a kick in the pants that would wipe off anybody's smile.

The legitimate dealer conducting his business in the accepted manner, must expend considerable thought, time and expense in promotional work. This calls for advertising through the regular channels, re-designing and installing new window and floor displays and other forms of merchandising, all of which, directly or otherwise is unfairly beneficial to the discount houses.

For the information of anyone connected with the radio trade, who has not met with some unpleasant form of cut-price competition, the upstairs radio and appliance houses generally locate in an office or loft building, preferably situated in the main business section. For the same area of space and location their rental would naturally be considerable under what the store dealer has to pay for his ground floor method of doing business.

The radio newcomer may wonder how the discount house carries on without benefit of window display, traffic paths and the usual ways of doing business. He may inquire as to their methods for attracting business?

How It's Done

Trade is brought to these houses by circulars, word of mouth, helped by the Nos. 1 and 2 depressions with everyone looking for a discount. If they pay list that stamps them a sucker, so thinks our public of today, and that's the line continually handed to the public by these slick loft operators.

The larger discount shops print good size catalogs. The description of the products are accompanied



"Sucker-circulars sell the public the idea that anyone who buys without getting a wholesale discount is a sap . . ."

by list prices and specify that the customer is privileged to enjoy full volume discounts. Catalogs and folders are mailed to listed customers and to commercial concerns in the neighborhood. The catalog may list thousands of items, which doesn't mean the price-cutter carries them all in stock. The client can see the article, check the list price and even try it at the neighborhood retailer's store, if said customer has

MILLIONS lost to trade through unfair competition. Loft sharpshooters reaching out for suburban and rural business

By CARL DORF

the gall (and they have) to ask the store owner.

This article is concerned mostly with discount mal-practice as it affects radios and associated products. However, price cutters do not confine themselves only to this type of merchandise. They sell jewelry, furniture, and numerous other items. You name it and they will get it as an "inside deal," which means a cut for you.

The writer doesn't want to imply that all chiseling houses are located above the ground floor and that all upstairs establishments are cut-price houses. Not so, there are any number of legitimate appliance and record stores that merchandise radios on upper floors. The radio trade's grievance is against the operator who slashes prices without regard for fair return or pride in the radio industry.

It is reported that in the Metropolitan New York alone, there are more than 200 of these upstairs discount houses. The situation is diverting millions of dollars worth of radios and electrical appliances sales from the regular channels of the franchised retailer.

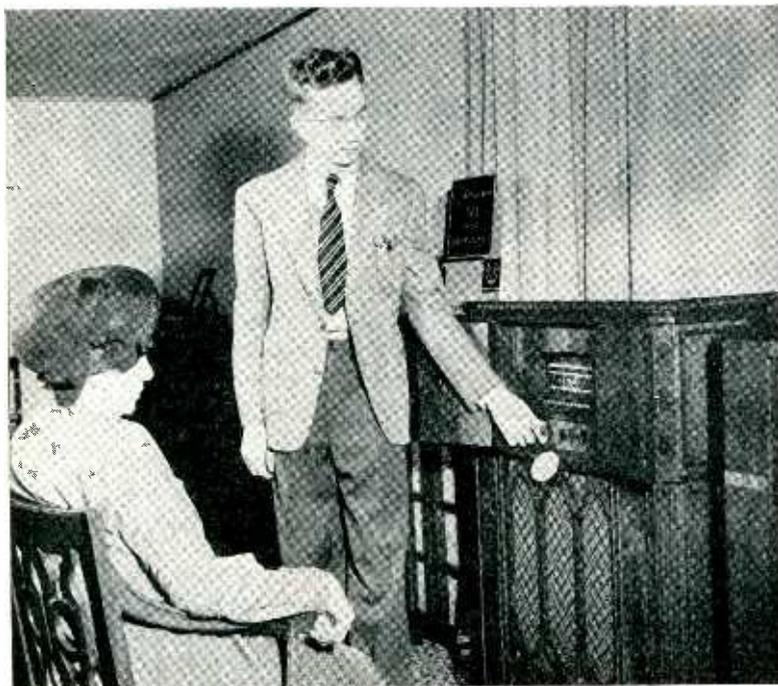
Industrial Discounts Too

Another similar evil the retailer has to contend with, is mis-used industrial group-buying activities. Many industrial and commercial organizations maintain purchasing departments to buy radios and appliances at regular dealer discount. Articles are bought for their employees, in order to give them the wholesale price.

Cut-price chiseling can be eliminated and the retailer can and should receive a fair profit on his investment. The answer is in fair prices, honest policies, and cooperation throughout the entire radio field.

Selling FM to a CITY

By H. C. BRUNNER



NOLL PIANO—Salesman Carl Sibilski demonstrates FM. Exec. Herbert J. Konen says this typical cooperating firm moved several sets in the first week



BROADWAY MUSIC—Floorman Chick Hager sells three services. Department manager E. F. Cass says the store has already sold 20 combination receivers

THANKS to the cooperation of progressive Milwaukee radio dealers, an FM-conscious public was a reality within a week after *The Milwaukee Journal's* frequency modulation station, W9XAO, started broadcasting April 22.

Months before the station was to go on the air, stories concerning its development appeared in the *Journal*

As STATIONS Open Up—

First known effort of its kind, W9XAO's method of building an initial audience is here exclusively reported with the thought in mind that this early experience will prove invaluable elsewhere as commercial licensing proceeds.

and speakers from the paper's radio department appeared before trade and civic groups explaining what might be expected from this new development in broadcasting.

Trade Tie-in Invited

On April 6, the *Journal* sent letters to every retail radio outlet in town over the signature of W. J. Damm, general manager of radio for the newspaper, worded as follows:

"Regular program service over The Milwaukee *Journal's* Frequency Modulation station, W9XAO, will begin on Monday April 22, 1940, Broadcasting will start daily at 1:00 p.m. and continue until 10:15 p.m.

"Some weeks ago we informed the trade that we wanted local radio dealers to introduce this new form of broadcasting to the public. We believe that it would be to your advantage to work with us in demonstrating FM to your prospective custom-

ers. Now that a definite date has been set for the beginning of regular program service, we are notifying you and other dealers well in advance so that you may have demonstration sets on the floor by April 22.

"During the opening week we will give wide publicity to the regular operation of the new station and to places where the public may hear the programs. A full page advertisement on Sunday, April 21, will announce the official opening. The enclosed proof will indicate how we expect to tie-in dealers who cooperate with us.

"We suggest that you let us know at your earliest opportunity whether you will demonstrate FM to the public. If you agree to this arrangement, we shall be glad to include your name in our publicity. You will probably want to promote your participation by independent means, and in that event we ask you not to anticipate our full page ad by any prior announcement of your own.



Proprietary Modulation broadcasting affords more of exciting entertainment with less static than any other type of FM broadcasting. Attractive, exciting, interesting and clean of static—these are the features of this new broadcast system.



FM broadcasting has been called the world's most accurate and clear-cut broadcasting system. There is no static or interference to mar the quality of the broadcast. Voice and music are clearly intelligible in tone.

tomorrow - a new radio station brings a new listening thrill!

Now You Can Enjoy a New Broadcasting Service

TOMORROW afternoon, at 4 o'clock, Milwaukee's first and only FM radio station begins a regular daily schedule of broadcasts, presenting the finest in radio entertainment. If you have a radio equipped to receive the frequency modulation broadcast of W9XAO, and live within the area covered by this station (a radius of 25 to 40 miles, depending on local conditions), you will experience a new listening thrill. Music that will give you that "fourth row center" feel—voices that are rich, full and real...exactly varied sounds.

Special arrangements have been made for you to hear FM reception at a number of convenient places throughout this vicinity. These stores and radio departments are listed at the right. As you listen you cannot help but feel the thrill of this new radio development—an additional radio service devoted largely to music. And while W9XAO takes its rightful place among the radio stations of Milwaukee, WTMJ continues, and will continue, to maintain the full amount and quality of its present service.

Through these two stations The Milwaukee Journal further extends its policy of bringing to the radio public the finest service that modern art can offer.

Program Schedule

Monday, April 22nd

12:00-1:00	Light Music
1:00-2:00	Light Music
2:00-3:00	Light Music
3:00-4:00	Light Music
4:00-5:00	Light Music
5:00-6:00	Light Music
6:00-7:00	Light Music
7:00-8:00	Light Music
8:00-9:00	Light Music
9:00-10:00	Light Music
10:00-11:00	Light Music
11:00-12:00	Light Music

W9XAO Program Schedule Art Listed in the Milwaukee Journal News Sheet Located in the Station and Radio Section

Hear Frequency Modulation at These Convenient Stores

New this FM radio is an exciting activity, the following dependable stores and departments have made special arrangements for you to hear FM. Stop in during their business hours, any time W9XAO is on the air, 1 to 12:15 p. m., and see if you can believe your own ears! There is no static, no mar on the program, no hiss. This is your opportunity to hear FM radio at a place and in a large convenience to you, and to see the new FM era. Take the entire family for a radio-entertainment.

- Advanced Electric Company 408 W. Wisconsin Ave., Milwaukee
- Boston Store 1000 N. Broadway
- Brooklyn's 1000 N. Broadway
- Brooklyn House of Music, Inc. 1000 N. Broadway
- Ray Carpenter 1000 N. Broadway
- Duggan's Radio Shop 1000 N. Broadway
- Freese & Kuehn, Inc. 1000 N. Broadway
- Gieshel Brothers 1000 N. Broadway
- Goodwill's 1000 N. Broadway
- Gram's Inc. 1000 N. Broadway
- Ray Hensch Radio Shop 1000 N. Broadway
- Hark Ties & Appliance Co. 1000 N. Broadway
- Herman Appliance Company 1000 N. Broadway
- Radio Home Radio Company 1000 N. Broadway
- W. Hanning Radio Service 1000 N. Broadway
- J&B Radio Service 1000 N. Broadway
- Jackson Radio Service 1000 N. Broadway
- Johnson's Radio Shop 1000 N. Broadway
- Koelig Radio 1000 N. Broadway
- Lakeside Radio & Sound Co. 1000 N. Broadway
- Midwest Radio Company 1000 N. Broadway
- Mitchell Radio Company 1000 N. Broadway
- Moraski Radio Shop 1000 N. Broadway
- Muller Radio, Inc. 1000 N. Broadway
- Nell Piano Company 1000 N. Broadway
- Park Electric Shop 1000 N. Broadway
- Pepper Appliance Company 1000 N. Broadway
- Radio & Home Appliance Co. 1000 N. Broadway
- Real Radio Service, Inc. 1000 N. Broadway
- Sebastian's 1000 N. Broadway
- St. Paul's 1000 N. Broadway
- Stuffed Bros. 1000 N. Broadway
- Target Radio Service 1000 N. Broadway
- Wm. H. Teach, Inc. 1000 N. Broadway
- Walt's Radio Shop 1000 N. Broadway
- R. S. Whitnack, Inc. 1000 N. Broadway

W9XAO

Atop the Wisconsin Tower THE MILWAUKEE JOURNAL FREQUENCY MODULATION STATION—42.6 MEGACYCLES ON YOUR FM SET

COOPERATIVE newspaper-station-dealer effort introduces new service to Milwaukee consumer



DROEGKAMP-INGHRAM—Proprietor George Inghram tunes in W9XAO for a prospect who came to the store on invitation to hear its premiere program

"We shall look forward to hearing from you soon."

37 Dealers Accepted

On the strength of this letter, 37 of the city's radio dealers had their names listed in the full page advertisement announcing the inauguration of the new station and inviting the public to come in to listen to W9XAO during store hours.

In addition, ten dealers utilized space in the special newspaper section on April 21 which carried stories concerning the new station and its personnel.

During the opening week, dealers reported a good response on the part of the public to their invitation to

hear the FM station and said that people showed an appreciation of the difference in the new type of broadcasting despite the fact that there was little static in ordinary wavelength reception at that time.

A number reported sale of sets priced at about \$275, combining standard, short wave and FM broadcast, together with automatic phonograph.

Some reported that many persons who came into their stores to listen said that while they appreciated the quality which the new system offered, they were unable to afford to purchase an FM set at that time, but they were ready and did buy standard sets.

In the estimation of several deal-

ers interviewed the new service is a broadcasting evolution rather than a revolution. They expect it to grow slowly but soundly and are meanwhile satisfied with the increased store traffic and "plus business" which it helps to produce.

Journal Follows Up

The newspaper followed up its full page opening announcement with smaller advertisements during the next several weeks, again listing the names of co-operating dealers.

Its primary purpose now is to build interest in programs and, for that reason, most of the airings over that station are original ones confined pretty largely to music having a tonal range most accurately reproduced in the new system. The station is also using small daily advertisements on its radio page calling attention to particular programs.

Hot Markets for

HOW TO CASH IN on special warm-weather requirements



OUTDOOR CONCERTS—Many occasions like dance festivals, band concerts, take place in public parks and the park director can tip you off to rentals

THE SUMMER MONTHS with their innumerable outdoor activities, present the sound rental dealer selling opportunities not present at any other time of the year.

Among such opportunities are picnics, outings, boat-rides, patriotic ceremonies, block-parties, lawn fetes and athletic events. There are ceremonies of a dozen different kinds that will require sound amplification such as memorial ceremonies, tree-planting exercises, boat-launching ceremonies, laying of cornerstones for public buildings, school commencements, dedications of churches, and other outdoor religious services.

Leads and Prospects

Every city has a popular park or community playground where many outdoor events are held. If these parks are of any substantial size they are in charge of a park foreman or supervisor. Generally, before a club or organization may use a city park for any kind of athletic event, such as a track meet or a

baseball game, it is necessary to secure permission in advance from the city department in charge of parks. Notice of this permission is then forwarded to the foreman in charge of that particular park. The sound dealer should make the acquaintance of this foreman, so as to obtain information on coming events. In some cities, the park authorities post these coming events for public reading. The dealer will find them excellent leads to sound sales.

Many outdoor events are broadcast from the local radio station. Arrangements for such broadcasts are made many weeks in advance. Get acquainted with the directors of programs, the chief engineers

or the publicity directors of your local stations. They can give you leads as to what affairs are scheduled for future broadcast.

Reciprocal Deals

Outdoor ceremonies frequently require some form of decorations such as flags and bunting. These bunting are mostly rented from companies that deal in this product. You can locate such companies from the telephone Red Book. With a tactful approach you can work out a reciprocal deal with these companies to the extent that you will exchange information regarding coming events.

Committees arranging social events will start dealing with caterers and other merchants long before they get to thinking about "sound," if they think about it at all. So all classes of merchants who might in any way be involved in a picnic, ceremony or other event, should be contacted by the sound dealer. For instance, a great many functions will require folding chairs. Look up the dealer who rents folding chairs,

BUILDING YOUR SOUND BUSINESS

Third of a Series About
**DEVELOPING NEW
MARKETS**

Summer SOUND



SUMMER OUTINGS — Picnics like this call for recorded music and several announcing channels. Powerful amplifiers plus a number of large trumpets provide required coverage (left)

DEDICATION CEREMONIES — One example of a profitable sound rental is this cornerstone-laying exercise. The lead came from a man who put up the banners (below)

PATRIOTIC SERVICES — Sound is practically synonymous with many events that take place on such dates as July 4. Watch the papers for such events (bottom)

By

SOLBERT J. WHITE, E. E.

White Sound Service

and arrange with him to exchange leads on coming events.

Another source of information as to coming events are the theatrical booking agencies and other specialized employment agencies from which entertainers are hired. Bands and orchestra leaders can also provide excellent tips where sound equipment is needed.

Check Coming Events

By all means the sound rental dealer must make it a ritual to peruse the daily newspapers most carefully for leads, and then get busy on the phone or typewriter. Many newspapers print a column of "Events Today." While it is difficult to follow up such leads on the same day as the event takes place, it is a wise plan to load the required equipment into your car, and then drive around to the location of the affair. On any number of occasions attendance has been greater than anticipated by the committee, and you can go to work on the spot equipping the place for overflow sound reproduction.



Newspaper

ADVERTISING . . .

By

ROBERT CORENTHAL

Adv. Mgr., Terminal Radio Corp.

IT IS OUR PURPOSE to discuss here with radio retailers the relative merits of newspaper advertising as a means of increasing profits.

Let us begin by stating that the chief advantages of newspaper advertising are: (1) You can present an illustrated sales message to the greatest number of people with the least amount of time and effort on your part. (2) You can do it quickly; a "hot" number may come in today and the whole town can know about it tomorrow. (3) You can be timely; people look at newspaper advertisements before purchasing "seasonal" merchandise. For example, before embarking on summer vacations newspaper readers are interested in style and values of summer apparel, luggage, sporting goods, portable radios, etc.

Newspaper advertising has its disadvantages, too. Many radio retailers who have attempted to use newspapers found that often costs of an ad far exceeded the profits of its results. It has also been found that consistent advertising was necessary to impress the store's name in the minds of readers and to catch prospects when they "are in the market for a radio."

What It Should Cost

Large, centrally located radio stores can expect profitable advertising results from newspapers. Smaller dealers who attempt this form of advertising will more frequently reap only the dubious satisfaction of seeing their name in print, unless they have an unusual type of service to offer or carry an exclusive "demand" line.

Chain stores rely heavily on newspaper advertising sales. An analysis of newspaper advertising costs will



\$58.80—That's about what this ad would cost a single independent retailer even if some manufacturer contributed 10¢ a line

show you why newspaper advertising is so profitable to radio retail chain stores. So let us leave the general aspects and examine some pertinent and startling facts about newspaper advertising in our field.

The cost of newspaper space is based upon the number of lines you use in a year. If you contract for 5,000 lines, your newspaper might charge (depending upon its circulation and the purchasing power of readers), say, 40¢ a line. If you contract for 100,000 lines your rate might only be 20¢ a line. As there are fourteen lines to a column inch, the cost of an ad seven inches high and three columns wide, at the rate

of 40¢ a line, would be \$117.60.

Consequently, large chain radio stores have the "edge" on economical newspaper advertising. The chain store divides the cost of an ad among its branches and pays for an absolute minimum of "waste" circulation. Chain stores use large amounts of newspaper space and therefore earn much lower rates than their independent competitors.

Cooperative Ad Requirements

Radio manufacturers set aside a portion of their advertising budget to participate in cooperative advertising with their dealers. A radio

*How to
get your
money's worth*

manufacturer, if his advertising budget permits it, will pay for part of the cost of an ad when the ad is devoted entirely to his products.

The requirements necessary to obtain this financial cooperation are: (1) The merchandise must be advertised at the manufacturer's list price. (2) The display of the manufacturer's trade name must be at least as prominent as the name of the dealer. (3) A proof of the ad must be approved by the participating radio manufacturer or his local distributor. (4) Requests for advertising allowances must be approved in advance by the radio manufacturer or his local distributor.

Manufacturers usually allow a fixed percentage of the cost of the ad or a fixed line rate allowance. Advertising allowances to a radio dealer within a year generally do not exceed 5% of total purchases made within that period.

Now let us compare the cost of the same ad when published in the same newspaper by an independent store and by a chain organization. We will cite actual figures based on the rates of an existing newspaper and the allowances granted by the major radio manufacturers.

The independent radio retailer probably does not use more than 5,000 lines yearly in this paper, so

\$14.70—Essentially the same and intended for space seven inches by three columns, this ad might cost a 30-store chain materially less

let's say his line rate is 30¢. The ad size is seven inches by three columns, and since there are fourteen agate lines per column inch, the space cost would be \$88.20. The participating manufacturer allows 10¢ a line in this particular newspaper, resulting in a net space cost of \$58.80 to the dealer. This \$58.80 investment can be amortized by only one store.

The retail radio chain, on the other hand, uses 100,000 lines a year in this same newspaper, so its line cost is 15¢. The total space cost of an ad the same size as the aforementioned independent ad is

\$44.10. But the radio manufacturer allows 10¢ a line in this paper, so the ad costs the chain only \$14.70! And this \$14.70 cost is divided among all the stores of this chain!

Copy Production Suggestions

The production costs of newspaper advertising should also be taken into consideration. Large advertisers either retain the services of advertising agencies or maintain their own advertising departments to prepare their copy.

The smaller independent radio retailer who can't afford to advertise in newspapers should not lose sight of the fact that he does profit from the advertising of chain stores, department stores and large independent retailers. When a radio manufacturer pays part of the cost of an advertisement, he is careful to see that interest is created in his product in a manner general enough to reflect increased sales to his other dealers.

LARGE STORES and CHAINS have the advantage when it comes to newspaper advertising cost because they buy more lines per year

SMALL STORES must therefore be doubly certain that every dollar spent is timely, well placed and effective

ARVIN 1941 Headliners

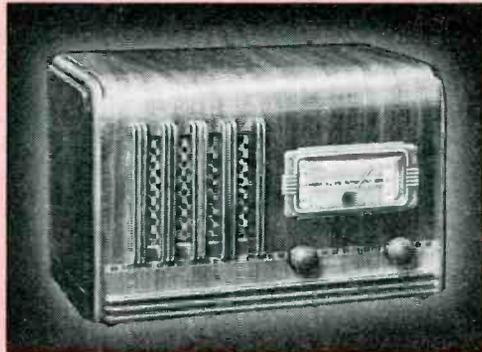
ALL HOT NUMBERS!



MODEL 622A \$14.95
Ivory plastic cabinet, above . . .

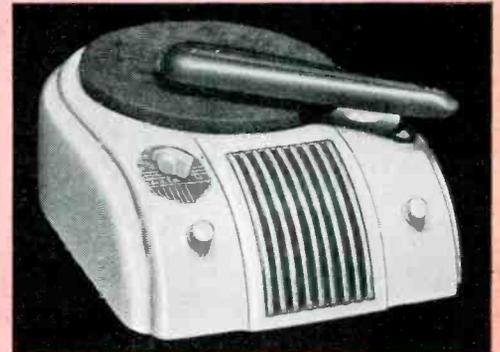
Model 622, walnut plastic cabinet . . . \$13.95

Three models in Arvin 600 series are big 5-tube AC-DC superheterodynes (including power rectifier tube). Two dual-purpose tubes in improved circuit provide exceptional performance. Quadruple tuned I. F. amplifier for unusual selectivity and splendid distant reception. Built-



MODEL 632 \$17.95
Rubbed walnut wood cabinet . . .

in loop antenna. Radio plays anywhere you plug it in, no ground needed. Connection on back of loop antenna permits use of outside aerial for extra distance. High sensitivity electro-magnetic speaker. Big easy-to-read illuminated dial. Band coverage 540 to 1600 kc. Large attractive cabinets.



MODEL 302A \$16.95
Unbreakable cabinet in ivory, above

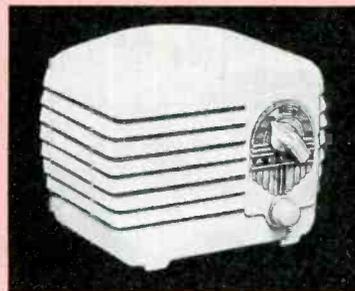
Model 302, in deep brown finish . . . \$14.95

RADIO-PHONOGRAPH—Powerful four-tube radio (including rectifier). Brings in radio broadcasts or plays 10" or 12" recordings beautifully. Audio system gives high output and clarity of reproduction. Attached aerial. Self-starting, constant 78 r.p.m. phonograph motor.

MODEL 522A \$10.95
Unbreakable cabinet in Ivory. At right . . .

Model 522, same as above in walnut \$9.95

Hot performing 5-tube superheterodyne (including power rectifier tube). Two dual-purpose tubes increase performance. Built-in loop antenna, electro-dynamic speaker, quadruple tuned I. F. amplifier for knife-edge selectivity and high-power output. Attractive airplane-type dial. Band coverage 540 to 1600 kc.



MODEL 420A \$7.95
Unbreakable cabinet in Ivory. At left . . .

Model 402, same as above in walnut \$6.95

Attractive, efficient three-tube AC-DC radio (including rectifier). Power output two watts. Electro-dynamic speaker gives clear tone. Attached 20-foot aerial and duo-tone embossed dial. Band coverage 540 to 1750 kc. which includes some police calls. Easily tucks away in over-right baggage.



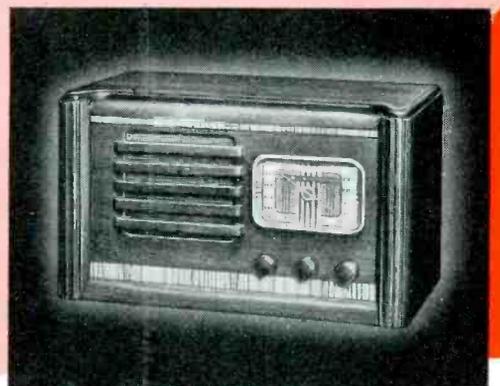
MODEL 722A \$19.95
Ivory plastic cabinet, left.

Model 722 . . . \$18.95
Walnut plastic cabinet.

Three models in Arvin 700 series are powerful 6-tube AC-DC superheterodynes. Two dual-purpose tubes in improved circuit step up performance. Extreme selectivity separates "close-together" stations. Permanent

magnet speaker gives fine reproduction over wide tone range. Big illuminated airplane-type dial. Built-in loop antenna. Continuous tone control. Band coverage 540 to 1600 kc. Large, impressive cabinets — beautifully designed.

MODEL 732 \$24.95
Rubbed walnut wood cabinet, at right.



ALL PRICES HIGHER WEST AND SOUTH

● Low list prices, good discounts, exceptional performance and eye appeal are all combined to bring you quick turnover on Arvins.

Arvin is the best *net profit* line in the industry—because all Arvins are small but hot numbers, all "headliner-attractions" for volume sales and "clear" profits.

All Arvins sell fast—are easy to handle—are quickly obtained from conveniently located jobbers who co-operate with you in merchandising any one or all models. And every Arvin Radio is backed by a company with total capital, surplus and reserves



of more than \$5,000,000. Alert dealers will get the handsome *free floor display*, shown here in miniature, by ordering at least one each of any six Arvin models now. Strongly constructed and beautifully colored — 5 feet high, 3 feet wide.

Arvin hot numbers and this merchandiser will boost your radio profits. Get your order in now.

NOBLITT-SPARKS INDUSTRIES, INC., COLUMBUS, INDIANA

● The company behind Arvin Radios sold four times as many sets in 1939 as in the year before—and 20% more in first 6 months of 1940 than in all of 1939.

GENE KRUPA • COUNT BASIE • GENE AUTRY
 DICK JURGENS

• FRANKIE MASTERS
 • TOMMY TUCKER

GINNY SIMMS

B CALLOWAY

• TINY HILL

JACK LEONARD

HENRY RUSSELL

JOHN KIRBY

HERBECK

• CAB

RAY

AL

AL DONAHUE
 HORACE HENDERSON
 AND MANY OTHERS •

Cash in

on the greatest array of talent
 on any **35¢ RECORD**

OKEH is the new name for Vocalion Records.
 Columbia Recording Corporation announces the return
 of one of the grand old names of the record industry,
 when with Release No. 155 the name "Vocalion" is
 changed to "Okeh."
 For a time, releases of many Okeh artists will be found
 on both Okeh and Vocalion labels. Okeh catalogue num-
 bers will be the same as Vocalion. All the greatest artists
 until now on Vocalion, plus many new ones, will be on
 the new Okeh Records.

Instead of Vocalion
 ... just say **OKEH**



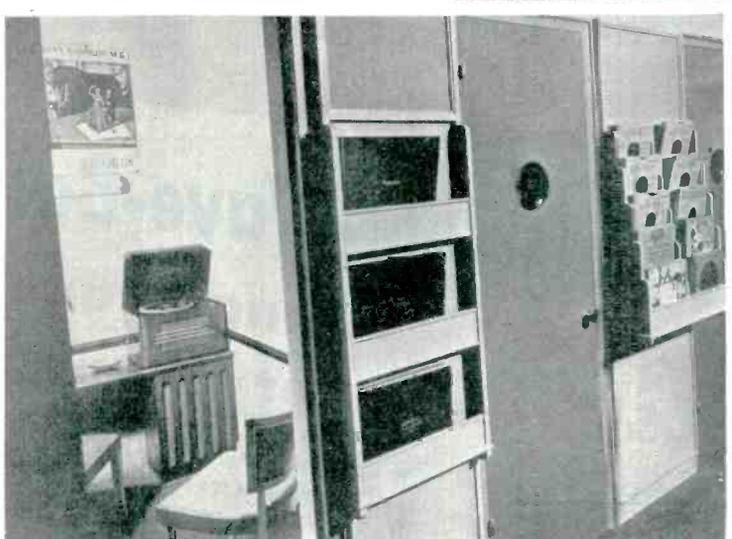
COLUMBIA RECORDS
*cordially invites you
 to visit*

Suite 533-4-5-6,
 Stevens Hotel, Chicago
 Music Trades Show

COLUMBIA RECORDING CORPORATION

A SUBSIDIARY OF COLUMBIA BROADCASTING SYSTEM, INC. • BRIDGEPORT • NEW YORK • HOLLYWOOD

RECORD Department *DeLuxe*



DISCERNING record dealers will find unusual interest in this series of photos showing the up-to-date layout of Rabsons Music Shop, one of the oldest music establishments in New York City.

From the time the customer ascends the attractive staircase to the second floor where the record department is located, he is aware of roomy audition booths, well stocked record libraries and many conveniences assigned to this layout.

This dealer has introduced in the new store a novel "help-yourself" record library. This section is shown in the illustration set-off with the two easy chairs and the glass library table. The library holds only classics from Bach to Wagner arranged in complete album sets in alphabetical order under the composer's name. The albums comprise from 2 to 12 recordings.

The customer helps himself to the album of records in which he is interested, proceeds to one of the air-conditioned booths where the audition itself is an important subtle selling aid. The department is, however, not confined strictly to self-service. Competent salesmen



guide the customer to the best recordings in the classics, and supply information as to their classifications and album popularity.

The records for customer audition are for demonstration purposes only. When sale is consummated the buyer is supplied with a new sealed record.



PHILCO for 1941 *Greatest Achievement*

New Kind of Overseas Wave-Band **Gets Europe 500% Stronger and** **Clearer . . . 5 Times Easier to Tune!**

Philco makes radio history while world history is made! Brand new inventions give you the finest tone and performance . . . the greatest radio values Philco has ever produced. More tubes for the money; bigger, finer speakers; the biggest variety of exquisite cabinet designs in Philco history.

In these stirring times, Philco presents a New Kind of Overseas Wave-Band that brings in Europe 5 times stronger and clearer, makes it 5 times easier to tune than ever before. It's brand new . . . sensational . . . nothing like it has ever been known in radio. A Philco engineering triumph! *Only Philco has it!*

Brand New Radio Circuit. Dreamed of but never before achieved by radio science. Made possible by the amazing new XXL Converter Tube invented by Philco. Reduces noise by 5 to 1, reduces "cross talk" by 20 to 1 and increases sensitivity by more than 2 to 1. *Only Philco has it!*

Built-In American and Overseas Aerial System. As much as six times larger in area; four times thicker wire. Gives far greater sensitivity on short-wave and standard reception. No aerial, no ground needed . . . just plug in anywhere and play. *Only Philco has it!*

New Conveniences in Tuning and Operation . . . A single Push-Button for "ON" and "OFF" . . . Illuminated Shifting Arrow for Band Indication . . . Built to Receive Television Sound and FM, *the Wireless Way.* *Only Philco has it!*

Yes, everyone who has seen it agrees—it's the hottest line in Philco history, the chief source of 1941 profits for the radio dealers of America. 11 straight years of leadership have passed . . . 1941 is the twelfth!



Philco All Year 'Round for Profits All

Philco brings you the advancements in its History!

The first basic improvement in
sound reproduction since
Edison invented the phonograph!

Records Reproduced on a BEAM OF LIGHT!

For the first time in history, thanks to the genius of Philco engineers, the *photo-electric cell* is used in phonograph reproduction. The sensational Philco Photo-Electric Radio-Phonograph reproduces records on a *beam of light* . . . through the reflections of a floating jewel on a photo-electric cell . . . bringing amazing new benefits to the radio buying public!

No Needles to Change! The floating jewel lasts 8 to 10 years giving you 30,000 to 40,000 record playings!

Records Last 10 Times Longer. Play valuable records as much as 700 times each without fear that they'll lose their beauty!

Glorious New Purity of Tone . . . full record beauty. Needle talk and surface noise no longer mar tone purity.

. . . Only Philco Has It!

In addition, Philco presents many other new and exclusive improvements that the radio-phonograph buyer will demand in 1941.

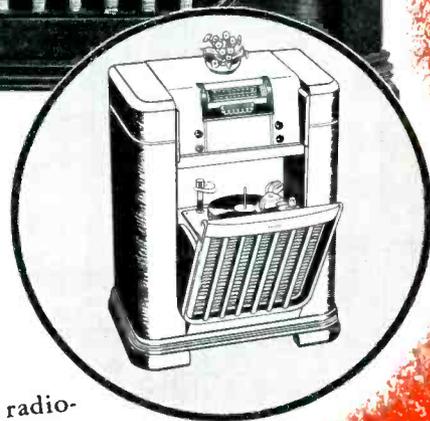
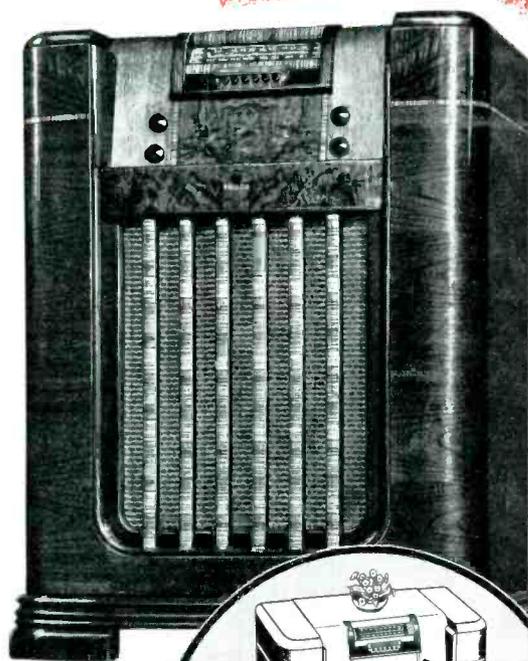
New Tilt-Front Cabinet

Brings new beauty and conveniences. No lid, no need to remove ornaments to reach the phonograph, no dark awkward compartment. New principle tilts phonograph forward, in full view and easy to use. *Only Philco has it!*

New Home Recording

Not an assembled, amateur device but a *professional* Home Recording Unit developed by Philco engineers for home use. Offered as optional equipment at reasonable extra cost. A new, easier, more profitable way to sell home recording.

Cash In with Philco . . . the most profitable All Year 'Round Franchise in the Appliance Field!



Year 'Round

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



4 Studies in SHOWMANSHIP

DRAMATIC display and demonstration are the first essential steps in the sale of any product and showmanship is particularly important in the merchandising of appliances.

Here are four ways to attract and then hold the buyer's attention:

Three Turkish Towels

Braid three turkish towels tightly together and drop them in the washer. In about two minutes the towels will completely unbraided and

wash themselves separately.

This demonstration, suggested by the factory men selling Hotpoint machines, proves that clothes cannot become tangled, twisted or bunched and will, in fact, untangle themselves even if placed in the machine that way.

REA "Ambulance-Chasing"

Rural dealers in areas now being served by government-financed power lines may well take a page from Frigidaire's book and duplicate this trailer on a small scale.

Equipped with the complete General Motors appliance line, it will demonstrate to more than 300,000 persons this year, covering a 10,000-mile route.

Along it comes to do an institutional selling job, right after the poles go up.

Pillar of Profit

This effective and novel setup was arranged by Commonwealth Edison of Chicago for its "Electric Living Show."

The display, which will be kept in place throughout the summer, shows four models comprising Philco's portable air-conditioning line, displayed on the four sides of a central column in such a manner as to represent actual installations.

Solves two problems at a crack, presenting merchandise as it will look in the home and disguising an unattractive store obstruction.

Mechanical Eskimo

Michaels Brothers stores in New York do a job for Norge with this Igloo window display.

Man is mechanical, raises successive cards explaining the refrigerator's features, then points to these features on the actual box.

That's as near as an automaton can come to actually getting the prospect's signature on the dotted-line!



Announcing! A History-Making Achievement . . .

THE Concert Grand

SUPERB TONE AND PERFORMANCE IN AUTHENTIC PERIOD CABINETS!



Graceful Sheraton Model—Available with choice of two chassis

Leading Store Managers Helped Us Create "What Prospects Are Asking For"

MUSIC DEALERS . . . department stores . . . furniture dealers! Now you can offer customers superb new musical creations that *actually belong* among the other fine furnishings in their homes!

These history-making Concert Grands are *built to your order . . .* not planned behind closed doors by engineers alone, but developed from start to finish *under actual direction of leading store managers* to give you what people with taste are asking for!

Authentic period designs give the Concert Grands beauty that adds to any room. Sheraton, Chippendale, Hepplewhite, Georgian and English Regency cabinets are hand-crafted—and available in a choice of beautifully grained, dull-rubbed walnut, mahogany and bleached mahogany.

"*Magic Baton*" Tone Mastery gives command of tone once offered only at far higher price . . . with new dual controls for independent command of bass and treble . . . new curvilinear speaker in resilient baffle for finer reproduction . . . and surplus power to handle full symphony volume few instruments can reproduce.

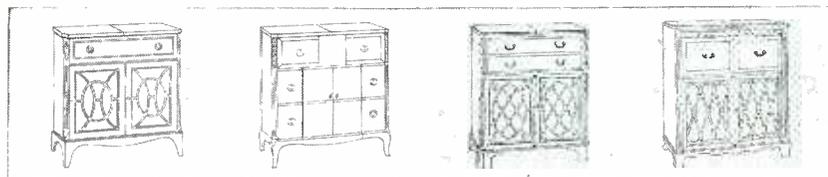
"*Silk Glove*" Record Changer eliminates former fear of chipped or broken records, false starts and damage done by dropping needle onto a bare turntable—handles 14 ten-inch or 10 twelve-inch disks.

In every detail, the Concert Grand is an instrument you can be proud to offer—and customers will be proud to own.

. . .

SEE THE NEW CONCERT GRANDS

in rooms 733A to 736A at the Stevens Hotel, Chicago, during the National Association of Music Merchants Annual Convention, July 30 through August 1st.



Three Concert Grand models are available in this lovely Hepplewhite cabinet. One model includes new record-cutter—makes records at home of radio music or family voices.

Lovely English Regency cabinet in choice matched and figured woods, hand-rubbed to soft lustre. The center doors conceal speaker grille—side doors for records. At home with finest furnishings.

The graceful lines that made Chippendale a world-famous furniture designer distinguish this cabinet. Includes "Silk Glove" record changer and a choice of 2 fine radio chassis.

For the room furnished in Georgian period style, this beautiful hand-crafted cabinet is ideal. Matched figured woods and true Georgian carving give it extra richness you'll be proud to own.

Concert Grand

BY STEWART WARNER

Another Stewart-Warner Product—completing a full line of fine radios, radio-phonos and radio-phono-recorders

G-E



MODEL JM-7—Portable home recording record player in simulated leather case. Recording arm will cut up to and including 10-inch home recording records. Play-back tone arm will play back up to and including 12-inch home recording or standard records. Crystal microphone, model JM-6, is illustrated with portable.



MODEL J-809—Automatic phonograph combination console in genuine mahogany, features an 8-tube receiver, 3 bands. Provides for frequency modulation or tele connection. Phonograph compartment is in top left drawer and can be "rolled-out" conveniently. Equipped with record storage compartment. General Electric Co., Bridgeport, Conn.

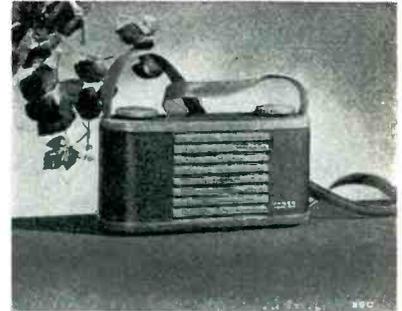
BRUNSWICK



DELUXE CONSOLE—"The Normandie," model 277 is a Louis XVI wall commode in French Claro walnut. Employs an eleven tube superhet with 20-watt pushpull output and four tuning bands and a 15-inch speaker. Automatic record changer plays 10- and 12-inch records intermixed. Features a roll out phonograph compartment.

Preview of

PHILCO



CANDID PORTABLE—Portable Model 89C radio. Hangs on shoulder like cameracase. Weighs five pounds, measures 5 x 10 x 4 inches. Special braided aerial wound inside shoulder strap. Extremely small battery block is self contained.



CONSOLE—Model 300X is a 12-tube superhet with 7 pushbuttons. Large electro dynamic speaker mounted behind "cathedral organ" type cabinet front. Four tuning bands are provided with emphasis on convenient operation of the 9 to 12 megacycle band. Philco Radio and Television Corp., Philadelphia, Pa.

FADA



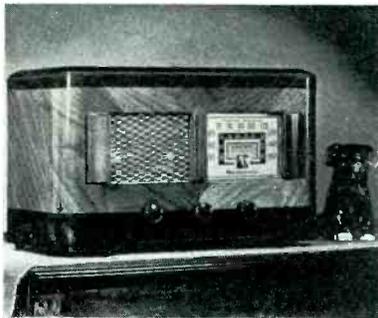
PORTABLE—Model PL24, a 7-tube superhet with 2-wave bands, is a 3-way portable available in simulated leather case of new red brown "Havana" color with leather luggage handle. Fitted with concealed sliding door. Price complete with batteries, \$39.95. Fada Radio & Elec. Co., 30-20 Thomson Ave., Long Island City, N. Y.

CONSOLE—"The Carlton," model 286, is a Regency console in Honduras mahogany. Employs six-tube circuit with three bands and 12-inch speaker. Automatic record changer plays 10 and 12-inch records intermixed. Brunswick Division, Mersman Bros. Corporation, 206 Lexington Ave., New York, N. Y.



WESTINGHOUSE

TABLE TYPE—Five-tube, two-band a.c.-d.c. superhet. Has five-inch electro dynamic speaker, beam power output and built-in antenna for both standard broadcast and short wave bands. Cabinet in contrasting walnut veneers. Model WR182.



CONSOLE—Model WR388 is a nine-tube, three-band console superhet for a.c. operation. Has 12-inch speaker, 5 1/2 watt pushpull pentode output, and adjustable built-in antenna. Features six pushbuttons, and an edge-lighted glass slide rule dial. Westinghouse Radio Headquarters, 150 Varick St., New York, N. Y.



New Products

CONCERT GRAND



CONSOLES—The Deluxe line includes combination radio-phono models 8D9 and 10A9 both available in the Sheraton design cabinet. Made in walnut, mahogany or blonde mahogany. The 8D9 model employs 8 tubes and is dual-band unit. The 10A9 uses 10 tubes with three bands. Both have 12-inch speakers and automatic record changers. Concert Grand by Stewart-Warner Corp., Chicago, Ill.

MOTOROLA



BIKE RADIO—Model B-150 is a compact 3-tube superhet, uses a 4-inch speaker and is equipped with a special battery pack. Mounts on handle bars with rubber shock-proof mountings. Measures 8 x 4 $\frac{1}{4}$ x 3 $\frac{1}{4}$ inches. Easily installed. Price \$19.95.



AUTOMATIC RECORD PLAYER—Model 23RC is a two-tube wireless player with automatic record changer. It is mounted on a walnut finish base. Changes eight 10-inch or seven 12-inch records. Has automatic "reject" button. Measures only 12 $\frac{1}{2}$ x 8 $\frac{1}{4}$ x 12 inches. Galvin Mfg. Corp., 4545 Augusta Blvd., Chicago, Ill.

PORT-O-MATIC

PORTABLE—Seven-tube a.c.-d.c. battery two-band superhet. Has a three-gang tuning condenser and two watts output on line operation. Slide-in front cover can be locked with key. In suntan cowhide. Magic indicator for condition of batteries. Port-O-Matic Corp., 50 East 77 St., New York, N. Y.

HOWARD



MODEL 700—Modernistic plastic table type receiver has 5 tubes, 5-inch speaker, covers standard broadcast and police band. Measures 9 $\frac{1}{8}$ x 6 x 5 $\frac{1}{8}$ inches. Available in walnut or ivory.



TABLE TYPE—Model No. 307 is a 5-tube straight a.c. receiver equipped with 3-wave band using 6 $\frac{1}{2}$ -inch speaker. Output 5 watts. Retail price \$29.95. Howard Radio Co., 1731 Belmont Ave., Chicago, Ill.

RCA



PERSONAL RADIO—A new camera size portable radio housed in a black metal case, 8 $\frac{7}{8}$ x 3 $\frac{11}{16}$ x 2 $\frac{15}{16}$ inches and weighs 4 lbs. Uses 2 batteries and contains 4 miniature tubes. Comes equipped with long strap for over-the-shoulder carrying, \$20.00, complete with batteries.



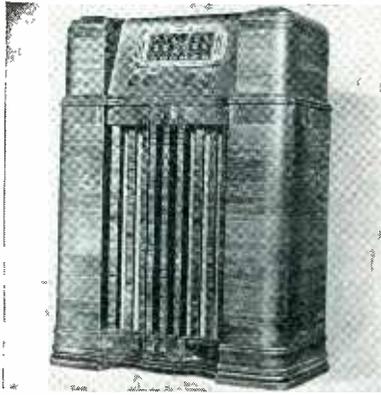
MODEL 18T—New table type radio with large slide rule dial, new styled pushbuttons, tele attachment. Cabinet top, dial, and grille frames on this 3-band, 8-tube receiver, are of solid walnut; body is of walnut veneer with a band of maple veneer. Has built-in loop. Height 12 $\frac{1}{8}$, width 17 $\frac{1}{8}$, depth 10 inches. RCA Mfg. Co., Camden, N. J.

ANDREA

PORTABLE RECORDER—Model RG 30 has five tubes, luggage case design. Utilizes 6U5 visual recording indicator and a 6 $\frac{1}{2}$ -inch speaker. Plays 12 or 10-inch standard records with cover closed. Records 6 to 10-inch size discs. Microphone and amplifier can be fed to speaker for small P.A. use. List \$79.95. Andrea Radio Corp., 48-20 48th Ave., Woodside, L. I., N. Y.

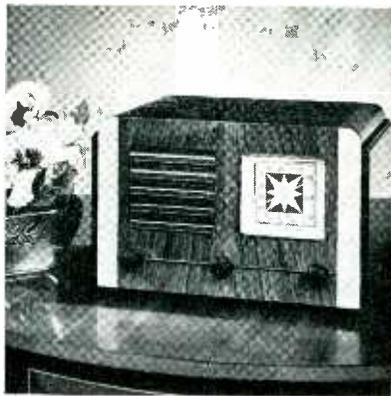


FARNSWORTH



CONSOLE—This model BC-1020, ten-tube radio receiver is equipped with a universal power transformer, and taps which provide a range from 90 to 275 volts. Covers three bands, has color-tone control, television adjustment bridge, capacity screen antenna and 12-inch speaker.

TABLE TYPE—Model 500-J, housed in a unique rosewood cabinet with airplane type pointer dial, has dynamic speaker, tone control, built-in loop. Measures 8 $\frac{1}{4}$ x 13 x 7 $\frac{1}{2}$ inches. Price \$29.95. Stromberg-Carlson Tel. Mfg. Co., Rochester, N. Y.



CONSOLE—Model 369 is an a.c. 8-tube superhet with 6 pushbuttons, 12-inch speaker. Has pushpull dynamic-coupled output stage. Highly polished cabinet is of butt and heart walnut. List \$79.95. Emerson Radio & Phono Corp., 111 Eighth Ave., New York, N. Y.



CHAIRSIDE COMBINATION—Model BK-73 is presented in striped and figured walnut cabinet. Speaker grille is to the front of cabinet. Comes equipped with record album compartment, accessible from both sides. Radio is a 7-tube superhet. Farnsworth Tele. & Radio Corp., 3700 Pontiac St., Ft. Wayne, Indiana.

CROSLY

MODEL 31BF—Combination radio, recorder with phonograph and automatic record changer has table type microphone. This 10-tube "Glamor-Tone" receiver features 12-inch speaker, 8-pushbuttons, and is housed in period type cabinet. The Crosley Corp., Cincinnati, Ohio.



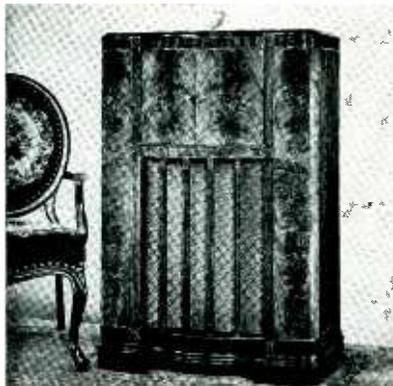
SENTINEL

MODEL 220-F—This 7-tube radio-phonograph has an automatic record changer. Comes in walnut or mahogany period cabinet equipped with connections for television or frequency modulation. Has built-in loop, 10-inch speaker and plays 10- or 12-inch records.



STROMBERG-CARLSON

CONSOLE—Model 535-M four-band set equipped to receive frequency-modulation broadcasts. Has built-in knob-controlled shielded loop, pushbutton tuning, television and phonograph connection. Price \$199.50.

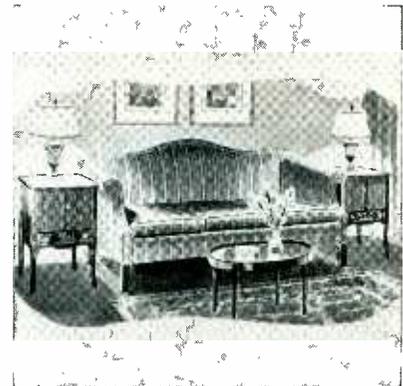


EMERSON



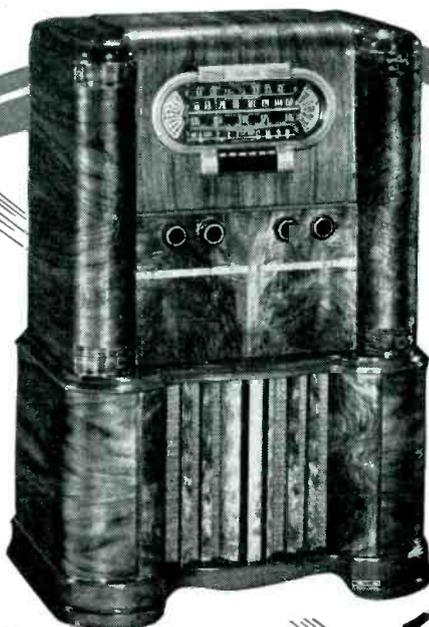
COMPACT—Model 336 is an a.c.-d.c. 5-tube superhet with enclosed loop. Has electro-dynamic speaker, beam power output, and walnut mottled bakelite cabinet. List price \$9.95.

TWIN COMMODOES—Model 223-D, 7-tube superhet housed in 18th century period cabinet, has connections for phonograph, television, and frequency modulation. The matching set, model RCD, is an automatic record changer. List price \$69.95 each. Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill.



For your Big-set — Big-volume
— Big-profit business —

The Finest Consoles in RCA Victor History!



RCA VICTOR PRESIDENTIAL MODEL 110K

Amazing new "Overseas Dial" with 31-meter spread band . . . 10 RCA Victor Preferred Type Tubes . . . Stabilized Electric Tuning (6 stations) . . . American and Foreign Reception—3 bands . . . Radio-Frequency Amplification . . . Built-in Magic Loop Antenna—Separate Built-in Antenna for Short Waves . . . Parallel Push-Pull Audio System—12" Electro-Dynamic Speaker.

Push these quality consoles—

Watch 'em pull people in!



RCA VICTOR MODEL 19K

9 RCA Victor Preferred Type Tubes . . . Stabilized Electric Tuning (6 stations) . . . American and Foreign Reception—3 bands . . . Built-in Magic Loop Antenna—Separate Built-in Antenna for Short Waves . . . Radio-Frequency Amplification . . . Push-Pull Audio System, 12" Electro-Dynamic Speaker.

Both instruments designed for use with Victrola, Television or Frequency Modulation Attachments!

IF your customers go for beauty *plus* value—you've got a great year ahead! For in these brilliant new 1941 RCA Victor console radios, you've got the fastest-selling profit-getters that ever gladdened a dealer's heart!

We spent thousands of hours to make them *planned super-values!* RCA Victor research men and engineers incorporated in them brilliant new features for finer performance and richer tone. RCA Victor craftsmen created and discarded scores of designs before selecting the superb cabinet that set new standards of beauty.

The results are the finest "sales naturals" you've ever offered the public. Get behind them and push—and get in business for your wealth!

P. S. Remember, these are but *two* of the profit-pullers in the great 1941 RCA Victor line! Better check into the "Little

Nipper" sales picture, too—it's the brightest spot in years!



RCA Victor

RCA MANUFACTURING COMPANY, INC., CAMDEN, NEW JERSEY
A SERVICE OF THE RADIO CORPORATION OF AMERICA

For finer radio performance
RCA Victor Preferred Type Tubes

PILOT

PORTABLE TWIN-SET—This 7-tube model X1451, three-way portable is housed in airplane luggage fabric case with sliding front cover; list price \$49.50. Other models available, one including the shortwave band, the other, the marine band; list price \$52.50 each.



FEATHERWEIGHT PORTABLE—A compact, 5-tube portable, model T-71, is equipped with a 5/4-inch speaker and large slide rule dial. Features a three-way power line. Front cover falls open on hinges to reveal dial; list price \$29.95. Pilot Radio Corp., 3706-36 St., L. I. City, New York.

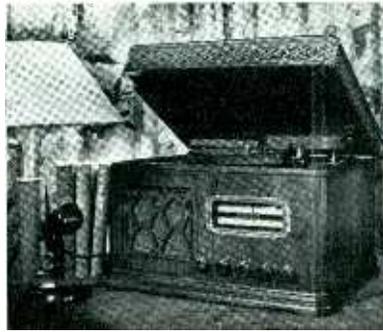


AIR KING

PORTABLE—Three-way portable equipped with both standard and shortwave band. Model X3950, a 5-tube receiver, is encased in leather-effect luggage material case. Has hinged front cover.

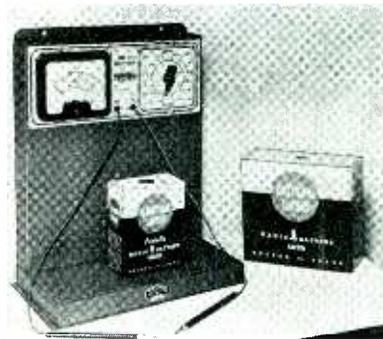


RADIOCODER—Model 5000 is a six-tube, two-band super with output of 2.5 watts. Uses crystal pickup, crystal recording arm and crystal micro-



phone. Has Tune-a-Scope loop antenna and comes in a genuine walnut or mahogany cabinet. Air King Products Co., Inc., 1523-63rd St., Brooklyn, N. Y.

NATIONAL UNION



BATTERY TESTER—Offered to National Union dealers under special arrangements is this new model 633 battery tester manufactured by Triumph Mfg. Co. of Chicago, Ill. Switch sets proper battery voltages and meter reads in percentage of useful battery life. For complete details write National Union Radio Corp., 57 State St., Newark, N. J.

GENERAL CEMENT

KIT—Introduces handy kit of shellac sticks for patching wood and plastic radio cabinets as well as refrigerators. Kit comprises 6 sticks in light and dark shades, an alcohol lamp, spatula, steel wool, sand paper and wiping cloth. General Cement Mfg. Co., Rockford, Ill.

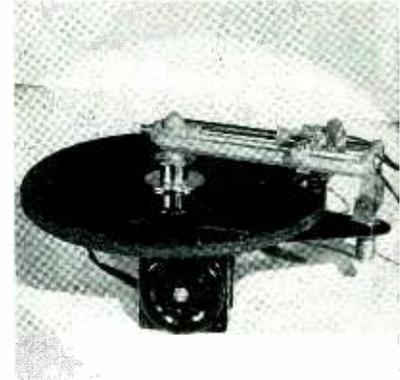
DE WALD

COMPACT—Model 548 "Organ-Tone" receiver, a striking plastic table model with 5 tubes, drift-proof automatic mechanical tuning, built-in loop, broadcast and state police band. Available in walnut, \$19.95; in ivory, \$21.95 list prices. DeWald Radio Mfg. Corp., 440 Lafayette St., New York, N. Y.



BATEMAN

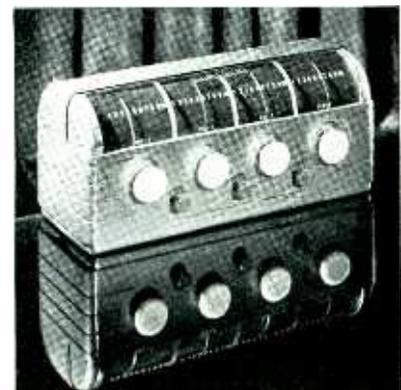
RECORDING ASSEMBLY—Lathe-type record cutting mechanism and heavy duty recording motor. This professional type assembly cuts either inside out or outside in by shifting only one lever. With gear change arrangement, will cut either 112 or 140 lines per inch. Cuts up to 16-inch masters. Model CU12, list price \$68.25.



PORTABLE RECORDER—Uses recording assembly above. Has synchronous motor, meter for volume level, and adequate power for public address. Permanent sapphire stylus used in featherweight tone arm. Bateman Sound Systems, Inc., Akron, Ohio.



WEBSTER-CHICAGO



MIXING UNIT—For "Master" series Tandem Amplifiers. Available in four and two positions. Power stages for use with this mixer are available in 25, 45 and 75 watt capacity. Uses plug-in "Hi-Lo" transformers for high or low impedance microphone inputs and features automatic expansion. The Webster Co., 5622 Bloomingdale Ave., Chicago, Ill.

**THE QUALITY OF A
"PORTABLE'S" RECEPTION
CAN BE NO BETTER
THAN ITS POWER!**



These GOOD Willards will keep "portable" owners happy . . . and make you a good profit besides!

Every type you need!

Every type meets or exceeds U. S. Bureau of Standards specifications—contains a high percentage of active materials—has construction advantages that prolong its life.



Power Packs finished in a shade to harmonize with the radio cabinet.



New 1 1/2 volt "A" Dry Batteries for portable sets using 1.4 volt tubes.



2 and 6 volt "A" Storage Batteries. Greater capacity. Rechargeable.



Dry cells for ignition, doorbells, flashlights, all general purposes.



An attractively designed line of "A," "B" and "C" Dry Batteries.

The complete Willard radio battery line and the new Willard proposition give you EVERYTHING you want . . . including a sweet profit! Mail the coupon for full details TODAY.

• Keeping customers satisfied is essential to success in this day of severe competition. Wise is the radio dealer who insures customer good will by recommending and selling batteries that deliver adequate power—batteries that will guarantee *good* reception to his "portable" customers. That's the reason more and more radio dealers are recommending *WILLARDS*. That Willard name means "tops" in batteries to people the country over—makes it a lot easier to sell this line. And Willard backs you up with selling helps that move merchandise.

Willard *Batteries for Every Purpose*

**GET WILLARD'S
PROFIT PLAN FOR
RADIO DEALERS!**

WILLARD STORAGE BATTERY COMPANY
CLEVELAND, OHIO

Send me the complete story on your Profit Plan for radio dealers.

NAME _____
ADDRESS _____
CITY _____ STATE _____



WAY OUT IN FRONT!

For the Fifth Consecutive Year!

Look to G-E for The Latest in Radio!

General Electric was the first to introduce

- ELECTRIC TOUCH TUNING..... 1937
 - BUILT-IN BEAM-A-SCOPE..... 1938
 - DYNAPOWER SPEAKER AND FM RECEIVERS..... 1939
 - DUAL DYNAPOWER SPEAKERS. 1940
- And NOW comes the new FREQUENCY MODULATION KEY ON STANDARD RECEIVERS AND AN ADVANCED TYPE OF HOME RECORDING AT LOW COST

Once again—General Electric leads the radio industry in the introduction of new features!

For 1941—General Electric offers two new and sensational features: a *Frequency Modulation Key* and an advanced type of *Home Recording* at low cost.

And once again—General Electric leads the "value" parade with a brilliant new line of G-E Golden Tone Radios!

See these amazing new models. Stop! Listen! Compare! Then you'll agree—G-E's the Buy for '40!

INVESTIGATE! Write or phone your G-E Radio Distributor—today.

* G-E FREQUENCY MODULATION KEY



FREQUENCY MODULATION
Television
Audio
Phonograph

This Frequency Modulation Key automatically permits the owner of a G-E Radio to enjoy Frequency Modulation Broadcasts through the radio loud-speaker when used in conjunction with the G-E Frequency Modulation Translator—Model JFM-90. The G-E Frequency Modulation Key has other advantages. It may also be used as a Television Audio or Phonograph Key.

* G-E HOME RECORDING RECORD PLAYER



This new unit operates both as a Recorder and a Record Player. It permits your customers to make their own voice recordings, to record radio programs, and then to play them back over the radio loud-speaker. MODEL JM-7 (illustrated) Consists of complete portable recording and play-back equipment. Can be used in conjunction with any Radio equipped with a Phonograph Key or "jack." Fitted in an attractive Hand Luggage Case.

SUPERB STYLING!

BRILLIANT PERFORMANCE!

AMAZING VALUES!

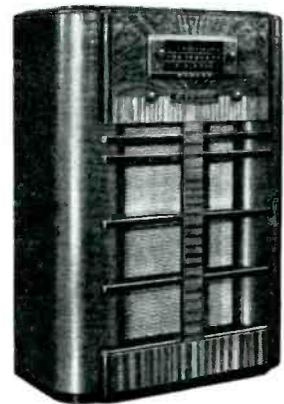


MODEL J-718—A beautifully designed Radio-Phonograph Combination equipped with Automatic Record Changer. Plays 10- and 12-inch Records.



MODEL J-62—Something different! A Cabinet of Rich Mahogany Veneers that follows the lines of an Eighteenth Century Jewel Case. Equipped with Dual Beam-a-Scopes for finer foreign and domestic reception. A similar model (J-620) is available in genuine blond mahogany.

RADIO AND TELEVISION DEPARTMENT
BRIDGEPORT, CONN.



MODEL J-805—A sensational Console finished in Two-toned American Walnut and Stripe Sapeli Wood Veneers. Equipped with the new Frequency Modulation Key—Dual Beam-a-Scopes and a 14-inch Dynapower Speaker.

GENERAL ELECTRIC

On the Newsfront

Music Trade Convention

Radio and Phono Companies arrange for large space. Expect over 3000 music dealers

NEW YORK—The 39th Annual Convention and Music Trade Show of the National Association of Music Merchants is to be held at the Hotel Stevens, Chicago on July 30, 31 and August 1.

Plans call for a trade show and exhibit with practically every manufacturer of products for music store merchandising represented. William Howard Beasley, President of the association is chairman of the General convention committee.

W. A. Mennie, executive secretary of the association reports that this year there is a big increase in the number of new exhibitors from the radio, phonograph and record field. Approximately 150 companies in the music field are signed up to show their wares in over 250 rooms. Included in this amount are the following twenty well known radio receiver and phonograph parts and accessory companies: Ansley Radio Corp., Boetsch Bros., Brunswick Divn. of Mersman Bros. Corp., Columbia Recording Corp., Decca Distributing Co., Capehart Div., Farnsworth Tele and Radio Corp., Galvin Mfg. Co., Howard Radio Co., The Magnavox Co., Presto Recording Corp., Philco Radio and Television Corp., Pfanstiehl Chemical Co., RCA Mfg. Co., Sonora Radio and Television Corp., H. Rogers Smith Co., Stewart Warner Corp., Stromberg Carlson Tel. & Mfg. Co., United Press Products, Wilcox Gay Corp. and the Zenith Radio Corp.

A feature of the convention will be the competitive annual newspaper advertising and window display exhibit. The New York Central and the Pennsylvania railroads have made arrangements to add special sections on crack trains for those who wish to go from New York. Trains will leave on Saturday night July 27 so as to get the conventionites in Chicago on Sunday morning.

G-E Ups Scaife

BRIDGEPORT—Arthur L. Scaife, who has been assistant manager of the General Electric appliance and merchandise department's advertising division, has relinquished these duties in the advertising division to become merchandising manager of the department, reporting to C. M. Snyder, appliance sales head. The appointment became effective upon Scaife's recent return from a several week's trip to Honolulu, where he assisted in the conduct of a series of sales meetings for W. A. Ramsay, Ltd., G-E distributor in Hawaii.



MAN THE BOATS—Somewhere off Long Island sound N.U.'s *Henry Hutchins* takes his trick at the wheel of Henry Crowley's yacht "Kiki"

Radiomen Flock to Chicago

Thousands in city for Parts Show, meetings of RMA, Sales Managers Club, RSA, NRPDA, "Representatives"

CHICAGO—To this city in mid-June flocked radiomen, attending the Radio Parts National Trade Show and the conventions of important industry Associations held concurrently.

From the Radio Parts Manufacturers National Trade Show, Inc., came word that attendance reached 8,456. Jobbing



CONVENTION AHEAD—Eastern radiomen enroute to the Chicago Trade Show snapped before boarding special train from New York chartered by "The Representatives"

firm registrations alone reached 587, or 120 over last year. Number of exhibitors hit a new high, with 140 individual firms maintaining booths. Announcement that the 1941 Parts Show will again be held at the Hotel Stevens, June 10-13, followed election of A. A. Berard, H. W. Clough, H. E. Osmun and J. J. Kahn as directors of the Corporation. S. N. Shure, retiring director, served as chairman of the nominating committee.

Meeting during the week, the Radio Manufacturers Association elected new officers. James S. Knowlson of Chicago became president, Paul V. Galvin, Roy Burlew, H. E. Osmun and Donald MacGregor vice presidents and Leslie F. Muter treasurer. Three new directors were simultaneously elected: H. C. Bonfig, Donald MacGregor and E. A. Nicholas. (Re-elected were directors P. S. Billings, James T. Buckley, Paul V. Galvin, David T. Shultz, Octave Blake, James C. Daley, J. J. Kahn, H. E. Osmun, Ernest Searing and Ray F. Sparrow).

Radio Servicemen of America held a highly successful one-day convention on the closing day of the Show, over 101 jobbers attended a banquet staged by the National Radio Parts Distributors Association and The Sales Managers Club held meetings attended by both eastern and western divisions. "The Representatives" held their fifth annual convention, announced that the group now boasts 150 members as against 38 in October 1931.

During the convention the National Radio Parts Distributors Association elected the following officers for the coming year: George Barbey, president; Elliott Wilkinson; A. D. Davis; Alex M. Hirsch and Aaron Lippman; vice presidents; William Schoning, treasurer and John Stern, secretary. Arthur Moss retains the office of executive secretary.

New Tele Rules Issued

Stations licensed for research only.
Paid programs banned

WASHINGTON—Rules governing television broadcast stations, issued June 18 by the Federal Communications Commission, specify that:

Licenses will at present be issued solely for the purpose of carrying on research, which must include engineering experimentation tending to develop uniform transmission standards and which may include equipment tests, training of technical personnel and experimental programs.

No charges either direct or indirect may be made by the licensee for the production or transmission of either aural or visual programs.

Channels now available for television research are as follows:

Group A		Group B	
#1	50,000-56,000 kc.	#8	162,000-168,000
2	60,000-66,000	9	180,000-186,000
3	66,000-72,000	10	186,000-192,000
4	78,000-84,000	11	204,000-210,000
5	84,000-90,000	12	210,000-216,000
6	96,000-102,000	13	234,000-240,000
7	102,000-108,000	14	240,000-246,000
		15	258,000-264,000
		16	264,000-270,000
		17	282,000-288,000
		18	288,000-294,000

Group C—Any 6,000 kc. band above 300,000 excluding band 400,000 to 401,000.

No person (including all persons under common control) may directly or indirectly own, operate or control more than three television stations or channels in Group A. Nor more than one station serving the same area if programs are transmitted for public reception.

CRC Ups Wolf

NEW YORK—Elmer C. Wolf has just received the appointment of assistant to



PLANT EXPANSION — Noblitt Sparks's G. W. (Tommy) Thompson, vice-president, says work on their new Arvin radio plant addition at Columbus, Ind., is well along and the most modern equipment and production methods are being installed

the treasurer for the Columbia Recording Corporation. Wolf was formerly office manager for the recording company.

Price New Micarta Rep.

NEW YORK—The New York office of Micarta Fabricators, Inc. of Chicago is now located at 12 East 41st Street, New York City. The Eastern Division of this company is in charge of J. B. Price who will cover all of New York State, New Jersey and all of the New England states.

FM Program Service Upped

FCC insists upon 6 hour daily schedule, 2 hours of material not simultaneously duplicated

WASHINGTON—Licensees of frequency modulated u.h.f. broadcast stations must now maintain a regular schedule, operating at least three hours daily between 6 a.m. and 6 p.m. (local standard time) and three more hours between 6 p.m. and midnight, Sundays excepted. They must also devote a minimum of one hour in each of the two daily operating periods to transmission of programs not duplicated simultaneously by any other local station and must at such times utilize the full frequency capability of the FM system.

(Ed. Note: We presume programs to be used by broadcast band stations may be transmitted via FM either earlier or later.)

Still another important rule laid down by the FCC June 22 prohibits direct or indirect ownership, operation or control of more than six FM stations, or of more than one in a given service area. (Ed. Note: In the first case the FCC is adamant. In the second it would apparently consider possible application where public interest could be proven.)

FM stations serving cities and towns with under 25,000 population and having a service area of 500 sq. miles are to be assigned 200-kc. wide channels between 48,900 and 49,900. Where stations in centers with 25,000 people or more serve areas of 3,000 sq. miles frequency assignments will be between 44,500 and 48,700 kc. Where area to be served is over 3,000 sq. miles assignments will be between 43,100 and 44,300 kc.

S-W Shows Two Lines

Exhibits new Stewart-Warner sets at convention and also announces "Concert Grands by Stewart-Warner"

CHICAGO—Meeting with its distributors at the Drake Hotel June 14 and 15, the Stewart-Warner Corporation showed not only a complete new line of Stewart-Warner radios and combinations (several with recorders) but simultaneously announced a distinctly separate line of super-quality phono-combinations to be labelled "Concert Grand by Stewart-Warner."

Distributors were invited to handle both lines, were told that Console Grands should be "spotted" particularly in high-class music houses, department stores and other key retail radio operations. Retailers handling Stewart-Warner and "Console Grand" will, it is understood, be required to obtain two separate franchises. They may, if they so desire, handle just Stewart-Warner. Or just Console Grand.

Prominent speakers included president J. S. Knowlson (new president of RMA), L. L. Kelsey, Phil Galloway, C. C. DeWees, Gus Trefeisen, Charles R. D'Olive, Joseph C. Elliff.



HOLDS THREE DAY CONVENTION—The Spokane Radio Company under the leadership of its manager Morris H. Willis topped their recent "get together" of the entire organization with a feed that included the works. Seated at the table, facing camera, left to right: Leslie C. Burden; Raymond Christison; Charles J. Allen; William J. Wagner; Morris H. Willis; Earl Dietrich, gen. sales mgr. Raytheon Corp.; C. A. Isherwood; Wilbur L. Miller; Ted R. Young; Frank A. Dunnigan; J. L. Moon. Sitting at table back to camera, left to right, Raymond K. Squibb; George E. Thompson; Charles Warren. Standing, left to right, J. K. Featherman; Joe F. Kessinger; Harold V. Walden; R. Earl Dawes; Don H. Burcham and Ralph C. James, factory reps; and A. F. Horton

ON and OFF the PLATFORM

Candid Camera Catches Convening Manufacturers

PHILCO



TAGGED—Lillian Eggers, "Miss Philco Television," pinned a convention badge on Sayre Ramsdell at Chicago

STROMBERG-CARLSON



EMPHASIZED — Stromberg-Carlson's Lloyd Spencer stressed FM and phono-combinations heaviest at New York showing



WHITTLED — Lee McCanne whittled, to show solidity of veneers plastic bonded on new radios and phonographs



DESCRIBED — Over every important feature of every new model went the company's C. J. Hunt for attending distributors



STARTLED—T. A. Kennally claimed Philco had first major improvement in phonograph field since this model

ADMIRAL



GREETED—J. H. Clippinger shook the hands of many distributors, among them that of the firm's first, C. E. Philpot of the Radio Tube Merchandising Company



ENTHUSED — Continental's Ross D. Siragusa showed a snappy new portable to Messrs. Tinseth, Volkenot and Eden of Marshall-Wells

CROSBLEY



PLEASED—Crosley's Powel Crosley, Jr., Raymond C. Cosgrove and Lewis M. Crosley liked the new line reception at Cincinnati



HUDDLED—Planning on the stage were T. W. Berger, R. C. Cosgrove and L. M. Krautter, snapped before the proceedings started



ENJOYED—Impressed by the program were G. T. Stevens, Neil Bauer, W. M. Shipley, W. T. Wallace and J. W. Beckman

GENERAL ELECTRIC



DRAMATIZED—G-E's *Howard Bennett* (left) and *Ted Hall* put on a skit with peanuts to illustrate how trade fumbles replacement tube business



LISTENED — Watching, after their own platform work, were (left) *Warren Lightfoot* and *Dorman Israel* of Emerson

POINTED — *Jack Wood* indicated with pride G-E's advertising aids for the new year

STEWART-WARNER



CHECKED—*L. L. Kelsey* (center) tested Concert Grand line photos on Sherman-Clay's *Mairy Rich* (left) and Wurlitzer's *Ray S. Eflandon*



HONORED—Just elected president of RMA, Stewart-Warner's *J. S. Knowlson* watched his own convention from a front row seat



DEMONSTRATED—Pointing out features to *Walter Low* of Kelly-How-Thomson at Chicago was the factory's *Phil Galloway*

FARNSWORTH



FRATERNIZED—The company's *Pierre Boucheron* dined with distributor *C. B. Warren*



ATE—Hard work around Farnsworth's convention built up an appetite for *E. A. Nicholas*



KEYNOTED—*E. J. Hendrickson* stressed that every new model was easily competitive

EMERSON

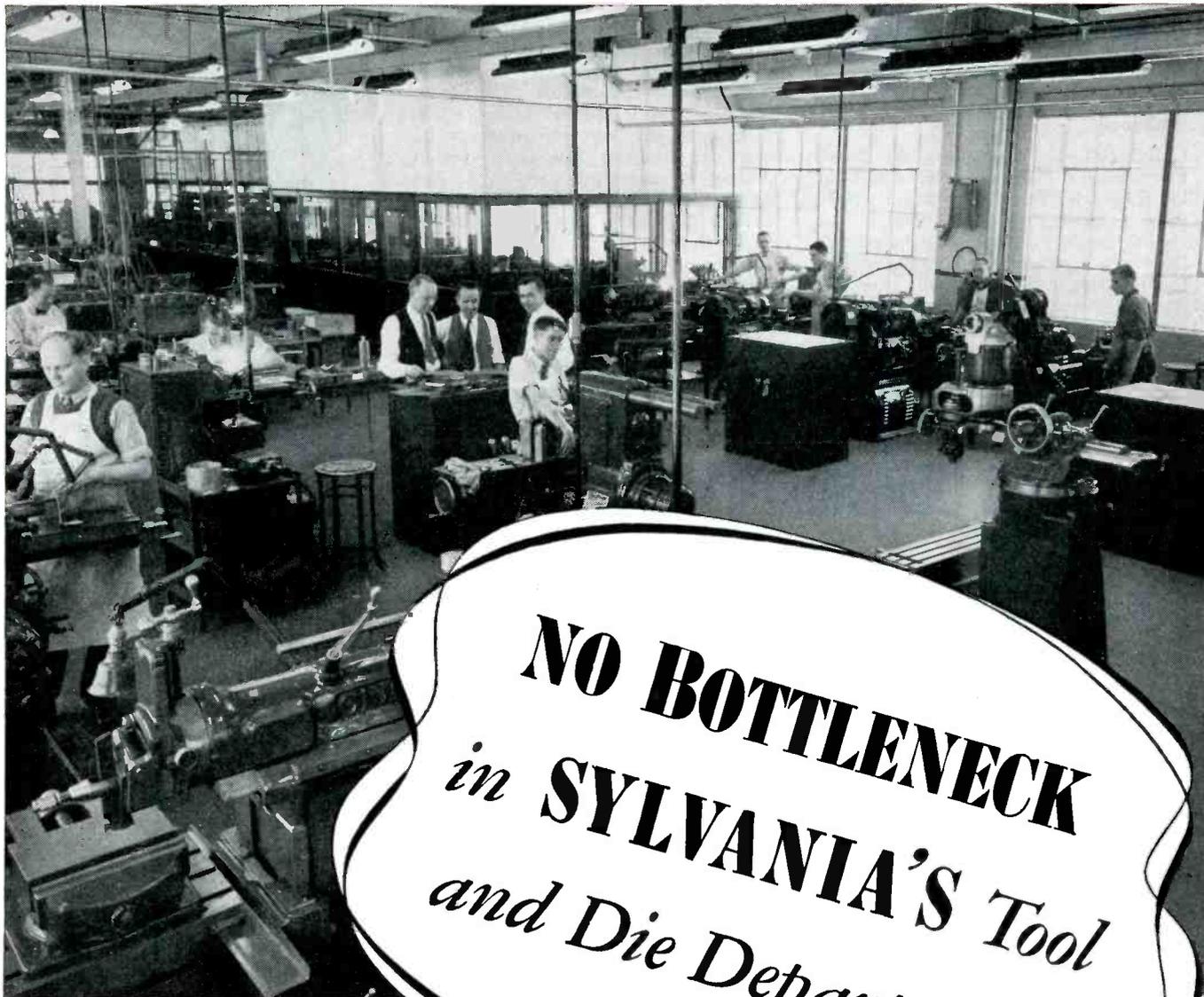


PRAISED — Emerson's *Ben Abrams* told distributors assembled in New York that convention orders had once more topped all records



PUSHED — *Jack Geartner* outlined the advantages of replacing original Emerson tubes with Emerson's





NO BOTTLENECK
in **SYLVANIA'S Tool**
and Die Department

We make our own precision tools—to make Sylvania Radio Tubes the finest in the world

FOR SHEER PRECISION, work in the Sylvania Tool and Die Department rivals fine watch-making. Thousands of hours of highly skilled craftsmanship go into converting bars of brass and steel, worth relatively a few dollars, into screws, jigs, wheels and tools, some of which, used in the production of certain individual types, are valued at \$20,000!

The Sylvania Tool and Die Department sets

the pace for quality—machining, forming and buffing the tools and dies that guide the busy fingers of workmen on the production floor. Such careful control over every operation, machine and tool is but one of the many ways Sylvania guards and maintains quality . . . *and makes satisfied customers for you!*

HYGRADE SYLVANIA CORPORATION
 EMPORIUM, PENNSYLVANIA

S Y L V A N I A

SET-TESTED

RADIO TUBES

ALSO MAKERS OF HYGRADE LAMP BULBS AND

MIRALUME FLUORESCENT LIGHT FIXTURES



Philco Shows Photo-Pickup

Convening distributors see many other innovations at Edgewater Beach

CHICAGO—Unveiled during the Philco Corporation's distributor convention at the Edgewater Beach June 10, 11 and 12 were a number of innovations in the record-playing field. Among those head-lined was a pickup incorporating a photo-cell and sapphire stylus with an excess pressure guard, a tilt-front cabinet leaving instrument top fixed for bric-a-brac, a deluxe inter-mix changer and a home-recording attachment.

In Philco radios new overseas reception bands, double "x" converter tubes,

combination American and foreign reception built-in aeriels, illuminated shifting band indicator arrows, on-off control pushbuttons were stressed. Distributors also saw a "strap-around" miniature portable, auto set with shortwave tuning.

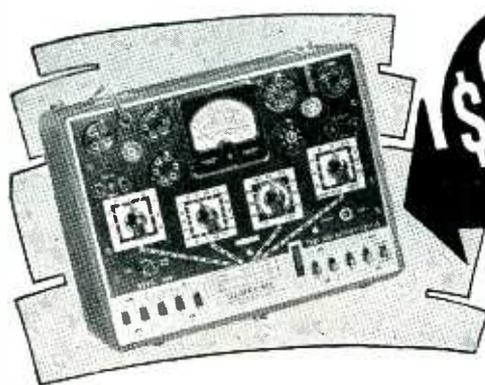
Among company executives speaking during the convention were T. A. Kennally, James T. Buckley, L. E. Gubb, W. H. Grimditch, Sayre M. Ramsdell, J. H. Carmine, C. E. Carpenter, J. M. Skinner, Jr., March Fisher, Larry Hardy, R. F. Herr, W. Paul Jones, Harry Boyd Brown.

Stressed during the convention, essentially radio in character, was the salability of Philco's air-conditioning equipment. Philco refrigerators were also featured.



MAN UP A TREE—Harold Ballam, store manager of Schuler Supply Co., New Orleans, poses under the famous "suicide tree" of that city, demonstrates the point with reverse technique

SUPREME DEPENDABILITY NOW COSTS LESS!



\$29.95

Terms: \$1.00 cash and 8 monthly payments of \$3.63

FREE
TUBE SETTING
SERVICE
FOR ONE YEAR

IN producing Model 589 there has been no compromise in the circuit design or materials. The same manufacturing methods, careful inspection and accurate calibration are incorporated in this instrument as in all other SUPREME testers. It will pay you to investigate and see this tester before you buy. Its price is the lowest at which a GOOD tube tester can be built.

MODEL 589 TUBE AND BATTERY tester has a completely modernized circuit. The tube test sockets are not wired directly to the circuit, but, instead, pass through the patented SUPREME Double Floating Filament Return Selector system which automatically re-connects all tube elements to any possible tube base arrangement. Due to the fact that any or all elements of each socket can be rotated to any desired position, only one socket of each type is necessary. Tests every type of tube from 1.4 volts to full line voltage at its correct anode potential under proper load. Tests separate sections in multi-purpose tubes. Checks all leakages, shorts, open elements and filament continuity with a neon lamp. A circuit insert is provided for checking noise, leakage, loose and bad connections. The battery testing circuit of the Model 589 provides the proper load at which each battery is to operate, plainly marked on the panel, for all 1.5, 4.5, 6.0, 45 and 90 volt portable radio types. The condition of the battery is indicated on an English reading scale.

This is the fastest and easiest tester to operate. Just "follow the arrows"—you can't go wrong. Roller type tube chart with brass geared mechanism lists tubes in logical numerical order. Each tester carries a one year free tube setting service. SUPREME engineering and construction PLUS the best materials the market affords, make the 589 your biggest dollar value. You will be proud to own this instrument.



Illustrated above is the Model 589 in a counter type metal case. This model is available with option of 7" or 9" illuminated meters. Has two neon lamps for sensitive or super-sensitive tests.

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

New Catalog Just Off Press.
Write for your copy Today!

MODEL 599 TUBE AND SET TESTER is very similar in appearance to the Model 589, and includes all the features and advantages of this instrument. In addition, it provides the following ranges:

0.2 TO 1500 D.C. VOLTS—5 carefully selected ranges—0/6/15/150/600/1500 volts. 1000 ohms per volt STANDARD sensitivity.

0.2 TO 600 A.C. VOLTS—4 A.C. ranges—0/6/15/150/600 volts. Rectifier guaranteed with instrument and fully protected from overload damages.

0.2 M.A. TO 600 M.A.—3 direct current ranges 0/6/60/600 allow measurement of screen, plate, "B" supply and D.C. filament loads.

0.2 TO 600 OUTPUT VOLTS—0/6/15/150/600—ideal for alignment. No button to hold down—no external condenser necessary.

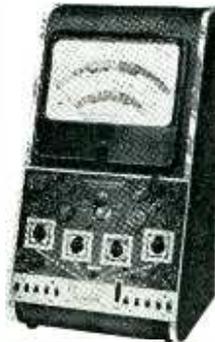
0.1 OHM TO 20 MEGOHMS—4 ranges 0/200/20,000 ohms, 0/2/20 megohms. A low range at high current with 3.5 ohms center scale.

ELECTROSTATIC—ELECTROLYTIC LEAKAGE TEST—Sensitive calibrated 20 megohm range provides excellent leakage test of paper and electrolytic condensers.

Just as the 589 is your best value in a tube and battery tester, the 599 is your best value in a combination tube tester, battery tester and set tester. Remember, you have all the features of the 589 PLUS a complete AC, DC volt, ohm, megohm, milliammeter, at a cost of only 47c per range.

Dealer Net Cash Price
\$39.50

Terms: \$4.50 cash;
9 payments of \$4.33.



Metal cabinets as illustrated for the Model 589 at left and 599 above are identical—can be used either in a horizontal position or vertical position by merely reversing the instrument panel. Write for information.

Emerson In Tube Business

Going after replacements. Shows 77 sets at convention. Distributor orders up again

NEW YORK—Big news at the Emerson Radio and Phonograph Corporation's convention, held at the New Yorker Hotel June 24-25, was the announcement by president Ben Abrams that the firm was going after replacement tube business with a complete line bearing the Emerson trademark. Heading the replacement tube activity was Jack Geartner, formerly with Arcturus.

In attendance were over 250 Emerson distributors and sales executives, who saw presentation of a 77 model radio line including compacts, phonoradios, recorders, television, farm types, regular portables and a new lightweight "personal" portable. (Guests were told following the convention banquet that there are now approximately 5,000,000 Emerson radios in use, listened with even greater interest to an announcement that distributor orders placed during the convention had once again exceeded past years.)

Presenting new merchandise and merchandising plans, awarding cups to distributors high in sales, were the following executives: Ben Abrams, Max Abrams, Warren Lightfoot, P. G. Gillig, Charles Robbins, Dorman Israel, Jack Geartner.

Announced was acquisition of an additional factory floor to be devoted exclusively to production of console instruments.

Farnsworth Shows 45 Models

Vogel, Boucheron, Hendrickson unveil new radios and combinations before 350

CHICAGO—To 350 distributors and members of their staffs, representatives of key retail accounts, radio trade press representatives and other guests Farnsworth Television and Radio Corp. showed 45 new radio and radio-phonograph combinations here June 3, 4 and 5 at the Edgewater Beach Hotel.

Carrying the principal burdens of new line presentation were executives Ernest H. Vogel, Pierre Boucheron and E. J. Hendrickson, from whom it was learned that immediately after this initial presentation Farnsworth distributors everywhere swung into a series of meetings at which the line was shown to dealers.

Ready for delivery of merchandise in June, July and August was the firm's big factory at Marion, Indiana, having a production capacity of 5,000 sets per day. Following announcement that three new distributors were signed up at the conference it was learned that Farnsworth now has 58 distributors, more than 6,000 retail dealers carrying its merchandise. This, according to Pierre Boucheron, represents 96 per cent coverage of the potential buying power of the country as against 74 per cent last season.



PLEASURE FIRST—Triplett representatives of U. S. and Canada pose for their picture at the Triplett farm, located just outside of Bluffton, where all sales meetings are held. (bottom) Reps need no second call for luncheon like this which explains that contented look of group in top photo

"Proven Quality Since 1921"

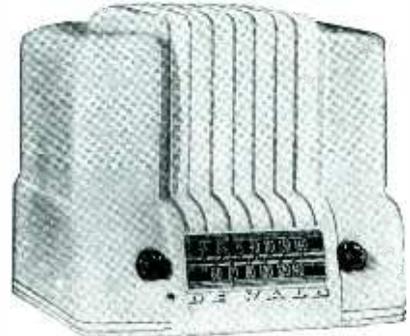
3 Sales Leaders

by

DEWALD

These numbers are outstanding in the great, new DeWald line for 1941...priced from \$9.95 to \$174.50. COMPARE!

"ORGAN-TONE"



5 tubes; AC-DC superhet; beam-power output; dynamic speaker; "Loopenna"; plastic cabinet; 10 in. long.

Model 555 (broadcast & police band).
Model 549 (broadcast, police, foreign).
Model 548 (broadcast and state police bands; automatic push tuning).

"MODERNE"



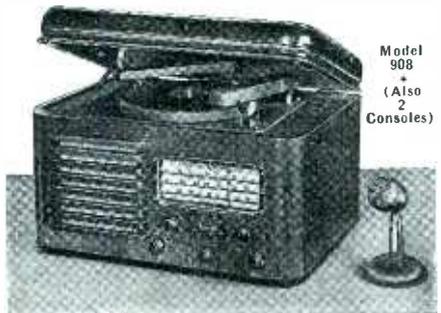
5 tubes; AC-DC superhet; curved, easy-vision dial; automatic volume control; beam-power output; electro-dynamic speaker; Vernier tuning; built-in Loopenna; rich Walnut cabinet; 11 3/4" long.

Model 556 (broadcast and state police band)

Model 558 (broadcast, state police and foreign bands)

"RECORDOMAT"

5-in-1 COMBINATION



Model 908
(Also 2 Consoles)

Combines radio, phonograph, music, voice, and radio recorder; address system; 9 tubes, 3 bands; 10-Watt Push-Pull; 12 in. speaker; variable tone control; "Loopenna".

DISTRIBUTORS! SALES REPRESENTATIVES! Write for details of our unique proposition.

DEWALD RADIO MFG. CORP.

436-440 LAFAYETTE ST.

NEW YORK, N. Y.

Janette Rotary Converters



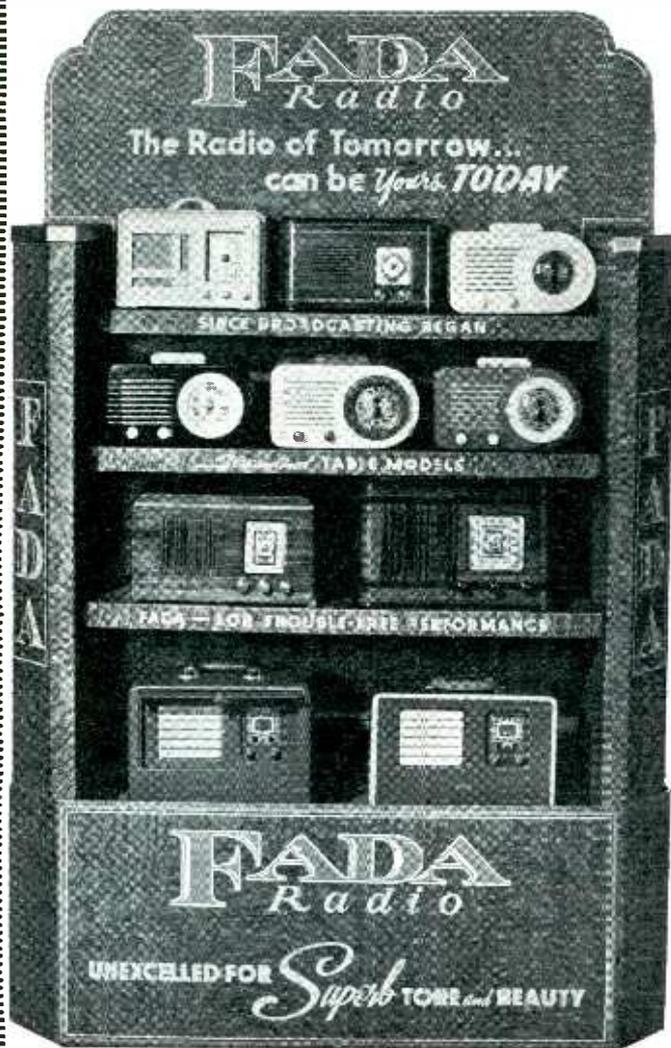
D.C. to A.C.—D.C. to D.C.

FOR SOUND APPARATUS

When selecting a converter, play safe; profit by the experiences of the world's largest builders of sound apparatus. These companies compared the actual performance, workmanship, quality of materials used, and economy of operation of various makes, then standardized on Janette. Why experiment? Specify Janette on your next order.

Janette Manufacturing Company
556-558 West Monroe Street Chicago, Ill. U. S. A.

"DESIGNED FOR SELLING"



Sturdy!

Durable!

Colorful!

Built to Last!

Special reinforcements give it the strength of wood at prices amazingly low. Watch sales leap—Note the growing interest in your product.

LET US HELP YOU WITH YOUR DISPLAY PROBLEMS

GRAND-CITY CONTAINER CORP.

Dept. "R", 622 West 57th Street, New York City

RCA Equipment Jobbers Meet

Company conducts first convention for tube, part and test equipment men

CHICAGO—RCA Manufacturing Company held its first annual convention of tube and equipment distributors here June 10, at the Hotel Morrison. Over 200 attended, heard L. W. Teegarden, manager of tube and equipment sales, announce a new RCA franchise plan for a selected number of distributors handling test equipment, power tubes, receiving tubes, amateur equipment, replacement parts and associated products.

Among new products announced was a complete amateur television transmitting and receiving system (demonstrated at the Blackstone Hotel), a Junior Volt Ohmmist, a new deluxe tube tester, a Chanalyst Ultra High Frequency converter and a new amateur receiver-speaker combination.

In attendance and in most instances participating in the program, which included a luncheon and buffet supper, were many other RCA executives, including G. K. Throckmorton, Henry C. Bonfig, Fred D. Wilson, David J. Finn, Thomas F. Joyce, Frank R. Deakins, Jack Marden, Leroy Goodwin, Larry Thees, Doug. Y. Smith, Ed. Braddock and Edward Hughes.

Pilot's New National Policy

NEW YORK—The Pilot Radio Corp., for years active in the New York area and in the export field has made plans to extend the same selective and conservative Pilot distribution on a national scope. In the very near future a complete line of new table models and phonograph combinations are to be announced to the trade. Models are to be priced in the popular, medium and higher priced brackets.

Arrangements for selective distribution have been developed and franchises giving appointed accounts complete factory cooperation to assure successful merchandising of the Pilot line have been worked out. Territorial and profit protection are to be fully extended.

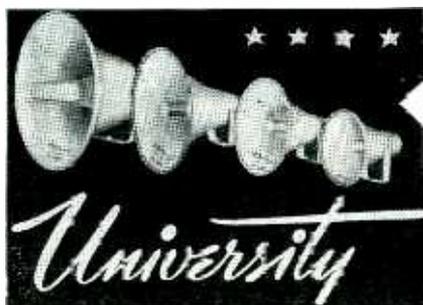
Magnavox Dinner at Music Show

FORT WAYNE—The Magnavox Company will hold its Dealer's Dinner, an annual affair, on Tuesday night, July 30 in the Boulevard Room of the Hotel Stevens, during the National Association of Music Merchants' convention.

Unveiling of new models and an interesting program is promised by company officials.

General T&R Moves to New Plant

CHICAGO—The General Television and Radio Corp. is now housed in its new plant covering over 30,000 square feet at 1240-58 N. Homan Avenue, Chicago, Ill. Said to be one of the most modernly equipped radio plants in the country, with daylight conditions on all four sides of the building, and grounds for employee's athletic activities.



FOUR STAR PERFORMERS

UNIVERSITY'S Non Resonant Reflexed Loudspeakers have been selling the standard of performance for all Outdoor and Indoor Sound Systems. They are guaranteed to give years of satisfactory service.

THE SUPER STAR OF THEM ALL

UNIVERSITY'S Model WCC Weatherark: Dual Loudspeaker for highest fidelity reproduction is guaranteed to result in a sound system which you will be proud to use as your show piece for demonstration purposes. See your nearest Radio Parts Jobber for our latest catalog or write us.

UNIVERSITY LABORATORIES
195 Chrystie St. N. Y. C.





THREE FOR ONE—A. A. Schneidhahn (right) Zenith Dist. of Des Moines chats with Maurice Golomb (left) of J. A. Williams Co. Pittsburg Dist. and Hugh Robertson (center) Zenith's vice-president and treasurer

Stromberg-Carlson Men Meet

Celebrate company's 46th year. See new sets including complete FM line

NEW YORK—Eastern and southern distributors of Stromberg-Carlson radios met here June 18-19 at the Park Central Hotel, celebrated the company's 46th year in business, saw new sets including a complete FM line. (Similar two-day meetings were held later at Chicago, Kansas City, Los Angeles and San Francisco.)

On hand was president Wesley M. Angle, who stressed the long experience of Stromberg-Carlson in the telephone equipment field and the particular adaptability of its experience to radio products. General sales manager L. L. Spencer reported that the company had noted still further increase in its dollar volume as well as in the number of franchised dealers, stressing the importance of upped profits-per-sale this year in view of imminent tax rises. (Spencer said he thought FM receiver sales in 1940 by all manufacturers would exceed 200,000.) Radio sales manager F. N. Anibal pointed out that the company's new line of table models, consoles and automatic combinations at once lived up to traditional quality standards and yet was competitive in each price-bracket.

W. T. Eastwood, advertising manager, C. J. Hunt, manager of the distributor's division and Lee McCanne, assistant general manager, assisted in the presentation of new Stromberg-Carlson models and merchandising plans.

Dealer showings are reported in progress in many cities.

Aerovox Appoints Rocke Int.

NEW BEDFORD—The Aerovox Corp. announces the appointment of the Rocke International Electric Corp., 100 Varick St., New York City as exclusive exporters of its condensers. This exporter is a specialist in radio products and enjoys an exceptional clientele in this field.

N. U. SIXTY DAY SPECIAL

only **\$12**

DEALER DEPOSIT
 You receive delivery at once.
 Your deposit is rebated on completion of 650 purchase points.

Model 303 P5

Regular Dealer Price **\$24⁹⁰**

DACO TUBE TESTER

Model 303 P5 Features

- Enclosed in Portable Leatherette Case
- Extra Large, Full Vision Meter
- Standard R.M.A. Circuit
- Snap-Switch Control
- Neon Short-Leakage Test
- All Filament Voltages from 1 to 117 Volts
- Provisions for Latest Tube Types
- Spare Sockets for New Types, Preventing Obsolescence
- High Quality Parts Used Throughout
- Complete, Easy Reference Tube Chart
- Ruggedly Constructed Throughout
- Simplified Operation
- Test Pilot Lights
- Tests Ballast Tubes

**SEE YOUR N. U. DISTRIBUTOR OR SEND COUPON
GET IT FREE THE N. U. WAY**

You get this Daco Model 303 P5 Tube Tester by depositing only \$12.00 with your N.U. distributor. By buying N.U. Tubes, Condensers, and Batteries, you earn purchase points and on completion of 650 purchase points in 2 years, your deposit will be rebated.

Join thousands of other N.U. dealers; have the best equipped shop in town. Over 50,000 completed deals in our 10 years of successful operation of this plan.

NATIONAL UNION RADIO CORPORATION
57 State Street, Newark, N. J.

National Union Radio Corporation
57 State St., Newark, N. J. RR-740

Please reserve one for me.

Please have your salesman show it to me.

Name

Address

City State

JOBBERS WANTED
Several attractive territories are still open for

ZEPHYR HOME RECORDING BLANKS

High Quality—Low Prices—Long Discounts
Sold only thru protected jobbers.

Zephyr Products Co., 67 W. 44th St., N.Y.C.



LEVER SWITCHING

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

This revolutionary lever switching development, with individual control for each tube element, takes care of roaming filaments, tapped filaments, plural cathode structures and dual function tubes—conclusively checks all present receiving tubes including Miniatures, Bantam, Jr., and the new Midgets. Neon shorts test and noise test jack included.

Model 1620 also features four additional "quick change" non-obsolete features, including the above switching section. RED • DOT Lifetime Guaranteed Instrument panel may be returned for replacement or repairs, in case of accidental damage . . . Speed Roll Chart complete with mechanism can be replaced, in the case of new factory releases, by removing only four screws from front of panel . . . New socket panel to meet future radical tube changes which present spare socket cannot accommodate will be available at nominal charge upon return of old panel . . . Switching section with power supply also can be replaced should unanticipated changes make it necessary. Gracefully proportioned wood case, natural finish. Beautiful two-tone Brown-tan sloping panel; polished metal chrome trim with inlaid color. Model 1620 Counter Tube Tester. . . Dealer Net Price . . . \$37.84.

Write for Catalog--Section 207 Harmon Drive

TRIPLETT ELECTRICAL INSTRUMENT CO.
Bluffton, Ohio

Philco Buys Into NU

Tube firm, planning expansion, will continue functioning as separate company

NEWARK—Philco Corporation has purchased an interest, said to be substantial, in National Union Radio Corporation of this city, manufacturer of radio tubes for equipment of new sets and replacement. Announcements from both firms indicate that National Union will continue functioning as a separate company, manufacturing and distributing nationally under its own trade-mark. An expansion program is, in fact, planned.

Probable new board of directors for National Union will include: S. W. Muldowny, president, National Union Radio Corporation; Henry L. Crowley, president, Henry L. Crowley Manufacturing Company; Paul V. Galvin, president, Galvin Manufacturing Company; Penn Brook, vice-president of Sears-Roebuck; W. R. Wilson, controller and Fred D. Williams, assistant to the president, Philco Corporation.

Wilcox-Gay Extends Franchises

CHARLOTTE—In line with its new open sales policy on Recordio discs the Wilcox-Gay Corp. announces effective June 15th, disc distributor franchises will not be confined to Wilcox-Gay Recordio distributors but will be extended to such other wholesalers as their sales department may feel necessary in order to secure the widest point of sales distribution.

New Home of Alliance

CLEVELAND—The new factory of the Alliance Manufacturing Company, Alliance, Ohio, represents an expansion of more than twice the size of its former quarters. This company's increased business in "Even-Speed" phonomotors, and its entry into the phonograph-recorder field necessitated the new and larger quarters.

Scheel Moves to New Quarters

CHICAGO—Harry J. Scheel exporter is now located in The Merchandise Mart, Chicago. Expanded business necessitated larger and better quarters. Scheel's agency recently received the appointment as sole export sales agent for Sonora radio products. (Former address 330 South Wells St., Chicago. This was shown in error in June issue as part of new location.)

Appoints New Super

NEW YORK—W. G. H. Finch, pioneer facsimile inventor of Finch Telecommunications, Inc., recently appointed Howard J. Tyzzer, a superintendent in charge of its plant in Passaic, N. J.

R.T.G. Holds Annual Dinner

ROCHESTER—The Radio Technician's Guild of Rochester recently held its annual dinner meeting at Canandaigua,

N. Y. Twenty-four members were in attendance and were provided with a fine talk on salesmanship by Frank M. Houston of the Rochester Gas and Elec. Corp.

Dealer Helps

CATHODE RAY BULLETINS— New technical bulletins covering 3 and 5 inch teletrons and cathode ray tubes for oscillograph are available to anyone addressing *Allen B. Du Mont Labs., Inc.*, 2 Main Ave., Passaic, N. J.



TABLE TYPE DISPLAY— *Sentinel Radio Corp.* announces this new display stand for dealers through its distributors. All sets in the stand can be connected through the back to operate for demonstration.

Simplest

WAY TO REPLACE

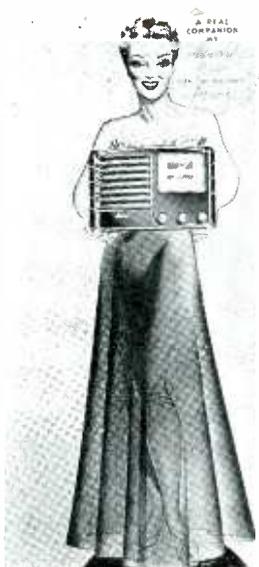
BALLASTS

- 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



FOUR NEW DISPLAYS—The Continental Radio and Television Corp, have just brought out four dealer displays on Admiral receivers. They will be available to dealers through its jobbers. Particularly effective is the colorful lifesize girl display. Above illustration shows this display which stands 61 inches high.

INDUSTRIAL PARTS CATALOG—A new 40 page catalog of Mallory products is to be distributed throughout the country with the compliments of the jobbers of P. R. Mallory and Co., Inc., Indianapolis, Ind. It contains all standard items of the dealer catalog plus a page describing the Mallory Metallurgical products.

SOUND CATALOG—Complete line of amplifiers, accessories, intercommunicators and recording equipment are described in new 16 page bulletin No. 33 of Bell Sound Systems Inc., 1183 Essex Ave., Columbus, Ohio. Detailed specifications are given of all products.

RECEIPT STUB—The Hygrade Sylvania Corporation announces a new job record card for radio servicemen and dealers which has a customer's receipt stub for claiming radios left at the service shop. A perforation permits it to be easily and neatly torn from the record card.

RECORDING BOOKLET—Written for the layman this booklet contains information on cutting needles, records and how to improve all kinds of recordings, also includes a chart showing range of various musical instruments compared to a piano keyboard. Consists of 14 pages and may be obtained from Permo Products Corp., 6415 Ravenswood Ave., Chicago, Ill.

TESTER CATALOG—A cathode ray oscillograph, beat frequency audio oscillator and beat frequency standard signal generator are described in an eight page catalog printed by Telex Products Co., Minneapolis, Minn.

Books On Review

HOW TO MAKE GOOD RECORDINGS, 128 pages, Published by Audio Devices, Inc. New York, N. Y. Price \$1.25.

Written in a non-technical manner this book covers the various phases of instantaneous disc recording from the fundamental principles to a description of the latest mechanisms.

Chapters are included on common recording difficulties and their remedies, making copies, fun with a recorder, talent approach, recording from scripts and others. Complete with many illustrations and drawings. Also contains a glossary of recording terms.

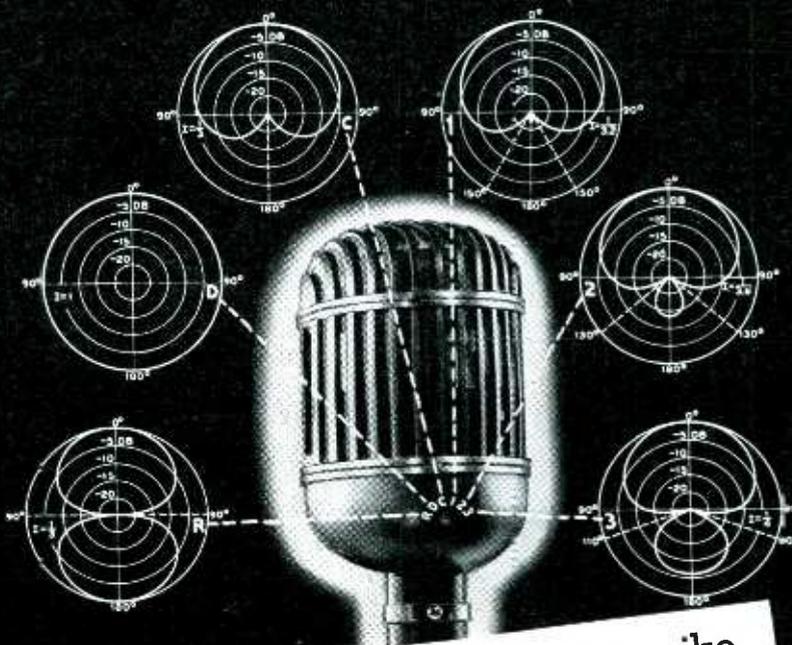
Distribution News

COLUMBIA RECORD—W. C. Dance, Inc., Oklahoma City, has been appointed distributor for Columbia, Brunswick and Vocalion records in the state of Oklahoma and the northwest section of Texas. Southwestern Music Corp. in Dallas formerly served the territory.

MILLION—Herb Erickson of Asheville, N. C. is the new southeastern representative for Million Radio and Television. John W. Million, Jr. and Erickson with a car full of samples just completed calls on the trade in North and South Carolina, Georgia and Florida.

PICK-UP CONTROL

...you never dreamed possible



Western Electric 639B 6-way mike

Now you can have six mikes all in one unit. The 639B Cardioid offers six patterns at the turn of a switch.

You can tackle the toughest P.A. set-ups using the mike as non-directional, bi-directional, or cardioid, or with patterns 1,

2 or 3 which reduce reverberation effect even more than the famous 639A.

You can shift the angle of minimum response to 150°, 130° or 110° to avoid reflections or feedback paths. It's truly the all-purpose mike.

Western Electric
639 B CARDIOID
DIRECTIONAL MIKE

GRAYBAR ELECTRIC CO., Graybar Bldg., New York,
Please send full details on Western Electric' new
639B Cardioid M.k.e. RR-140

NAME _____
ADDRESS _____
CITY _____ STATE _____

**"IMITATION
IS THE
SINCEREST FORM
OF
FLATTERY"**

BRUCE A. COFFIN, General Manager



WHEN Hytron originated and perfected the Bantam* GT tube, it represented the first modern change in glass tube design in many years. It was an important milestone, not alone because Hytron solved the many technical problems which stood in the way of making a small glass tube and proved that such was practical—but Hytron also solved many replacement problems for dealers and servicemen because of the interchangeability of the GT tube with the Metal, MG and G series.

BANTAM GT'S LEAD

Today, Hytron's Bantam GT's are the standard of the industry. In 1939 fifty per cent more GT type tubes were sold for initial radio set equipment than the nearest competitive series! And the use of GT series tubes is ever increasing!

Another exclusive Hytron development which is being widely imitated are the Bantam Jr. miniature pentode tubes for hearing aids. Again, Hytron led the way by successfully accomplishing what the other thought was impossible!

We here at Hytron are happy to have been in a position to serve the industry so well. This wide acceptance of our ideas proves HYTRON LEADERSHIP once again.

1940—OUR TWENTIETH YEAR

Sell Hytron tubes for trouble-free performance, unequalled customer satisfaction and maximum profit. Behind them are more than 19 years of experience in making radio tubes exclusively—and the skill of engineers, foremen, and workers who have been with Hytron ten, fifteen years and even longer.

These unseen factors can't be copied and yet they are immediately recognized by those who demand the best.

When you buy Hytron, you buy not only a radio tube—but a quality tube built upon 19 years' experience in the exclusive manufacture of radio tubes.

*Trade-name registered.



HYTRON CORPORATION
25 N. DARBY ST.
SALEM, MASS.
MANUFACTURERS OF RADIO TUBES SINCE 1921

UNITED STATES RECORD— E. I. Woodfin of 64 Central Ave., Atlanta, Georgia has distributorship for Royale-Varsity in the state of Georgia and the following counties in Alabama; Houston, Dale, Henry, Barbour, Russell, Lee and Chambers.

TRANSFORMER CORP., OF AMER.—Appoints three new sales representatives for Clarion sound equipment in the Michigan and eastern seaboard territories. The Michigan area will be handled by *Art Adams* of the *R. A. Adams Co.*, Detroit. *Harold Weiler* will cover Pennsylvania, metropolitan New York City, New Jersey, Delaware, Maryland and Washington, D. C. The states of Virginia, West Virginia, the Carolinas and Florida will be represented by *Hugh Snyder*.

OPERADIO—General Sound Equipment Co. 353 West 47th St., New York City has the eastern distribution of Operadio Sound Equipment. *Donald Bleiser* is general manager.

CONVENTION HIGHLIGHTS

(Continued from page 17)

in. And what comes out is chiefly music.

As near as we can determine at this writing at least 20 manufacturers in our field will exhibit at the Music Show, getting under way in Chicago shortly after this issue of *Radio Retailing* closes. Judging by this and other signs, it appears that music houses, particularly those in the top-flight retail ranks, are going to get an especially heavy play from radio manufacturers and distributors this year. Greater variety of combinations provides one sure way back into their good graces. Generally improved quality and larger unit value provides another. Even greater territorial protection in connection with deluxe products is enticingly held out in certain cases.

Several additional lines now include straight "electronic" phonographs, without radio. Engineers have concentrated their 1941 efforts perhaps more heavily upon automatic record-changers, pickups, turntable motors, recorders and reproducing systems than upon any other phase of new instruments design.

Quality, particularly that of upper-bracket models, is the logical keynote of this season's selling.

And when you talk quality, talk it in terms of *good music*.

The New
TURNER
Microphone Models



TURNER HAN-D
9X Crystal - 9D Dynamic
• Hold it! • Use it on desk
• Hang it! or floor stand
One microphone suited for voice, music pickup or auto use.
POSITIVE CONTACT SLIDE SWITCH permits off-on operation. Rich brushed chrome finish. With 7 Ft. removable cable set, diagrams and chamoisette mike bag.
9D Dynamic Hi-Impedance List...\$25
9X Crystal. List.....\$22.50

Here's the

Turner "Challenger"

CX Crystal - CD Dynamic

Challenges comparison! Rich brushed chrome finish. For the man who must get most for his money, we recommend the Challenger. With 7 ft. cable and diagrams, CX Crystal, List...\$15
CD Dynamic, Hi-Impedance, List...\$16.50



U-9S Multiflex Fills 50 ohms, 200 and 500 ohms and Hi-Impedance Requirements

Simply twist the switch shown, to change impedance. Level -52DB at hi-impedance. Range 40-9,000 cycles. Gunmetal finish. With diagrams, 25 ft. cable set and chamoisette mike bag. List...\$35

Crystals Licensed Under Patents of The Brush Development Co.
For Full Information, write

THE TURNER COMPANY
915 17th St., N.E.
Cedar Rapids, Iowa



Readrite
MODEL 432-A

The Outstanding Tube Tester Value . . . Checks all types tubes including Locals, Bantam Jr., 1.4 volt Miniatures, Gaseous Rectifier, Ballast, High Voltage Series, etc. Filament Voltages from 1.1 to 110 volts. Direct Reading GOOD-BAD Meter Scale. Professional-appearing case with accessory compartment large enough for carrying Model 739 AC-DC Pocket Volt-Ohm-Milliammeter, thereby giving the serviceman complete testing facilities for calls in the field. . . Model 432-A with compartment, Dealer Net Price. . . \$18.85. Model 432-A in case less compartment . . . \$17.85. Model 739, Dealer Net Price . . . \$9.90.

WRITE FOR CATALOG—Section 720 College Ave.

READRITE METER WORKS, Bluffton, Ohio

Service Department

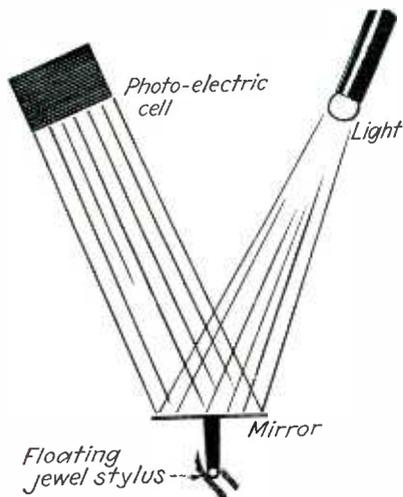
Photo-Cell Pickup

An unconventional phono pickup has been announced by Philco, whose engineers claim a ten times record life increase through the use of a light beam for signal transfer from the record.

Light from a special argon filled bulb is focussed on a small mirror freely pivoting in gum rubber bearings.

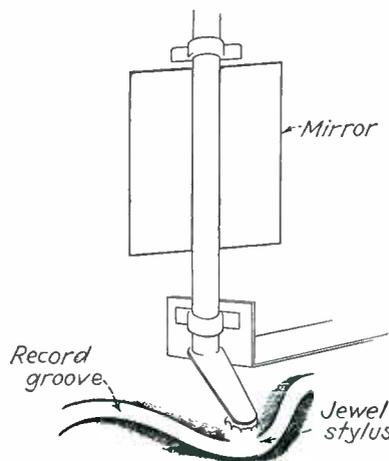
Movement of the mirror is controlled by the floating sapphire stylus, permanently attached to the radial arm shown.

Sound groove variations are conducted to the mirror, which in turn varies light falling on selenium photo-electric cell. Photo-cell so activated converts light into audio energy, coupled through transformer to pre-amplifier in radio set.



Adjustment of the light beam, normally half on, half off cell, may be made with set screw at side of case.

Bulb, mounted behind two plano-convex lenses in metal barrel, is focused by sliding it in and out of casing.

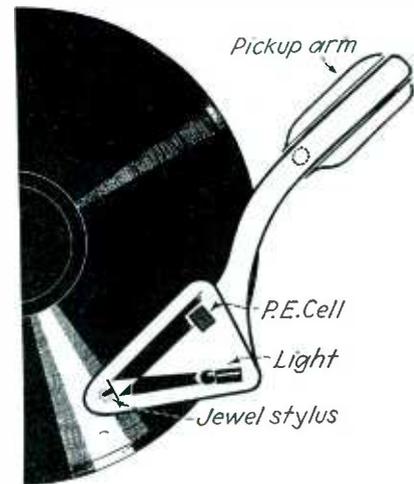


Bulb, cell and mirror, shown above, are covered by a composition case, but are readily accessible for inspection through a hole in the cover.

Vertical adjustment of bulb filament is provided by small bakelite tab, at back of case, rotates bulb in its case.

F-M Tuner

Herewith is the schematic of Meissner's new f.m. tuner. A total of 10 tubes are employed exclusive of the



output amplifier.

To improve gain and image response an 1852 r.f. tube is inserted between the antenna and mixer. The 6SA7 combined mixer and oscillator converts incoming signals to an i.f. frequency of 2.1 mc. Amplification takes place at this frequency in the 2-6SK7 stages followed by the 1852 limiter. Operation of the limiter is such that signal as low as 10 microvolts begin to operate. The discriminator r.f. transformer feeding the 6H6 second detector is air-tuned providing low drift.

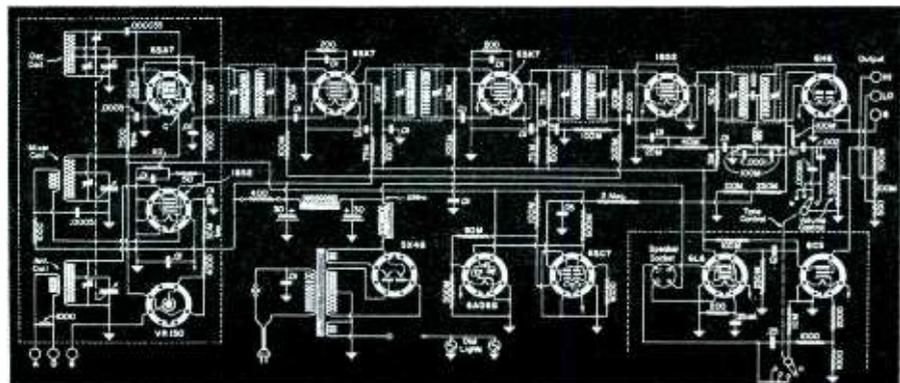
An interesting dual-shadow tuning indicator tube is used (6AD6G) with a separate amplifier circuit using a 6SC7. This enables very accurate tuning which is important if high fidelity is desired.

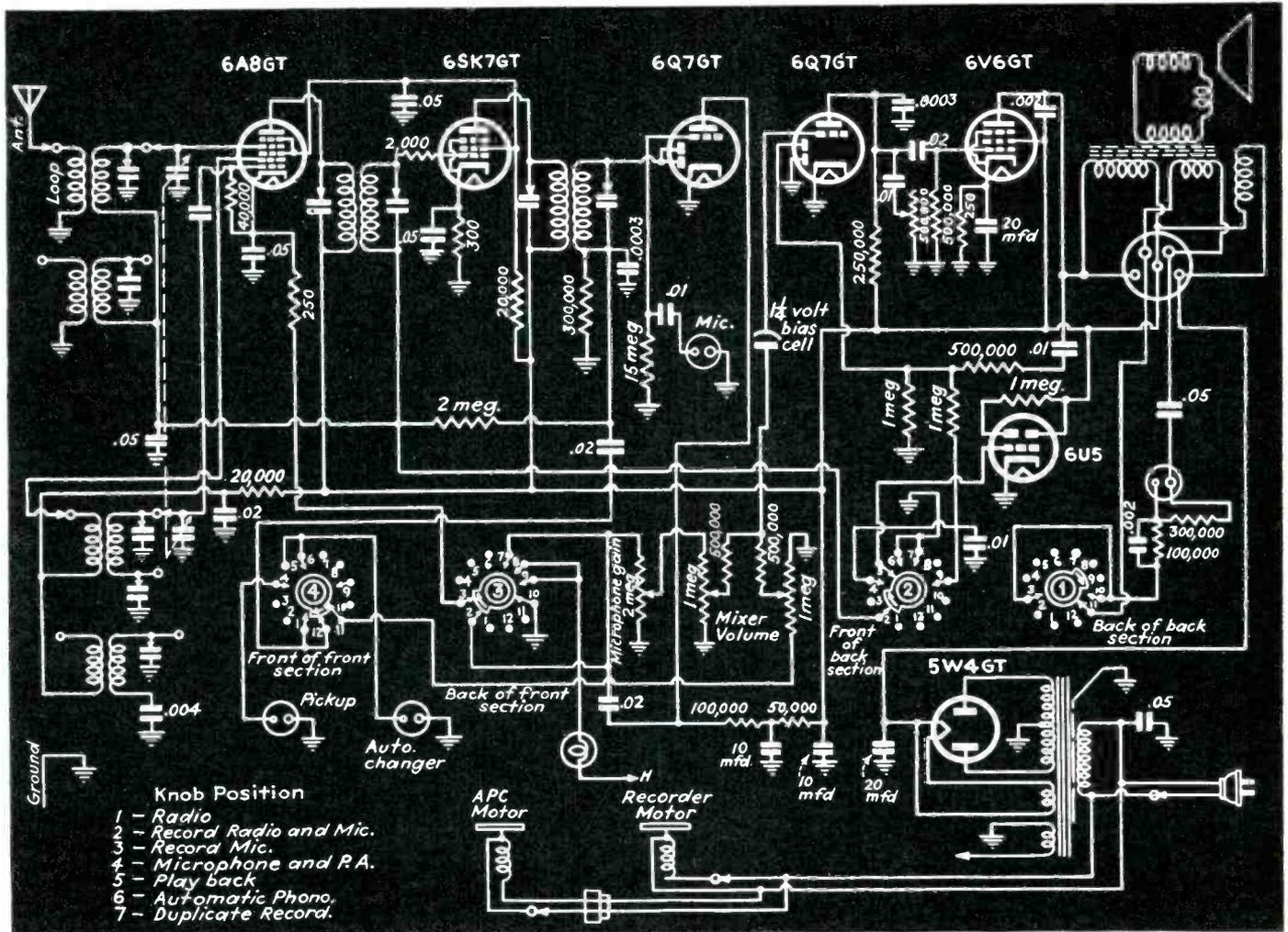
The output of the tuner feeds to the 3 terminals at the upper right of the diagram. The two stage audio amplifier shown is not incorporated in the unit but may be built up alongside. The amplifier and speaker system of any good radio may be used also.

The VR-150 voltage regulator prevents oscillator drift caused by plate voltage variations. At the frequencies normally used for f.m. any slight voltage changes could cause annoying frequency variations.

Since power line frequency would appear through the set audio system, the light source bulb could not be supplied by the usual methods. Elimination of this difficulty is accomplished by utilizing r-f power from the set oscillator to light the bulb at a frequency beyond audibility.

When the phonograph pushbutton on set is depressed, switch tunes oscillator to 1800 kc. and connects small coupling coil in oscillator tank circuit. The three watts of r-f necessary for the light source bulb are thus obtained with this coupling coil.





Recorder Combination

Popularity in home recording brings forth model 302R combination by Howard. This may be used as a radio, will record radio and microphone simultaneously, record microphone alone, may be used as a sound system, a record player, automatic phono combination, and at the same time records may be "dubbed" or duplicated.

The receiver section is a superhet and is more or less standard. The triode section on the first 6Q7GT is used as a pre-amplifier for the microphone. The second 6Q7GT serves as audio amplifier driving the 6V6GT output tube. One diode of the 6Q7GT rectifies part of the audio signal and uses this voltage to operate the 6U5 which acts as a recording level indicator.

A four section multi-pole switch permits the various functions of the instrument to be chosen. The section at the extreme right switches the speaker and cutter head into the circuit alternately for playback and recording respectively. The second switch controls plate voltage on the various stages, cutting off the receivers when not needed. The third and

fourth sections control the audio input circuits.

At the bottom center is the APC and recording motor. These are 2 separate units and permit extreme flexibility by placing any record on the APC turntable and setting the selector switch to No. 7 position, a duplicate record may be cut on the recording.

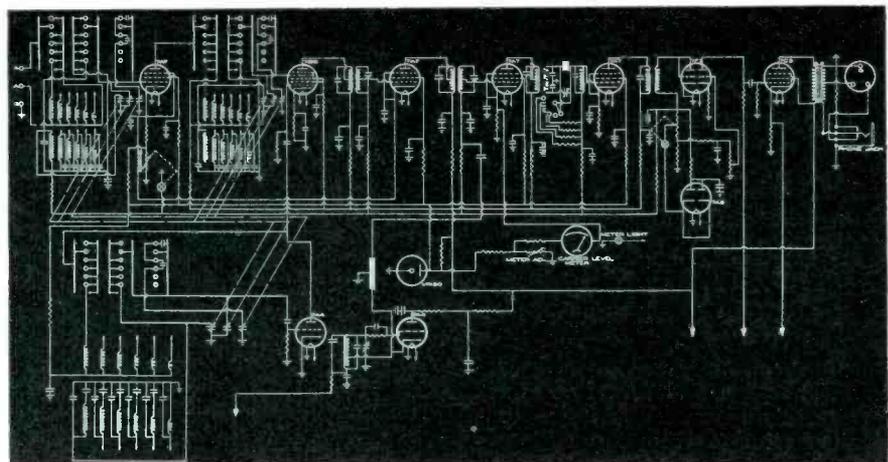
A unique feature of this circuit is that a recording may be made with the radio and microphone in operation simultaneously. This permits many

unusual combinations since announcements can be made through the microphone while the radio is operating.

Communication Receiver

Many interesting features are contained in the new RME 99 receiver. An outstanding point in the design is the use of local tubes exclusively in all r.f. and audio circuits.

An analysis of the tube line-up is as follows. Starting from the extreme top left, the 7A7 serves as r.f. stage



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RADIO CITY
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and has a manual gain control connected in its cathode circuit. This in turn feeds the 7B8 mixer which is excited by a separate oscillator tube (the 7A4 directly below the 7B8). By use of the separate oscillator stability is improved and less interaction results.

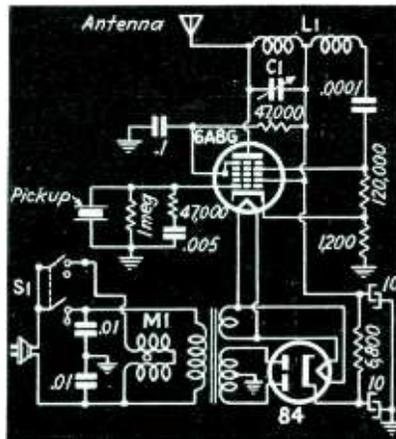
Two 7A7 tubes work as i.f. amplifiers driving another 7A7 i.f. in the grid circuit of which is the crystal filter circuit with 5 selectivity positions.

A 7F7 is used as combined diode detector and audio amplifier. This feeds the 7C5 output tube.

Below the detector is a 7A6 duo diode automatic noise silencer. This is of the Dickert type and has a manual control in the cathode circuit for varying the effectiveness of the silencer without affecting the percentage of modulation on a signal.

The "R" meter shown below the i.f. crystal filter is of the bridge type and works on the plate current change of the i.f. tubes which are supplied with a.v.c.

An interesting constructional design makes use of a cast aluminum chassis for solidity of mounting and heat dissipation.



Wireless Record Player

Herewith is the circuit of G.E.'s new R.P. just announced.

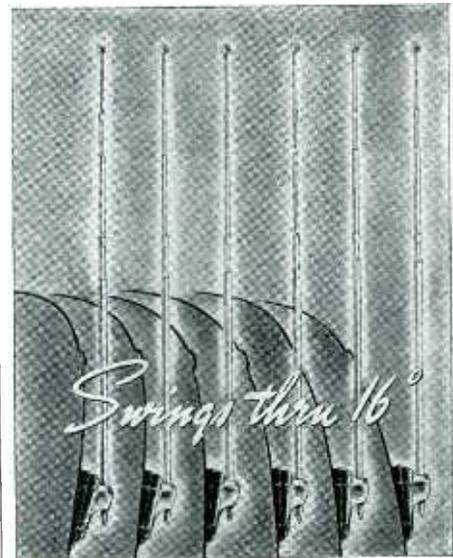
Using a 6A8G oscillator which is tuned by L_1C_1 the unit tunes from 1100-1600 kc. A crystal pickup grid modulates these oscillations by feeding its output voltage into number one grid.

The r.f. energy generated is impressed with the variation of the record groove, consequently the signal is for all purposes of explanation, a standard carrier on the broadcast band which may be received and rectified like any other signal.

A d.p. 3 t. switch in the power line operates the turntable motor and the plate and filament supply. This permits the unit to be kept in operation while the turntable is stopped for record changing.

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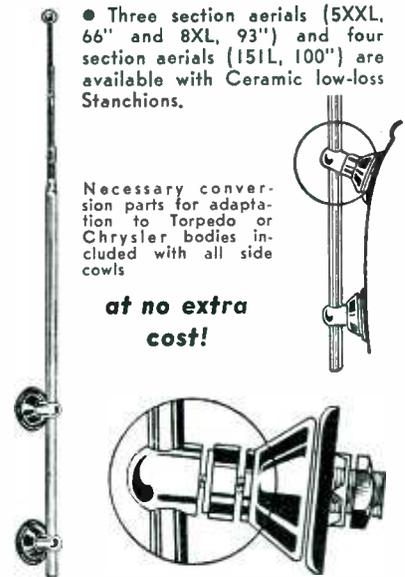
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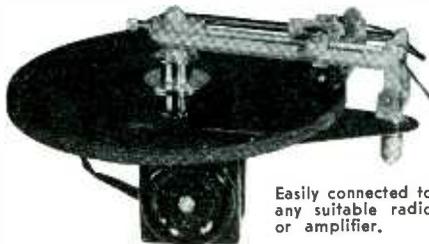
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New Tubes

35Z6G—Twin diode rectifier for voltage doubler circuits, similar to 25Z6G but has higher plate current rating. *Raytheon*

50Y6GT—Twin diode rectifier, similar to 25Z6G but for use in .15 amp series filament circuits. *Raytheon*

117M7GT—Half wave rectifier and audio beam power tube for use in three way portables. Note heater voltage permits direct connection to power line. *Raytheon*

2X2/879—High vacuum half wave rectifier for high voltage supply to cathode ray tubes. *Raytheon*

6AG7—High mu pentode for use as video voltage amplifier for tele. *Raytheon*

6C5GT—General purpose triode, see 6C5. *Raytheon*

12SF5—Metal, high mu triode for .15 amp. filament applications. *Raytheon*

117N7GT—Half wave rectifier and audio beam power tube for use in three way portables. Note heater voltage permits direct connection to power line. *RCA*



1847—A small iconoscope by RCA for experimental television transmission. Will provide clean 120 line pictures suitable for transmission in the 2½ and 1¼ meter amateur bands. Maximum voltage necessary is 600 volts. Mosaic size is less than 2 inches permitting use of inexpensive short-focal-length lens.

UR2—A high mu hoptoad penthouse duo-diode recently released by a well known manufacturer. Claims to be the latest achievement in tube design with wick-type filament burning low cost fuel oil; very economical.

Audio Frequency

ON TUNING GANG fingers, band and push button switches and the like, oxidation of the metal is a major cause of noisy and erratic operation. A knife or file, when used to clean these, scrapes surface causing premature wear and danger of metal particles getting into tuning gang or other mechanisms. Try a small ink eraser next time, one on end of pencil for tight places. Circular erasers have a brush attached if you are fussy about removing rubber particles.

Typical

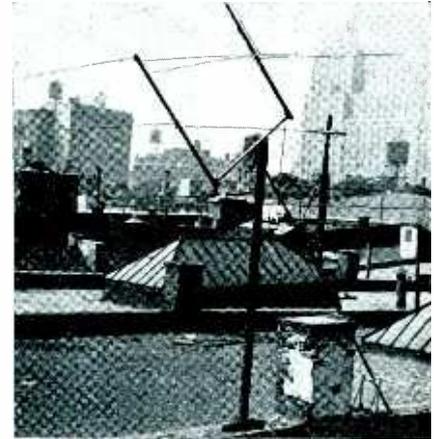
TELEVISION Installations

in and around New York

DOWNTOWN

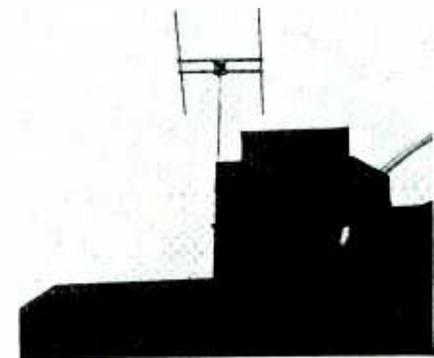
TELEVISION ANTENNAS sprouting around the Manhattan skyline have proven to be a very interesting study. An analysis of typical antenna systems and the reason for each particular orientation throws considerable light on the subject.

The top left illustration shows a downtown job at Sun Radio Co. This site is completely hemmed-in by tall buildings on all sides. The building at the right shields the Empire State building from direct view. Consequently the system was designed to pick up a reflected signal, probably from the right face of the tallest building on the left. A double-dipole antenna is employed, with a double reflector to reduce pickup from the back.



An unusually difficult installation was experienced at R. H. McMann (top right). Here the antenna had to be vertically tilted to eliminate the many reflections encountered. The location had tall buildings on two sides but was in direct view of the Empire State antenna. Reflections from these buildings raised havoc. Every position tried with the antenna mounted in normal fashion failed to reduce the reflections.

A simple job is shown in the center left photo (Harvey Radio Co.). The antenna is in clear view of the transmitter. No high buildings nearby to cause trouble although some small reflections were encountered.

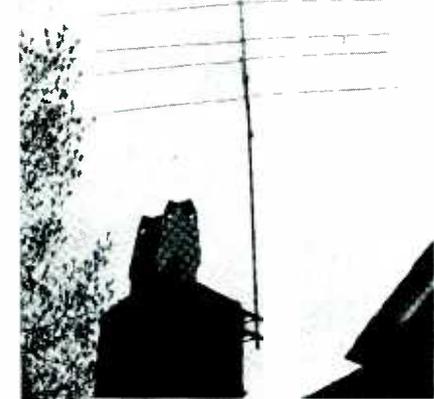


Another relatively simple installation was made at Gross Sales, shown at the right center. This was placed in the clear and pointed broadside at the transmitter. It was necessary, however, to mount this antenna on a nearby building to obtain the desired results.

Out in the suburbs Lawrence Radio, Far Rockaway, employed a single dipole with a single reflector (bottom left). The system here is supported on a long pole to get away from most of the interference level and at the same time clear surrounding buildings.

A residential installation is illustrated at the bottom right. A double-dipole with double reflectors was used to get good signal strength. Mounted on the chimney, it afforded a direct path from transmitter.

SUBURBS

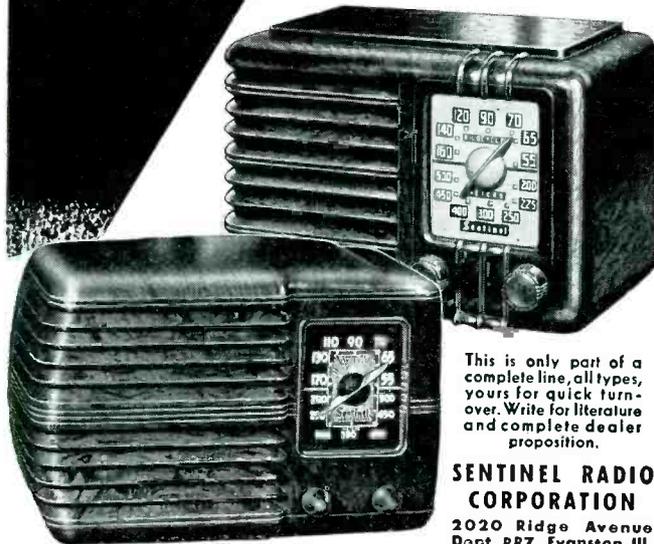


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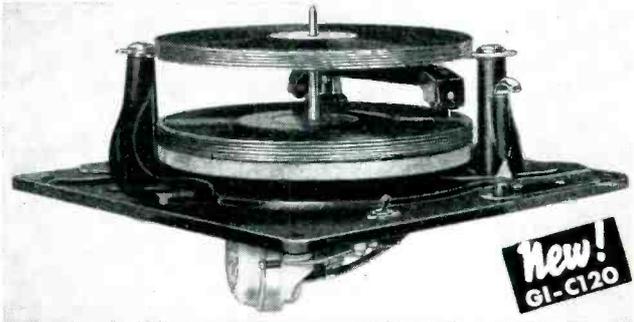
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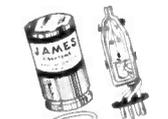
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Systematic SIGNAL SEARCH

PLAN your work, then work your plan; obtain utility from your tracer

By Harold Davis

Chief Engineer,
Radio Instrument Mfg. Co.

FIVE THOUSAND signal tracers in the field. What do the boys do with them?

To answer this question the writer contacted and talked with most of the owners of such instruments in his territory. He found that far too many of the machines are being used for decorative purposes, or should we say advertising.

Signal tracing instruments are too useful to be employed in this "spotty" manner. Testing time, so easily wasted, should be spent in a logical sequence of operations, furnishing the "mostest" conclusions for the "leastest" efforts.

System Needed

Practically every radio man has a system, ranging from the crude method of popping tubes in their sockets to an elaborate and detailed checking of all tubes, voltages, alignment, etc. The first system is inadequate, and the second takes too much time and is still inefficient for preliminary checking.

The signal tracer has put into the hands of the serviceman a tool around which he can develop a system that is by far quicker and more efficient than has heretofore been possible. The time required to run a set through the system is two minutes or less and no major part of the radio goes unchecked.

Any radioman operating in any location can take any radio, hook it to

the antenna he uses for testing, and classify it into one of the following classes: extra good, good, fair, or poor. To do this he has only to tune in two or three stations to which he is accustomed to listening and knows exactly what kind of reception to expect.

Circuit Sections

Generally speaking, there are only three sections to an r-f system, the r-f, the oscillator, and the i-f system. The first two of these terminate in the converter tube. The second terminates at the second detector, which is usually a diode section of a duo-diode-tube. The other section which completes the radio, disregarding the power supply, is the audio system. An ideal radio servicing system is one that will check each of these sections independent of the others. This is what the signal tracer does.

Simple System

Our first step in systematic checking with the signal tracer is to attach the regular service antenna to the set. Tune in, or tune the dial to one of the stations used for regular checking. Place the r-f probe of the tracer on the plate of the converter tube, Fig. 1. Three signals are present here; the r-f signal depicted by the dial reading, the oscillator signal, unmodulated and at a frequency which

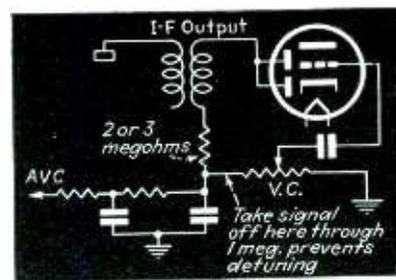


Fig. 2—Second detector and ave

is the sum of the dial setting and the i-f peak of the set, and the i-f peak.

All these may be heard or observed on the r-f indicator, as the signal tracer is tuned to the various frequencies mentioned. The strength of the r-f and i-f signals are to be carefully noted, because a standard is to be established to which future sets can be compared. We might state that the r-f signal will be weak as compared to the i-f. The oscillator signal is usually the stronger of the three. On some types of signal tracers the r-f section tunes only through 1800 kc and the oscillator signal cannot be picked up on the r-f section if the set is tuned above 1350 kc and has a 456 or higher i-f. (1350 plus 456 equals 1806). However, these instruments have special oscillator measuring sections for this purpose.

If a station is tuned in on each end of the dial, or there about, alignment of the r-f circuits and tracking of the oscillator can be checked at the same time the strength of the signal is being observed. To check r-f or first detector alignment is only to compare the dial reading of the radio to that of the tracer. (Both peaked carefully). The oscillator frequency should be, as previously explained, the dial reading or the frequency of the station being received plus the i-f peak of the set. Allowance for some detuning must be made.

Not only can the alignment of these circuits be checked, but in a vast majority of cases it may be corrected at the same time. This is especially true of the oscillator. The first detector and r-f trimmers should be corrected only when a station whose frequency is close to 1400 is being received. No station or signal is necessary for the adjustment of the oscillator, but the dial should be set around 1400 for the trimmer adjustment and around 600 for padding. Rocking at 600 now becomes unnecessary, but it is still a good idea to adjust both trimmer and padder several times to compensate for the reactance of one on the other.

Sometimes an r-f coil does not track and it is necessary to shift the oscillator to compensate for this, as no arrangement other than bending of the plates of the variable condenser

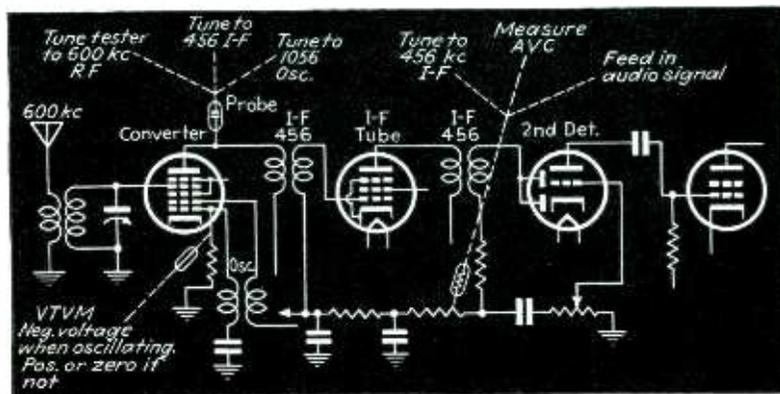


Fig. 1—Points for probe application in a typical super-heterodyne

is provided for r-f or first-detector adjustment at the low frequency and of the dial. It is obvious how easily all this may be checked without moving the signal tracer probe from the plate of the converter tube.

I-F Check

If the signal is normal at the converter plate, jump the tracer probe to the second detector or diode. With the tracer tuned to the i-f peak, the i-f section may now be analyzed. Strength of the signals received from two or three stations across the dial should be carefully noted, and if necessary these as well as the readings obtained at the converter plate should be written down for future reference.

If the i-fs have been aligned at other than the specified frequency, or if they are materially out, this is easily detected by observing the dial reading of the tracer at peak frequency. Extreme care must be taken that the radio is carefully peaked on the station being received, however, it is very easy to detune the radio 10 to 20 kc without notice on a strong signal. This will naturally shift the i-f frequency this much.

Double Check

A more dependable way to measure the i-f peak frequency is to stop the set oscillator by shorting the oscilla-

tor tuning section of the variable condenser, which requires placing the fingers or a screw-driver across it, and peaking the tracer on interference alone.

Coil Check

Should the primary and secondary of the individual coils be out, this check will hardly detect it. This defect is usually accompanied by reduced volume at the diode or second detector grid, and to prove individual coils out of alignment it is necessary only to compare the strength of the signal on the primary of the coil to that on the secondary. If much signal is lost in the transfer, more than 10 to 20%, the coil is out. Only in radios having two i-f tubes will this vary. In sets having multiple i-f stages, deliberate loss is introduced in the i-f coils to prevent oscillation and to improve selectivity.

I-F Alignment

If the set uses separate diodes for the rectification of the avc and for detection, the probe may be placed on the avc diode without detuning. If not, the probe should be coupled through at least 1 megohm to the low end of the coil, where it feeds the avc network. Fig. 2. Set the tracer on the desired frequency and peak the i-f transformers.

It has also been found that if the

1 megohm probe is used at this point instead of the 1 mmfd probe, less detuning will be noticed.

If the i-f system is in alignment, and the r-f system ahead of it is okay, weak signals at the diode will indicate either a bad i-f tube or defective voltages on the tube. The latter are easily checked, and if found okay the tube should be replaced. While gaining experience all weak tubes found with the tracer should be checked and their weakness as shown on the checker compared to that shown by the tracer.

AVC Check

So far we have analyzed the entire r-f section by placing the probe on only two points in that section, first the plate of the converter tube, and second, the diode or second detector. While on the diode, it might be well to check upon the avc system, which is done by connecting the vtvm at this point and tuning through a strong station. The meter will read from 3 to 15 volts ordinarily on a strong signal.

Audio Check

To check the audio end of the radio a slightly different procedure is recommended. On some tracers antenna connections are provided; on others, the signal can be picked up by attach-



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ing an antenna to the r-f probe. If this is now done, a demodulated audio signal can be fed into the grid of the audio tube and its strength noted.

There are several reasons why this method of checking the audio is recommended. First, much radio trouble occurs in the i-f stage. This system permits the serviceman to pick up and analyze the signals up to the defect, and then feed in a signal to the audio system to determine if that end is performing properly.

Second reason is that the volume control of the radio must be open full if a comparison of the signal strength is to be made. This often is to loud for comfortable listening or causes overloads and distortion. By feeding the signal into the audio system, the volume control on the set may be opened wide and strength of the signal controlled at the tracer. These controls usually are calibrated and the amount of signal being fed in is easily recorded for future reference.

Weak signals in the audio end are usually traced to excessive bias, weak tubes, or low voltages, all of which are easily detected. Open couplings are quickly found by their refusal to pass the signal onto the grid of the output tube, while shorted ones may be located by measuring for a positive voltage on the grid of the output with the vtvm. To check for weak tubes, follow the gain table given in the instruction book.

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Using the VTVM

All the signal tracing instruments on the market to date are equipped with electronic or vacuum tube volt meters.

Equipped with such a meter that will read all the applied voltages of a tube, characteristics take on a new meaning. Consulting a tube characteristic chart one will find voltages and currents for the different elements listed. Two or more sets of voltages usually are given for each tube, which will take care of the operation for either ac-dc or straight ac. If these listings are checked against readings on the vtvm for a tube in actual operation, it will be found that they follow very closely.

Unknown Voltages

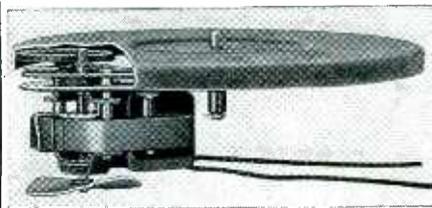
This is something worth knowing, because it will permit the serviceman to adjust voltages of any element of a tube to correspond to other voltages known to be right. For instance, if a screen grid resistor is burned or open, on a 6K7 and it is found that the plate voltage is 250 volts, on consulting the chart it will be found that the screen should be 100 volts. A suitable resistor can be installed to give a reading of 100 volts. This same system can be used to adjust the plate or control grid voltage, which latter is particularly important because little change will affect the operation greatly.

Intermittents

When attempting to locate intermittent condensers, the meter can be tied in at conspicuous points and the voltage observed when the intermittent occurs. This is especially adaptable to the oscillator. When a tube oscillates, there is negative voltage developed across the grid leak which is only present when the tube is oscillating. The vtvm does not affect the circuit and can be used to monitor the oscillator for intermittent operation.

The vtvm is practically the only instrument that can be used to check and find defects in an avc system. A typical avc network is shown in Fig. 2. The r-f is rectified by the diode and fed through a series of high ohmage resistors. Across these resistors are a couple of small mica condensers which serve the same purpose as filters in a power supply. They filter the r-f and make it pure dc to be applied back to the grids of the r-f tubes. If one of these condensers develops a leak of even several megohms it will reduce the avc to practically nothing. Also, if one of the resistors changes in value materially it will affect the voltage at the point of defect. The meter may be tied in at any point and monitored for intermittent operation.

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● Even-Speed Model 80 is available for operation on 110 or 220 volt, 50 or 60 cycle source at 16 watts input. Simple and quiet in operation—no gears—smooth positive friction rim drive. Good regulation characteristics for uniformity of table speed. Amply proportioned bearings—large oil reserves. Motor and idler plate shock mounted to mounting plate for low vibration transfer to turntable and motor board. Forced ventilation for cool operation. Slip type fan precludes possibility of injury. Mounting plate maintains correct turntable height regardless of mounting board thickness. Available with 8, 9, or 10 inch turntable top. Maximum depth below base mounting plate, $2\frac{1}{8}$ inches.

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The name "Even-Speed" means constant speed under all normal load, voltage and temperature variations. The Model 80 shown above is just one of several, precision built phonograph motors now being made by Alliance. Each is a quality motor and built for years of service. For more information on Alliance Even-Speed Phono-Motors, ask your jobber or write direct.

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TRICKS of the TRADE

EMERSON AC-DC PHONOCOMBS

Hash in speaker when operated on dc . . . audio pickup from brushes, reverse motor leads to set.

GEN'L INDUSTRIES, RCA PHONO MOTORS

Slow . . . remove governor, if still slow, yet turns freely by hand, ream bronze bushing (not front or rear bushing) with fine reamer. Caution, too much causes bearing knock. Re-assemble.

Erratic speed . . . V in governor composed of two pieces of metal, one steel, one brass. Brass wears and steel section builds up sharp edge. As governor spins steel V rides on brass V and should slide smoothly without catching. File all edges smooth and square off with point file.

PHILCO 40-195, 200

Intermittent . . . first I.F. transformer has a suppressor winding which is grounded through a threaded bushing and screw to the shield can, in turn grounded to the sub-base. Resistance between bushing and screw varies. Ground completely with flexible lead.

PHILCO PORTABLES

Intermittent . . . models with series aerial jack in side of case may develop this trouble after use with outside antenna or after bumping by battery replacement. Glue from cabinet assembly ran down over jack causing erratic operation after glue chipped. Clean contacts and install fish paper shield over jack to prevent battery bumping.

PHILCO 931

Vibrator hash . . . usually caused by oxidation of contacts on octal tubes and sockets. Clean thoroughly and check visually under socket when tubes reinserted.

RCA M34 (Auto Radio)

Weak . . . check electrolytic condensers for opens or decrease in capacity.

RCA RE18

Filter blows . . . the ordinary replacement condensers will not stand up in this set. Connect two 450 volt units in series across the circuit. Each condenser should be twice the required capacity.

RCA U20

Pushbuttons won't tune at certain times . . . adjustment belt torn slightly by protruding rivet.

SILVER MARSHAL 30

Dead . . . look for open in 10,000 ohm resistor connected to one of outer terminals of volume control. Defect is likely if condensers are okeh and screens show no voltage.

SILVERTONE 110

Oscillation . . . before attempting other measures to correct trouble, see that aerial lead-in is moved from vicinity of speaker wires.

SILVERTONE 1174

Dead or weak and distorted . . . check 0.5 mfd. condenser bypassing plate supply for 27 detector. Unit likely leaky or shorted.

SKYROVER 224

Oscillations . . . replace .25 mfd plate bypass condenser on the third r.f. tube with .5 mfd.

SONORA A-11

Distortion and hum . . . this set uses a plug-in filter condenser with octal base. Inspect socket and prongs for good contact.

SPARTON 537, 577

Noisy on one band . . . check oscillator coil for band in question for high resistance "open."

STEWART WARNER 1845

Automatic tuning motor runs but condenser does not turn . . . inspect the "U" shaped spring washer fitting between gears and collar on clutch.

STROMBERG CARLSON 231

Dial slips . . . not caused by loose belt but by lack of oil on the two guide pulleys.

ZENITH 712

Changes in volume . . . look for leaky .01 mfd condenser in oscillator circuit.

ZENITH 9S262

Dial slips but belt okeh . . . tighten clutch spring screw on flywheel shaft underneath chassis front.

ZENITH FORD

Noisy and intermittent . . . bad octal pin connections. Tighten socket prongs.

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WHERE QUALITY IS THE KEYNOTE *Manufacturers Choose . . .*

*Automatic
Record Changers
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SEEBURG RECORD-O-MATIC

Has all advantages of Model "J" Changer. In addition: Cutting head assembly contains no steel stampings—all parts cast for rigidity; hardened cone bearings at all essential points; lead screw has support bearings at each end; larger main bearing and ball thrust to carry weighted turntable; 1 3/4 oz. pressure crystal pickup in aluminum tone arm gives long record life; crystal or magnetic cutting heads; cutter has plunger type, automatic engagement with lead screw; separate switch for manual play-back frees Tone Arm from automatic mechanism—any size record may be played manually.



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Compact; 14" long, 14" wide, 3" deep. Handles 14 ten inch or 10 twelve inch records, gravity type. Two post suspension. No screws or brackets on top surface. Simplest changer mechanism. Long main bearing, ball thrust. One control button for all operations. Rigid counterbalanced pickup arm with crystal cartridge. Selector blades will not chip or break records. Needle pressure, 2 1/2 oz. Handles warped records and all commercial thickness variations. Tone Arm, held in outward position by latch under panel, automatically released by starting switch.

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Plays fifteen mixed 10" and 12" records—gravity type. Guide arm and lifter com. feature permits playing of extremely warped records. Three-point suspension with two oilless bearings in each post. Play-Meter can set to play from 1 to 15 records or repeat a record up to 15 times, then stop automatically. Tone Arm is in extreme outward position when stopped automatically. No need to lift off record when re-loading, one control knob turning blades and arms to re-loading position. Pressure on Play-Meter knob rejects record.



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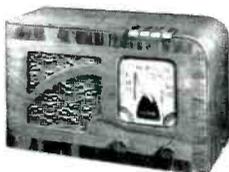
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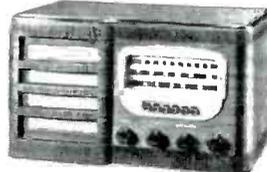
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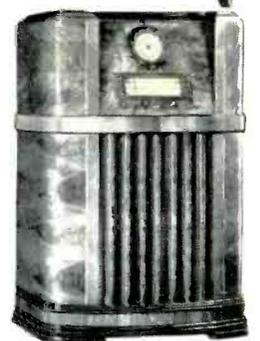
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