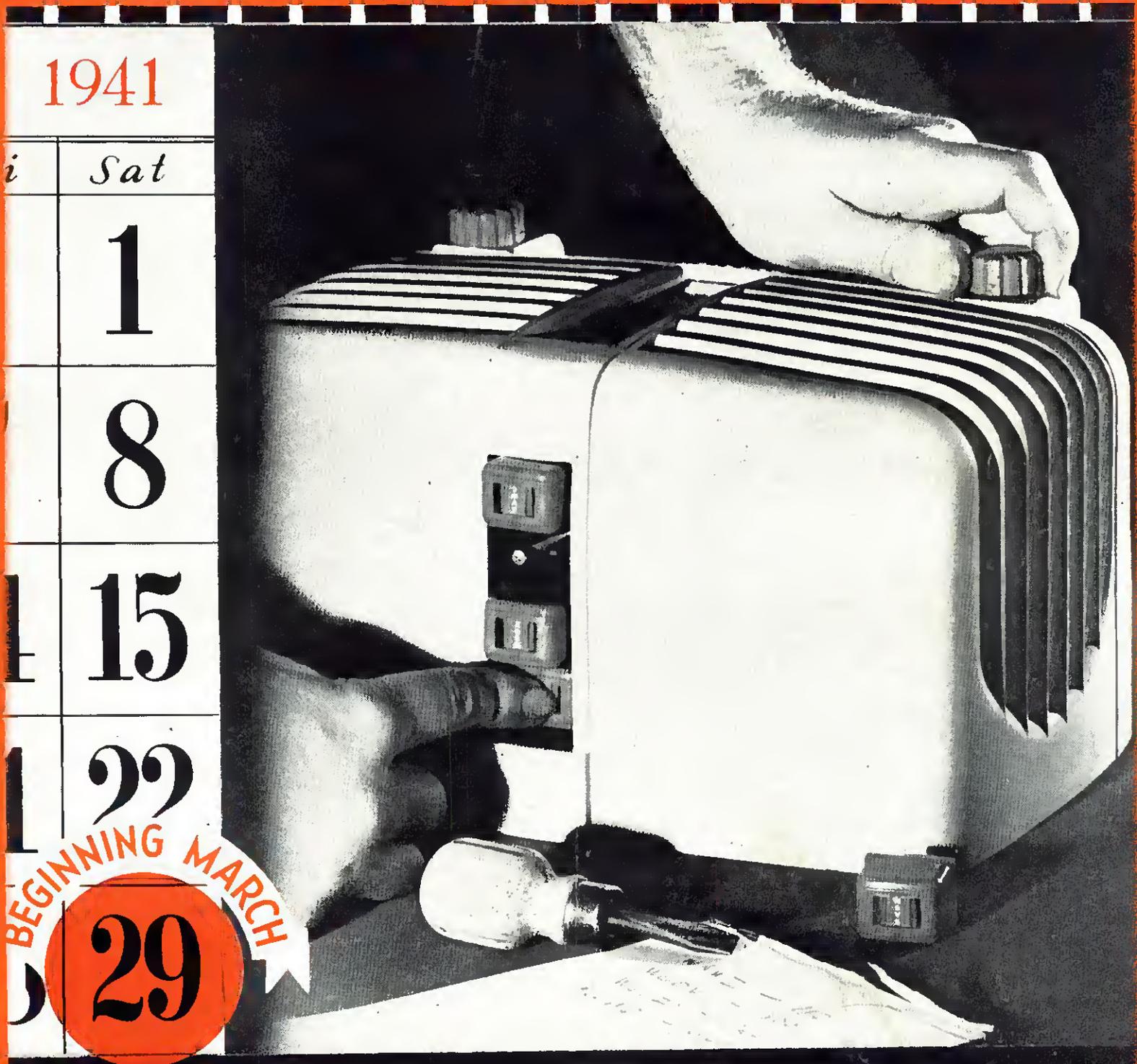


# RADIO

*and  
Television*

# RETAILING

MARCH • 1941  
A McGRAW-HILL Publication Price 25c



**Radio PUSHBUTTONS Must Be RE-SET!**

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The Only  
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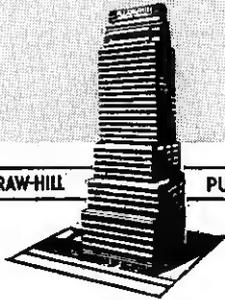
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**MALLORY**  
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VIBRATORS • VIBRAPACKS • CONDENSERS •  
VOLUME CONTROLS • ROTARY SWITCHES •  
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• RESISTORS • RADIO HARDWARE

# RADIO

# and Television RETAILING



A MCGRAW-HILL

PUBLICATION

MARCH 1941

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SALES STATIC . . . Junior pulled all the pushbuttons off and it's your fault for not having them on tighter!

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# 4

# New

# EXTENDED RANGE COAXIAL SPEAKERS

ALL WITH THE SUPERIOR PERFORMANCE INHERENT IN DUAL SPEAKER OPERATION

## NEW! 4-POSITION HF RANGE CONTROL SWITCH

This new feature gives you finger-tip control of response, provides instant adjustment of high frequency range for best results on every record, every program—FM or AM.

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## FM • AM • PHONO

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## 2 NEW RED-HOT SELLERS

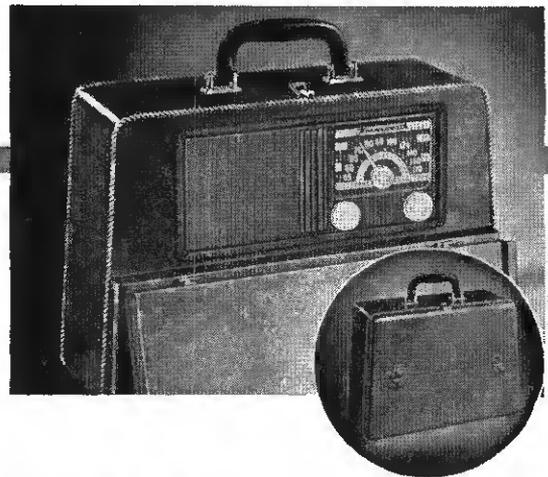


### ↙ The Tripleplay CT-59 clicks your cash register

1. Three-way circuit—AC, DC or batteries. Two (not one) "A" batteries for longer life. Replacement batteries universally available.
2. Beautiful cabinet of *unbreakable* beige plastic. Leatherette trim in lighter beige.
3. Weighs only 4 lbs., 8 ozs. with batteries.
4. Five tubes. Extreme sensitivity and selectivity.
5. Powerful P. M. dynamic speaker.
6. Bilt-In-Tenna.
7. Beam power output.
8. Band: 545 to 1630 kc.
9. On-off indicator prevents accidental battery discharge.

### ↓ The Luggage-type CT-60 is a honey for the money

1. Styled to look like expensive luggage. Rich, walnut-toned, durable leatherette.
2. Three-way power supply: AC, DC or batteries (all standard makes).
3. Six tubes. Tuned R.F. Amplifier and three-gang tuning condenser multiply image ratios.
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5. Band: 540 to 1600 kc.
6. Change-over switch prevents accidental battery discharge.



● **They're the Sensation of the Radio World . . .** the new Farnsworth Camera-type Portable and Luggage-type Portable. Built to sell on sight. Their outstanding performance *amazes* customers used to hearing ordinary portables. At prices that make people reach for pocketbooks.

● **They Make Ideal Gifts** for birthdays, anniversaries, Mother's Day, graduations, Father's Day and other occasions. Perfect for vacation trips.

● **They Put Profit in the Dealer's Pocket.** In a hectic industry, Farnsworth has stood firm for *dealer* profit. Your success is ours. These new models again reflect this basic Farnsworth policy. Inspect them at your Farnsworth distributor's *today*. He will give you the money-making facts. Or phone, wire or write to FARNSWORTH TELEVISION & RADIO CORPORATION, FORT WAYNE, INDIANA.

# FARNSWORTH

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

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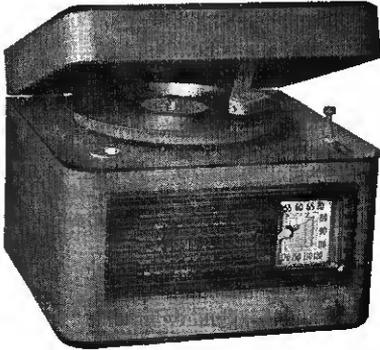
1921

"20 YEARS OF PROGRESS"

1941

BRILLIANT, SALES-STIMULATING 1941 MODELS . . . FINEST LINE IN DEWALD'S 20 YEARS OF PROGRESS!! These are but a few models in the widely varied, star-studded 1941 DeWald line. For faster turnover, bigger profits, more repeat business with more satisfied customers . . .

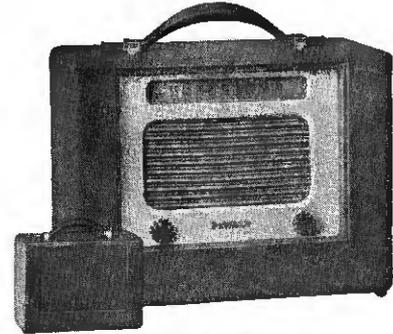
STOCK, FEATURE, PUSH DEWALD RADIOS AND COMBINATIONS!



**"SUPER SIX"  
RADIO-PHONO  
COMBINATION**

New, smart-looking, top grade performance. Expensive features at a low price!

MODEL NO. 669  
LIST: \$34.95



**3-WAY PORTABLE**

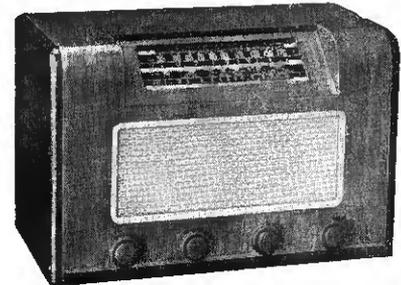
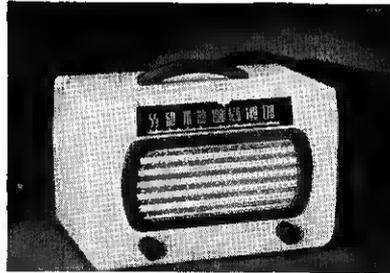
Versatile, compact, splendid tone, streamlined luggage construction.

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**THE DEWALD  
"JEWEL"**

5 supremely gorgeous superhet receivers in jewel-like catalin cabinets that resemble precious stones . . . and have as much appeal! Real value: remarkable reception.

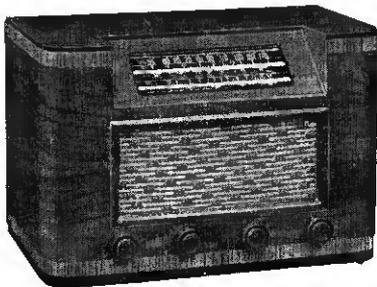
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Remarkable value! Full band spread tuning; tuned RF stage on all bands. Striking design.

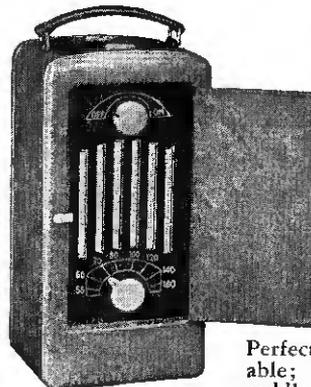
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**DELUXE  
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7 high-efficiency tubes; band-spread tuning; tuned RF stage on all bands. REAL VALUE!

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**"COMPANIONETTE"  
PERSONALIZED RADIO**

Perfect performance; beautiful and serviceable; smart simulated cowhide case with saddle stitching.

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436-440 LAFAYETTE STREET, NEW YORK CITY





**EVER SINCE THE "CRYSTAL" DAYS**

**. . . we've been proud to cooperate with**

**DEWALD**



**T**HROUGH 20 years of radio history . . . while radio progressed from crystal detectors to home-recording combinations . . . we have been privileged to know and to work with the DeWald Radio Manufacturing Company.

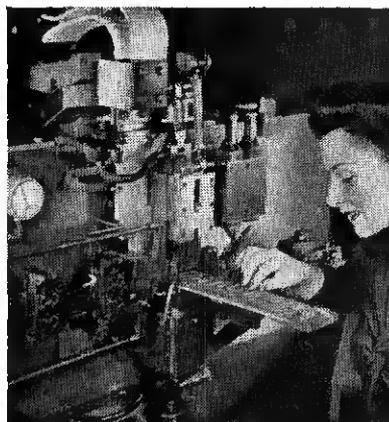
We have seen farsighted policies in operation at DeWald—policies that have helped all the Industry. We have seen wholehearted cooperation at DeWald—such cooperation as few concerns can boast of. And we have seen in the progress and development at DeWald an evolution that parallels the growth of broadcasting itself . . .

We are happy to have played a part in the record of that kind of Company. We are proud that DeWald was among the first to support the RCA Preferred Type Tubes Program . . . as they have supported *every* move that works for the betterment of radio as a whole.



**PREFERRED TYPES  
mean BETTER TUBES  
Every Step of the Way!**

*Concentration on more tubes of fewer types—the essence of the RCA Preferred Type Tubes Program—permits development of costly, highly specialized automatic machinery to give you better tubes . . . more for your radio-tube dollar! Illustrated is a Kershaw automatic grid machine at the RCA plant in Harrison. It turns out super-accurate complete grids in a single operation, at a rate of 3600 per hour! And these grids are more accurate, more uniform . . . better!*



*Preferred Type Tubes*

RCA MANUFACTURING COMPANY, INC., CAMDEN, N. J.

A Service of the Radio Corporation of America  
In Canada, RCA Victor Company, Ltd., Montreal

# CONGRATULATIONS, DeWALD!

IT'S A PRIVILEGE TO JOIN IN YOUR 20th ANNIVERSARY CELEBRATION WITH SINCERE RESPECT FOR YOUR ACHIEVEMENTS AND HEARTIEST WISHES FOR YOUR CONTINUED GROWTH

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JOSEPH SPRUNG  
New York

FROM PIONEER TO PIONEER . . .

## HYTRON HAILS DeWALD

We want to express our tribute to the vision and resourcefulness that has brought DeWald Radio Mfg. Corp. to this important milestone in their career . . . and we want, too, to acknowledge our pleasure in serving them with HYTRON RADIO TUBES.

## HYTRON CORPORATION

25 N. DARBY ST. SALEM, MASS.

MANUFACTURERS OF RADIO TUBES SINCE 1921

## BEST WISHES

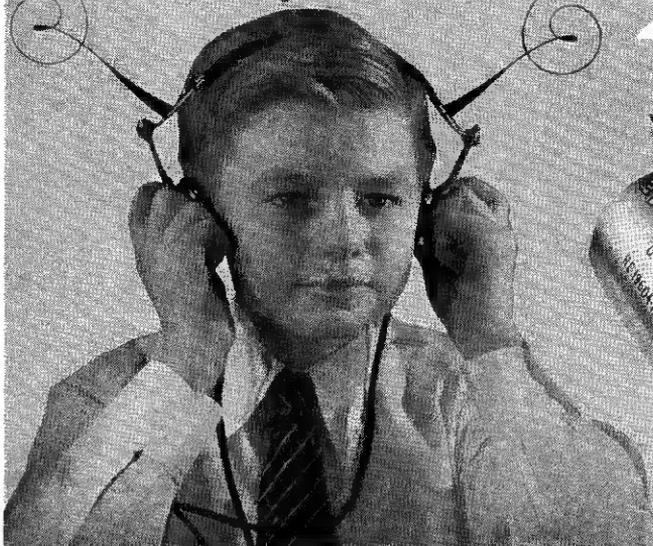
## TO THE DeWALD MFG. CO. ON THEIR 20th ANNIVERSARY

● General Industries is proud to have been a supplier to DeWald for several years, with its specialized, improved phonograph motors and recorders.

The GENERAL INDUSTRIES CO. Dept. 16  
Elyria, Ohio

# RADIO,

*We knew you when...*



### A SALUTE TO DeWALD

*On this, DeWald, your twentieth anniversary, Cornell-Dubilier salutes you as one of radio's pioneers! Twenty years ago we supplied DeWald with dependable capacitors — and we still do, today.*

Yes, Radio, we knew you when . . . Since long before the days of broadcasting, when radio was "wireless", we have kept shoulder to shoulder with you in the march of progress. Cornell-Dubilier has designed and supplied capacitors for every new application in radio, since the Dubilier transmitting capacitor replaced the obsolete "leyden jar" many years ago.



1910 \* 1941



## CORNELL DUBILIER ELECTRIC CORP.

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Count Your Old Customers  
as Cashable Assets



# with **Deepfreeze**

You can Sell 'em all over again!

As a dealer, your biggest assets are not your equipment and inventories, but the *people* you have sold. Whether you have ten or ten thousand, your owners are your stock in trade. What have you to sell them? Can you sell a new refrigerator, range, or washer to last year's buyer? Certainly not. Yet, with nothing new to offer them, they are *frozen* assets... their good-will means little — for years to come.

**Deepfreeze** will turn your owners into buyers. It is the new necessity for the modern home. It justifies its purchase by the savings it effects and by the better food that it provides.

- 1 A new product—revolutionary and non-competitive — yet tried and proven!
- 2 An appliance that saves more than it costs! You can prove to your customers a saving of \$10 to \$15 per month.
- 3 An appliance that gives better living—cheaper!
- 4 An appliance that sells easily on demonstration!
- 5 A unit of sale over \$200!
- 6 A real—a bankable profit on each sale!

**Deepfreeze**  
IS 'going places'—ARE YOU?

**Deepfreeze** spent 1940 proving its product and its market... and 1941 will be a year of VOLUME and PROFIT!

**Deepfreeze** has complete national distribution... large wholesale stocks are available for immediate shipment to your store.

**Deepfreeze** national advertising is now at work. Smart promotional material—usable sales tools—direct mail pieces—are all ready for use in your store and in your territory. In 1941 aggressive Deepfreeze Dealers will reap a golden harvest!



## **Deepfreeze** FROZEN-FRESH FOOD SAVER AND MEAT FREEZER

Deepfreeze has a barrel of sub-zero freezing and storage capacity—18 inches diameter by 30 inches deep (all actual primary freezing space)—ample room for a hind quarter of meat, assorted institutional size packages of frozen-fresh fruits and vegetables, and a commercial can of ice cream.

The freezing unit is the entire double wall surface of the food compartment—24 square feet of primary freezing surface. Factory set to operate at zero and sub-zero temperatures regardless of room heat, Deepfreeze can be set to maintain cold as low as 20 degrees below zero.

New freezing principle gives maximum cold-making efficiency. Electricity consumption is about same as ordinary refrigerator.

**Deepfreeze**  
Will Bring Your  
Preferred Customer  
List to Life!  
Maybe Your Territory  
is Still Open

**ACT NOW** PHONE, WIRE OR MAIL THIS COUPON

Deepfreeze Division Motor Products Corporation  
2303 Davis Street, Dept. 41-RT, North Chicago, Illinois  
Please send booklet: "Today's Opportunity for Appliance Dealers."

Firm Name.....  
Street.....  
Town..... State.....

DEEPFREEZE DIVISION MOTOR PRODUCTS CORPORATION



## Utah Keeps "the Tropics" in a Refrigerator

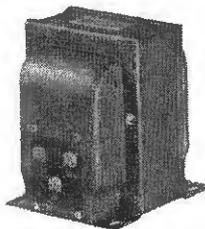
**S**TEAMING, dripping heat that duplicates the tropics is created in the Utah laboratory. Into this sweat box go Utah Transformers to *prove* their ability to withstand the severest moisture conditions.

Because moisture resistance is provided by vacuum-pressure, complete impregnation, Utah Transformers are assured of adequate protection against moisture. The causes of failure so frequently experienced where ordinary transformers are used is avoided.

In the impregnation of the interlayer insulation of Utah Transformers, all air and moisture are eliminated. Then molten wax is

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Inadequate insulation in transformers frequently causes breakdowns with consequent costly loss of time and money. Protect your best interests by insisting on UTAH. Write for all the facts about the complete Utah Transformer line. Utah Radio Products Company, 810 Orleans Street, Chicago, Illinois. Canadian Office: 560 King Street, West, Toronto. In Argentine: Ucoa Radio Products Co., SRL Buenos Aires. Cable Address: Utaradio, Chicago.



\*500 X enlargement of cross section of interlayer insulating paper showing advantages of (A) Utah's vacuum-pressure, complete impregnation over (B) ordinary, hot-dip, surface coverage method, in which air and moisture remain in the cells.



**TRANSFORMERS**  
SPEAKERS • VIBRATORS • UTAH-CARTER PARTS

**COMBINATION  
SALES SOAR!**

62,783 Combinations  
Sold in 1937 - 350,000  
in 1938 - 475,000 in 1939 -  
850,000 in 1940 -

1941 OPPORTUNITIES  
ARE FAR GREATER!

**CASH IN NOW!**

Feature the New  
**Emerson**  
PHONORADIO



Model 412

Emerson, again, is there *ahead* of every trend . . . with models that ride the crest of the popularity wave, and with values that just sell themselves. These two Phonoradios will make *your* Combination business soar!

**Model 423 . . . STYLE, PERFORMANCE and VALUE!**

A Style Leader of the year . . . and as outstanding in performance as in beauty! Latest phonograph developments plus a great new Superheterodyne radio with . . .

- Illuminated Slide Rule Dial
- Electro-Dynamic Speaker
- Automatic Volume Control
- Perfected Tone Control
- Bigger Inclosed Super-Loop
- American and Police Band
- Hand-rubbed, two-toned Walnut Cabinet

**\$29.95**

LIST PRICE

Prices Slightly Higher  
in South and West

with  
**Automatic  
RECORD CHANGER**  
and  
**"MIXER"**  
Changes 10" and 12" Records INTERMIXED

**IT'S GOT EVERYTHING!**

Phonograph with Automatic Record Changer and Mixer for continuous playing of 10" and 12" records intermixed—with lid closed! And a superb Superheterodyne radio with . . .

- Illuminated Slide Rule Dial
- 6½" P.M. Dynamic Speaker
- Automatic Volume Control
- Perfected Tone Control
- Bigger Inclosed Super-Loop
- Standard American and Police Band
- Hand-rubbed, Figure-stripped Walnut in Sta-Bent Construction

**\$49.95**

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**Call your distributor for full details . . . today!**

**EMERSON RADIO and PHONOGRAPH CORPORATION, NEW YORK, N. Y.**

*World's Largest Maker of Home Radios*

# A BIG *SPRING CLEAN-UP* WITH **Hotpoint** REFRIGERATORS



THIS EXTRA BIN FOR DRY STORAGE GIVES PLENTY OF SPACE FOR CANNED GOODS AND CEREALS!

WHY DIDN'T SOMEONE TELL ME ABOUT HOTPOINT'S SEVEN FOOD STORAGE ZONES BEFORE!

NOW, I CAN SEE WHY HOTPOINT'S HI-HUMIDITY COMPARTMENTS KEEP FOOD FROM SHRINKING AND DRYING OUT!

HOTPOINT'S BUTTER CONDITIONER KEEPS BUTTER JUST RIGHT FOR EASY SPREADING!

AND HOTPOINT'S BIG BOTTLE SPACE WILL SOLVE A REAL PROBLEM FOR US!

**Hotpoint**  
REFRIGERATOR  
PRICES  
START AT  
**\$119.95**

*Thoughts at a Glance*

Those of us who subscribe to the American system of business are dedicated to two fundamentals:

1. The right to operate a business.
2. The opportunity to earn a profit.

We believe that the earning power of profit cannot be short-sighted. It must extend beyond the manufacturer, the distributor, the retailer. It must reach the ultimate consumer.

The products which we make and you sell must render a profit to the consumer through satisfactory performance, greater benefits, better living. This simple policy is the basis of the good reputation earned by Hotpoint, and has created the reservoir of good will from which future business flows. It makes your job and our job easier and more profitable.

We strive by continued product improvement and greater service to the users of Hotpoint products throughout the years, to gain a reputation which will add sales and greater profit to wholesalers and retailers who benefit by "The Name Everybody Knows."

*W. J. ...*  
Vice-President

# STEEL BARS **SHATTERED** IN SECONDS



WITH **RAYTHEON** TUBE EQUIPPED  
TESTING APPARATUS!

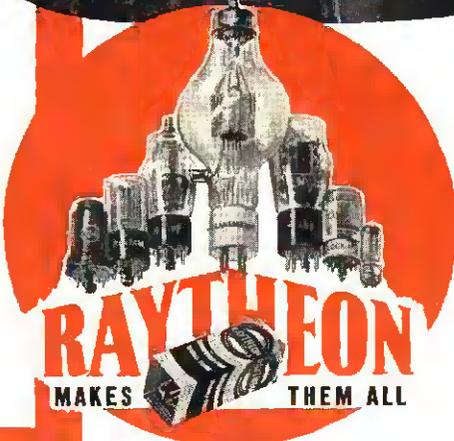
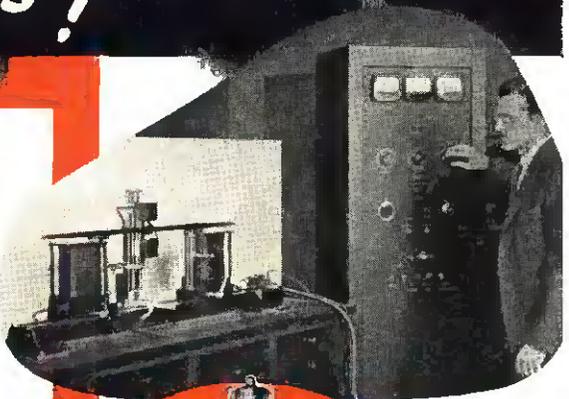
*Every* day in the testing laboratories of steel plants, turning out vast quantities of defense material, a continual fatigue-strength test of steel goes on. The Rayflex Fatigue Testing Machine meets industry's demand for the most scientific procedure to accurately conduct these tests.

The Rayflex machine vibrates a specimen bar of steel by the means of electromagnets actuated from an oscillator-amplifier combination with frequencies varying from 6,000 to 18,000 cycles, condensing all the wear of years into a matter of minutes! You would expect the control apparatus of Rayflex to be equipped with the best and most dependable tubes money could buy . . . tubes that must not fail under the exacting conditions of these essential tests.

You will find **RAYTHEON RADIO TUBES** performing this difficult task for Rayflex with the same consistent high quality performance that they have always given to radio dealers and servicemen. No special tubes were developed for the Rayflex machine . . . it uses the same standard **RAYTHEON RADIO TUBES** that are sold by thousands of radio dealers and servicemen every day.

Your **RAYTHEON** Distributor has an unusual tube deal for you . . . see him today . . . Remember, **RAYTHEONS** cost no more for their plus advantages.

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



**WORLD'S LARGEST EXCLUSIVE RADIO TUBE MANUFACTURERS**

# KEN-RAD

ON PARADE



You can depend upon profits and satisfied customers when you handle and recommend Ken-Rad Radio Tubes. Hundreds of users write us in this vein: "We are receiving programs we never dreamed of getting before. Foreign countries come in like local stations." [Name on request.]

*For Better Tube Business Recommend*

# KEN-RAD

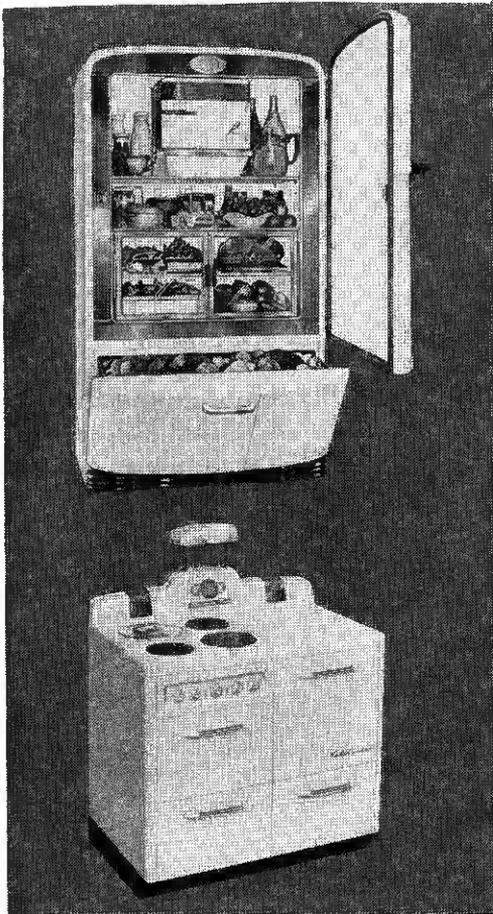
*Dependable Radio Tubes*

**KEN-RAD TUBE & LAMP CORPORATION, INC. • OWENSBORO, KY.**  
*Makers of Ken-Rad Radio Tubes and Ken-Rad Electric Lamp Bulbs*

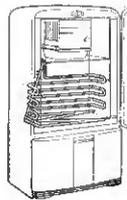
# Postal Telegraph

ELECTRIC APPLIANCE RETAILERS, U. S. A.

REVOLUTIONARY NEW KELVINATOR MOIST-MASTER  
BREAKING ALL RECORDS . . . MOIST-MASTER SALES  
ALREADY ARE OVER 20% OF TOTAL SALES AND  
ARE MOUNTING STEADILY.



As an Essential Feature of Kelvinator's  
Long-Range Program — Kelvinator Refrigerators  
and Ranges are Manufactured by a "Retail-Minded"  
Organization — they are Manufactured to Sell!



A major point in Kelvinator's program of planned and organized manufacture and distribution is its attitude toward *product*—either refrigerators or ranges.

Kelvinator refuses to be complacent. It realizes that successful appliance selling is based on sound change.

Kelvinator calls this attitude "retail-mindedness."

Typical of this retail approach to *product* is the 1941 Kelvinator Moist-Master—the outstanding product achievement of the year and a powerful incentive for the replacement market.

It *looks* different—and it *is* different.

In addition to the High-Speed Freezer, a separate set of refrigerating coils are concealed within the walls. Humidity is controlled throughout the cabinet. A glass-enclosed Cold-mist Freshener provides super-moist refrigeration for left-overs and vegetables.

Already the Kelvinator Moist-Master accounts for over 20 per cent of all sales.

It pays to tie up with a "retail-minded" organization.

*Kelvinator Division, NASH-KELVINATOR CORP., Detroit, Mich.*



**Get  
More**

**Get**

# KELVINATOR

# Utah

1941



★ RE-ALLOCATE YOUR  
PARTS INFORMATION—  
SEND FOR THE NEW  
UTAH RADIO PRODUCTS CATALOG

● Just off the press, the new Utah catalog gives you up-to-the-minute facts about SPEAKERS—VIBRATORS—TRANSFORMERS and UTAH-CARTER PARTS.

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**SPEAKERS**

VIBRATORS • TRANSFORMERS

UTAH-CARTER PARTS

# *Why* **FREQUENCIES** *Change*

**A**T 3 A.M. Saturday morning, March 29, nearly 90 per cent of the broadcast stations in the United States move to different spots on the dial.

This will involve re-setting pushbuttons on 10,000,000 radios if users are to continue hearing stations heretofore received at the pressure of a finger. Other listeners will find it necessary to memorize new knob numbers. Some old sets will lack complete band coverage. And, while the re-shuffle should greatly reduce interference over the nation as a whole, there will undoubtedly be isolated instances where the reverse occurs.

The public will thus at least require expert advice and, in many cases, the services of experienced radiomen.

**N**ATURALLY, listeners are not going to like resulting inconvenience, much less any expense.

Just to keep the record straight: The radio industry itself neither agitated for nor instigated the coming reallocation. Station changes take place at the order of our government. And not even the Federal Communications Commission in Washington is solely responsible. Reallocation is more than just a national move. It is international, involving North American countries including the United States, Canada, Mexico, Cuba, Haiti and the Dominican Republic.

Radio waves respect no borders. Some of them, it seems, have been "slopping over," injuring by unnecessary competition for airspace our relations with neighbor nations.

**W**HEN broadcasting first blossomed back in 1923 those charged with regulating communications had no means of foreseeing the tremendous future expansion.

Twelve years later, when serious "jamming" became apparent, the first carefully considered

allocation plan went into effect and requirements were, understandably, once again underestimated. For one thing, the extremely high powers proven practical today were not then considered technically feasible. For another, time alone has since proved that powerful stations of neighboring countries could readily "smear" those in our own, and vice versa.

So, 4 years ago, the countries most concerned got together at Havana to evolve the mutually desirable re-allocation plan about to go into effect on this continent.

**M**OST difficult problem was encompassing of big Mexican stations within the required orderly pattern. A solution was achieved and then Cuban as well as Haitian and Dominican stations were similarly provided for on an equitable basis. Canadian-American station clashes had not been widely troublesome but an improvement was also accomplished here.

Then, following ironing out of international angles, our FCC did a little additional "house-cleaning" of its own. Clear channels available to us were juggled to provide for further power increases where these seemed desirable to insure more reliable service. And by manipulating frequency assignments elsewhere in the band the Commission succeeded in working out arrangements by which many stations at present "sharing" time will henceforward be able to operate full day and night schedules.

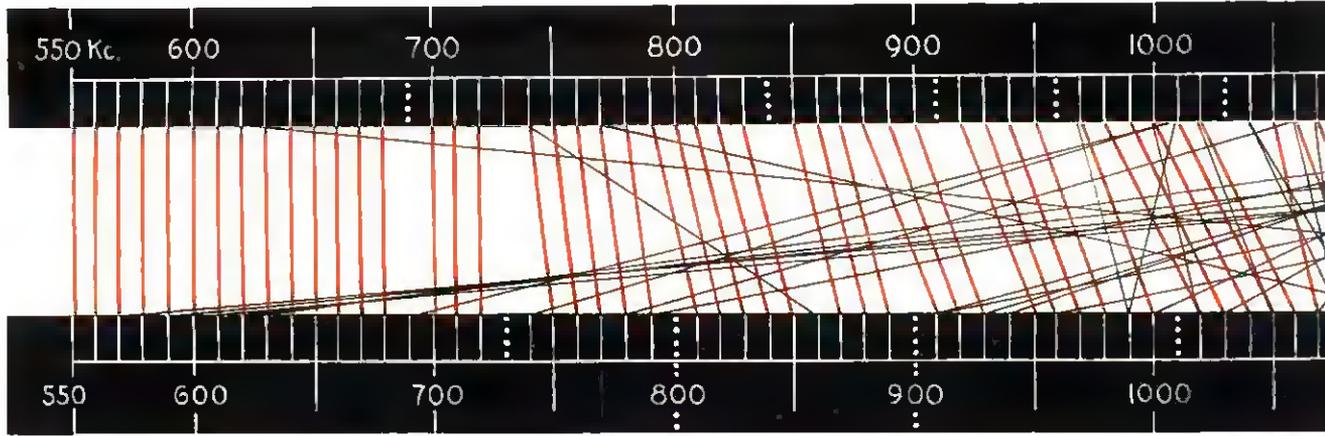
Complicated as it might at first glance seem, the new allocation plan should materially improve radio reception. Obviously, its features are very much in the public interest.

*W Mac Donald*

Editor

**OLD**

Station  
Assignments



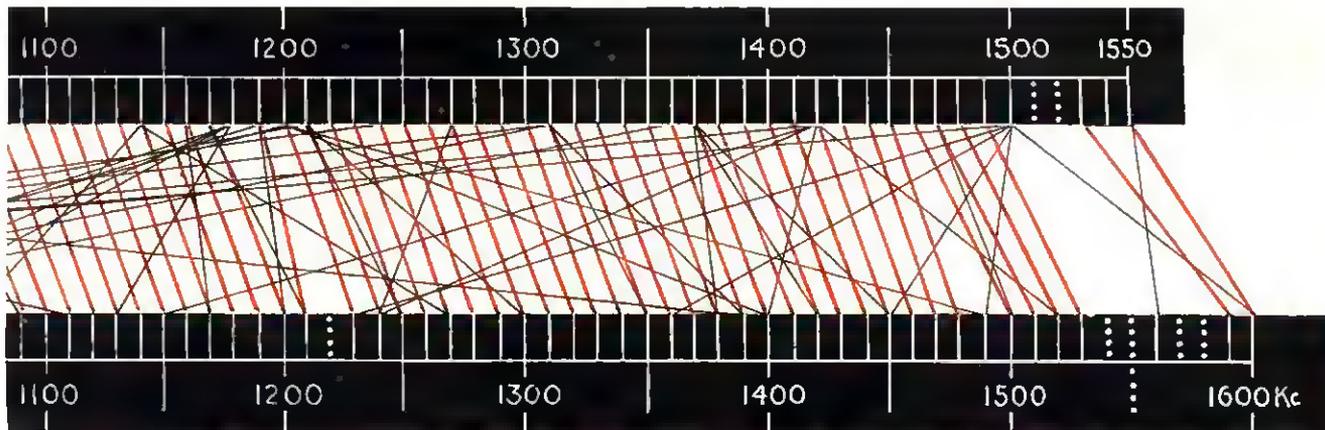
# RADIO'S



**MARCH 29**

Pushbutton Changing Provides Much More Than a Chance to Make a Mere Dollar. "Moving Day" Opens Doors Into 10,000,000 Homes Where More

## DAY'' Plan\*



\*RED lines illustrate basic reallocation principle, involving extension of band and shifting of stations above 720 kc. slightly higher. BLACK lines show practical departures from ideal, plus

last-minute modifications. Dotted dia divisions indicate frequencies not used by U.S.

**NEW**  
Station  
Assignments

# OPPORTUNITY

## for Contact

**T**HE OPPORTUNITY for contact with consumers using pushbutton-tuned radios, afforded by dramatic March 29 broadcast station frequency shifts, represents an absolutely unique invitation to move more major merchandise, with the promotional expense at least partially covered by service and accessory sales.

Imagine what slick automobile salesmen could do if roads were suddenly altered in such a manner that 10,000,000 cars required some adjustment to operate properly, what refrigerator salesmen might accomplish if a change in current necessitated motor manipulation, how laundry equipment salesmen would positively gloat over the glut of prospects if that many people with old machines actually asked them to call.

Calls make sales, as the records of many home specialty retailers conclusively prove, and the beauty of this particular opportunity to make them lies in the three-fold fact that cold-canvassing is completely unnecessary, that the motivating power of any campaign built around it is obviously not just trumped-up by the trade and that only dealers selling or servicing radios can capitalize in all departments of their business.

So valuable from a major mer-

chandising sales angle is the opportunity to call upon consumers afforded by the necessity for changing pushbutton settings that we suspect many radio retailers will hesitate to charge for this adjustment. This may be particularly true where consumers so contacted are obviously prospects for new merchandise and will undoubtedly occur in some instances where customers are still being carried on time-payment accounts.

### What to Charge

As near as we can tell from quick nationwide checkup, however, the tendency appears to be more in the direction of a modest pushbutton re-setting charge, the average being \$1 for the service. Higher charges are in some instances contemplated, in Pennsylvania for instance, where the Philadelphia Radio Service Men's Association advocates \$2 up to and including 6 buttons plus 15¢ for every additional one, and in New York, where the Electrical Appliances Dealers Association of Brooklyn suggests \$1 when sets are brought to the store or \$1.50 when work is done in homes, with the frequently cooperating Queens group planning to follow suit.

Elsewhere, the usual plan seems to strike similar compromise be-

tween amounts returning a reasonable profit on adjustment calls and charges consistent with subsequent selling requirements. Where merchandising dealers and particularly servicemen are cooperatively well organized the tendency appears to favor the former, while in areas where both merchandisers and technicians have to more or less "go it alone" thinking tends toward the latter course. Not a few retailers are considering a fixed charge for pushbutton adjustment sufficient to at least cover costs but rebated in whole or part in the event that additional business develops on the call.

### Handling the Rush

Just how many users of pushbutton-tuned radios will crack down on dealers and servicemen for rush re-

### Elsewhere IN THIS ISSUE:

**New City-by-City  
Station Frequencies**

**Modern Signal-Generator  
Specifications**

**How to Quickly Re-Set  
Pushbuttons**

setting when the shift first makes itself felt in homes is a matter of speculation but the consensus of opinion is that it will be sufficient to seriously tax normal facilities. Knottiest problem facing the trade, therefore, is some method of avoiding a jam and the speed with which "moving day" will be upon us leaves little time for widespread uniform planning.

#### Speed Essential

That anything like the bulk of such work can be handled before the change takes place appears unlikely due to the fact that pushbuttons reset in advance would, obviously, be largely useless until the actual shift occurred. There are dealers, however, who will take advantage of after-midnight new frequency tests by stations and calibrated oscillators to get some of it behind them, some even feeling that subsequent final checkup calls might be justified.

Speed immediately after rather than just before the change is more generally contemplated and most retailers are at present putting test equipment into shape, publicizing the changeover. Plans in the making include (a) utilization of technicians normally kept inside to aid

outside servicers during the period of the emergency (b) temporary "moratorium" on run-of-the-mine service calls that can be readily postponed (c) pinch-hit pickup of sets by salesmen or office help for adjustment at the shop and (d) training of technicians from other branches of the business such as sound and recording as well as salesmen with previous technical experience to handle the easier re-setting jobs.

Dealers ordinarily "farming out" service work will naturally lean more heavily upon sub-contractors and concerns normally specializing largely in auto-radio installation will, particularly, probably experience an abnormal rush. A majority of dealers handling their own service work display, however, a definite desire to keep even this rush work "within the fold" for the contacts leading to merchandise sales which might later develop, say they will sub-contract only if driven to it. Similarly, relatively little hiring of temporary technical help is anticipated, most retailers believing that they will be able to get along with the manpower already at hand through intelligent direction and preferring to keep expenses at their present level.

Efficient direction of existing technical manpower is already coming in for close study, just prior to the anticipated heavy demand, and there will probably be a temporary trend toward route system servicing. Many dealers are planning to handle pushbutton re-setting calls on a "first-come-first-served" basis. Call records are being suitably revamped. Where Associations are strong there is likely to be some interchange of rush calls and cooperation is even possible between individual shops in some areas. Keeping their eye on the real opportunity, the chance to use pushbutton re-setting as an entering wedge with which to pry loose other business, the trade is nevertheless generally avoiding schemes which move men so fast they don't have time to sell.

#### In The Home

Obvious is the opportunity, while resetting pushbuttons, to offer other service, cleaning, alignment. The first will frequently be found to have been deferred when of minor nature, the second constitutes a legitimate excuse for pulling the set from the home to the shop where this is the retailer's objective and the third will often be genuinely necessary if re-

## How a UNITED RADIO FRONT Can Publicize the Changeover

### 1 BROADCASTERS

- Adopt Uniform Local Promotion Program
- Air the News Widely in Advance
- Use Newspapers, Billboards, Stickers
- Arrange Community "Radio Moving Day" Proclamation
- Dedicate New Crystal

### 2 ASSOCIATIONS

- Tie Up With Local Broadcast Stations
- Arrange Cooperative Advertising
- Compile New Local Station Log
- Organize Widespread Folder Distribution

### 3 UTILITIES

- Inclose "Moving Day" Stuffers With Bills
- Have Meter-Readers Circulate Folders
- Feature Changeover in Windows

### 4 MANUFACTURERS

- Prepare Folders, Cards, Posters
- Feature Changeover in Consumer Ads

### 4 DISTRIBUTORS

- Sponsor Dealer-Serviceman Rally
- Distribute Folders, Cards, Posters

### 6 RETAILERS

- Arrange Special Window and Floor Displays
- Mail Folders, Cards, Logs
- Spread News by Telephone
- Make Personal Neighborhood Calls

1. For additional suggestions consult National Association of Broadcasters, contact local Associations, Utilities. 2. Contact International Association of Electrical Leagues, see Broadcasters, Utilities. 3. Discuss with Broadcasters, Associations. 4. Write Radio Manufacturers Association,

check with Distributors. 5. Contact National Radio Parts Distributors Association, Broadcasters, Utilities, Manufacturers, Retailers. 6. Discuss with Radio Servicemen's Association of America, local chapter, other Associations, Distributors. Follow suggestions within this article.



**REPAIR Sale**



**ACCESSORY Sale**



**RECEIVER Sale**



**APPLIANCE Sale**



**CUSTOMER Sends Pushbutton S.O.S.**

set buttons are to render satisfactory service. One possible fly in the March 29 ointment, in fact, is the knowledge that many pushbuttons are not now in use, users grumblingly tuning by dial because trimmers seriously "drift." Where such trimmers are encountered it should be profitable to replace them with newer types more stable from the standpoint of mechanical vibration and temperature variation.

Equally obvious is the chance to replace weak tubes and, nearly so, the possibility of picking up special antenna contracts for future execution where the serviceman wishes to build up a backlog of such outside work. Not so obvious yet extremely important is the business that can be picked up in records, record-racks and other accessories.

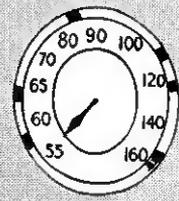
Sets, of course, are the first item of major merchandise to be pushed and among promotional ideas occurring to the trade is the beforehand setting of pushbuttons on receivers in stock to the new frequencies, loaning of these sets to people from whose homes radios have been pulled for service. Where loaned sets include record-players and even recorders it is certain that many of these will not only stay in homes as replacements, or extra sets, but will subsequently swell the market

for commercially recorded discs, home recording blanks and all the other accessories which go with this type of entertainment. Portables may, similarly, be loaned, with the probability that such types still not owned by many families will stick because they have no present counterpart in the home and so will not even be considered duplicating radios. It has also occurred to dealers preparing to capitalize upon the frequency shift that it will be wise to question people, when in homes, concerning pushbuttons of automobile receivers, which might otherwise represent a callback job. Thus replacement automobile receiver business, as well as home receiver business, can result from aggressive campaigning.

Then, too, prospects for inter-communicators and sound equipment will automatically be unearthed. And there is little need to cover specific methods of simultaneously pushing refrigerators, air-conditioners, washers and other appliances sold by radio dealers because those who have handled appliances have long since learned that a sale is frequently half made if a prospect can be induced to talk. Such things simply ride in on the

*(Continued on page 73)*

# The New DIAL.



| CITY                 | STA. | Kc.  | CITY                 | STA. | Kc.  | CITY                  | STA. | Kc.  | CITY                       | STA. | Kc.  |
|----------------------|------|------|----------------------|------|------|-----------------------|------|------|----------------------------|------|------|
| Aberdeen, S. D.      | KABR | 1420 | Burlington, Vt.      | WCAX | 1230 | Dubuque, Iowa         | KDTH | 1370 | Honolulu, Hawaii           | KGMB | 590  |
| Aberdeen, Wash.      | KXRO | 1340 | Butte, Mont.         | KGIR | 1370 | Dubuque, Iowa         | WKBB | 1490 | Honolulu, Hawaii           | KGU  | 760  |
| Abitone, Texas       | KRBC | 1450 | Cairo, Ill.          | WKRO | 1490 | Durango, Colo.        | KIUP | 1400 | Hopkinsville, Ky.          | WHOP | 1230 |
| Ada, Okla.           | KADA | 1230 | Calumet, Mich.       | WHDF | 1400 | Duluth, Minn.         | WFBC | 1320 | Hot Springs Nat. Pk., Ark. | KTHS | 1690 |
| Akron, Ohio          | WAKR | 1890 | Camden, N. J.        | WCAD | 1250 | Duluth, Minn.         | KDAL | 1490 | Hot Springs, Ark.          | KWFC | 1340 |
| Alamosa, Colo.       | KGHW | 1450 | Canton, Ohio         | WHBC | 1230 | Durham, N. C.         | WDNC | 1490 | Houston, Texas             | KPRC | 950  |
| Albany, Ga.          | WGPC | 1450 | Cape Girardeau, Mo.  | KFVS | 1400 | East Lansing, Mich.   | WKAR | 870  | Houston, Texas             | KTRH | 1320 |
| Albany, N. Y.        | WALB | 1590 | Carlsbad, N. M.      | KLAH | 1240 | Easton, Pa.           | WEST | 1400 | Houston, Texas             | KXYZ | 1470 |
| Albany, Ore.         | WABY | 1400 | Carthage, Ill.       | WCAZ | 1080 | East St. Louis, Ill.  | WTMV | 1490 | Huntington, W. Va.         | WSAZ | 930  |
| Albert Lea, Minn.    | KATE | 1450 | Casper, Wyo.         | KDFN | 1470 | Eau Claire, Wis.      | WEAU | 1070 | Huntsville, Ala.           | WBHP | 1230 |
| Albuquerque, N. M.   | KOB  | 1030 | Cedar City, Utah     | KSUB | 1340 | El Centro, Cal.       | KXO  | 1490 | Huntsville, Texas          | KSAM | 1490 |
| Alexandria, La.      | KGCM | 1260 | Cedar Rapids, Iowa   | WMT  | 690  | El Dorado, Ark.       | KELD | 1400 | Hutchinson, Kans.          | KWBG | 1450 |
| Allentown, Pa.       | KALB | 1240 | Centralia, Wash.     | KELA | 1470 | Elizabeth City, N. C. | WCNC | 1400 | Nr. Hyannis, Mass.         | WOCB | 1240 |
| Altoona, Pa.         | WSAN | 1470 | Champaign, Ill.      | WCBS | 580  | Elk City, Okla.       | KASA | 1240 | Idaho Falls, Idaho         | KID  | 1350 |
| Amarillo, Texas      | WFBG | 1340 | Charleston, W. Va.   | WGKV | 1490 | Elkhart, Ind.         | WTRC | 1340 | Indianapolis, Ind.         | WIBC | 1070 |
| Ames, Iowa           | WOI  | 640  | Charleston, S. C.    | WTMA | 1230 | Elmira, N. Y.         | WENY | 1230 | Indianapolis, Ind.         | WFBB | 1290 |
| Anchorage, Alaska    | KPOD | 790  | Charlotte, N. C.     | WCSC | 1390 | El Paso, Texas        | KROD | 600  | Indianapolis, Ind.         | WFBM | 1290 |
| Anderson, S. C.      | WAIM | 1230 | Charlotte, N. C.     | WBT  | 1110 | Emporia, Kans.        | KTSW | 1400 | Indianapolis, Ind.         | WISH | 1310 |
| Anderson, Ind.       | WHBU | 1240 | Charlotte, N. C.     | WFSB | 1240 | Emporia, Kans.        | KCRK | 1390 | Indianapolis, Ind.         | WIRE | 1430 |
| Anniston, Ala.       | WHMA | 1450 | Charlottesville, Va. | WFOV | 1450 | Erie, Pa.             | WLEU | 1450 | Iowa City, Iowa            | WSUI | 910  |
| Appleton, Wis.       | WHBY | 1230 | Chattanooga, Tenn.   | WAOB | 1150 | Erie, Pa.             | WERC | 1490 | Ironwood, Mich.            | WJMS | 1450 |
| Ardmore, Okla.       | KVSO | 1240 | Chattanooga, Tenn.   | WDEF | 1400 | Escanaba, Mich.       | WDBC | 1490 | Ithaca, N. Y.              | WHOU | 870  |
| Asbury Park, N. J.   | WCAP | 1310 | Cheyenne, Wyo.       | WDOD | 1310 | Eugene, Ore.          | KORE | 1450 | Jackson, Mich.             | WBIM | 1450 |
| Ashland, Ky.         | WCMT | 1340 | Chicago, Ill.        | WYAN | 1400 | Eureka, Cal.          | KIEM | 1480 | Jackson, Miss.             | WJDX | 1390 |
| Ashland, Wis.        | WATW | 1400 | Chicago, Ill.        | WMAQ | 670  | Evansville, Ind.      | WGBF | 1280 | Jackson, Miss.             | WSLJ | 1450 |
| Astoria, Ore.        | KAST | 1230 | Chicago, Ill.        | WGN  | 730  | Evansville, Ind.      | WEOA | 1400 | Jackson, Tenn.             | WTJS | 1390 |
| Asheville, N. C.     | WVNC | 570  | Chicago, Ill.        | WBBM | 750  | Everett, Wash.        | KRKO | 1400 | Jacksonville, Fla.         | WJAX | 930  |
| Ashtabula, Ohio      | WICA | 970  | Chicago, Ill.        | WLS  | 890  | Fairbanks, Alaska     | KPAR | 610  | Jacksonville, Fla.         | WJHP | 1320 |
| Atchison, Kans.      | KVAK | 1450 | Chicago, Ill.        | WENR | 890  | Fairmont, W. Va.      | WMMN | 920  | Jamestown, N. Y.           | WMBR | 1400 |
| Athens, Ga.          | WGAI | 1480 | Chicago, Ill.        | WFAA | 950  | Fall River, Mass.     | WSAR | 1480 | Jamestown, N. D.           | WJTN | 1240 |
| Atlanta, Ga.         | WGAT | 1400 | Chicago, Ill.        | WFPL | 1000 | Fargo, N. D.          | WDAY | 970  | Jamestown, N. D.           | KRMC | 1400 |
| Atlantic City, N. J. | WBS  | 750  | Chicago, Ill.        | WMBI | 1110 | Fayetteville, N. C.   | WFNC | 1370 | Janesville, Wis.           | WCLO | 1230 |
| Auburn, N. Y.        | WBAB | 1490 | Chicago, Ill.        | WJJD | 1160 | Fergus Falls, Minn.   | KGDE | 1230 | Jefferson City, Mo.        | KWOS | 1340 |
| Augusta, Ga.         | WPGA | 1450 | Chicago, Ill.        | WCRW | 1240 | Flint, Mich.          | WDFD | 910  | Jerome, Ariz.              | KCRJ | 1340 |
| Auburn, N. Y.        | WMBO | 1340 | Chicago, Ill.        | WDCB | 1110 | Florence, S. C.       | WOLS | 1230 | Jersey City, N. J.         | WAAT | 970  |
| Augusta, Ga.         | WGAC | 1240 | Chicago, Ill.        | WMBL | 1110 | Fond du Lac, Wis.     | KRIZ | 1450 | Johnson City, Tenn.        | WJHL | 910  |
| Auburn, N. Y.        | WMWH | 1450 | Chicago, Ill.        | WJED | 1160 | Fort Dodge, Iowa      | KVFD | 1400 | Johnstown, Pa.             | WJAC | 1400 |
| Augusta, Maine       | WRDO | 1490 | Chicago, Ill.        | WCRW | 1240 | Fort Dodge, Iowa      | KVFD | 1400 | Joliet, Ill.               | WCLS | 1340 |
| Aurora, Ill.         | WMRO | 1280 | Chicago, Ill.        | WDCB | 1110 | Fort Lauderdale, Fla. | WFTL | 1400 | Jonesboro, Ark.            | KBTM | 1230 |
| Austin, Texas        | KTBC | 1150 | Chicago, Ill.        | WMBL | 1110 | Fort Myers, Fla.      | WFTM | 1240 | Joplin, Mo.                | WMBH | 1450 |
| Austin, Texas        | KNOW | 1490 | Chicago, Ill.        | WJED | 1160 | Fort Smith, Ark.      | KFPW | 1400 | Juneau, Alaska             | KINY | 1460 |
| Bangor, Maine        | WLBZ | 620  | Chicago, Ill.        | WJED | 1160 | Fort Wayne, Ind.      | WOWO | 1190 | Kalamazoo, Mich.           | WKZO | 590  |
| Bangor, Maine        | WABI | 1230 | Chicago, Ill.        | WJED | 1160 | Frederick, Md.        | WFMD | 930  | Kaliispell, Mont.          | KGEZ | 1340 |
| Baker, Ore.          | KBRK | 1490 | Chicago, Ill.        | WJED | 1160 | Fredericksburg, Va.   | WFVA | 1290 | Kansas City, Kans.         | KOKN | 1340 |
| Bakersfield, Cal.    | KERN | 1410 | Chicago, Ill.        | WJED | 1160 | Freemont, Neb.        | KORN | 1400 | Kansas City, Mo.           | WDAF | 610  |
| Bakersfield, Cal.    | KPMC | 1600 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kansas City, Mo.           | WHB  | 880  |
| Baltimore, Md.       | WCAO | 600  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kansas City, Mo.           | KMBC | 980  |
| Baltimore, Md.       | WBAL | 1090 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kansas City, Mo.           | KCMO | 1480 |
| Baltimore, Md.       | WTH  | 1230 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kearney, Neb.              | KTFE | 1580 |
| Baltimore, Md.       | WFER | 1300 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Keene, N. H.               | WKNE | 1290 |
| Batavia, N. Y.       | WCBM | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Ketchikan, Alaska          | KGBU | 930  |
| Baton Rouge, La.     | WBTA | 1150 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kilgore, Texas             | KOCA | 1240 |
| Battle Creek, Mich.  | WJBO | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bay City, Mich.      | WBDM | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Beaumont, Texas      | KFDM | 560  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Beaumont, Texas      | KRIC | 1450 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Beckley, W. Va.      | WJLS | 1240 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bellingham, Wash.    | KVOS | 1230 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bend, Ore.           | KBND | 1340 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Berkeley, Cal.       | KRE  | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Beverly Hills, Cal.  | KMPC | 710  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Big Spring, Texas    | KBST | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Billings, Mont.      | KGHL | 790  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Binghamton, N. Y.    | WBNG | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Birmingham, Ala.     | WBRC | 960  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Birmingham, Ala.     | WAPI | 1170 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Birmingham, Ala.     | WSGN | 1340 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bismarck, N. D.      | KPYR | 550  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bloomington, Ill.    | WJBC | 1230 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bluefield, W. Va.    | WHIS | 1440 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Blytheville, Ark.    | KLCN | 1320 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boise, Idaho         | KIDO | 1380 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boone, Iowa          | KRQG | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WEEL | 590  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WHDH | 850  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WROL | 950  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WBZ  | 1030 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WCOP | 1150 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WNAC | 1260 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WAAB | 1440 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WMEX | 1510 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Boston, Mass.        | WLBZ | 1340 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bozeman, Mont.       | KRBM | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Brady, Texas         | KNEL | 1450 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bridgeport, Conn.    | WICC | 600  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bridgeport, Conn.    | WNAB | 1240 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bridgeton, N. J.     | WOP  | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Bristol, Tenn.       | KFDY | 790  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Brookings, S. D.     | KGRI | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Brownsville, Texas   | KBWD | 1380 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Brownwood, Texas     | WMOG | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Brunswick, Ga.       | WGR  | 550  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Buffalo, N. Y.       | WBN  | 390  | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Buffalo, N. Y.       | WBR  | 1340 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Buffalo, N. Y.       | WBS  | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Buffalo, N. Y.       | WBNI | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Buffalo, N. Y.       | WKBW | 1520 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Burlington, Vt.      | WCAX | 1230 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Butte, Mont.         | KGIR | 1370 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Cairo, Ill.          | WKRO | 1490 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Calumet, Mich.       | WHDF | 1400 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Camden, N. J.        | WCAD | 1250 | Chicago, Ill.        | WJED | 1160 | Fresno, Cal.          | KMJ  | 580  | Kingsport, Tenn.           | WKPT | 1400 |
| Canton, Ohio         | WHBC | 1230 | Chicago, Ill.        |      |      |                       |      |      |                            |      |      |



# Record Retailing IDEAS

## HOW 5 DEALERS Do a Job With Discs

**A**GGRESSIVE record dealers know from experience that *Showmanship* is an essential requisite in any successful set-up. Such dealers are constantly on the lookout for new ideas.

Presented herewith are merchandising ideas now being used by five retailers with profitable results.

### Traffic Stopper

THE UNIVERSITY BOOK SHOP of Seattle, Wash., dedicated its new "Chalet" record and radio department December 1st and in one month sold \$2300 worth of discs. At the same time radio receiver sales expanded, especially the record playing instruments.

The department is framed around the idea of a gayly painted cottage front. The hand-split cedar shake-roof is stained weathered gray with trimming in bright colors. Numerous racks face the cottage to hold albums and upright displays. Three enameled doors of the "Chalet" lead off to audition rooms, each equipped with record player and easy chair.

A mass display of record albums is quartered in the blue enameled aisle fixture shown at right of photo. The main record stock is shelved beneath cottage roof at left of illustration.

### Shelves Out Front

LOOMIS TEMPLE OF MUSIC, New Haven pioneer retailer in musical products established in 1865, pushes sales with a combination of three ideas, a "Help-yourself" album library, an unusually large record stock and ten big audition rooms.

The first is the star performer for sales. The shelves holding these albums, shown left of photo, are "out front" for convenient customer selection. Audition rooms are approximately 10 feet square. Grouped around the record player in these rooms are several of the latest table and console radio combinations, connected and

ready for operation. This plan helps to make record customers radio receiver conscious and vice-versa.

### Selected Salesmen

CENTER MUSIC STORES, New York City radio and record dealer evolved its department from a carefully planned design. (1) Pleasant and attractive surroundings. (2) A library to meet requirements of all music fans, classical, popular and race. And (3) a sales force that knows its "records."

Salesmen have to be familiar with all types of music, particularly the classical. Knowing the composers and their works provides big lift to disc sales.

### In The Groove

THE BROADWAY DEPARTMENT STORE, Los Angeles, Cal., hit on the idea of "sure fire" promotion for its Record Shop by inviting Chuck Foster, popular band leader, to make personal appearances, autograph his theme song record "Oh, You Beautiful Doll."

Publicized the event with newspaper notices and twice-daily newscasts, over station KHJ.

On Saturday sessions at the store, Chuck wowed the audience of swing fans with a few hot numbers.

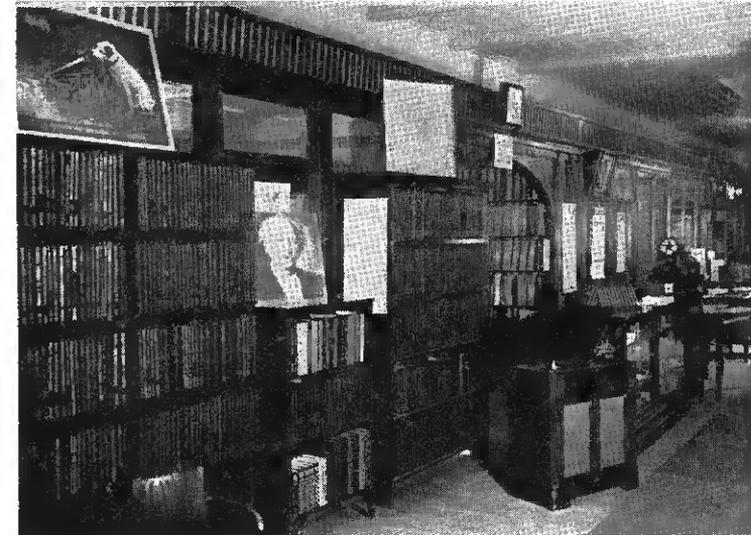
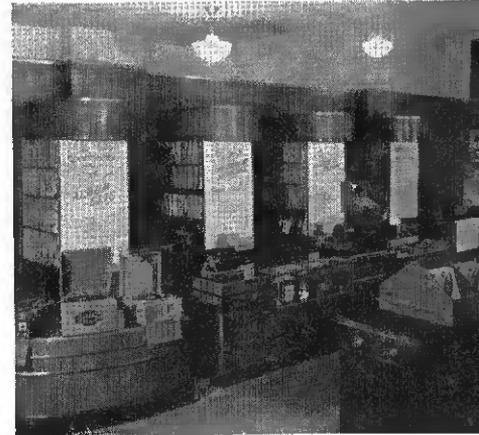
### Discs at the Bar

SWERN AND COMPANY of Trenton, N. J. had a knotty problem of properly stocking and demonstrating records in a small space. The accompanying illustration shows how they met the situation with a new "Record Bar" and matched shelves as made by A. Bitter Construction Corp.

The main feature of this record merchandising "Bar" is the fact that selling and demonstration activities are centered in the one compact fixture. Shelves offer easy classification and ready-to-hand stock keeping.



**UNIVERSITY BOOK STORE**  
Seattle, Wash.



**LOOMIS TEMPLE OF MUSIC** New Haven, Conn.



**CENTER MUSIC STORES** New York City, N. Y.

Los Angeles, Cal., **BROADWAY DEPARTMENT STORE**

Trenton, N. J., **SWERN AND COMPANY**





**SIGNS OF PROGRESS**—Spotlighted by this editorial (reproduced from Radio Retailing's February issue) was the importance of interference-free design in coming radios. The accompanying table shows some encouraging if not completely satisfying indications of probable improvement in this respect

# Some

As told to  
**VIN ZELUFF**  
by Operating Engineers

## SELECTIVITY Survey

| MANUFACTURER   | 1941 MODELS† | WITH T.R.F.*   | 1942 MODELS‡ | WITH T.R.F.*   |
|----------------|--------------|----------------|--------------|----------------|
| Company A      | 15           | 0 ( 0%)        | 15           | 0 ( 0%)        |
| Company B      | 9            | 3 (33%)        | 9            | 3 (33%)        |
| Company C      | 4            | 2 (50%)        | 4            | 2 (50%)        |
| Company D      | 10           | 0 ( 0%)        | 12           | 4 (33%)        |
| Company E      | 30           | 2 ( 6%)        | 40           | 2 ( 5%)        |
| Company F      | ..           | .. (20%)       | ..           | .. (20%)       |
| Company G      | 9            | 3 (33%)        | 10           | 10 (100%)      |
| Company H      | 28           | 5 (17%)        | 26           | 10 (38%)       |
| Company I      | 90           | 2 ( 2%)        | ..           | ..             |
| Company J      | 27           | 7 (25%)        | 27           | 7 (25%)        |
| Company K      | 12           | 2 (16%)        | 10           | 2 (20%)        |
| Company L      | 14           | 2 (14%)        | 15           | 12 (80%)       |
| Company M      | 12           | 7 (58%)        | 13           | 8 (61%)        |
| Company N      | 45           | 14 (30%)       | ..           | ..             |
| Company O      | 30           | 12 (40%)       | 25           | 10 (40%)       |
| Company P      | 28           | 7 (25%)        | 20           | 5 (25%)        |
| Company Q      | 27           | 3 (11%)        | 25           | 5 (20%)        |
| Company R      | 10           | 3 (30%)        | ..           | ..             |
| Company S      | 21           | ..             | 26           | ..             |
| Company T      | 28           | 3 (10%)        | ..           | ..             |
| Company U      | 20           | 0 ( 0%)        | 20           | 0 ( 0%)        |
| Company V      | 11           | 6 (54%)        | ..           | ..             |
| <b>AVERAGE</b> | <b>23</b>    | <b>4 (17%)</b> | <b>19</b>    | <b>5 (26%)</b> |

\* Superheterodynes employing amplifier tube with tuned input ahead of similarly tuned mixer, using 3-gang condenser (Third section tuning oscillator).

† Receivers now being sold, introduced between Spring of 1940 and present date.

‡ Sets known to be in process of design for introduction later this year.

**T**RANSMITTING stations can and frequently do cause some interference in their local areas.

Their interference problem, however, has been in the past of no great concern. Generally only a few listeners located in the immediate vicinity of the station antenna were affected and most cases were easily remedied.

But conditions within the radio industry have alarmingly increased the number of interference complaints of late and not a few stations are today sending engineers into the field to service many receivers.

### FCC Attitude

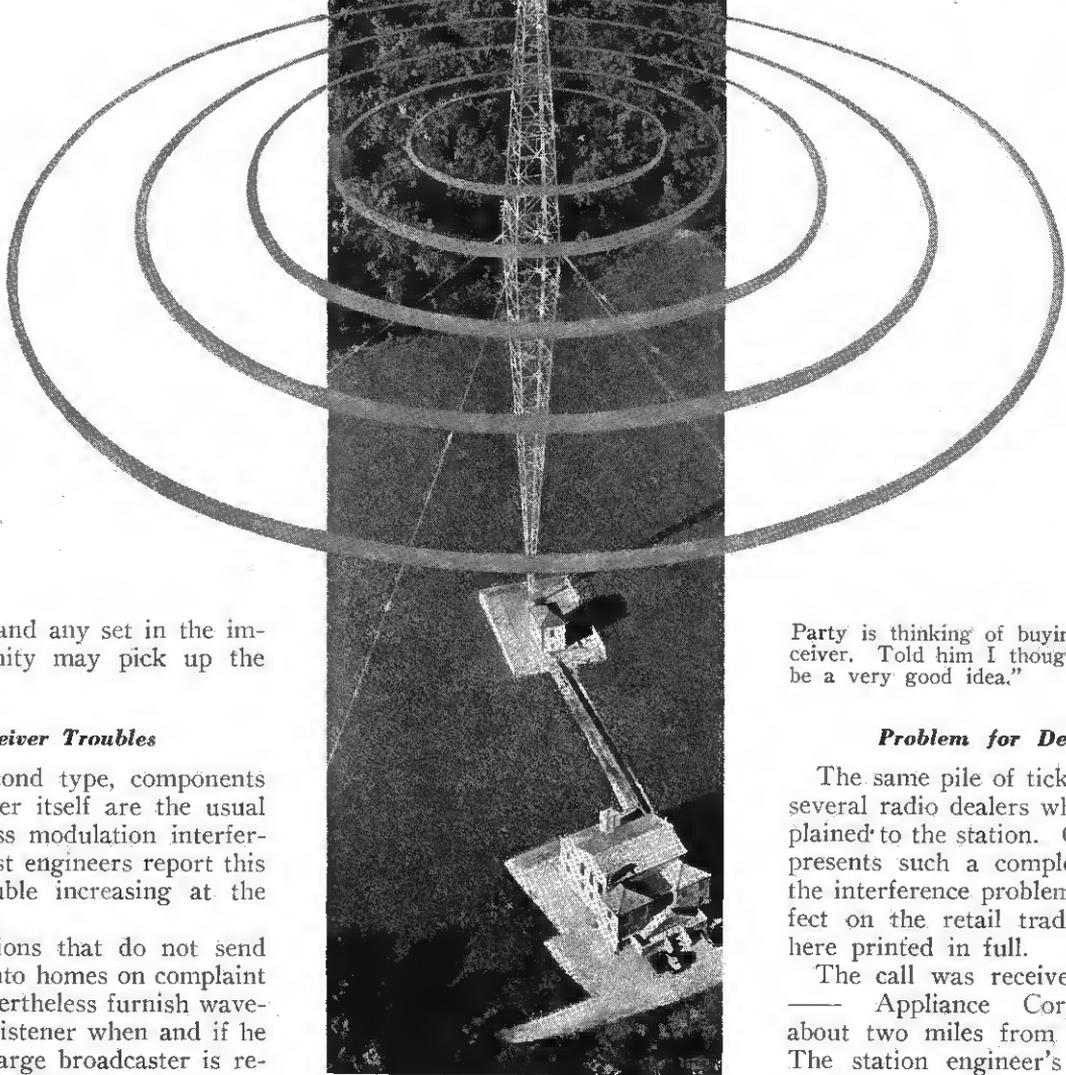
This practice has been adopted by such stations in order to maintain the goodwill of the listeners and has, in part, been caused by the natural lack of understanding concerning the source of trouble by the layman. To him it appears that the station must always be at fault since he almost invariably feels that his radio is in good condition.

The fact that it usually is not, however, is taken into account by the FCC when a complaint is received from the listener. Such complaints are forwarded to the station involved with a request for a report on the circumstances. Cooperation is of course expected but only the character and operation of the transmitting equipment is the responsibility of the station.

Interference found by interviewed station engineers roughly divides into two types; that caused by things *external* to the receiver and that caused by circuits or parts *inside* the receiver.

In cases of the first type the signal from the station is sometimes "rectified" at some point outside

# BROADCASTERS *Service*



the receiver and any set in the immediate vicinity may pick up the interference.

## **Receiver Troubles**

In the second type, components of the receiver itself are the usual cause of cross modulation interference and most engineers report this type of trouble increasing at the present time.

Some stations that do not send technicians into homes on complaint calls will nevertheless furnish wavetraps to the listener when and if he calls. One large broadcaster is reported as furnishing gratis over three thousand in the past few months.

But a good many receivers so affected do not respond to this treatment, and engineers find it necessary to make quite a few changes in receivers in the field to eliminate interference. Shielding of coils, tubes, leads and even major circuit changes are necessary in many cases.

When interviewed, one engineer waved a handful of "job tickets" and used explosive language. Here is the report noted on a typical job ticket:

Complainant has two sets, one in store and one in his apartment at same address. Set in shop is a 1930 ——. Interference all over the dial. Wavetraps cleared up trouble completely.

"The other set is a 1940 two-band — with pushbuttons, record player and built-in loop. Our station smeared up both ends of the broadcast band pretty badly. Cross talk on all stations. Image

**STATIONS are frequently forced to repair and even rebuild receivers in order to pacify people experiencing interference in their local service area**

very bad and broad. Coils unshielded. Nothing could be done with this set."

Another ticket disclosed the following, on a call several miles from the station:

"Set is an — midget. Very loud heterodyne on W— from our image. No noticeable difference with antenna lead removed. Wave trap not effective.

Party is thinking of buying a — receiver. Told him I thought that would be a very good idea."

## **Problem for Dealers**

The same pile of tickets included several radio dealers who had complained to the station. One of these presents such a complete story of the interference problem and its effect on the retail trade that it is here printed in full.

The call was received from the — Appliance Corp., located about two miles from the station. The station engineer's report follows:

"Had a long talk with the head of the radio department. His chief complaint is that customers buy new sets on time and then refuse to pay for them because they cannot get W— because of image from our station.

"The store carries a complete line of —, —, and — sets, some costing well over 100 dollars. But not one had more than a two-gang condenser. One set had a three-gang frame but plates in only two sections. Most sets had built-in loops. You could even hear W— (transmitter in another state) at the opposite end of the dial.

"The serviceman said he could fix some sets by shifting the i-f frequency until the image from our station was around 600 kilocycles and then installing a shielded trap right at the grid of the first tube. He wants us to supply the traps for his customers and he will install them in sets in the field and as he sells them. He says he wrote to — and — and they said there was nothing they could do, and that it was a local condition."

Calls by this engineer on other  
(Continued on page 74)

# FM in the NEWS

**P**ROBABLY the most significant occurrence on the FM broadcasting front in the last month is an FCC move to liberalize rules and aid commercial FM stations to "get on the air."

By March 5, some 42 construction permits for full-fledged commercial FM transmitters had been granted but installation of many of these stations appeared "stymied" by slow delivery of new equipment. Manufacturers, loaded down with defense orders, were apparently unable to promise early shipment.

## Commercial Operation

In the meantime, all FM programs had been confined to some 21 experimental stations, most of them low-powered. Eleven of these are operated by people that have applied for, and received, construction permits for commercial operation. The remaining ten stations have filed commercial application and await government approval.

The FCC will now permit, "upon appropriate request," experimental stations holding FM construction permit to switch over to commercial operation, pending installation of higher-powered equipment. The applicant must merely demonstrate that he has made a bona-fide effort to comply with the construction permit. Request must include a photostatic copy of the transmitter purchase order and acknowledgment with promised delivery date.

Upon approval, use of the new call letters and the channel assigned in the commercial construction permit will then be authorized.

The FCC also ordered that experimental stations with commercial applications still pending may be granted one or more extensions until action is taken. Such stations will continue to use their experimental call letters and channel.

A third ruling was also outlined by the FCC. This had reference to operators of experimental FM transmitters who have not yet filed an application for commercial operation. They will be permitted addi-

tional extensions only so long as no commercial service is being offered in their area.

## 11 Stations Eligible

Leaders of FM Broadcasters, Inc. (organization for the advancement of frequency-modulation transmission) state that the following 11 eligible stations are losing no time in requesting permission to proceed commercially with existing equipment.

Bamberger Broadcasting Service (WOR), New York  
 General Electric Co., Schenectady  
 National Broadcasting Co., New York  
 The Milwaukee Journal, (WTMJ), Milwaukee  
 The Travelers Broadcasting Service, (WTIC), Hartford  
 The Yankee Network, Mount Washington  
 WBNS, Inc., Columbus  
 WDRC, Inc., Hartford  
 Westinghouse Radio Stations, Inc., Springfield  
 Westinghouse Radio Stations, Inc., Boston  
 Zenith Radio Corp., Chicago

The first publicly known contract for commercial time on any FM broadcasting station goes to *Longines, Witenauer, Inc.* Contract calls for Longines time announcements on W71NY, commercial rates to become effective as soon as this station qualifies under FCC requirements.

FM Broadcasters, Inc. further reports that a number of stations authorized to go commercial have already prepared rate cards and promotional material.

## 25,000 Sets?

Major Edwin H. Armstrong, inventor of FM, addressing the Fourth Annual Broadcast Engineering Conference at Columbus, Ohio, Feb. 17, in the course of his remarks stated that "there are approximately 25,000 manufactured FM receivers, plus an unknown number of home-made units, now in use." He also stated that the price on FM receivers would probably be reduced in the near future, as he put it "if the public wants it, ways will be found to meet every man's pocketbook."

The FCC, on March 5, granted a commercial permit to Major Armstrong, to operate a super-station on 43.1 mc., and cover a service area of 15,610 sq. miles. Authorized as a Class D, or special transmitter.

## Station Progress

Four of five construction permits issued at Washington on Feb. 21 went to Westinghouse Radio Stations, Inc., approving FM facilities at Philadelphia, Boston, Springfield (Mass.) and Fort Wayne, Ind. This company previously secured a go-ahead FM signal to service the Pittsburgh area.

Promise of FM service for Philadelphians in the near future is indicated by announced plans of station WFIL, recent recipient of the "green light" from the FCC. Special studios will be installed on the 18th floor of the Widener Building. This station contemplates 6 hours daily FM programming.

Station WIXOJ, Paxton, Mass., reports the installation of a new type of transmitting antenna which they say has enlarged the service range of the station to a sizable extent. WIXOJ currently services an area in excess of 20,000 square miles. Programs are relayed from Boston, 43 miles away, to the transmitter near Worcester, via an FM radio beam.

## BIG CITY Activity

|                    | Applicants | Granted |
|--------------------|------------|---------|
| New York           | 18         | 8       |
| Chicago            | 6          | 6       |
| Los Angeles        | 5          | 1       |
| Detroit            | 4          | 2       |
| Pittsburgh         | 3          | 2       |
| Boston             | 3          | 1       |
| St. Louis          | 3          | 0       |
| Hartford, Conn.    | 2          | 2       |
| Schenectady, N. Y. | 2          | 2       |
| Providence, R. I.  | 2          | 0       |



IS MOVING DAY FOR STATION WAVELENGTHS!

Get EXTRA Profits When You Reset Push-Buttons!

**SELL 'EM AN RCA VICTOR EXTRA RADIO**

—for Extra Quality at No Extra Cost!

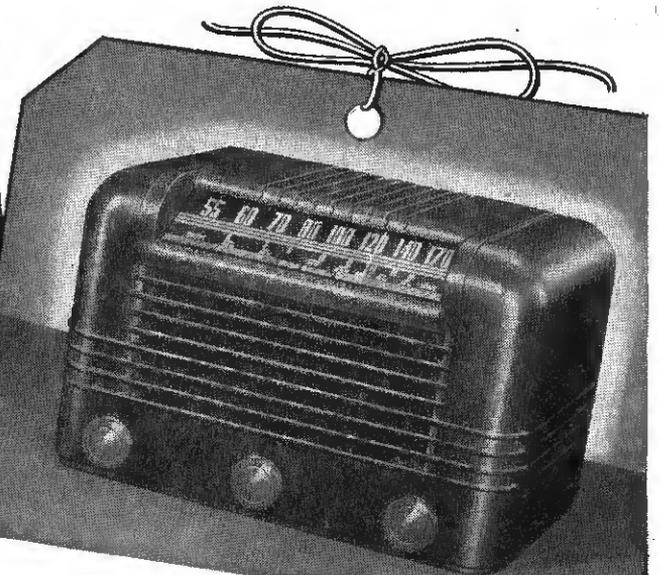


**RCA VICTOR SUPER SIX**

Model 15X—17 great sales features for less than \$1 a feature! Continental Style Cabinet. Six RCA Victor Preferred Type Tubes. R-F Stage for better reception. Edge-lighted Glass Dial. New Style Bull's-eye Pointer. Music-Speech Tone Control. Plug-in for Record Player Attachment. Powerful 5-inch Permanent Magnet Speaker. Improved Superheterodyne Circuit. Popular 1610-1712 KC. Police Band. Magic Loop Antenna. Big Knobs for easy tuning. Automatic Volume Control. Special Hi-Stability I-F Transformers. Connection for Extra Antenna. 16 to 1 Vernier Tuning. AC-DC operation . . . . . **\$1695\***

WEEK AFTER WEEK, more and more people are joining the thousands who have "discovered" these sensational RCA Victor extra radios. They give buyers extra quality at no extra cost—and they mean extra profits to the smart dealers who sell them while resetting the push-buttons on customers' present radios.

Take one of these sets along with your service kit. Demonstrate it in your customer's home! It will pay you.



You can offer your customers full short-wave reception for only \$3 extra —with the

**NEW RCA VICTOR 16X-11**

Here's a value that the ever-increasing army of short-wave listeners will go for in a great big way! It's priced only \$3.00 above the sensational Super Six—but it offers short-wave reception on the 49, 25, 19 and 16 meter bands. Has most of the features of the Super Six —plus two Built-in Antennas and Underwriters' Approval. AC-DC. . . . . **\$1995\***

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



**RCA Victor**

RCA Manufacturing Co., Inc., Camden, N. J.

A Service of the Radio Corporation of America

# HOW

By  
**EUGENE A.  
CONKLIN**

**E**LECTRIC LIGHT and Power Companies, maintain monthly contact with many prospects for radios and appliances. They can, particularly those that do not themselves merchandise, render extremely valuable sales cooperation to local dealers while at the same time building "domestic load."

Active in radio back in the early days of the business, Utilities everywhere are once again becoming intrigued by its load building potentialities and are more susceptible to cooperative promotion suggestions from radio Associations today than in recent years.

There are many ways in which Utilities can help the trade sell radio. A good example of the many means at their disposal is seen in the current activities of a Niagara-Hudson System unit, the Central New York Power Corporation of Syracuse.

## Utility Floor Displays

CNYPC donates floor and window space in its own centrally located building to local dealers (has also occasionally offered space to jobbers and to manufacturers willing to supply demonstrators).

Each cooperating dealer is allotted a certain, definite space in the window and on the floor, can depend upon the very same space being available month after month so that customer "looking habits" may be cumulatively built up. The Utility even provides expert display guidance. Dealers may change their

## RETURN to FAVOR

IN THE EARLY DAYS active in radio, Utilities are once again intrigued by its "load building" potentialities



DISC STOCK IS BAIT—David Dean Smith believes he has the largest record library in New England

## RECORD PLAYERS for Yale

**D**AVID DEAN SMITH opened his first "Music Shop" on Elm Street, New Haven, in 1916 and has been catering ever since to the musical requirements of Yale students and its faculty members.

When interviewed, Smith commented "that his radio and record dealership was in the nature of being a specialty business." Major sales are made to the University membership and it is necessary to know their particular require-

ments and be in a position to supply the right equipment.

Disc retailing has been a large part of this dealer's business since he opened his first store. As he pointed out records right now are enjoying an enviable position in the industry and he is riding the bandwagon with more and more and all kinds of record playing instruments.

He went on to say that Yale students go for discs in a big way and he finds their preference for record table combinations, particularly portable combination models. Students cart these lightweight radio-phono portables to their clubs, parties and songfests. Also they like this type, because they can use it to advantage on vacations.

Inquiries disclosed the fact that the school made its own direct current power supply. The "Music Shop" met the radio requirement with ac-dc sets and, for phono-operation, employed a universal type motor.

Faculty members and their families residing in New Haven proper have city power service (alternating current) and are good customers for period combinations.

INSTRUMENT SALES FOLLOW — Students buy compact and portable phono-radio combinations, faculty buys period combinations



# UTILITIES *Can Help*



displays, if they wish, twice each month.

Typical products so displayed include radios of all types, refrigerators, room-conditioners and other household electrical products. The Utility reserves the right to coordinate displays; so that radios, for example, will be uniformly featured during a given campaign period.

## **Feeder For Stores**

Since many domestic users of electricity come to the power company's building monthly to pay their bills, the dealer displays maintained there cannot help but have a large and interested audience.

The Utility keeps a man on the floor at all times to answer general questions concerning displayed mer-

**THIS MONTH** radio has particular need for their promotional help . . . . . to publicize broadcasting's March 29 "Moving Day"

**TYPICAL DISPLAY—** Radios furnished by dealers got the prize position near the entrance in this exhibit arranged by Central New York Power of Syracuse

chandise. He is instructed to avoid recommending specific brands in preference to others on display and does, rather, a broad selling job.

Where the prospect's interest is obviously radio, the floorman furnishes the names and addresses of dealers handling radios in the prospect's own immediate neighborhood. (Records show that some customers do ask about specific brands. Such direct inquiries are handled by supplying a list of all dealers handling that brand.)

The unbiased advice given by the Utility's floorman proves so effective with people who feel that they may be oversold by dealers, that many cooperating Syracuse stores actually urge such "tough nuts" to visit the Utility display. If they come back to the store for a type recommended by the Utility, well

**POWER COMPANIES** see many prospects for radios and appliances when these people come in to pay their bills. It's a pity to waste these contacts



and good. If not, reason these dealers, they will get a crack at some other similar prospect later on to even things up.

## **Outside Cooperation**

From time to time the Utility sponsors radio, refrigeration, room-conditioning and other Shows with local dealers, jobbers and even distant manufacturers cooperating. In such cases advertising is contracted for and written by the Utility with cooperating organizations contributing part of the cost.

Customer attendance is virtually guaranteed at such Shows because the Utility mails its customers free tickets along with power bills.

CNYPC also occasionally loans its window display experts to individual stores, helps cooperating dealers to design more attractive displays for their own store win-

*(Continued on page 74)*

**"LET'S BOTH  
MOVE OVER  
A BIT..."**

*Say Major Bowes  
and Fred Allen*



*"Where are we going, Fred?"*

*"Just over a few kilocycles, Major... and we'll go just as fast as if Texaco Sky Chief were in our motors."*

*"Or as if we were in a Chrysler, eh, Fred? But what's the reason?"*

*"I'm just a comedian (I hope) so I don't know much about it... but if we look down below we'll both see what CBS has to say about 'Radio Moving Day.'"*

Major Bowes and Fred Allen are just two of the whole galaxy of CBS stars whose programs will be heard more clearly than ever before, after Radio's Moving Day, March 29.

In the interest of better broadcasting, the frequencies of most U. S. radio stations will change on that date. The listing shows you at a glance the "new addresses" of CBS stations which change frequency, and reminds you of the old addresses of those stations which "stay put."

Old address or new, you'll find Fred Allen, Major Bowes, and all the other CBS star programs on the same stations as always!



*Colo*

| CITY                   | Station | FREQUENCIES |      |
|------------------------|---------|-------------|------|
|                        |         | Old         | New  |
| AKRON, Ohio            | WADC    | 1320        | 1350 |
| ALBANY, N. Y.          | WOKO    | 1430        | 1460 |
| ALBUQUERQUE, N. Mex.   | KGGM    | 1230        | 1260 |
| ANDERSON, S. C.        | WAIM    | 1200        | 1230 |
| ASHEVILLE, N. C.       | WWNC    | 570         | 570  |
| ATLANTA, Ga.           | WGST    | 890         | 920  |
| ATLANTIC CITY, N. J.   | WBAB    | 1200        | 1490 |
| AUGUSTA, Ga.           | WRDW    | 1500        | 1490 |
| BALTIMORE, Md.         | WCAO    | 600         | 600  |
| BANGOR, Me.            | WABI    | 1200        | 1230 |
| BEVERLY HILLS, Cal.    | KMPC    | 710         | 710  |
| BINGHAMTON, N. Y.      | WNBF    | 1500        | 1490 |
| BIRMINGHAM, Ala.       | WAPI    | 1140        | 1070 |
| BOSTON, Mass.          | WEEI    | 590         | 590  |
| BUFFALO, N. Y.         | WGR     | 550         | 550  |
| BUFFALO, N. Y.         | WKBW    | 1480        | 1520 |
| BURLINGTON, Vt.        | WCAX    | 1200        | 1230 |
| CEDAR RAPIDS, Ia.      | WMT     | 600         | 600  |
| CHARLESTON, S. C.      | WCSC    | 1360        | 1390 |
| CHARLESTON, W. Va.     | WCBS    | 580         | 580  |
| CHARLOTTE, N. C.       | WBT     | 1080        | 1110 |
| CHATTANOOGA, Tenn.     | WDOD    | 1280        | 1310 |
| CHICAGO, Ill.          | WBBM    | 770         | 780  |
| CINCINNATI, Ohio       | WCKY    | 1490        | 1530 |
| CLEVELAND, Ohio        | WGAR    | 1450        | 1480 |
| COLORADO SPRINGS, Col. | KVOR    | 1270        | 1300 |
| COLUMBUS, Ga.          | WRBL    | 1200        | 1230 |
| COLUMBUS, Ohio         | WBNS    | 1430        | 1460 |
| DALLAS, Texas          | KRLD    | 1040        | 1080 |
| DAVENPORT, Ia.         | WOC     | 1370        | 1450 |
| DAYTON, Ohio           | WHIO    | 1260        | 1290 |
| DENVER, Col.           | KLZ     | 560         | 560  |
| DES MOINES, Ia.        | KRNT    | 1320        | 1350 |
| DETROIT, Mich.         | WJR     | 750         | 760  |
| DULUTH, Minn.          | KDAL    | 1500        | 1490 |
| DURHAM, N. C.          | WDNC    | 1500        | 1490 |
| EL PASO, Texas         | KROD    | 600         | 600  |
| EVANSVILLE, Ind.       | WEOA    | 1370        | 1400 |

# THE Columbia Broadcasting System

## AS OF MARCH 29, 1941

| CITY               | Station | FREQUENCIES |        | CITY                 | Station | FREQUENCIES |      | CITY                  | Station | FREQUENCIES |      |
|--------------------|---------|-------------|--------|----------------------|---------|-------------|------|-----------------------|---------|-------------|------|
|                    |         | Old         | New kc |                      |         | Old         | New  |                       |         | Old         | New  |
| FAIRMONT, W. Va.   | WMMN    | 890         | 920    | OKLAHOMA CITY, Okla. | KOMA    | 1480        | 1520 | UTICA, N. Y.          | WIBX    | 1200        | 1230 |
| FRESNO, Cal.       | KARM    | 1310        | 1340   | OMAHA, Neb.          | KOIL    | 1260        | 1290 | VIRGINIA, Minn.       | WHLB    | 1370        | 1400 |
| GREAT FALLS, Mont. | KFBB    | 1280        | 1310   | ORLANDO, Fla.        | WDBO    | 580         | 580  | WASHINGTON, D. C.     | WJSV    | 1460        | 1500 |
| GREEN BAY, Wis.    | WTAQ    | 1330        | 1360   | PARKERSBURG, W. Va.  | WPAR    | 1420        | 1450 | WATERBURY, Conn.      | WBRY    | 1530        | 1590 |
| GREENSBORO, N. C.  | WBIG    | 1440        | 1470   | PEORIA, Ill.         | WMBD    | 1440        | 1470 | WEST PALM BEACH, Fla. | WJNO    | 1200        | 1230 |
| HARRISBURG, Pa.    | WHP     | 1430        | 1460   | PHILADELPHIA, Pa.    | WCAU    | 1170        | 1210 | WHEELING, W. Va.      | WWYA    | 1160        | 1170 |
| HARTFORD, Conn.    | WDRC    | 1330        | 1360   | PHOENIX, Ariz.       | KOY     | 550         | 550  | WICHITA, Kansas       | KFH     | 1300        | 1330 |
| HIBBING, Minn.     | WMFG    | 1210        | 1240   | PITTSBURGH, Pa.      | WJAS    | 1290        | 1320 | WICHITA FALLS, Tex.   | KWFT    | 620         | 620  |
| HOUSTON, Texas     | KTRH    | 1290        | 1320   | PORTLAND, Maine      | WGAN    | 560         | 560  | WORCESTER, Mass.      | WORC    | 1280        | 1310 |
| INDIANAPOLIS, Ind. | WFBM    | 1230        | 1260   | PORTLAND, Ore.       | KOIN    | 940         | 970  | YANKTON, S. D.        | WNAX    | 570         | 570  |
| ITHACA, N. Y.      | WHCU    | 850         | 870    | PROVIDENCE, R. I.    | WPRO    | 630         | 630  | YOUNGSTOWN, Ohio      | WKBN    | 570         | 570  |
| JACKSONVILLE, Fla. | WMBR    | 1370        | 1400   | QUINCY, Ill.         | WTAD    | 900         | 930  | CANADA GROUP          |         |             |      |
| KALAMAZOO, Mich.   | WKZO    | 590         | 590    | RICHMOND, Va.        | WRVA    | 1110        | 1140 | MONTREAL, Quebec      | CKAC    | 730         | 730  |
| KANSAS CITY, Mo.   | KMBC    | 950         | 980    | ROANOKE, Va.         | WDBJ    | 930         | 960  | TORONTO, Ontario      | CFRB    | 690         | 860  |
| KEENE, N. H.       | WKNE    | 1260        | 1290   | ROCHESTER, N. Y.     | WHEC    | 1430        | 1460 | HAWAIIAN GROUP        |         |             |      |
| KNOXVILLE, Tenn.   | WNOX    | 1010        | 990    | ST. LOUIS, Mo.       | KMOX    | 1090        | 1120 | HILO                  | KHBC    | 1200        | 1230 |
| LA CROSSE, Wis.    | WKBH    | 1380        | 1410   | ST. AUGUSTINE, Fla.  | WFOY    | 1210        | 1240 | HONOLULU              | KGMB    | 590         | 590  |
| LAWRENCE, Mass.    | WLAW    | 680         | 680    | SACRAMENTO, Cal.     | KROY    | 1210        | 1240 | PORTO RICO            |         |             |      |
| LINCOLN, Neb.      | KFAB    | 770         | 1110** | SALT LAKE CITY, Utah | KSL     | 1130        | 1160 | SAN JUAN              | WKAQ    | 1240        | 620  |
| LITTLE ROCK, Ark.  | KLRA    | 1390        | 1420   | SAN ANTONIO, Texas   | KTSA    | 550         | 550  |                       |         |             |      |
| LOS ANGELES, Cal.  | KNX     | 1050        | 1070   | SAN FRANCISCO, Cal.  | KSFO    | 560         | 560  |                       |         |             |      |
| LOUISVILLE, Ky.    | WHAS    | 820         | 840    | SANTA FE, N. Mex.    | KVSF    | 1310        | 1340 |                       |         |             |      |
| MACON, Ga.         | WMAZ    | 1180        | 940    | SAVANNAH, Ga.        | WTOC    | 1260        | 1290 |                       |         |             |      |
| MASON CITY, Ia.    | KGLO    | 1270        | 1300   | SCRANTON, Pa.        | WGBI    | 880         | 910  |                       |         |             |      |
| MEMPHIS, Tenn.     | WREC    | 600         | 600    | SEATTLE, Wash.       | KIRO    | 710         | 710  |                       |         |             |      |
| MERIDIAN, Miss.    | WCOC    | 880         | 910    | SHREVEPORT, La.      | KWKH    | 1100        | 1130 |                       |         |             |      |
| MIAMI, Fla.        | WQAM    | 560         | 560    | SOUTH BEND, Ind.     | WSBT    | 930         | 960  |                       |         |             |      |
| MILWAUKEE, Wis.    | WISN    | 1120        | 1150   | SPARTANBURG, S. C.   | WSPA    | 920         | 950  |                       |         |             |      |
| MINNEAPOLIS, Minn. | WCCO    | 810         | 830    | SPOKANE, Wash.       | KFPY    | 890         | 920  |                       |         |             |      |
| MISSOULA, Mont.    | KGVO    | 1260        | 1290   | SPRINGFIELD, Mass.   | WMAS    | 1420        | 1450 |                       |         |             |      |
| MONTGOMERY, Ala.   | WCOV    | 1210        | 1240   | SYRACUSE, N. Y.      | WFBL    | 1360        | 1390 |                       |         |             |      |
| NASHVILLE, Tenn.   | WLAC    | 1470        | 1510   | TACOMA, Wash.        | KVI     | 570         | 570  |                       |         |             |      |
| NEW ORLEANS, La.   | WWL     | 850         | 870    | TAMPA, Fla.          | WDAE    | 1220        | 1250 |                       |         |             |      |
| NEW YORK, N. Y.    | WABC    | 860         | 880    | TOPEKA, Kan.         | WIBW    | 580         | 580  |                       |         |             |      |
|                    |         |             |        | TUCSON, Ariz.        | KTUC    | 1370        | 1400 |                       |         |             |      |
|                    |         |             |        | TULSA, Okla.         | KTUL    | 1400        | 1430 |                       |         |             |      |

\* May operate on 1170 kc for some time after March 29, later changing to 1070 kc.

\*\* May operate on 780 kc for some time after March 29, later changing to 1110 kc.



# PROSPECTS For Recorders

## SPECIAL INTEREST

| OCCUPATION OR PLACE   | Advertising | Audition | Broadcast Program | Education | Entertainment | Interview | Meeting | Musical Progress | News Recording | Promotion | Publicity | Public Speaking | Testimony | Sales Instruction | Speech Progress |
|-----------------------|-------------|----------|-------------------|-----------|---------------|-----------|---------|------------------|----------------|-----------|-----------|-----------------|-----------|-------------------|-----------------|
| Actor.....            |             | •        |                   |           |               |           |         |                  |                |           |           |                 |           |                   | •               |
| Advertising Agcy..... | •           | •        | •                 |           |               | •         | •       |                  | •              | •         |           |                 |           |                   |                 |
| Band Leader.....      |             | •        | •                 |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Broadcasting Sta..... |             | •        | •                 |           |               | •         |         |                  | •              | •         |           |                 |           |                   |                 |
| Children.....         |             | •        | •                 | •         |               |           |         |                  |                |           |           |                 |           |                   | •               |
| Church.....           |             |          |                   | •         |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Clergyman.....        |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Club.....             |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Concert Artist.....   |             | •        | •                 |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Department Store..... | •           |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Detective.....        |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Executive.....        | •           |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Exporter.....         |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Exposition.....       | •           | •        |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Farmer.....           |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Home.....             |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Hotel.....            | •           |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Importer.....         |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Labor Union.....      |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Lawyer.....           |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Lecturer.....         |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Librarian.....        |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Manager.....          |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Manufacturer.....     | •           |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Merchant.....         | •           |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Musician.....         |             | •        | •                 |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Night Club.....       |             | •        | •                 |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Physician.....        |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Police.....           |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Reporter.....         |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Sales Manager.....    |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| School.....           |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Showman.....          |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Student.....          |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Teacher.....          |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Theater.....          |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |
| Vocalist.....         |             |          |                   |           |               |           |         |                  |                |           |           |                 |           |                   |                 |

**N**EW CUSTOMERS for recording instruments are being discovered every day. Aggressive dealers report new applications in the amusement, educational and business fields.

Sales managers are using recordings for training salesmen. Broadcasting stations and musical agencies provide a constant market for "audition re-

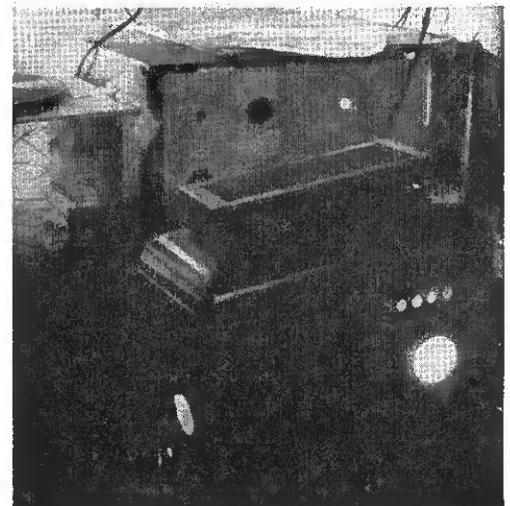
cordings." Police departments and lawyers use the instruments to record testimony and interviews. And recorders go over big with schools and students for demonstrating progress in public speaking.

Recorder Sales are doubly attractive for the additional profits that can be realized on the sale of discs, needles.

# SOUND . . .

**AMPLIFIERS**, offered in combination with simple slide picture projectors, are twice as easy to rent

*By*  
**EVERETT L. MILLER**



**D**OES YOUR sound equipment just gather dust between election campaigns, renting only very occasionally?

There is no reason for it to lie idle. Offer prospects a novel, extra service which substantially enhances the usefulness of sound and watch new business roll in.

What extra service? Let me suggest the addition of an inexpensive slide picture projector to your kit, rental of both sound and sight service.

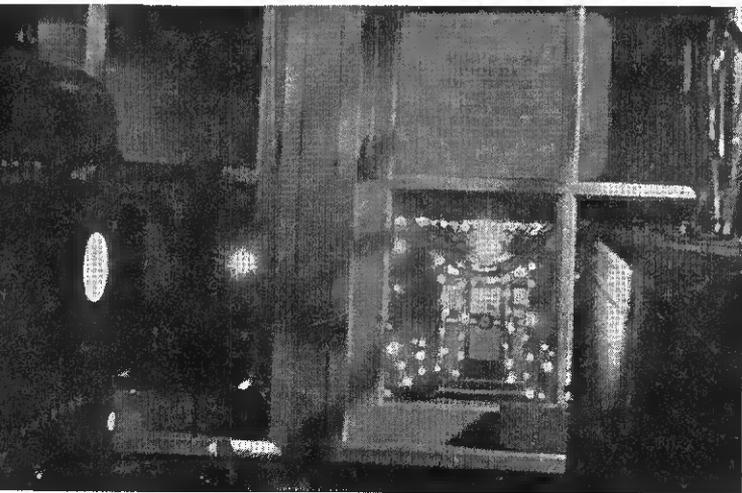
### *Buy Slides and Records*

Where sound alone is frequently just an entertainment or advertising aid, sound slides can often be the whole show. I've tried the combination, and it works.

... **plus**

# Something to SEE

**STOREFRONT** — Pictures appeared on advertiser's building, on a 20-foot screen, two 30-watt speakers below. "Show" ran three 1-hour performances each evening for three solid weeks



**ACROSS THE STREET** — Projector in a trailer hidden by evergreens and jacked up on cement blocks to clear traffic. (Note distant screen, seen through trailer window.) Behind projector is the amplifier, two dual-speed turntables

There are many excellent picture subjects available at the present time. Some of these are on old-fashioned glass slides. By far the more popular, however, are new "film slides"—strips of ordinary movie film containing fifty or seventy-five separate *still* pictures. These pictures are fed through a projector by flicking a knob to change the picture. Accompanying sound track is on 16-inch, slow-speed discs. It consists usually of narration about the pictures, with suitable music in the background, and sometimes dialogue and sound effects.

Many *industries* provide "sound slides" which explain the manufacture or use of their products. One may take the audience on a "trip" through a modern dairy; another

may explain the use of a household appliance. Clever sound recording and the absence of direct advertising make such films genuinely interesting and suitable for presentation at schools, churches, clubs.

### *Or Make Them Yourself*

If you already own sound *recording* equipment, you may find it profitable to produce your own sound slides locally. This does not require expert photographic knowledge. There are several cameras that take the required size picture by merely pointing at the scene and snapping the shutter. Some of these have copying attachments that enable one to copy photos from albums, newspapers and magazines, as well as old historic documents

and papers of popular interests.

If such cameras are loaded with "reversal" film, the film manufacturer will process it for you, and return it in slide form, ready for projection on a screen. Then you prepare a brief descriptive narration and record with a suitable musical background.

Local films are always very popular, even when technically inferior and the subject quite simple. Local points of historic interest, an interesting one-day auto drive, even a hike to a nearby scenic spot—all these excite great interest when flashed on the silver screen with full, rich sound.

In some instances it might, of course, pay to team up with a commercial photographer.

### *Opens Up New Vistas*

Pictures on this page show one of my installations, in Lemoyne, Pennsylvania. For picnics, festivals  
(Continued on page 75)

## HERE IS AN IDEA!

FOR MEN who make recordings this novel new business will have special appeal

AND IF you happen to go in for photography too it is a "natural"

# ADVERTISING

## Taboos

By  
**NATHAN R.  
ABELSON**

**F**OR YEARS a crusade on truthful advertising has been waged by government and business alike.

Two years ago an amendment to the Federal Trade Commission Act was passed, giving the FTC greater jurisdiction and more effective control over advertising. Of course, neither this legislation nor its aftermath has any direct effect on retailers conducting an intrastate business. However, Better Business Bureaus and similar progressive organizations have so patterned their activities and operations after the FTC's that it becomes increasingly important for radio retailers to keep abreast of new developments.

Advertising statements which the FTC brands as false or misleading are likely to bring protest from local Bureaus and trade groups. With this fact in mind, I have prepared a list of radio advertising claims to which the Commission has already objected.

In the light of present agitation over advertising and the increasing power of consumer groups, manufacturers and retailers alike would do well to study these typical "taboos":

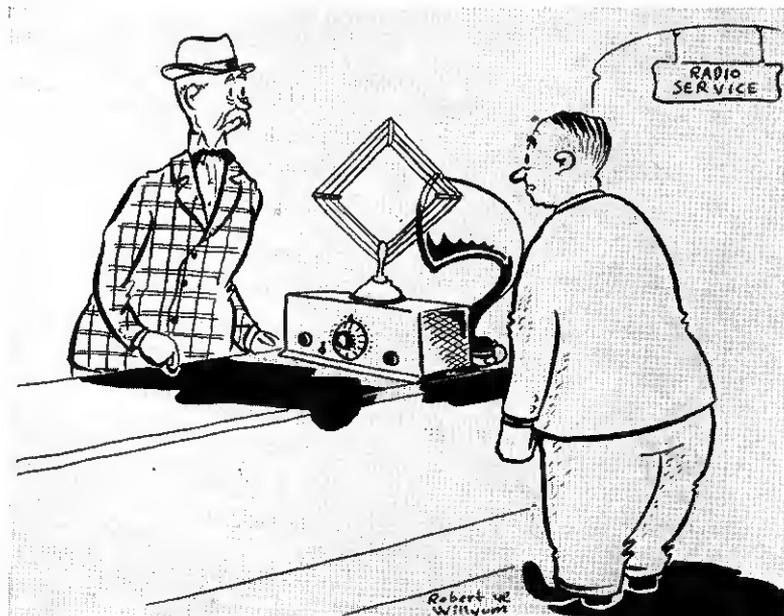
**TUBES**—To cease representing that a set has twelve or any other designated number of tubes, implying that each tube functions in a radio sense and is other than a mere balance tube. . . . *Stipulation 2428.*

**PORTABLES**—To cease representing that the sets can be used in autos, beds, offices, camps, hotels, or anywhere, or that they work immediately or can be used at once unless, where antenna or ground or other connections are necessary,

such fact be also stated with equal conspicuousness and in direct connection. . . . *Stipulation 02324.*

**BANDS**—To cease use of the words "All Wave" or "All Wave Reception" when describing radio receiving sets not capable of reception over the entire meter range covering all broadcast transmissions. . . . *Stipulation 2262.*

**SALES STATIC** . . . I wish to know, Sir, if you can connect a record-player to this radio without disturbing its excellent tone



**PRICE**—To cease illustrating a higher priced set and quoting a price which applies to a less expensive set. . . . *Stipulation 2351.*

**ACCESSORIES**—To cease representing that a radio featured at a definite price, alone or in connection with a picture, can be bought without additional cost to the purchaser where such is not the case. If the price refers to the radio alone and does not include the price of an accessory which must be bought at

additional cost in order to obtain the benefit of the featured radio price then the featured price shall be accompanied by an explanation in equally conspicuous type indicating clearly the combined or total price of the radio and accessory. . . . *Stipulations 2232, 2213, 2214.*

**ANTENNA ELIMINATOR**—To cease representing that the product is a new device materially different from other similar devices already on the market; is equivalent to a 75-foot antenna in a four-inch attachment; is guaranteed to make outside antennas unnecessary; will give international or all wave recep-

tion; is a "hi-capacity" device; produces better tone, improved volume or sharper selectivity; help reduce static. . . . *Stipulation 02426.*

**NOISE FILTER**—To cease representing that the product causes radios to work like new; eliminates noise or interference; is a scientifically designed instrument saving current or money; will bring in foreign stations or double the distance or volume; can be installed without

(Continued on page 75)

### Don't Get "In Dutch"

**Here's a Check List of Radio claims on which the Federal Trade Commission has taken action**



# Four

**FIRST OF A SERIES**  
describing animated  
displays using parts  
readily available to  
radio and electrical  
appliance dealers

**Y**OUR SHOW WINDOW meets more people face-to-face in a day than a good salesman can in a month. But if it is to do any good it must stop them, make them look and make them remember.

Radio and appliance dealers can devise such windows more readily than most other retailers because they automatically understand the mechanics of many display animating devices, a majority of which are electrical. And they can do it cheaper because they frequently have things in stock that can be made into display animators.

### *The Jumping Ring*

The "jumping ring" (illustrated), for instance, is almost entirely made of radio and appliance shop materials.

Select a field-coil from an old radio speaker, one of about 1,000 ohms. From a hardware store secure enough iron or steel rods to fill the core snugly and then bind the upper end of the rods with fine wire. Over the bundle of rods slip an aluminum ring. Mount a paper bell at the top.

When d.c. field current is turned into the coil the ring bounces toward the top of the steel rods; the length of the jump depending upon available power and the weight of the ring. So long as the current remains on, the ring stays at the top. But any current interrupter with an eight to twelve per minute cycle will make the ring leap up and down at a nice rate.

A home-made make-and-break switch can, for example, be operated by an oscillating fan. Of course,



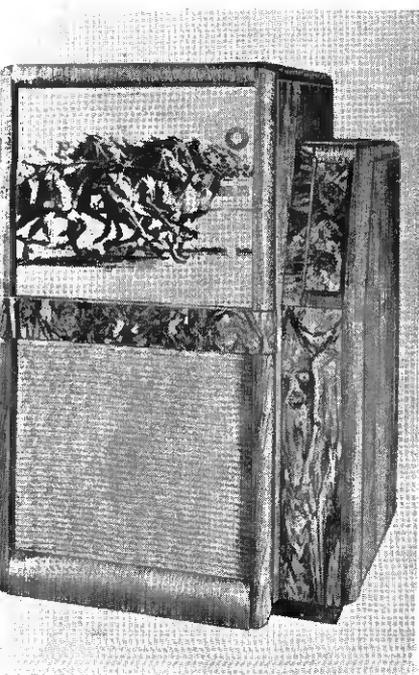
RCA—Latest home design produces picture on translucent screen 13½ by 18 inches overall. Screen is retractable. Kinescope picture is projected through lens to mirror on underside of cabinet's lid and, from here, is reflected to viewing screen

## LARGE SCREEN Television



DuMONT—Provides 11 by 15 inch image. Approximates typical home movies in size

SCOPHONY — Provides picture size of 24 by 18 inches. Uses optical-mechanical scanning system



# WINDOWS *that Work*

*By*  
**I. L. COCHRANE**

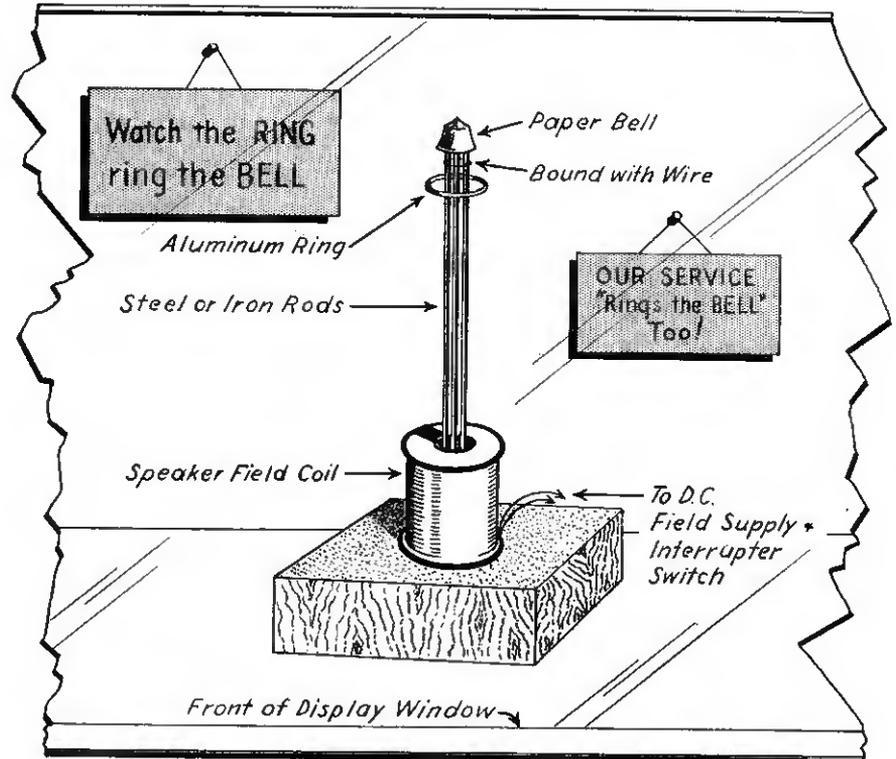


**PRACTICAL POINTERS:** Editor of the yearbook "Display Animation," author of several books on Display Showmanship, Mr. Cochrane spent 10 years in the actual production of displays for the appliance industry before he took up writing about it.

a wiping contact is desirable in order to avoid oxidizing. Contacts should preferably be silver plated. Keep the current on for a couple of seconds or more in order to hold the ring at the top a second or two for better effect.

### *Flag That Flutters*

A show card which says something about "Tops" in service and performance might be helpful. Place this kind of display well forward, close to the window.



An American flag in your window is both patriotic and in good taste during Decoration Day week, Fourth of July week.

Make it wave and flutter by placing it in front of a radio set from which the chassis has been removed in order to substitute a concealed electric fan blowing through a cabinet opening.

If you are in a neighborhood where Poles, Czechs or other friendly nationalities are fairly numerous you can also build goodwill on their patriotic holidays with flags of those countries.

### *Paper Planes That "Fly"*

Another use for a fan is by suspending paper cutouts of airplanes from the ceiling—six or a dozen of them, depending upon the width of the window.

Behind a cabinet conceal an oscillating fan, so placed that the planes are blown away from the fan when the air current is directed at them. They return by gravity when the fan is blowing off to the right or to the left.

The oscillating fan action keeps them swinging to and fro.

### *Smiling School Globes*

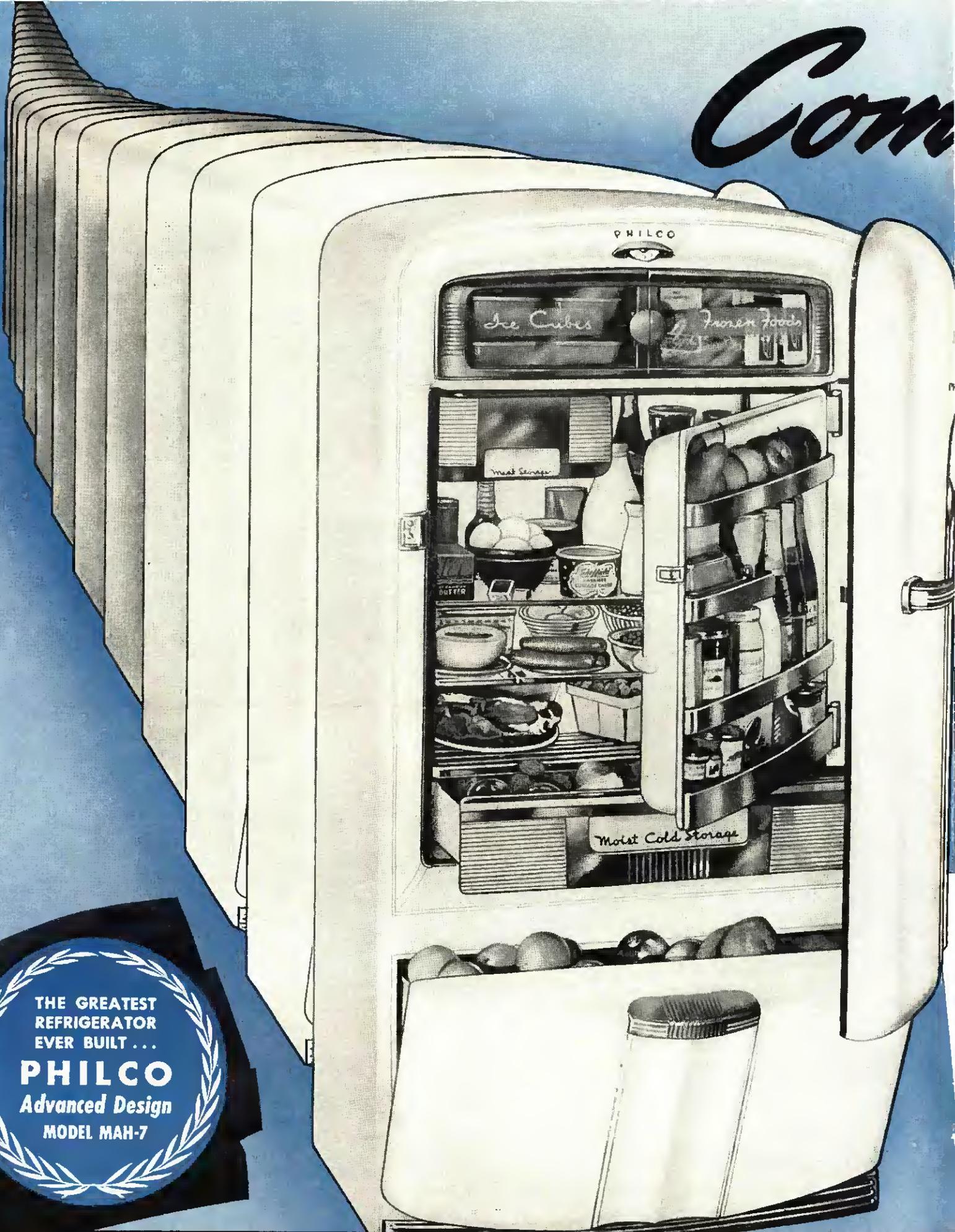
Two school globes may be borrowed for still another window, one large and one small.

Remove the stand from the smaller globe and set it on top of the larger one. Use white chalk to rough in caricature facial features on the "head" and "buttons" on the body. Then paint over the chalk with water colors.

A showcard saying something about "the world in your home" will help give the idea punch. So also will some sort of a hat on the top globe, but this is optional. Any hat will do but a small hat from a toy shop is best.

When you are through using this trick display wash off the water color (globes are surfaced with a varnish that prevents the paint from sinking in), replace the stand of the top globe and return these props undamaged to the person from whom you borrowed them.

Com



THE GREATEST  
REFRIGERATOR  
EVER BUILT ...

**PHILCO**  
Advanced Design  
MODEL MAH-7

**PHILCO ALL YEAR 'ROUND**

*ing* - - A SPECTACULAR  
**PHILCO**  
**Refrigerator**  
**Promotion**  
... the Greatest the Industry  
Has Ever Seen!

From coast to coast, it's *unanimous*... Philco for 1941 is the sensation of the refrigerator industry in value and sales appeal. More features for the money... more new, exclusive, saleable ideas... the greatest dollar for dollar values in refrigeration! And now... a smashing, sweeping Philco promotion is ready to burst like a bombshell upon the refrigerator market! Nothing has been spared to make this the greatest promotion the industry has ever seen. A powerful, retail selling promotion... giving you everything you need to draw in the

customers... to sell them... and to sell them UP! And back of this amazing promotion will be a great Philco advertising campaign, covering the country from coast to coast with the sensational news! Your distributor will get full information in a few days and you'll be hearing the complete story in time to greet the opening of the active refrigerator season with a spectacular retail selling event. So clear the decks for action... and get ready for the biggest profit-building promotion ever offered to the refrigerator dealers of America!

**Most Valuable Franchise in the Appliance Field!**



# WHY LABOR *Selling pans* to get a \$15 Step-Up?...



...It's Easier to "Sell-Up" \$100  
with a \$1 Bag of Food!



## NEW! 1941 DUAL-TEMP LINE STARTS UNDER \$200!

... and every Dual-Temp combines these outstanding advantages ...

**SEPARATE BUILT-IN FREEZING LOCKER!** At 22° below freezing, keeps packaged frosted foods perfectly—makes home-freezing of foods practical—actually makes meats more tender! Permits thrifty bulk buying.

**PURIFIED MOIST-COLD** in entire upper compartment ends need for covering foods to prevent wilting and drying. Made possible because ...

**NEW STERILAMP\*** overcomes moist storage hazards ... reduces spoilage due to bacteria, retards mold growth, combats "ice box odor."

**ROOMIER!** No bulky frost-collecting coils cutting shelves in two.

**NO DEFROSTING** in upper compartment ... nothing to defrost!

Only **STEWART-WARNER** makes  
**DUAL-TEMP**

*The Refrigerator of Tomorrow*

STEWART-WARNER CORP., CHICAGO, ILL.

Also makers of Scotch Maid Electric Ranges and Concert Grand and Magic Keyboard Radios

\*T. M. Reg. U. S. Pat. Off.

**S**TEP-UPS are swell ... but *what you have to demonstrate* makes a world of difference in the step-up you can sell. Why work yourself into a lather persuading prospects that a pan and a strip of chrome are worth \$15 ... when thousands of dealers are jumping prospects to \$100 and better by *showing them something that makes them forget price!*

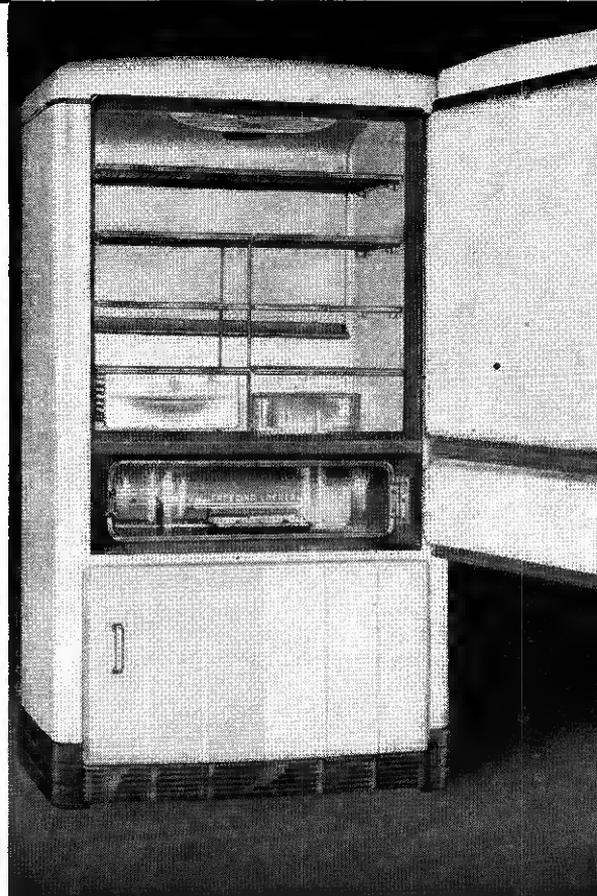
When you show a prospect blueberries *months old* and as delicious as the hour they were picked ... and stored for weeks, and *actually tenderer than when first purchased* ... sweet corn kept for days *without toughening* or turning starchy ... you're talking sense to her, and a sale.

And when you show her crisp vegetables, juicy steaks, meat, moist, appetizing left-overs kept without wilting or drying ... *and without spoiling or molding* ... longer than ever possible before ... you've made a real step-up and a sale.

That's how Dual-Temp dealers are getting \$100 step-ups with a \$1 bag of food. That's why their percentage of replacement sales is *twice that of the industry*. That's why sales more than doubled last year *without a price cut* ... with 4 out of five sales going to prospects who started out to buy ordinary "bargain boxes."

Trade your \$15 step-ups for real ones with ...

- ... *the only refrigerator* of its kind in the world that has proved through two years in actual service ...
- ... *the only refrigerator* that meets every demand and objection of replacement buyers
- ... *the only refrigerator* prospects can't duplicate down the street at a lower price



# Why You Should

# *Buy*

# Radio TUBES in a Radio STORE

## Only a RADIOMAN can

- 1** Tell You What Tubes To Put Back In *Unmarked Sockets*
- 2** Give You *Other* Technical Information About Your Set
- 3** Improve Reception Or Lower Cost With *Newer Tube Types*
- 4** Say When It Is *Useless* To Just Replace Tubes
- 5** Test Your Set When The Trouble Is *Not* Tubes
- 6** Help With Advice When You Are Ready For *Another Radio*

## RADIOMEN

REPLACE tube testers frequently and so have latest models

KNOW how to correctly interpret tube tester readings

STOCK standard, reliable brands of tubes and all needed types



The  
RADIO Dealer  
Gives *Extra, Expert*  
Advice and Service  
That Can't Be  
*Bought*  
Elsewhere

RADIO *and Television*  
RETAILING

**"YES, THIS IS THE NEW NORGE WITH EXCLUSIVE NIGHT-WATCH AUTOMATIC DEFROSTING..."**



**...AND ALL THE OTHER BIG FEATURES"**

What we can tell you about the Norge is important—but far more important is what you can tell and show your customers.

**BRILLIANT BEAUTY?**—yes, all through the line. The perfect beauty of smooth, softly-rounded surfaces, with just the right balance of well-chosen flashing accents. And the interior sparkles in perfect harmony with the exterior.

**BRILLIANT FEATURES?**—yes, everything that any prospect will want, including some really great features. The Night-Watch fully automatic defroster is, undoubtedly, the most "talkable" feature in years, and the women do most of your talking for you when they realize what it is!

There's the Safety-Sealed Fast Freezer—Covered Coldpack—High-humid Hydrovoir for vegetables—Cellaret dry storage—Handfroster—and, by no means least of all, the Quiet-Flo Rollator Cold-Maker, famous enough in itself, and making

enthusiastic friends with its exclusive Motor-Cooler—the ring of flowing refrigerant which cools the motor-compressor unit to its most efficient operating temperature.

**BRILLIANT SALES-WISE?**—yes, and that means a real profit-maker! Dealers say "It's the hot line" . . . "This is a Norge year" . . . "We can't miss". A Pennsylvania dealer sold three Night-Watch models one afternoon because "The step-up job was almost automatic. Not one of the three customers would even consider a model that didn't have the Night-Watch".

Yes, profits come from sales; and sales come from having something to sell. That's what Norge gives you . . . and any Norge Distributor can prove it. Ask him . . . or us. Wire, phone or write today.

**NORGE** Quiet-Flo  
ROLLATOR REFRIGERATION

NORGE DIVISION BORG-WARNER CORPORATION, DETROIT, MICH.



Commercial Refrigeration



Washers



Gas Ranges



Electric Ranges



Home Heaters

**SEE NORGE BEFORE YOU BUY!**

# REFRIGERATION

## Success Story

**L**OUIS AND HERMAN ZEMEL, brothers and partners of "Radio Centre," merchandising radios, records and refrigerators, were highly gratified at the close of the past year to show an increase of 75% in refrigerator sales over '39.

When queried on this impressive increase, the Zemels explained that, while they had been pushing refrigerators in the past with good returns, "accelerated step-up in sales" was the result of 4 improvements in the merchandising operation effected during 1940.

### Windows and Advertising

**No. 1** The proprietors agreed that a new "store front," unveiled to the public in March, 1940, was the most important aid toward increased refrigerator business. Outside remodeling provided an extra large display, the latest type of neon sign and a general over-all effectiveness which proved a natural "traffic stopper." As stated by the dealer, "the job cost plenty but was well worth it."

The window is approximately 15

**DEMONSTRATES** — Herman Zemel ready to explain features of new 1941 refrigerator line



**NEW FRONT**—Provides large window display, latest neon sign and general over-all effectiveness to attract and hold prospects' attention

feet high by 14 feet deep. Modern lighting plays a big part in its effectiveness, using 1200 watts of recessed fluorescent and 300 watts of neon. The entrance door is all-glass, the front facing made from special cast stone and the large sign above the window uses reflected neon lighting with striking effect.

**No. 2** Increased newspaper advertising and spot broadcasting with local stations were important factors in this dealer's 1940 set-up. Special attention was given to the make-up of all advertising copy. Hit or miss appeal was avoided for proven sales messages on refrigerators.

The partners of Radio Centre stressed the point that they carried no "borax" ads, all copy was formed along institutional lines which brought them results with a capital "R."

### Display and Promotion

**No. 3** Refrigerators were spotted on the first floor and "Out In Front,"

so that new machines hit prospects right in the eye as they entered. That's how Radio Centre "staged" its complete line of refrigerators, and the Zemels say they cannot speak too highly of this method for effectiveness and results.

**No. 4** Constant store promotion to stimulate traffic was not overlooked and was a big factor in aiding '40 sales. As related by the retailer, "we held a number of television and FM demonstrations over the past year, every one successful and all instrumental in snaring new prospects for refrigerators as well as for radios, records and other merchandise."

**RADIO DEALER at New Haven tells how sales were upped 75 per cent in one year**

The hermetically sealed  
"Mechanical Iceberg"  
is really quiet!

Equalizer  
increases efficiency,  
prevents motor overloads  
and overheating.

Fluid-cooled condenser  
reduces current  
consumption, no fan,  
no moving parts.

Gale gives  
'Extras'  
AT NO EXTRA COST

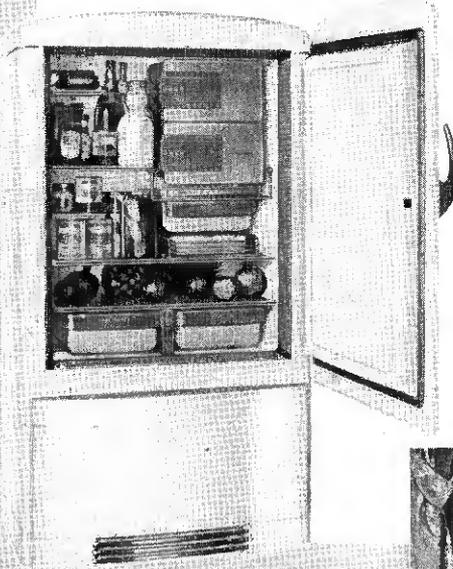
Everyone wants to save money. Gale gives you exclusive mechanical developments, amazing economy and performance! It's a powerful sales appeal that will win extra sales and extra profit!

Gale contributes the first real mechanical improvements to electric refrigeration in years. Gale has developed a new revolutionary *Fluid Cooled* condenser which continuously dissipates heat. It steps up performance, gives remarkable economy, quiet operation, has no fan, no moving parts. Add the exclusive GALE EQUALIZER, which balances refrigerant pressures, reduces motor starting load and overheating. The already proven and accepted hermetically sealed MECHANICAL ICEBERG has been made more efficient in performance, amazingly economical to operate and quiet beyond conception because of the above improvements.

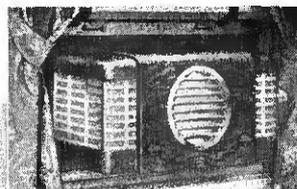
## GALE PRODUCTS

Refrigeration Division:  
Outboard, Marine & Manufacturing  
Company

GALESBURG, ILLINOIS

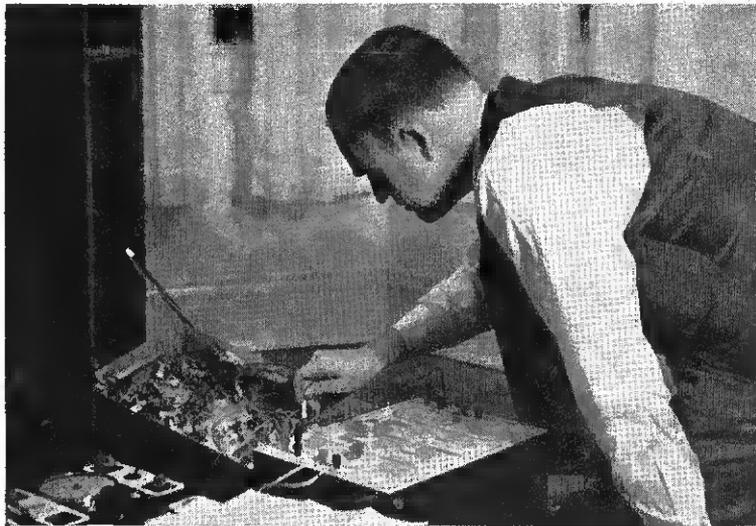


**Model GS-658**  
A striking example of  
GALE'S extra value.



Think of extra summer profits now! Get facts on Gale Portable Air Conditioning Units!

GALE PRODUCTS  
1627 Monmouth Blvd., Galesburg, Illinois  
Gentlemen:  
Please send full information on GALE for '41  
NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_  
Include Portable Air Conditioning Information

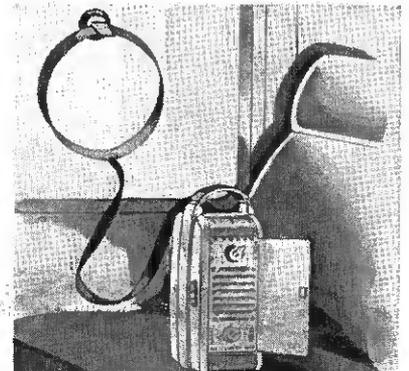


# SUBSTITUTES for Stations

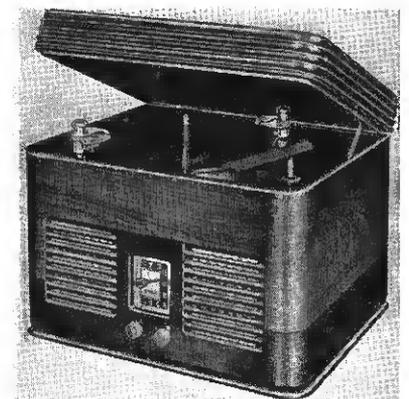
SIGNAL GENERATORS Useful to Servicemen Re-Setting Pushbuttons

| Model   | Power Source | A-F Mod. (cycles) | % of Mod. | R-F Range (Kc—Mc) | Method of Tuning | Net Price |
|---|--------------|-------------------|-----------|-------------------|------------------|-----------|
| <b>Clough Bregle Co., 2815 W. 19th St., Chicago, Ill.</b>                               |              |                   |           |                   |                  |           |
| 110-A   | line         | 400               | 30        | 100-32            | dial             | 49.50     |
| 199-B   | "            | "                 | "         | 100-32            | "                | 95.00     |
| <b>Dayton Acme Co., 2339 Gilbert Ave., Cincinnati, Ohio</b>                             |              |                   |           |                   |                  |           |
| 401   | line         | 400               | 30        | 50-60             | dial             | 34.90     |
| <b>General Electric Co., Tube &amp; Test Equip. Sales, 5501 Broadway, Chicago, Ill.</b> |              |                   |           |                   |                  |           |
| SG-2  | line         | 400               | 30        | 100-32            | dial             |           |
| <b>Jackson Elect. Inst. Co., 129 Wayne Ave., Dayton, Ohio</b>                           |              |                   |           |                   |                  |           |
| 640   | line         | 400               | 30        | 100-30            | dial             | 29.95     |
| 420   | "            | "                 | "         | 0-100             | "                | 59.50     |
| <b>Million Radio &amp; Tele. Co., 685 W. Ohio St., Chicago, Ill.</b>                    |              |                   |           |                   |                  |           |
| SG  | line         | 400               | 40        | 57-30             | dial             | 34.95     |
| <b>Philco Radio &amp; Tele. Corp., Philadelphia, Pa.</b>                                |              |                   |           |                   |                  |           |
| 014   | line         | 500               | "         | 540-1.7           | pushbutton       | 13.50     |
| 016   | "            | 400               | 30        | 175-15            | "                | 15.98     |
| 070   | "            | "                 | "         | 120-70            | dial             | 29.75     |
| <b>Precision Apparatus Co., 647 Kent Ave., Brooklyn, N. Y.</b>                          |              |                   |           |                   |                  |           |
| E-300   | Bat.         | 400               | 50        | 550-1.7           | pushbutton       | 24.95     |
| E-200   | line         | "                 | 0-100     | 90-88             | dial             | 35.95     |
| <b>Radex Corp., 1733 Milwaukee Ave., Chicago, Ill.</b>                                  |              |                   |           |                   |                  |           |
| B1  | Bat.         | 1000              | 100       | 500-1.7           | dial             | 7.95      |
| B2  | Bat.         | 30-15M            | 100       | 500-1.7           | dial             | 9.95      |
| <b>Radio City Products Co., 88 Park Pl., New York City</b>                              |              |                   |           |                   |                  |           |
| 702   | line         | 400               | 30        | 95-100            | dial             | 22.95     |
| <b>RCA Mfg. Co., Inc., Camden, New Jersey</b>   |              |                   |           |                   |                  |           |
| 171   | bat/line     | 400               | 30        | 405-1.7           | pushbutton       | 17.50     |
| <b>Readrite Meter Works, 136 College Ave. E., Bluffton, Ohio</b>                        |              |                   |           |                   |                  |           |
| 557   | Bat.         | "                 | "         | 110-20            | dial             | 18.90     |
| 540   | "            | "                 | "         | "                 | "                | 19.50     |
| <b>Simpson Elec. Co., 5216 W. Kenzie St., Chicago, Ill.</b>                             |              |                   |           |                   |                  |           |
| 310   | line         | 400               | 35        | 94-30             | dial             | 37.50     |
| <b>Supreme Insts. Corp., Greenwood, Miss.</b>   |              |                   |           |                   |                  |           |
| 561   | line         | 0-15M             | 0-80      | 65-20.5           | dial             | 88.50     |
| 571   | "            | 400               | 30-60     | "                 | "                | 39.95     |
| <b>Televiso Prod., Inc., 2400 N. Sheffield Ave., Chicago, Ill.</b>                      |              |                   |           |                   |                  |           |
| VD-3  | line         | 400               | 40        | 50-32             | dial             | 110.00    |
| VR-7  | "            | "                 | "         | "                 | "                | 65.00     |
| <b>Triplett Elect. Inst. Corp., 122 Main St., Bluffton, Ohio</b>                        |              |                   |           |                   |                  |           |
| 1231-A  | Bat.         | 401               | 40        | 115-30.5          | dial             | 27.50     |
| 1232-A  | line         | "                 | "         | "                 | "                | 29.84     |
| 1632  | "            | "                 | "         | 100-120           | "                | 79.84     |
| 1631  | "            | "                 | "         | 100-30            | "                | 55.00     |
| <b>Earl Webber Co., 1313 W. Randolph St., Chicago, Ill.</b>                             |              |                   |           |                   |                  |           |
| 20DC  | Bat.         | 400               | 30        | 100-60            | dial             | 33.20     |
| 201AC   | line         | "                 | "         | "                 | "                | 39.50     |
| <b>Weston Elect. Inst. Co., 618 Frelinghuysen Ave., Newark, N. J.</b>                   |              |                   |           |                   |                  |           |
| 776   | line         | 400               | 30        | 50-33             | dial             | 65.25     |

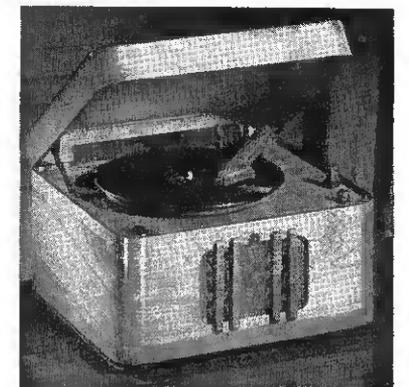
*New*



**SENTINEL EX-TENNA LOOP**, model 10, included as standard equipment with model 247-P for use in planes, trains, autos or other locations where an external antenna is required to get satisfactory reception. Model 247-P, "Lightweight Champion" is a 3-way compact portable radio. This 5-tube radio plays on self-contained batteries, or on ac-dc. Measures 8 3/4 x 4 3/4 x 4 inches.



**SENTINEL AUTOMATIC COMBINATION** radio and phonograph is encased in a table-type walnut veneer cabinet. Model 248-K has 6 tubes; 6-inch speaker. Tunes 540 to 1730. Phonograph plays 10 or 12 records. List price \$44.95. Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill.

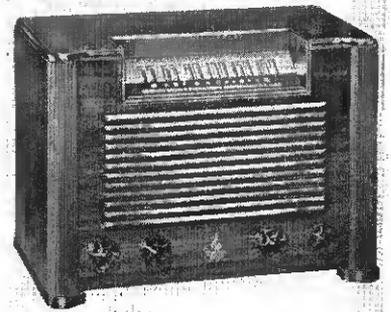


**TALK-A-PHONE RECORD PLAYER**, model G-51, with amplifier has 2-watts output and uses the 3-tube inverse-feedback circuit. Includes self-starting 78 R.P.M. rim-drive motor, crystal pick-up, built-in volume control. Plays both 10- and 12-inch records with lid closed. For 110-120 volts, 60 cycles ac. Encased in walnut veneer cabinet. Talk-A-Phone Mfg. Co., 1847 S. Millard Ave., Chicago, Ill.

# Products...

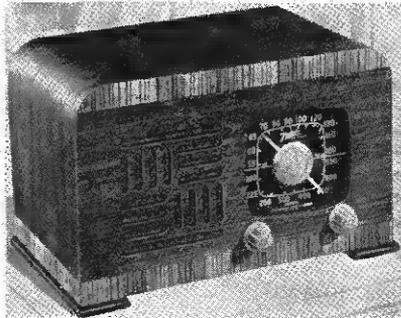


**ZENITH** TABLE TYPE radio, model 5D625, is a 5-tube ac-dc superheterodyne with 4-inch speaker. Receives American broadcasts. Housed in walnut finish cabinet 11 1/2 inches wide. Price \$14.95.



**EMERSON** TABLE-TYPE receiver, model 442, five-tube ac-dc superhet covers standard American broadcasts. The figured striped walnut front of the cabinet is flanked at either side by shaped, reeded pilasters, which are in keeping with the horizontal reeded base. Features full-vision slide rule dial for easy reading. Price \$14.95.

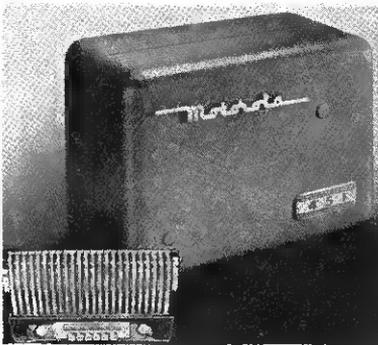
**RCA** PLASTIC TABLE-TYPE radio known as the "Foreign Correspondent" covers foreign and broadcast bands. A 5-tube superhet with ac-dc operation tunes from 8600 to 12,000 kc and spreads the popular 25 and 31-meter short-wave bands. RCA Mfg. Co., Camden, N. J.



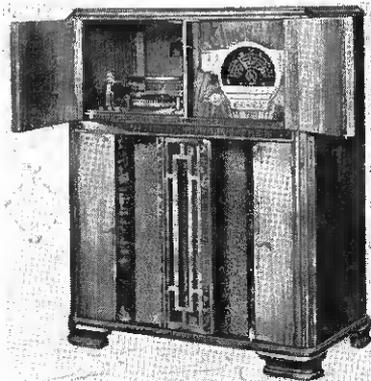
**ZENITH** CONSOLE COMBINATION radio and automatic phonograph, model 75598, has 7 tubes, including rectifier tube. Receives American and foreign broadcasts. Contains 10-inch Concert Grand speaker. Plays ten 12-inch or twelve 10-inch records. Interior automatically lights up as door is opened. Ample storage space for records. Walnut finish cabinet is 10 1/4 inches high. Price \$129.95. Zenith Radio Corp., 6001 Dickens Ave., Chicago, Ill.



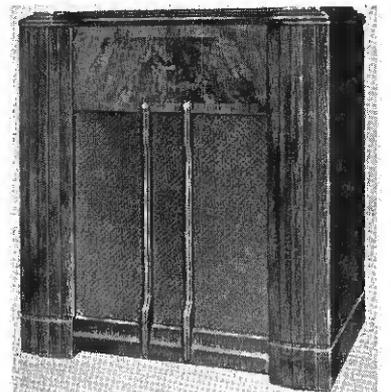
**EMERSON** COMPACT COMBINATION, model 412, radio and automatic combination covers standard American broadcasts and plays 10 and 12-inch mixed records. Five-tube ac superhet with 6 1/2-inch speaker. Walnut veneer cabinet. Price \$49.95. Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y.



**MOTOROLA** AUTO RADIO, model 451, has 6-tube superhet with 3-gang condenser, tuned r. f. stage, 3-position tone-control operated by pushbutton on control head. Speaker installs in dash panel or on bulkhead. Finished in green Hammerloid. Features "Vita-Tone" now available in all Motorola car sets. Price \$44.95. Galvin Mfg. Co., 4545 Augusta Blvd., Chicago, Ill.



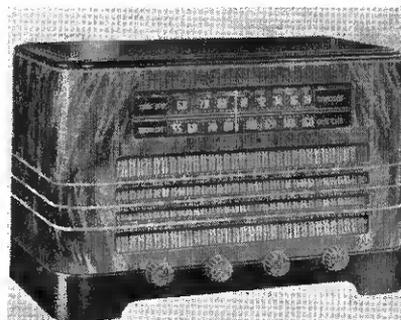
**G-E** TWO BAND, table-type radio housed in modern style, two-tone, cabinet with front and sides of walnut veneers. This 6-tube receiver features two antennas—the shortwave, and the standard broadcast built-in Beam-a-Scopes; 5-inch speaker. Clearly indicated on the dial are the names of foreign cities and their location. General Electric Co., Bridgeport, Conn.

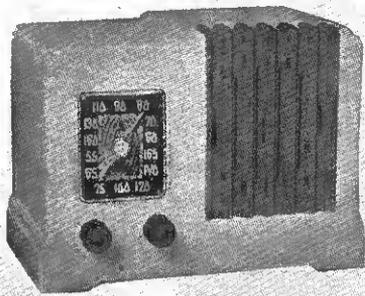


**CROSLEY** CONSOLE COMBINATION, 308C, radio-phonograph with automatic record changer covers three bands, 550 to 18,000 kc. Seven-tube superhet with 10-inch speaker has 3-gang tuning condenser. Phonograph plays 14 ten-inch records or 10 twelve-inch. Modern designed cabinet of sliced walnut and figured stump walnut measuring 33 1/2 high, 30 3/4 wide, 17 1/4 inches deep. Crosley Corp., 3401 Colerain Ave., Cincinnati, Ohio.



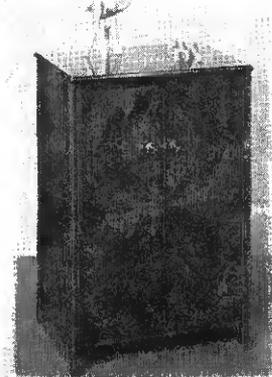
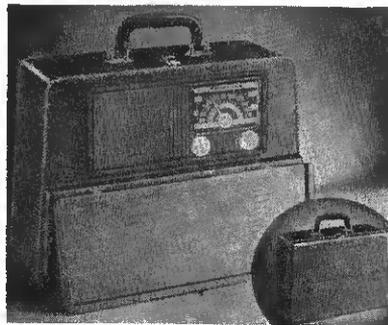
**ADMIRAL** COMPACT COMBINATION, model 69-MS, includes radio and automatic phonograph. This ac-dc 5-tube superhet covers standard broadcast bands. Phonograph plays twelve 10-inch or ten 12-inch records. Measures 17 1/4 x 12 1/2 x 16 1/2 inches. Priced at \$39.95. Continental Radio & Tele. Corp., 3800 Cortland St., Chicago, Ill.





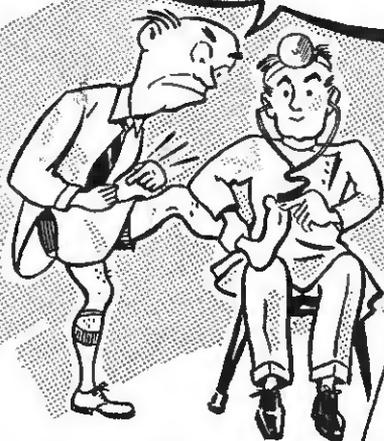
**ARVIN** CATALIN PLASTIC table type radio, model 532A, with onyx case has amber grille and knobs. Five-tube, ac-dc superhet tunes 540 to 1750 kc. Has electrodynamic speaker and airplane type lighted dial with fluorescent plastic insert for easy reading. Price \$14.95. Noblitt-Sparks Industries, Inc., Columbus, Ind.

**FARNSWORTH** PORTABLE RADIO, model CT-60, in luggage-type design, has 6 tubes. The circuit uses a tuned r.f. amplifier and a 3-gang condenser. List price \$29.95. Farnsworth Tele. & Radio Corp., 3700 Pontiac St., Ft. Wayne, Indiana.



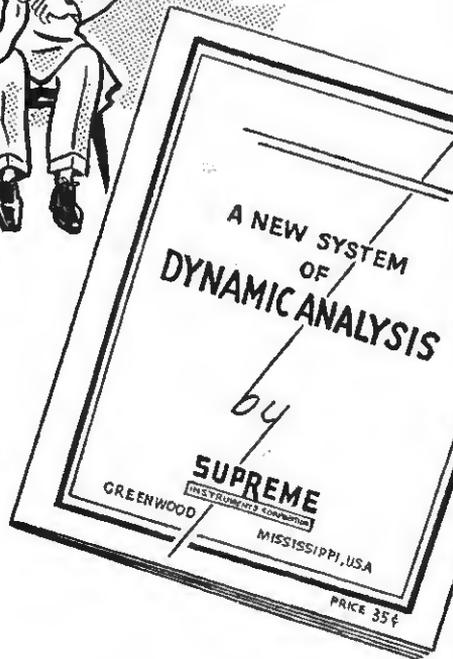
**SPRINGFIELD FURNITURE** RECORD CABINET, model 938, of Chinese Chippendale design has four compartments, utility drawer for catalogs and supplies. Walnut veneer cabinet with antique English hardware holds 240 records in albums, and measures 36 high, 24½ wide, 16¾ inches deep. List price \$37.50. Springfield Furniture Works, Inc., 2532 Euclid Heights Blvd., Cleveland Heights, Ohio.

YOU'RE LOOKING IN THE WRONG PLACE, DOC. IT HURTS RIGHT HERE!



Here is a definite and direct procedure for servicing... information which every Serviceman has needed but which has not been published until now. Clearly written, easily understood, with many diagrams and illustrations, it proves this new system of analysis the natural way to do a good job.

Now you can make a radio talk to you, just as a patient talks to his doctor, "You're looking in the wrong place, Doc—it hurts right here."



The Supreme Instruments Corporation has been manufacturing good instruments for the Servicemen for the last fourteen years—they are, and, we believe, they will always be your best investment. But here is information YOU NEED—and need badly! The quickest way we can get this to you is in booklet form. . . . It is yours for only 35c to cover cost of printing and mailing.

SEND COUPON TODAY, OR BUY FROM YOUR FAVORITE PARTS JOBBER.



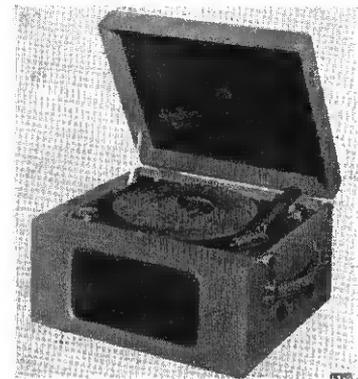
MAIL YOUR ORDER TODAY

**SUPREME INSTRUMENTS CORP., Dept. R.R., Greenwood, Miss. Gentlemen:**  
I enclose 35c. Please send me your new book described above.

NAME.....  
ADDRESS.....  
CITY..... STATE.....

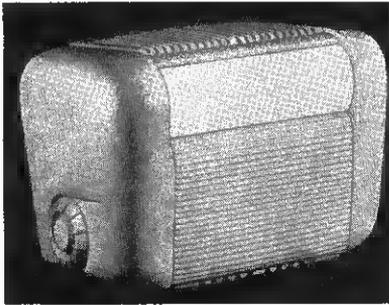


**FADA** COMPACT COMBINATION, model PT208, with radio and phonograph measures 14¾ wide, 9¾ high and 13 inches deep. Five-tube ac superhet with 5½-inch speaker covers American broadcasts (535 to 1720 kc.) Phonograph plays 10 and 12-inch records with lid closed. Price \$34.95. Model PTU208, ac-dc, is also available for \$49.95. Fada Radio & Elec. Co., Inc., 30-20 Thomson Ave., Long Island City, New York.

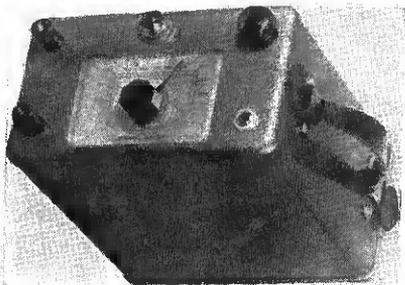


**ANDREA** PORTABLE PHONOGRAPH with self contained electric amplifier, model G42, is finished in rough grain British Tan simulated leather. Plays 10 and 12-inch records with the cover closed. Has 6½-inch speaker, two-tube amplifier. List price \$24.95. Andrea Radio Corp., 48-20 48th Ave., Woodside, New York.

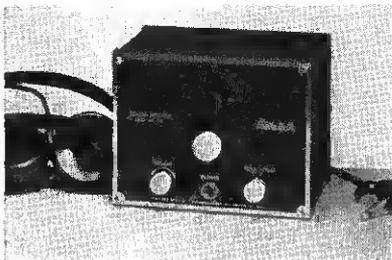
**LULLABY** BED LAMP-RADIO combination encased in a modern streamline design cabinet of bakelite, available in ivory or walnut finish. The radio has 5 tubes and complete band coverage. The bed lamp consists of a tubular type lamp and frosted curved lens for a maximum of glareless light. Set measures 9 $\frac{3}{4}$  long, 5 $\frac{1}{2}$  wide, and 7 1/16 deep. List price \$19.95. Mitchell Mfg. Co., 1550 Dayton St., Chicago, Ill.



**SETCHELL CARLSON** AVIATION RECEIVER, model 501, can be used as a portable or is compact enough for dash installation. Tunes 195 kc. to 605 kc. Receives weather reports, some broadcast, and beam signals. Features three-gang tuning condenser; illuminated dial and pilot indicator. Measures 4 x 6 x 8 inches. Weighs 6 $\frac{1}{2}$  lbs, complete with batteries. List price, complete with batteries and phones, \$34.95. Setchell Carlson, Inc., 2233 University Ave., St. Paul, Minn.



**HARVEY-WELLS** AIRCRAFT RADIO receiver designed as Type AR-2A, a compact 4-tube receiver which weighs 9 lbs. complete with heavy duty batteries, battery case, cables, and headphones. Measures 4 $\frac{3}{4}$  high, by 4 inches deep. Harvey-Wells Communications, Inc., Southbridge, Mass.



**HAMMERMILL** HOME RECORDING DISCS are introduced by this company. Available in 5 unit packages of 6-inch discs (6 discs per unit); 3 unit packages of 8-inch discs; and 2 unit packages of 10-inch discs. Hammermill Paper Co., Erie, Pa.



HERE IS THE  
Newest  
REPLACEMENT FOR

ELECTRICAL  
PHONOGRAPHS

When adjusting radio buttons for station re-allocation, servicemen have a grand opportunity to suggest the substitution of *Astatic Low Pressure Crystal Pickups* for conventional Pickups on electrical phonographs or radio-phonograph combinations. This presents a new sales opportunity to jobbers.

ASTATIC LOW PRESSURE CRYSTAL PICKUPS, with only one ounce stylus pressure on records, keep valuable recordings LIKE NEW for years, and improve tone quality by reducing surface noise and needle talk to a negligible minimum.

ASTATIC LOW PRESSURE CRYSTAL PICKUPS are made with permanent, built-in, genuine Sapphire Styli, or points, doing away with the necessity for buying or changing needles.

Cash in on this modern replacement business. All Pickups are wired for quick and easy installation. Special literature is available.

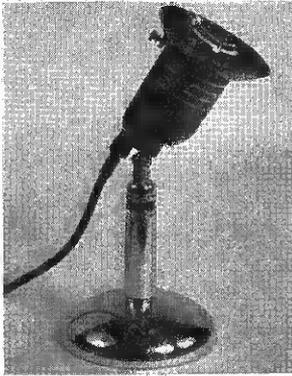
ASTATIC MICROPHONE LABORATORY, Inc.  
YOUNGSTOWN, OHIO

In Canada:  
Canadian Astatic, Ltd.,  
Toronto, Ont.

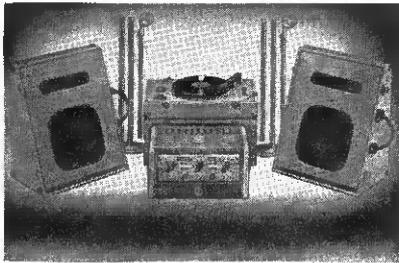
**ASTATIC**

Licensed under Brush

Development Co. Patents



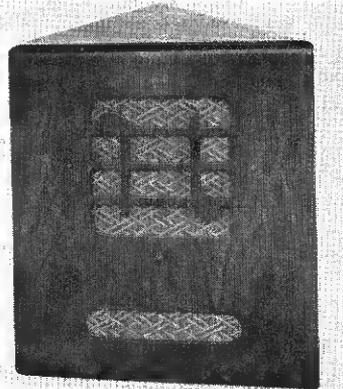
**RCA MICROPHONE** shown with new "Paracoustic" reflector baffle. When the baffle, held in place by the thumbscrew shown, is reversed, the opposite directional effect is obtained. Without the baffle, the microphone becomes a normal pressure microphone. Comes in black and chrome plastic case, weather resistant. RCA Mfg. Co., Camden, N. J.



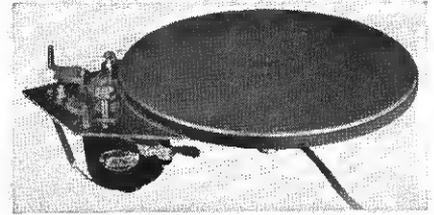
**ERWOOD SOUND PORTABLE SOUND SYSTEM** produces a 28 watt output. The case is designed for carrying two full length

floor type microphone stands with microphones. A record playing attachment is also included in the case assembly. The loudspeakers are contained in a bias cut front vented type of cabinet which eliminates rear radiation. The amplifier used is a standard model 3428. Erwood Sound Equipment Co., 223 West Erie St., Chicago, Ill.

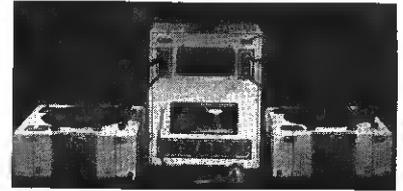
**ATLAS TRI-ANGLE ACOUSTIC ENCLOSURES** for corner mounting, side-wall hanging, and cluster arrangements of two, three, and four. Natural walnut grain finish with acousti-cloth grille. Model TR-12 for all 12-inch cones has overall height of 22 inches, width 19 inches, and depth 10 inches. Atlas Sound Corp., 1449 39th St., Brooklyn, N. Y.



**CENTURY PAPER DISCS** for recording measuring  $6\frac{1}{2}$  inches are introduced by this company. Space is provided for the identification of discs. Century Radio Co., Inc., 120 North Seventh St., Philadelphia, Pa.

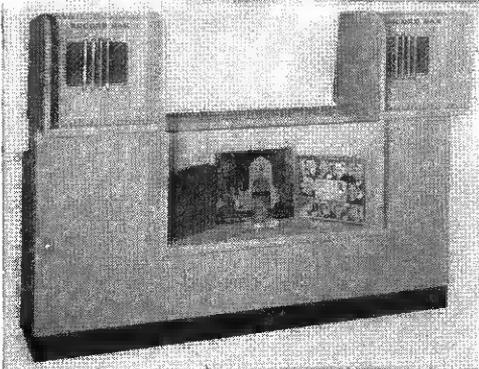


**PRESTO TURNTABLE**, type 11-A, forms a part of the Presto K-7 recorder. It operates at either 78 or 33  $1\frac{1}{3}$  RPM. Consists of turntable and bearing, motor and drive system completely assembled on a metal base ready for operation. Table revolves on a single ball bearing at the base of a bronze shaft well. A heavy live rubber tire is fitted to the rim of the table. Diameter 12-inch. Measures 15 x 13 x 8 inches. Presto Recording Corp., 242 West 55 St., New York, N. Y.



**WILCOX-GAY RECORDIO-PRO**, portable radio, phonograph, and recorder is for professional use. Illustration shows master unit (center) and two turntable units with connecting cables and plugs. The master unit, A-101, is a 10-tube, 2 band radio. The recording unit, A-102, at low speed cuts a 12 minute recording on one side of a 10-inch disc. With two turntable units continuous recording or playback is possible. Model A-101 is \$100, A-102 is \$50 f.o.b. factory. Wilcox-Gray Corp., Charlotte, Mich.

## Announcing the improved 1941 RECORD BAR\*



The new high fidelity unit is fully equipped for finer reproduction through the use of the latest type of high fidelity amplifier, feather-weight pickup and sapphire needle.

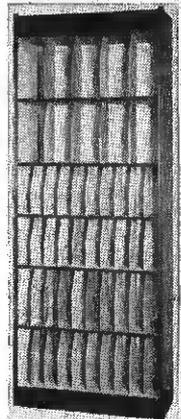
Features of the new Bitter Record Bar give added merchandising power to this sensational unit, in which all stock keeping, selling and demonstrating activities are centered in one compact, inexpensive fixture—giving utmost economy in equipment and floor space.

Send for Free Folder

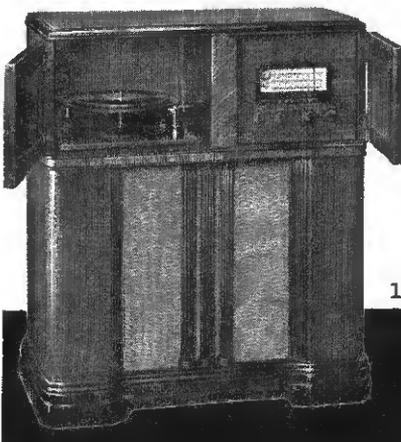
**A. BITTER CONSTRUCTION CORP.**  
2701 Bridge Plaza North Long Island City, N. Y.

\*Reg. and copyrighted U.S. Patent Office 1940.

Record Rack No. 100 may be used separately or as a unit of a large record dept. Capacity 500 10" records, 500 12" records and 75 albums. Price \$44.00 F.O.B. Factory Established 1920



## HOWARD 718-APC - A Sales Getter in any Market... With Full Profits For You!



HOWARD'S reputation for top quality and progressive design is fully expressed in this powerful 12 tube, 3 band automatic phono-radio combination. 10 watts of push-pull audio with bass boost amplification achieves glorious reproduction. Has tuned R.F. amplifier, two I.F. stages and "fly-wheel" push button tuning. Beautiful massive walnut cabinet, trimmed with Brazilian Rosewood, is hand

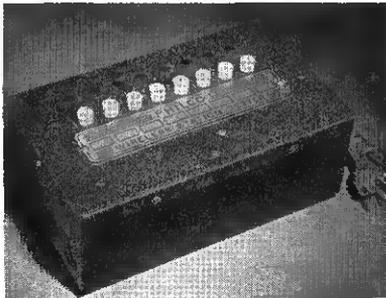
rubbed to a piano finish. Economy of controlled manufacturing in the famous HOWARD plant is responsible for this spectacular and unsurpassed value.

Every model in the complete HOWARD line is a consistent profit producer. If you're looking for increased sales and larger profits, write today for the complete facts!

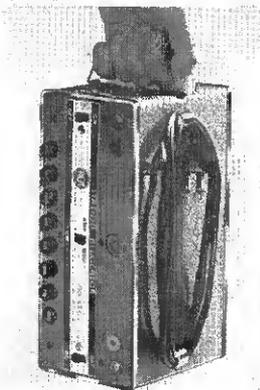
12 Tubes . . . Record Changer . . . R.F. Stage . . . 12" Speaker . . . Push-Pull Output

**HOWARD RADIO COMPANY**  
1731-35 Belmont Av., Chicago, Ill. - Cable Address: HOWARDCO, USA  
*America's Oldest Radio Manufacturer*

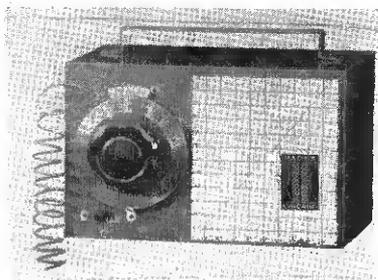
**PHILCO** WIRELESS STATION SETTER and signal generator allows adjustment for all stations. Pushbutton No. 1 on model 014, illustrated, can be used for the I-F range 450-480 kc by connecting a condenser. Part No. 30-1069 across the No. 1 compensator. Net price to RMS members \$13.50. Philco Radio & Tele. Corp., Philadelphia, Pa.



**RCA** COMPACT STATION ALLOCATOR for re-setting pushbuttons. The instrument's 8 pushbuttons may be set to the frequency of any 8 stations in a given locality. It operates from ac current or from self-contained batteries, controlled by the switch shown at the bottom. Center switch controls operation with or without 400 cycle modulation. Dealer net price is \$17.50. Housed in welded steel case, weighs 5½ lbs. RCA Mfg. Co., Camden, N. J.



**RADEX** SIGNAL GENERATOR and station finder primarily for resetting automatic buttons to new broadcast frequencies. Price \$7.95 less battery, dealer's net. Also available is a "pocketracer," universal signal generator. Price \$2.00, less battery, dealer's net. Radex Corp., 1733 Milwaukee Ave., Chicago, Ill.



**RCP** ELECTRONIC TUBE VOLT-OHMMETER, model 661, features input resistance of 16 meg. (low) to 160 meg., ac-dc voltage range, 0.1 to 6000 volts; resistance range, 0.1 ohm to 1000 meg., capacity test range, .00005 to 600 microfarads. Enclosed in an all-metal case. Radio City Products Co., 88 Park P., New York, N. Y.

# THE BIG NEWS IN PORTABLE RADIO IS THIS LITTLE BATTERY



"Eveready" "Mini-Max" Radio "B" Battery No. 482 outsells all other portable batteries combined. Reason? It fits more than 90% of the 2,000,000 portable sets now in use. It lasts almost twice as long as ordinary batteries of equal size. It costs no more than ordinary portable radio batteries. Ask your distributor about this profit-maker now!

**FREE PREMIUM OFFER!  
ASK YOUR DISTRIBUTOR ABOUT IT!**

Here's the battery for "personal" or "camera-type" radios!



"Personal" or "camera-type" sets were designed around "Eveready" "Mini-Max" Radio "B" Battery No. 467. It packs 67½ volts in a space 3⅞" x 2¼" x 1⅞". Folks in your neighborhood will ask you if you have it. Order now!

**"EVEREADY"**  
**"MINI-MAX"**  
RADIO "B" BATTERIES

NATIONAL CARBON COMPANY, INC.

Unit of Union Carbide and Carbon Corporation



The words "Eveready" and "Mini-Max" are registered trade-marks of National Carbon Company, Inc.

*The only low-priced*  
**SIGNAL GENERATOR**  
*that's really all-quality!*

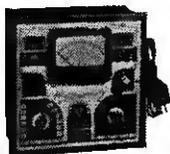
With reallocation of station frequencies on the broadcasting band, your service department is bound to receive an extraordinary number of calls. How many of them you turn into profitable future business depends on the ability and reliability of the test equipment you carry.

Right now is an excellent time to replace uncertain, obsolescent test instruments with advanced, economical and thoroughly dependable RCP equipment. Protect your profits and good will . . . invest in RCP. It will pay you dividends.



**RCP**  
**SIGNAL GENERATOR Model 702**

Here's the most economical, top-quality oscillator on the market. It is the only instrument of its kind offering all the latest improvements in circuit and mechanical design at this low price! Extremely wide all-wave coverage continuously variable from 95KC. to 100 mc. Accurately calibrated, direct reading. Output modulated or unmodulated at will. Effective accurate attenuation. Highly attractive professional appearance. Everything, in fact, a fine signal generator ought to be, except expensive. Good news, right now, just when you need such an instrument. **AC \$22.95** operated. Dealer Net Price.



**DELUXE**  
**MULTITESTER**  
**RCP**  
**MODEL 414**

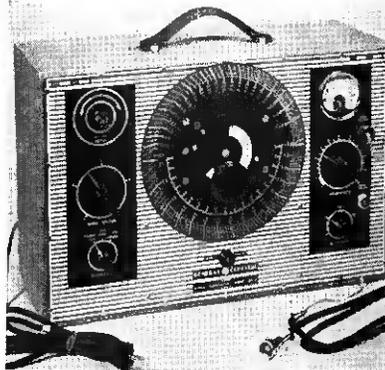
You'll profit handsomely with RCP's sensational Multitester Model 414. Latest test features you never hoped to find in a single instrument—and certainly never expected in one priced so low! Meter fused against burn-out. Sensitivity: 2000 ohms per volt. Measures current, voltage, resistance, capacity, power level. All at new higher and lower ranges than even more expensive instruments offer. If you have the time for new business and a yen for bigger profits, here's the instrument to help you hit your stride! Model 414 is all quality . . . the biggest test equipment value money can build or buy. **\$21.95** Dealer Net Price.

**RCP**  
dependable  
TEST  
instruments

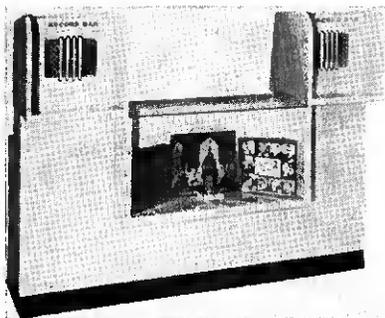
**RADIO CITY**  
PRODUCTS COMPANY, INC.

88 PARK PLACE • NEW YORK, N. Y.

**G-E SIGNAL GENERATOR**, model SG-2, has frequency range of 100 kc to 32 mc, 400 cycles modulation, also available for audio tests; R. F. output of 0 to 100,000 microvolts. Equipped with 3 ft. coaxial cable and fittings—6J5G, 76 and 80 rectifier tubes. General Electric Co., Bridgeport, Conn.



**BITTER RECORD BAR**, front view, provides for showcase display of albums, needles, etc., two 12-inch speakers (earphones optional). Shelves are provided in the rear of the bar for two phonographs, for wrapping materials, for convenient record stock bins, for needles and accessories, for latest catalogs, magazines, etc. Measures 6 ft. long, 2 ft. wide, 4 ft.-4 inches high. A. Bitter Construction Corp., 27-01 Bridge Plaza No., Long Island City, New York.



**CENTRALAB PORTABLE ADASHAFT KIT** with replacement controls is assembled in steel case measuring 12 x 5 x 1 1/2 inches. Any shaft and control can be combined without special tools. Net. \$10.56, complete. Centralab, 900 E. Keefe Ave., Milwaukee, Wis.



**CLAROSTAT RESISTOR**, type MTG, glass-insulated-element plug-in tube-type for extra-heavy-duty such as in sets employing both 300 and 150 milliamper tubes served by a single voltage-dropping resistor. Clarostat Mfg. Co., Inc., 285-7 N. Sixth St., Brooklyn, N. Y.

**CRC**  
**HOME RECORDING DISCS AND NEEDLES**

**A COMPLETE LINE PAPER-STEEL-ALUMINUM BASE DISCS**

**CRC "SPECIAL"—THE LOW SURFACE NOISE PAPER BASE DISC**

**FREE** Displays Streamers Folders **DEALERS** If not available from your jobber write for prices



**CENTURY RADIO CO., INC.**  
401 N. Broad St., Philadelphia, Pa.

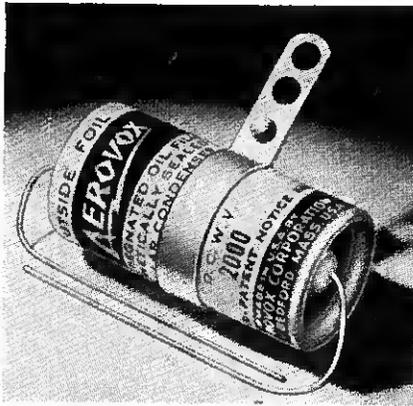


Since Bud got a copy of the Burgess Replacement Guide,\* he has had no need for the services of Homer G. Snooshaw, B. R. S., (Battery Replacement Specialist).

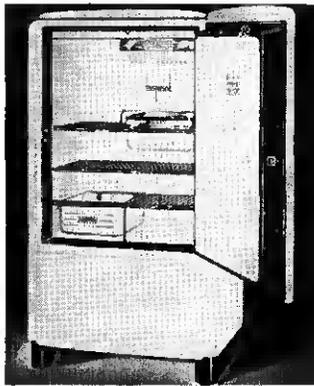
Homer's ex-employer is tickled with the new arrangement. The Replacement Guide answers all replacement problems in a jiffy—and it's free!

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

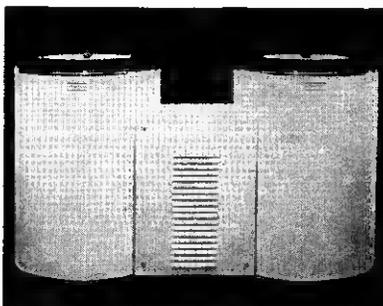
**BURGESS**  
*The Complete Replacement Line*



**AEROVOX** CONDENSERS, oil-impregnated oil-filled in handy tubular forms. The 89 series are offered as a standard item, has a cadmium-plated brass can for thorough hermetic sealing, covered by a special varnished-paper jacket with spun over ends to prevent shorting or grounding of sharply-bent leads. Available in 400 v., 600 v., 1000 v., and 2000 v. ratings, .006 to .5 mfg. capacities. Aerovox Corp., New Bedford, Mass.



**HOTPOINT** REFRIGERATOR, the "Norman", is a 6 cu. ft. model. Features a speed freezer with heavy gauge aluminum door, equipped with over-center spring which allows the door to remain open until manually closed; 6-way cold storage compartment; gliding vegetable pan with glass top. Approximate list price \$130.00. Edison General Electric Appliance Co., Inc., 5600 W. Taylor St., Chicago, Ill.



**DEEPFREEZE** DOUBLE-SIZE for storing frozen-fresh food designed for stores, institutions, large homes. This unit consists of two standard Deepfreeze cold-cylinders, powered by a 1/3 h.p. compressor. All food is within 9 inches of primary freezing surface. Area of the primary freezing surface is 48 sq. ft. Capacity 66 gallons of food. Measures 37 high, 26 1/2 deep, 65 inches wide. Deepfreeze Div., Motor Products Corp., 2303 Davis St., North Chicago, Ill.



JOHN F. RIDER PRESENTS

# "Clarified Schematics"

We have always sought to supply in Rider Manuals, the information that would keep the servicing branch of the radio industry in step with the manufacturing division. As a result, we have in recent years given special attention to information on complicated circuits—when ever data were released by manufacturers.

However, this available material has in many cases become so complicated—as the result of involved circuits and innovations—that the serviceman can only with difficulty, and at great expense of time, follow many of the schematics.

For months we have been working on a solution of this problem and are proud to announce "Clarified Schematics"—a new service beginning in Rider Manual Volume XII.

Bound right in the volume itself, these "Clarified Schematics" break down more than 200 models whose original schematics were so involved that they required hours of study to decipher.

Naturally, "Clarified Schematics" is a costly additional service for us to prepare and print. It requires the maintenance of a new department manned by competent technicians who are constantly breaking down the hard-to-read, complicated circuits and redrawing them so you—at a glance—can know everything about any section of the circuit.

In the establishment of this new service, which will be an increasingly important part of all Rider Manuals beginning with Volume XII, we have spared no expense in order that you may save time and decrease your operating cost per hour.

This new feature is fully explained with illustrations in the current issue of "Successful Servicing". If you do not have a copy, write and we will send one by return mail.

Order Rider Manual Volume XII today. Out on April 10th, it covers sets that are coming to your bench for repairs right now.

**JOHN F. RIDER PUBLISHER, Inc.**

404 Fourth Avenue, New York City  
Export Division: Rocke-International Elec. Corp.,  
100 Varick St., New York City Cable: ARLAB

**VOL. XII RIDER MANUAL OUT APRIL 10th**



# New CANADIAN Frequencies

| STATION | LOCATION              | OLD FREQ. | NEW FREQ. |
|---------|-----------------------|-----------|-----------|
| CBA     | Sackville, N.B.       | 1050      | 1070      |
| CBF     | Montreal, Que.        | 910       | 690       |
| CBJ     | Chicoutimi, Que.      | 1120      | 1240      |
| CBK     | Watrous, Sask.        | 540       | 540       |
| CBL     | Toronto, Ont.         | 840       | 740       |
| CBM     | Montreal, Que.        | 960       | 940       |
| CBO     | Ottawa, Ont.          | 880       | 910       |
| CBR     | Vancouver, B.C.       | 1100      | 1130      |
| CBV     | Quebec, Que.          | 950       | 980       |
| CBY     | Toronto, Ont.         | 1420      | 1010      |
| CFAC    | Calgary, Alta.        | 930       | 960       |
| CFAR    | Flin Flon, Man.       | 1370      | 1400      |
| CFCF    | Montreal, Que.        | 600       | 600       |
| CFCH    | North Bay, Ont.       | 930       | 1230      |
| CFCN    | Calgary, Alta.        | 1030      | 1010      |
| CFCO    | Charham, Ont.         | 630       | 630       |
| CFCT    | Victoria, B.C.        | 1450      | 1480      |
| CFCY    | Charlottetown, P.E.I. | 630       | 630       |
| CFGP    | Grand Prairie, Alta.  | 1200      | 1340      |
| CFJC    | Kamloops, B.C.        | 880       | 910       |
| CFLC    | Prescott, Ont.        | 930       | 1450      |
| CFNB    | Fredricton, N. B.     | 550       | 550       |
| CFOS    | Owen Sound, Ont.      | 1370      | 1400      |
| CFPL    | London, Ont.          | 730       | 1570      |
| CFPR    | Prince Rupert, B.C.   | 580       | 1240      |
| CFQC    | Saskatoon, Sask.      | 600       | 600       |
| CFRB    | Toronto, Ont.         | 690       | 860       |
| CFRC    | Kingston, Ont.        | 1510      | 1490      |
| CFRN    | Edmonton, Alta.       | 960       | 1260      |
| CHAB    | Moose Jaw, Sask.      | 1200      | 1220      |
| CHCK    | Charlottetown, P.E.I. | 1310      | 1340      |
| CHGB    | St. Anne, Que.        | 1200      | 1230      |
| CHGS    | Summerside, P.E.I.    | 1450      | 1480      |
| CHLN    | Three Rivers, Que.    | 1420      | 1450      |
| CHLP    | Montreal, Que.        | 1120      | 1490      |
| CHLT    | Sherbrooke, Que.      | 1210      | 1240      |
| CHML    | Hamilton, Ont.        | 1010      | 900       |
| CHNC    | New Carlisle, Que.    | 610       | 610       |
| CHNS    | Halifax, N.S.         | 930       | 960       |
| CHRC    | Quebec, Que.          | 580       | 1400      |
| CHSJ    | St. John, N.B.        | 1120      | 1150      |
| CHWK    | Chilliwack, B.C.      | 780       | 1340      |
| CJAT    | Trail, B.C.           | 910       | 610       |
| CJBR    | Rimouski, Que.        | 1030      | 900       |
| CJCA    | Edmonton, Alta.       | 730       | 930       |
| CJCB    | Sydney, N.S.          | 1240      | 1270      |
| CJCJ    | Calgary, Alta.        | 690       | 1230      |
| CJCS    | Sirafford, Ont.       | 1210      | 1240      |
| CJGX    | Yorkton, Sask.        | 1430      | 1460      |
| CJIC    | Sa. St. Marie, Ont.   | 1500      | 1490      |
| CJKL    | Kirland Lake, Ont.    | 1310      | 560       |
| CJLS    | Yarmouth, N.S.        | 1310      | 1340      |
| CJOC    | Lethbridge, Alta.     | 1210      | 1400      |
| CJOR    | Vancouver, B.C.       | 600       | 600       |
| CJRC    | Winnipeg, Man.        | 630       | 630       |
| CJRM    | Regina, Sask.         | 950       | 980       |
| CKAC    | Montreal, Que.        | 730       | 730       |
| CKBI    | Prince Albert, Man.   | 1210      | 900       |
| CKCA    | Kenora, Ont.          | 1420      | 1450      |
| CKCH    | Hull, Que.            | 1210      | 1240      |
| CKCK    | Regina, Sask.         | 1010      | 620       |
| CKCL    | Toronto, Ont.         | 580       | 580       |
| CKCO    | Ottawa, Ont.          | 1010      | 1340      |
| CKCR    | Waterloo, Ont.        | 1510      | 1490      |
| CKCV    | Quebec, Que.          | 1010      | 1340      |
| CKCW    | Moncton, N.B.         | 1370      | 1400      |
| CKGB    | Timmins, Ont.         | 1440      | 1470      |
| CKLN    | Nelson, B.C.          | 1420      | 1450      |
| CKLW    | Windsor, Ont.         | 1030      | 800       |
| CKMC    | Cobalt, Ont.          | 1210      | 1240      |
| CKMO    | Vancouver, B.C.       | 1410      | 1410      |
| CKNB    | Campbellton, N.B.     | 1210      | 1240      |
| CKNX    | Wingham, Ont.         | 1200      | 1230      |
| CKOC    | Hamilton, Ont.        | 1120      | 1150      |
| CKOV    | Kelowna, B.C.         | 630       | 630       |
| CKPC    | Brantford, Ont.       | 930       | 1380      |
| CKPR    | Fort William, Ont.    | 580       | 580       |
| CKRN    | Rouyn, Que.           | 1370      | 1400      |
| CKSO    | Sudbury, Ont.         | 780       | 790       |
| CKTB    | St. Catherines, Ont.  | 1200      | 1230      |
| CKUA    | Edmonton, Alta.       | 580       | 580       |
| CKWX    | Vancouver, B.C.       | 1010      | 980       |
| CKX     | Brandon, Man.         | 1120      | 1150      |
| CKY     | Winnipeg, Man.        | 910       | 990       |



FOR MARCH 29—D. J. Finn, RCA advertising mgr. (left), and L. W. Teegarden, Tube and Eqm division mgr., give final approval to color ad scheduled for Saturday Evening Post's March 29 issue, "Radio's Moving Day." Ad urges householders to see competent servicemen about re-setting of pushbuttons and to "retube when they retune"

## ASCAP Signs U.S. Decree

Becomes effective in May

WASHINGTON—ASCAP signed a consent decree February 20, thus voiding two U. S. anti-trust actions pending. The decree becomes effective ninety days after approval by the U. S. District Court for the Southern District of New York.

Provisions include:

That ASCAP members may hereafter deal directly with users concerning their own compositions, if they so prefer, notifying the Society of such intention and paying any fees received into ASCAP for distribution.

That members of ASCAP must not simultaneously appoint any other agency to handle resale rights.

That any person regularly practicing the profession of songwriting may be eligible for membership, even though just one song has been published (5 published songs was the previous ASCAP rule).

That ASCAP directors must be appointed by the general membership as rapidly as terms expire. (The Board itself has hitherto elected successors to fill vacancies.)

That broadcasters have the option of signing up with ASCAP on either a "blanket" basis or "per song" basis, paying fees in both cases only when programs make use of the Society's music.

That, in the case of network radio use, the entire ASCAP fee must be paid by the originating station and none whatever by interconnected stations.

## Crystals For Swap

WASHINGTON—Both the FCC and the NAB have urged broadcasters changing to new frequencies March 29 to "swap" transmitter crystals where this will insure readiness of equipment at the deadline.

# On the Newsfront



**ANNUAL DRAWING**—Part of group recently assembled at the "Annual Drawing" for space allotments in coming Radio Parts National Trade Show, June 10-13, at Chicago. 137 booths were allotted. Space for those not present were assigned by Show Committee, consisting of *E. S. Riedel*, (Raytheon) and *Irving Kahan*, (Sprague)

## NTSC Meets With FCC

RMA-sponsored group to sit in on March 20 television hearing

NEW YORK—Arrangements for participation by the National Television System Committee at the public hearing on television which will be held by the FCC, March 20, were made by the Radio Manufacturers Association executive committee February 12 at a meeting in the Hotel Roosevelt here. (NTSC was organized under RMA auspices with the cooperation of the FCC, on January 27 presented 22 proposed commercial television standards which will be the subject of the March 20 meeting.)

In preparing for the hearing, RMA president Knowlson received a complete report regarding the television standards work of the NTSC from chairman W. R. G. Baker. Continuation of the NTSC for the purposes of the Commission's hearing and also further study of two standards which were submitted on synchronization and proposed 441-lineage was authorized.

## Many Power Boosts

NEW YORK—Radio station WINS has been granted permission to up power to 50,000 watts, raising the number of stations with this power in New York to five. Power, until now, has been 1 kw.

Stations WHN and WQXR, shifting to cleared channels shortly, will also up power. WEVD increases to 5,000 watts. WOV gets 10,000. WNEW is testing 5,000 watts.

Power increases have also been granted to WTAG of Worcester, Mass., WCFL of Chicago.

## RTA Elects

LONG BEACH, CALIF.—Heading the Radio Technicians' Association of this city as president is Harry Ward. Walter Rundquist has been elected vice president and treasurer for a second term and Bob Hayden secretary.



**INAUGURATE RECORD FORUM**—A section of the 125 dealers and record clerks who attended the first of monthly Forum-Dinners given by Times Appliance Co., New York distributor for Columbia records. CRC's speakers at dinner included *George Pruding*, eastern s.m., *Goddard Lieber-son* of artist department and *Wayne Varnum* member of sales promotion

Following its last meeting, the Association wrote local dealers offering free service, urging them to follow the group's lead in recommending a \$1 minimum charge.

## Canadian Sales Up

All receiver types up in 1940. Year-end inventories higher

MONTREAL—The Canadian RMA reports sale of 360,014 receiving sets in 1940, compared with 310,555 in 1939.

The 1940 total includes 242,586 electric types against 205,904 the year before, 76,733 battery types as against 90,019, with 9,486 portables (no 1939 figures for comparison were available), 7,180 phonograph combinations compared with 2,895 and 16,824 auto-radios as against 11,737 in 1939.

Canadian inventories at the end of December 1940 were reported as totalling 88,780 receivers against 38,132 in December 1939.

## That Noisy Diathermy

WASHINGTON—The FCC has just formed a committee including representatives from the RMA and other industry groups to study possible measures for the prevention of radio interference from electro-medical equipment. Interference radiation reducing design standards for such devices will be the angle of attack.

## NEWA's 33rd

NEW YORK—The thirty-third annual convention of the National Electrical Wholesalers Association will be held at The Homestead, Hot Springs, Virginia, May 18-22, according to managing director E. Donald Tolles.

# Wet ELECTROLYTICS



Type PG600—Max. 600 v. D.C. Surge: 1 3/4" and 1 1/2" dia. can. 3-7/16 to 4-15/16" high, 4 to 16 mfd., \$0.81 to \$1.20, your cost.  
 Type PG500—Max. 500 v. D.C. Surge: 1 3/4" and 1 1/2" dia. can. 3 1/2 to 4 1/2" high, 4 to 40 mfd., \$0.48 to \$1.14, your cost.  
 Type PG350—Max. 350 v. D.C. Surge: 1 3/4" and 1 1/2" dia. can. 3 1/2 to 4" high, 8 to 40 mfd., \$0.54 to \$1.08, your cost.  
 Type PGM500—Max. 500 v. D.C. Surge: 1" dia. can. 3 1/2 to 4 1/2" high, 4 to 16 mfd., \$0.48 to \$0.81, your cost.  
 Type PGM250—Max. 350 v. D.C. Surge: 1" dia. can. 3 1/2 and 4 1/2" high, 8 to 20 mfd., \$0.54 to \$0.84, your cost.  
 Type PGM250—Max. 250 v. D.C. Surge: 1" dia. can. 3 1/2 and 4 1/2" high, 8 to 40 mfd., \$0.48 to \$0.72, your cost.  
 Type PGM150—Max. 150 v. D.C. Surge: 1" dia. can. 3 1/2 and 4 1/2" high, 8 to 40 mfd., \$0.42 to \$0.69, your cost.

● High capacity in minimum bulk; ability to take severe punishment; instant self-healing or reforming of dielectric film following break-down due to excessive voltages—these factors account for the growing popularity of wet electrolytics. ● Meanwhile, the elimination of such drawbacks as leakage and seepage, and inadequate venting, heretofore associated with this type, accounts for AEROVOX "wets" as the first choice. ● A trial will soon convince you.

## Ask Your Jobber . . .

● Ask for these AEROVOX "wets". Try them in that new assembly. Use them in place of "drys" that have failed due to serious surges or peaks. Ask for latest catalog—or write us direct.



VISITORS—Officials of Jenkins Music Co. and Stanley Manson, Stromberg-Carlson's Kansas s.m., are pictured here, on recent visit to Rochester plant for discussion of future merchandising activity. Left to right: Stanley Manson, Paul Jenkins, Lloyd Spencer, S-C's general sales mgr. Kenneth Gillespie, and Charles Angle in charge of cabinet design

## RCA Tube Program

Announce 66 types to take care of replacement demand

CAMDEN—RCA's "Preferred Type" tube program has been extended to the renewal tube market.

The "Preferred Type" program for renewal tubes centers on a list of 66 tube types, out of the more than 500 types now on the market, which account for 66% of the total replacement demand. L. W. Teegarden, manager of the RCA Tube and Equipment division, said. By stocking an adequate supply of the 66 preferred types, he added, the dealer and distributor are in a position to supply as much as 84% of the demand by substituting these tubes for others having the same characteristics.

Teegarden said that special care was taken in selecting a group of types which are ordinarily interchangeable with others having less sales volume. Thus, this selection can be used to take care of an additional 18% of total replacement sales.

The RCA "preferred type" renewal tube program is being introduced to tube and equipment distributors and dealers with an unusual teaser campaign. Utilizing the slogan "66/66", or 66 types for 66% of the market, the campaign takes the form of mailings in advance of the formal announcement.

The accompanying list outlines the 66 types and the interchangeable numbers. Under the latter heading the asterisk shown, refers to the following footnote \*Ordinarily interchangeable with preference type, but occasional exceptions will be found. Such exceptions will generally be caused by size difference of tube types or unusual circuit conditions.

## RCA Boosts Demonstrator

CAMDEN—A special course of demonstrations and lectures for parts jobber salesmen on the use of the "Dynamic Demonstrator" in merchandising test equipment has been arranged by RCA's tube and Equipment Division, in cooperation with tube and equipment jobbers in many sections of the country.

Bill Bohlke, director of test equipment merchandising, is conducting the meetings for distributors in New York, Chicago, Cleveland and Kansas City. Gatherings are also planned for other sections, particularly the southwest and west coast, before Spring.

## Masco Expands

NEW YORK—Mark Simpson Mfg. Co. Inc., announces the opening of its new factory and showrooms at 186 West 4th Street, New York City.

| RCA PREFERRED RENEWAL TYPE | INTERCHANGEABLE TYPE(S)*          | Suggested Stock Quantities† |                        |                        | RCA PREFERRED RENEWAL TYPE | INTERCHANGEABLE TYPE(S)* | Suggested Stock Quantities† |                        |                        |
|----------------------------|-----------------------------------|-----------------------------|------------------------|------------------------|----------------------------|--------------------------|-----------------------------|------------------------|------------------------|
|                            |                                   | A<br>150 Tube Assembly      | B<br>250 Tube Assembly | C<br>500 Tube Assembly |                            |                          | A<br>150 Tube Assembly      | B<br>250 Tube Assembly | C<br>500 Tube Assembly |
| OZ4                        | OZ4-G                             | 1                           | 2                      | 4                      | 12A8-GT                    | 12A8-G                   | 1                           | 1                      | 2                      |
| 1A5-GT                     | 1A5-G                             | 1                           | 1                      | 2                      | 12K7-GT                    | 12K7-G                   | 1                           | 2                      | 3                      |
| 1A7-GT                     | 1A7-G                             | 2                           | 4                      | 8                      | 12Q7-GT                    | 12Q7-G                   | 1                           | 1                      | 2                      |
| 1C5-GT                     | 1C5-G                             | 1                           | 1                      | 2                      | 12SA7                      | 12SA7-G, 12SA7-GT        | 1                           | 2                      | 4                      |
| 1H5-GT                     | 1H5-G                             | 2                           | 3                      | 7                      | 12SK7                      | 12SK7-GT                 | 1                           | 2                      | 4                      |
| 1N5-GT                     | 1N5-G                             | 2                           | 4                      | 8                      | 12SQ7                      | 12SQ7-GT                 | 1                           | 2                      | 6                      |
| 2A3                        | 2A3-H                             | 1                           | 2                      | 3                      | 24-A                       |                          | 4                           | 7                      | 15                     |
| 2A5                        |                                   | 1                           | 2                      | 3                      | 25L6-GT                    | 25L6, 25L6-G             | 2                           | 4                      | 8                      |
| 3Q5-GT                     |                                   | 1                           | 1                      | 2                      | 25Z5                       |                          | 4                           | 7                      | 14                     |
| 5Y3-G                      | 5W4, 5Z4                          | 3                           | 5                      | 10                     | 25Z6-GT                    | 25Z6, 25Z6-G             | 2                           | 4                      | 8                      |
| 5Y4-G                      |                                   | 2                           | 3                      | 6                      |                            |                          | 4                           | 6                      | 12                     |
| 5Z3                        | 83-V                              | 2                           | 3                      | 6                      |                            |                          | 6                           | 11                     | 22                     |
| 6A7                        |                                   | 6                           | 8                      | 15                     |                            |                          | 1                           | 2                      | 4                      |
| 6A8                        | 6A8-G, 6A8-GT                     | 6                           | 10                     | 20                     |                            |                          | 1                           | 2                      | 5                      |
| 6C6                        | 77                                | 1                           | 2                      | 4                      | 35L6-GT                    | 35L6-G                   | 1                           | 2                      | 4                      |
| 6D6                        | 78                                | 3                           | 4                      | 8                      | 35Z5-GT                    | 35Z5-G                   | 2                           | 4                      | 8                      |
| 6F5                        | 6F5-G, 6F5-GT                     | 2                           | 3                      | 6                      | 39/44                      |                          | 1                           | 2                      | 3                      |
| 6F6                        | 6F6-G                             | 7                           | 12                     | 24                     |                            |                          | 2                           | 3                      | 6                      |
| 6H6                        | 6H6-G, 6H6-GT                     | 3                           | 5                      | 10                     |                            |                          | 4                           | 6                      | 12                     |
| 6J5                        | 6C5, 6C5-G, 6C5-GT, 6J5-G, 6J5-GT | 3                           | 6                      | 12                     |                            |                          | 2                           | 3                      | 6                      |
| 6J7                        | 6J7-G, 6J7-GT                     | 2                           | 3                      | 6                      |                            |                          | 5                           | 9                      | 18                     |
| 6K6-GT                     | 6K6-G                             | 1                           | 2                      | 3                      | 50L6-GT                    |                          | 2                           | 3                      | 7                      |
| 6K7                        | 6K7-G, 6K7-GT                     | 7                           | 12                     | 24                     |                            |                          | 2                           | 4                      | 8                      |
| 6L6                        | 6L6-G                             | 3                           | 4                      | 8                      |                            |                          | 1                           | 1                      | 2                      |
| 6Q7                        | 6Q7-G, 6Q7-GT                     | 4                           | 7                      | 14                     |                            |                          | 1                           | 2                      | 3                      |
| 6SA7                       | 6SA7-G, 6SA7-GT                   | 1                           | 1                      | 3                      |                            |                          | 1                           | 2                      | 3                      |
| 6S17                       | 6S17-GT                           | 1                           | 1                      | 2                      |                            |                          | 4                           | 8                      | 16                     |
| 6SK7                       | 6SK7-G, 6SK7-GT                   | 1                           | 2                      | 3                      |                            |                          | 2                           | 3                      | 6                      |
| 6SQ7                       | 6SQ7-G, 6SQ7-GT                   | 1                           | 2                      | 3                      |                            |                          | 1                           | 2                      | 3                      |
| 6U5/6G5                    |                                   | 1                           | 1                      | 3                      |                            |                          | 3                           | 5                      | 10                     |
| 6U7-G                      |                                   | 1                           | 1                      | 2                      |                            |                          | 9                           | 16                     | 34                     |
| 6V6-GT                     | 6V6, 6V6-G                        | 1                           | 2                      | 4                      |                            |                          | 1                           | 1                      | 2                      |
| 6X5-GT                     | 6X5, 6X5-G                        | 1                           | 2                      | 3                      |                            |                          | 1                           | 1                      | 3                      |
|                            |                                   |                             |                        |                        | Totals-66                  |                          | 150                         | 250                    | 500                    |

## Philco Drive Planned

Refrigeration and air-conditioning campaign begins March 24

PHILADELPHIA—Launching of a triple promotion of major proportions on Philco refrigerators is scheduled for the week of March 24, according to Philco Corporation general sales manager, Thomas A. Kennally. Details of the drive are to be announced at sectional distributor meetings throughout the country.

Philco air-conditioning units will be heavily promoted at the same time, says the firm's Harry Boyd Brown, plans including additions to the present line of units, new designs, new materials, aggressive advertising and promotional tie-ins.

Supporting the refrigeration campaign will be ads in 15 nationally famous consumer magazines, plus newspaper and trade journal coverage. Featured will be "Advanced Design" models, the company reporting that advance orders on its complete line of boxes were more than double those booked last year, with the MAH-7 and other Advanced Design models accounting for an impressive share of the total.

## Export Figures

Transmitting sets, tubes and parts reach new high

WASHINGTON—United States' radio and radio equipment exports during 1940 were valued at \$22,037,234 as compared with \$22,180,561 in 1939, according to the Electrical Division, Department of Commerce.

The radio group accounted for 15.9 percent of the total electrical equipment exported to all countries in 1940, compared with 19 percent in 1939.

Radio receiving sets shipped to foreign markets during 1940 were valued at \$10,155,445, a decrease of 2.8 percent, respectively, from the 1939 total of \$10,452,020.

Transmitting sets, tubes and parts marketed abroad in 1940 reached the highest level since this classification has been recorded and were valued at \$3,287,879, an increase of 22 percent.

Exports of radio tubes in 1940 were smaller than for any year since 1932 and were valued at \$2,451,920.

Exports of radio receiving sets components had a valuation of \$5,166,757 in 1940, an increase of 4 percent over the 1939 total of \$4,965,016.

Sales of other receiving sets accessories enjoyed the best year since 1929 with the exception of 1937, exports being valued at \$621,947 compared with \$492,116 in 1939.

## Butler Joins Magnavox

FORT WAYNE—J. Warren Butler who has been appointed district sales manager for Magnavox in the southeast territory, was most recently with General Elec-

tric's radio department. He graduated from Georgia Tech and the Harvard Business School, was at one time with Polk Musical Supply of Atlanta and later with RCA.

## DeWald Celebrates 20th

Presents "finest radio line in long experience"

NEW YORK—The DeWald Radio Manufacturing Corporation of this city is celebrating its 20th year in the radio business this month, announcing a new line of radios and combinations said to be the finest in the firm's fifth of a century of experience.

Congratulated by industry leaders were DeWald executives, at present conducting an intensive promotional campaign around the slogan: "If you want something better demand DeWald." Prepared for mailing to all dealers who write for a copy was a new and elaborately illustrated catalog describing new models.

## New Quam Sales Rep

CHICAGO—Jack Clawson of Boston has been appointed sales representative for Quam speakers in the New England territory.

B. L. MacPherson of Fort Wayne will represent the line in Indiana and Kentucky.

# GENERAL ELECTRIC OFFERS FOR RADIO MOVING DAY

**NEW Tube Checker**



MODEL TC-2

The Model TC-2 includes all existing American sockets with some extra spares. Filament Voltage—complete coverage for 1½ volts to 117 with five spare positions. Short Test—Standard RMA with rejection at .25 megohm. Two-color panel—beige and maroon. Weight—16 lbs.

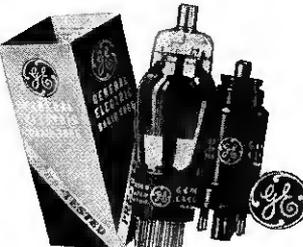
**NEW Signal Generator**



MODEL SG-3

High quality calibrated signal generator with direct reading in microvolts output. Five frequency band coils—range from 100 kilocycles to 32 megacycles. Welded steel case with crystalac panel in beige and maroon. Weight—24 lbs.

**GENERAL ELECTRIC Pre-Tested Radio Tubes**



General Electric is ready to serve you with a complete line of replacement and renewal tubes. See G-E before you buy.

**FREE Valuable Technical Tube Manual**  
Mail the Coupon

General Electric Co., Tube and Special Receiver Sales Section R-1823  
Radio and Television Department  
Bridgeport, Conn.

Please send me, without cost or obligation, the new G-E Manual of Radio Tube Specifications.

Name.....

Address.....

**GENERAL ELECTRIC**

## Reps Form Chicago Chapter

Officers include Royal A. Stemm, Irvin I. Aaron, R. Edw. Stemm

CHICAGO—"The Representatives" of radio parts manufacturers formed a "Chicagoland" chapter at a meeting held here February 3, electing Royal A. Stemm president, Irvin I. Aaron vice president and R. Edw. Stemm secretary and treasurer.

The new chapter embraces members operating in Illinois and Wisconsin.

## National Carbon Introduces

### New Dealer Aid Kit

NEW YORK—As part of an intensive newspaper advertising campaign in behalf of "Eveready" "Mini-Max" "B" batteries for portable radios, National Carbon Company announces a free kit of (3) dealer helps.

This kit is offered to all dealers ordering \$5.00 or more of "Eveready" "Mini-Max" batteries at dealer prices. A mahogany plaque is the premium item of the three which make up the kit. The name of each dealer qualifying for the offer will be imprinted free of charge. Can be hung on a wall or placed on a wooden easel.

The second item is a window-piece designed to sell both portable radios and batteries. It has an adjustable back

so that any kind of radio can be displayed, and a section of it forms a blackboard on which prices may be chalked and erased when a different set is displayed.

A portable battery replacement guide is the third item of the kit. This guide gives last-minute information on which "A" and "B" batteries the dealer should sell for the various portable sets.

The new kit offer expires June 30, 1941. Only one name sign will be given to a dealer. Dealers may place orders through jobber salesmen.

## NU To Export Erwood Sound

NEW YORK—The Erwood Sound Equipment Company has appointed the National Union Radio Corporation exclusive distributor of its sound equipment and accessories in the export field.

National Union for some time has distributed Erwood equipment in this country, now has distribution rights for the entire world.

## Hygrade Announces Promotions

EMPORIUM—M. D. Burns has been appointed factory manager of the Hygrade Sylvania Corporation's tube plant here. C. R. Razey, former general foreman at Emporium, steps into the post of factory superintendent vacated by Burns.



H. T. Ziegler—Joins Howard Radio as advertising manager

## New Howard Appointment

CHICAGO—H. T. Ziegler, radio technical author and youngest member of the "Old Timers" club, has just been appointed advertising manager for Howard Radio Company. Ziegler began in the technical end of radio during 1924 and switched to the sales and advertising fields about 1935.

## RCA Latin American Programs

NEW YORK—According to Ovid Riso, advertising manager, of RCA-Victor International division, this company has just inaugurated eight separate short-wave radio programs to South America. Each program, designed especially to meet the interests of the large short-wave audiences in the various Latin American countries.

## Nester, New Needle Maker

NEW YORK—Stephen Nester of this city has just formed a new concern with offices at 799 Broadway, will produce and sell a complete line of American-made recording and playback needles for professional and home use.

Nester was formerly with the Recoton Corporation.

## FCC Radio Primer

WASHINGTON—The Federal Communications Commission has just brought out an interesting 24-page book entitled "A Public Primer on Radio." Includes paragraphs on FM, television, amateur and other pertinent departments.

## New "Period-Radio" Manual

NEW YORK—Mersman Bros. Corp., Brunswick Radio and Television Division, announces publication of an 18-page manual on "How to Sell Brunswick combinations in traditional period cabinets." The book has been written in the form of a salesman talking direct to the prospect. Copies are gratis to interested accounts.



It's Got to be Right to be

TRIPLET



Model 1270  
Dealer Net  
\$29.83

Nobody "bosses" Cliff Elliott, chief of the Triplet inspection line. Production is up,—way up, but nobody puts the heat on "Inspection" for the slightest variation from the most hardboiled inspection scrutiny in the Industry. For it is an axiom in the whole Triplet plant—regardless of position or the pressure of orders—"It's got to be right to be Triplet."

Under expanded Industrial demand there continues to be no compromise in those rigid Triplet standards which have become the International Hallmark of Precision and Quality. For More Information write Section 203 Harmon Avenue.

THE TRIPLET ELECTRICAL INSTRUMENT COMPANY  
Bluffton, Ohio

## "Refrigerator Prices Rising"

Manufacturers advance lists to cover increasing raw material costs

NEW YORK—F. B. Williams, manager, Hotpoint Refrigeration division, Edison General Electric Appliance Co., Inc., announced on Feb. 20, that, due to increased manufacturing costs, there is a five-dollar increase in the list price of all Hotpoint refrigerators, effective that day.

Kelvinator Division, Nash-Kelvinator Corp., on Feb. 22, announced a new price structure which includes \$5 increases in the suggested retail prices of five of the eight 1941 Kelvinator refrigerator models and four of the seven Leonard models. An increase of \$10 on one Kelvinator unit, the M-8, and on one Leonard model, the LH-8, was also announced.

The General Electric Co., and Frigidaire Division, General Motors Corp., also announced a rise of \$5 per box except on the larger units which were advanced to \$10.

It was also reported that prices on Gibson refrigerators would be increased to around \$5 per unit.

## FM Buyers Prefer Period

NEW YORK—Ninety-five per cent of the automatic record-changing FM-AM combination radio phonographs sold in the past six months have been housed in period model cabinets, according to The Freed Radio Corporation.

During a survey just concluded Freed noted that the preference for period cabinets was considerably higher where FM was involved than where just AM was wanted. Explanation is believed to be the fact that purchasers of FM think of their purchase as a long term investment, think period furniture will stay in good taste longest.

## Farnsworth Tele

FORT WAYNE—The FCC has announced the grant of a construction permit to the Farnsworth Television & Radio Corporation for a new research and experimental broadcast station here, to operate on 66,000 and 72,000 kc. (channel 3) with 1 kw. aural and visual power.

## Kester Buys Property

CHICAGO—The Kester Solder Company, whose main plant and general offices are situated here, announces the purchase of the property now occupied by their Newark, N. J. division, located at Ferguson and Clover Streets.

## Eicor Moves

CHICAGO—Eicor, Inc., formerly 515 S. Laflin Street, Chicago, is now located in its new and larger plant at 1060 W. Adams Street, Chicago. Greatly increased facilities have been provided in the new quarters for design and production.

## Distribution News

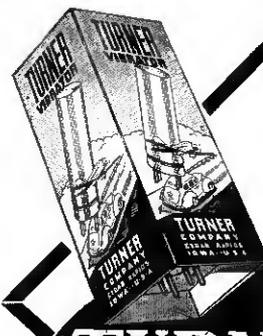
HOWARD—Announcement is made by this company that Charles B. Shapiro, executive vice-president of Howard, has taken over the sales of its household receivers on the Pacific coast, including California, Oregon, Wyoming, Utah, Washington, Arizona, Nevada and Idaho.

COLUMBIA—H. S. (Chick) Maraniss is the new distributor for Columbia records in Boston and New England territory. His organization will be known as Columbia Wholesalers Inc. of New England, with offices at 584 Commonwealth Ave., Boston. Succeeds the

General Equipment Corp. former Columbia distributors for the territory.

DU MONT—The appointment of the H. E. Ransford Co., Fulton Bldg., Pittsburgh, Pa., as sales representative for western Pennsylvania and the state of West Virginia, effective on March 1st, is announced by Allen B. DuMont Laboratories, Inc.

RADIO CITY PRODUCTS—Herb Erickson Company, Asheville, N. C. will represent this company's line of radio and electrical test equipment for the territory of Florida, Alabama, Georgia, South Carolina and Eastern Tennessee. Associate Horace Russell will work out of Atlanta.



# FREE!

16-Page Manual of Turner Vibrators, containing a wealth of technical information; gives full explanation of push-pull action, which results in a harder, cleaner contact, better wave form, less R. F. hash and longer life.

Send for this Free Manual on the Vibrator whose advanced engineering principles are revolutionizing the industry. USE THE COUPON.

**The Turner Co.,**  
**915 17th St. NE., Cedar Rapids, Iowa**  
 Please send me FREE Turner Vibrator Manual for Radio Service Engineers.

NAME .....

ADDRESS .....

CITY ..... STATE .....

MY JOBBER IS.....

## TURNER PUSH PULL VIBRATORS

*Give more complete service—with  
Turner Microphones that do several jobs*

**Turner Han-D Fills the Requirements of P. A. Men, Hams and Recorders.**

Hang it, hold it, mount it on floor or desk stand! Positive contact slide switch permits off-on operation. Engineered for voice and music. Invest less money—handle all jobs!

9D-Dynamic,  
List... \$25.00

9X Crystal,  
List... \$22.50

Crystals licensed under patents of The Brush Development Co.



**Turner U-9S with Switch**

A 50 ohm mike or a 200 ohm mike or a 500 ohm mike or Hi-Impedance At a Flick of Switch

One mike does the work of 4! One microphone takes care of every impedance requirement. Regardless of what they ask for—you've got it in U-9S. With 25 Ft. balanced cable set, professional gray satin finish, List..... \$35.00



**TIME TO TURN TO**



**TURNER**

**FREE! Mike Catalog. Write The TURNER CO., 915 17th St. NE., Cedar Rapids, Iowa**

**THE BIG SHOW  
IS COMING AND  
I'LL BE THERE!**



**JOBBERs**, their Salesmen  
and Countermen . . .

**MANUFACTURERs**, their  
Engineers and Sales  
Staffs . . .

**THE TRADE PRESS** and  
its Writers . . .

**ARMY AND NAVY Signal  
& Ordnance Experts** . . .

**SERVICEMEN**  
and **AMATEURs** . . .

They'll all get together at this one  
big show of the Radio Industry...  
Plan now to attend!

*Stevens Hotel, Chicago*  
**JUNE 10-11-12-13**

**JOBBER DAYS**

Tuesday, June 10 to Thursday, June 12

**OPEN HOUSE**

Thursday Eve. June 12 and Friday, June 13

**Radio Parts  
National Trade Show**

*Executive Office*  
53 West Jackson Boulevard • Chicago

**KEN-RAD**—*C. E. Moore* has taken over the district representative post for Ken-Rad radio tubes in the states of Missouri, Nebraska and Kansas with headquarters at 3118 Linwood Blvd., Kansas City, Mo. The *Herb Erickson Company* at 14 Biltmore Avenue, Asheville, No. Carolina is the new Ken-Rad rep. for states of So. Carolina, Georgia, Florida, Mississippi and Alabama. *Erickson* has as an associate *Horace C. Russell* who operates from Atlanta.

**SOLAR**—*Ambos-Jones Co.*, 1085 The Arcade, Cleveland, Ohio, has received the appointment from the Solar Manufacturing Corporation, of Bayonne, N. J., as its industrial sales engineers for the state of Ohio.

**HOWARD**—*Art Cerf* is the new Howard Radio Company representative for upstate New York. He will handle the communication receiver line. *Delos H. White* has just been appointed by Howard to represent them in Georgia, Alabama and Florida on its household receivers and recording discs.

**STROMBERG-CARLSON** —*Jerry Gunther* has joined the sale staff of Stromberg-Carlson's Chicago branch to contact the trade in metropolitan Chicago.

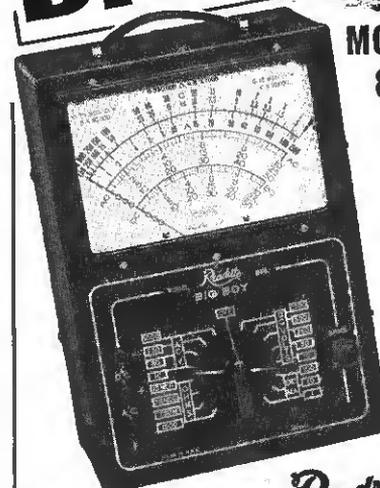
## Dealer Helps

**"MOVING DAY" KIT**—RCA has just released a complete kit of dealer aid material designed to help the trade capitalize on contacts resulting from the March 29 broadcast station frequency changeover. Included in the kit: (1) New log books (2) Pushbutton frequency range data folder (3) Advertisement proofsheets (4) Spot broadcast ad transcription (5) two different pushbutton change announcement streamers (6) counter card (7) two different direct-mail cards (8) one duplex card (9) catalog sheet describing the company's new "station allocator." Contact Tube and Equipment Division for details.

**MARCH 29 CARD** — *Stromberg-Carlson* has a swank counter and window card bearing the company name at the bottom and devoting the upper two-thirds to the business of helping dealers attract pushbutton re-setting business to their stores. Illustrated with an effective drawing, in colors.

**PARTS ET. AL.**—*Philco* has just released two new publications covering its parts, accessories, tubes and batteries. One is a consumer folder, particularly useful as an envelope stuffer. The other is the firm's elaborate 1941 catalog including valuable reference information in the form of listings, according to model numbers, of parts, tubes and batteries required for replacement purposes in 15 million Philco radios. From company distributors.

# BIG BOY



**MODEL  
860**

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

*Readrite*  
**RANGER**

Here is an AC-DC Volt-Ohm-Milliammeter with all the ranges you want . . . easily readable on the large 7" instrument with extra-long 6" scale, in a new up-to-the-minute three-tone case. DC Volts 0-10-50-250-500-1000 at 5000 Ohms per volt DC; 1000 ohms per volt AC; AC Volts 0-10-50-250-1000 at 400 ohms per volt; DC Ma. 0-1-10-100; Resistance ranges: 0-1500, Low Ohms; 0-150,000 Ohms and 0-7.5 and 0-15 Megohms. Maroon case with red and silver panel, attached handle.

Dealer Net Price, \$17.85

For Catalog Write—Section 320, College Drive

**READRITE METER WORKS, Bluffton, Ohio**

**FOR EVERYTHING IN RADIO**



*Free*  
New  
Spring  
180-page  
Catalog

*Reach for your*  
**ALLIED CATALOG**

When you get your copy of the latest ALLIED Catalog, you will have the most complete and reliable guide to Everything in Radio.

Whether you're a Dealer, Serviceman, Sound Man or Amateur, don't miss this new ALLIED Catalog. The new Spring Edition shows 57 new radio models that are real sales-builders—more than 15,000 items for all service needs—more than 25 new Sound Systems that surpass anything in the field—a full section devoted to Amateur gear—and an outstanding Bargain Section.

For Everything in Radio—at Radio's lowest Prices—reach for your ALLIED Catalog!

Address Dept. 18-C-1 for Your Free Copy

**ALLIED RADIO**  
833 W. JACKSON • CHICAGO

**COUNTER DISPLAY**—So that customers can see and hear the new *Presto Jr.* turntable in operation, *Presto Recording Corp.*, is offering distributors this



attractive 4 color counter display stand. Stand so arranged that the turntable mounts solidly on the counter where the customer can operate it himself.

**VIBRATOR MANUAL**—The *Turner Company* of Cedar Rapids, Iowa is offering free its new *Vibrator* manual for radio service engineers. Contains technical data, replacement chart and other information valuable to all servicemen.

**REPLACEMENT MANUAL**—The fourth edition of the *Clarostat Plug-In* tube-type resistor replacement manual has just been issued. Priced at 15¢ per copy and available from local jobber or direct from company.

**CATALOG No. 41**—*Garrard Sales Corp.* releases its new 1941 catalog outlining its complete line of automatic record changers, phonograph turntables, and accessories. Copies free for the asking. Mention *Radio Retailing*.

**PUSHBUTTON PROMOTION**—*Hygrade Sylvania Corp.* offers special window streamers, postcards, door knob hangers and a new "station finder" to help servicemen and dealers to cash in on March 29 "frequency shift." All free material is being offered through *Sylvania* jobbers. Imprinted material can



be handled either through jobbers or direct. Illustrated herewith is the "Door Knob" poster.

**SERVICING BOOK**—*Supreme* announces a new book, picturing and explaining a new direct servicing procedure that "makes an ailing radio talk to you just as a patient talks to his doctor." Contains many diagrams and illustrations. Available on request direct to Greenwood, Mississippi, 35¢ covering cost of printing and mailing.

**PORTABLE PLUG**—*Admiral* features its model 28-G5 3-way portable radio by means of the new D64 "bantam" counter display card containing a sales message, illustrated by a painting of a pretty girl's head, with space in the center so that the set may be mounted on the display.

**THREE FREE**—*Howard* announces three new free catalogs, the No. 490 technical manual giving schematics and other data on a 14-tube professional model receiver, No. 103 describing recording discs and needles available and No. 104, devoted to the complete line of communication receivers and accessories.

**FM FOLDER**—*General Electric* devotes a large red and black, four-page foldout now available to the trade to FM, called "the greatest advance in radio reception since the days of earphones." Explains the operating principles of the system, simultaneously pictures the GE "FM Translator" and the Model JFM-165.

**YOU'VE GOT A SURE SALE WHEN YOU SHOW THEM THE } NEW PRESTO, JR. TURNTABLE**



● Radically different in design and performance from any other turntable on the market . . . excellent for playing sound effects, phonograph records or 16" electrical transcriptions. A 12" dual-speed table that matches closely the performance of a 16" table at *one-fourth the cost*. It's precision-machined, dynamically balanced, hand-finished throughout . . . powerful, vibrationless. Speed is accurate to .4%, regulation within a revolution .2%. Show it to your customers who want a *better* turntable. Write for catalog sheet and price.

Canadian Distributor: Walter P. Downs, 2313 St. Catherine St. W., Montreal, P. Q.

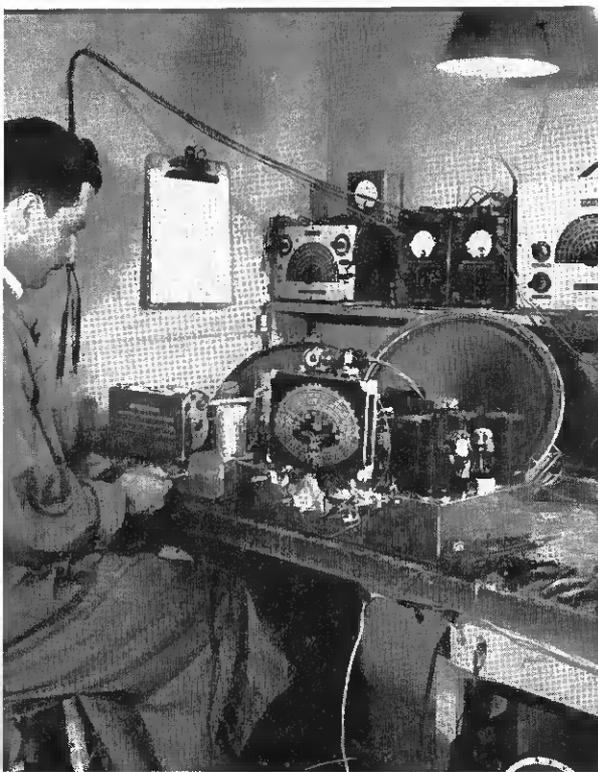
**PRESTO RECORDING CORPORATION**  
242 West 55th Street, New York, N. Y.  
World's Largest Manufacturers of Instantaneous Sound Recording Equipment and Discs

**ARCTURUS**  
KNOWN THE WORLD OVER

**STANDARD ARCTURUS CORPORATION**

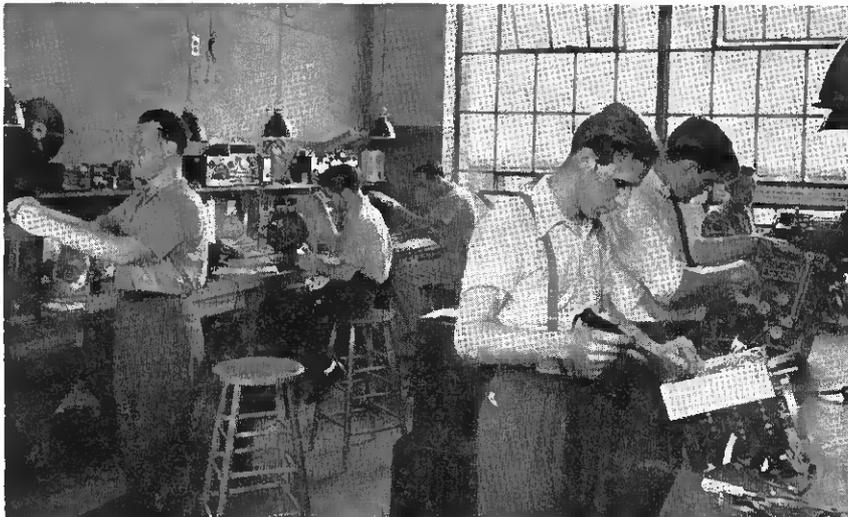
Carrying on a proud history for efficiency and service.  
Completely organized to supply all types of tubes for domestic and export trade.  
We invite inquiries from all of our friends and customers.

**NEWARK NEW JERSEY**  
Cable address: **ARCTURAD**

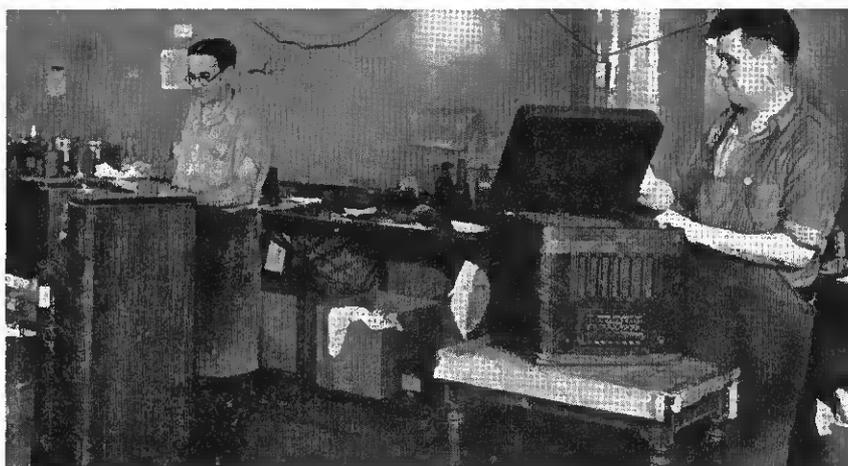


**TEST SET-UP**—The central service department for Davega-City Radio's 30 stores in Metropolitan New York, handling over 600 repairs a day, emphasizes systematic service right down the line to final inspection and delivery. In sound-proofed booth like this, sets undergo audio test, frequency check and alignment

## CHAIN Service



**GENERAL REPAIRS**—At "community" service benches, technicians install replacement parts and handle general troubles



**RUB-DOWN** In cabinet department craftsmen polish and make final inspection of cabinet before delivery

**COMES IN HERE**—Telephone service calls are routed to this desk, where specially trained girls are guided by past service records



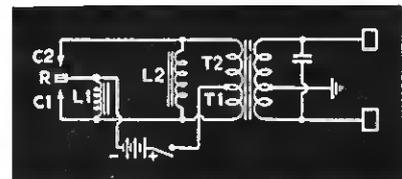
# The

### Push Pull Vibrator

A recently announced vibrator utilizes two coils energized by the battery for movement of the vibrating reed.

When the switch is thrown L1 becomes magnetized and pulls the reed contact toward C1. The second coil L2 draws no current in this starting position. Coil L1 is shorted out by the reed contact and C1 forming a direct path for the current to pass through coil L2. Coil L2 is wound in the opposite direction to coil L1 and a strong magnetic field of opposite polarity is set up to repel the reed toward C2, because of the residual magnetism in the reed weight.

The natural rebound of the steel reed is thus reinforced by the magnetic push of the reversed pole piece to make the second contact at C2. As a result of this action the waveform



is more nearly ideal with straight lines for the contact period. The output may be easily filtered with a minimum of r-f hash.

Turner, the manufacturer of the unit, reports that the vibrator will continue to start and operate satisfactorily even when the air gap between the points is increased from .002 to .015 of an inch and that the operation may be continued until the tungsten is worn off the points.

The two coils are wound directly on an Armco iron pole piece and held in the frame by a spinning process. In production the synchronous units must start on voltages as low as three volts and operate on voltages as high as nine volts. Adjustment of the stationary contact points may be made by servicemen in the field when necessary.

### Versatile Meter

Introduced by RCA, the Junior Voltohmyst measures dc and ac voltage and resistance.

For ac measurements up to 1000 volts a copper-oxide rectifier is employed and allows a sensitivity of 1,000 ohms per volt.

When it is desired to measure resistance or dc voltage the meter is plug-







**MODEL 450  
"TEST MASTER"**

Here the Model 300 is broadened to cover set testing. In addition to the tube tests of the No. 300 it has, as a set tester, 8 A.C. voltage ranges; 5 resistance ranges; 5 milliamp ranges; 5 Decibel ranges. Your net price... **\$3975**

**MODEL 300 TUBE TESTER**

Here is a typical Simpson value. Tests locals, single ended tubes, bantams, midgets, miniature, ballast tube, gaseous rectifiers, Christmas bulbs, etc. Filament voltage from .5 to 120 V. Has three-way switching, neon short-check, "good" and "bad" scale; percentage scale; tube charts in cover. Your net price... **\$2650**

# Who builds the best testers?

**A**FTER all, there can only be one *best* in any field. Who makes it? Who makes the best automobile—or screwdriver—or anything you need?

People are asking that question with more intensity today than they ever asked it before . . . and they *should*. Twenty years ago, when every manufacturer worked with practically the same materials and methods that everyone else in his field used, the best thing in any field was almost necessarily the highest priced thing available. But in recent years people have had their eyes opened.

Today, materials and methods and ideas are changing so rapidly that the manufacturer who held the lead *last* year may very easily *lose* it *this* year. You have seen makes of high priced automobiles pass into oblivion, not because they were not conscientiously built but because someone saw a "smart way" to make nine hundred dollar's worth of machinery do tricks that three thousand dollar's worth had failed to accomplish!

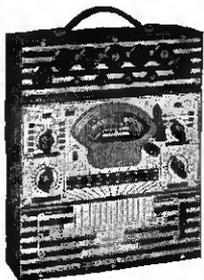
In the light of examples like that, we invite you to ask the question, "who builds the best testers?" In

seeking the answer forget manufacturers' names entirely and weigh basic worth against basic worth—idea against idea—workmanship against workmanship—record against record—straight through the list of radio testing equipment.

In such a comparison, we feel confident that you will find in Simpson Testers another one of those examples of smarter coordination of materials, methods and ideas that is re-shaping the trend of an industry.

Why? Because we came into the field with unsurpassed experience, but with a totally *fresh* viewpoint. That combination of advantages inspired the finer Simpson basic meter with bridge-type construction and soft iron pole pieces . . . the Roto-Ranger idea . . . the three-way switching idea . . . the "replaceable unit" idea . . . the countless other ideas that jolted testing equipment out of the rut into which it had fallen.

Three examples of this—but only three of the many—are illustrated here. Consider the *extra value* that these instruments represent and you have the answer to that vital question: "Who makes the best?"



**MODEL 400  
TUBE TESTER**

A useful and impressive instrument. "Unit design" guards against obsolescence. Note visual guide tied in with new, Simpson speed-roll chart. Has three-way switching. Your name engraved free on panel at net price of..... **\$3600**

**SIMPSON ELECTRIC COMPANY**

5216-18 Kinzie Street, Chicago, Illinois

# Simpson

INSTRUMENTS THAT STAY ACCURATE

**NOW!**  
 A CAMERA TYPE PORTABLE  
*That Plays in Cars!*  
 PLANES... TRAINS...  
**ANYWHERE**



Sentinel's NEW "Lightweight Champion"



plus **EX-TENNA**

(Patent Pending)

Here it is! Just the radio your customers are asking for — A Personal portable that is a super-performer in cars... anywhere. It's 3-way! It's compact! It's lightweight! It's low-priced! "EX-TENNA," Sentinel's latest development, is an easily attached extra loop antenna for use where reception

**3-WAY OPERATION**  
**AC—DC—BATTERY**  
 Built-in Aerial for Ordinary Use

is tough. There's a built-in loop aerial for fine reception under ordinary conditions.

Here's a versatile radio that gives superb performance in a thousand and one places, plus "EX-TENNA," a practical sales-producing feature. What a combination for increasing your sales and profits.

Be first! Rush your order to nearest Distributor or direct to Sentinel.

**SENTINEL RADIO CORPORATION**  
 2020 Ridge Ave. Dept. RR3 Evanston, Ill.

**Sentinel**  
 QUALITY RADIO SINCE 1920

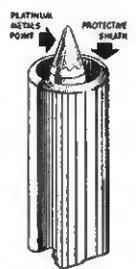
IT IS THE FIRST REAL IMPROVEMENT IN  
 PHONOGRAPH NEEDLES IN  
 TWENTY-FIVE YEARS!

Build Your Needle Sales with

**Fidelitone**

FLOATING POINT  
 PHONOGRAPH NEEDLES

Examine a FIDELITONE Floating Point Needle—see the floating construction that filters record scratch, maintains the tone quality and protects the records. Then you will see why it has become the best-selling long-life needle. Ask your local jobber or write direct for the New FIDELITONE Counter Sales Card—contains 12 FIDELITONE Floating Point Needles—you invest \$3.25—you make \$2.75. Put this counter sales card to work for you now!



**PERMO PRODUCTS CORP.**  
 6415 Ravenswood Ave. Chicago, Ill.  
 Manufacturing Metallurgists



DYNAMOTORS



ROTARY CONVERTERS



SMALL MOTORS



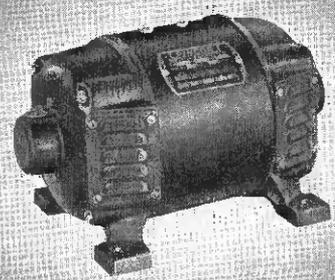
HIGH FREQUENCY EQUIPMENT



POWER PLANTS

APPROVED **PINCOR**  
 ROTARY CONVERTERS

APPROVED by America's defense agencies... APPROVED by leading manufacturers... APPROVED by ten thousand users... There can be no higher recommendation for PINCOR Rotary Converters. Available in sizes from 40 V.A. to 5 KVA; all voltages; for the operation of radios, electrical musical instruments, gaseous signs, and all other types of A.C. equipment, there is a PINCOR Converter to meet your needs. Write or wire for Catalogue HC-10-40.



**PIONEER GEN-E-MOTOR**  
 CHICAGO, ILLINOIS

Export Address: 25 Warren Street, N. Y., N. Y.  
 Cable: SIMONTRICE, New York



# How To Reset PUSHBUTTONS

WHERE AND WHAT to adjust on the various types of automatic tuning assemblies

**N**EW FREQUENCY assignments for most of the broadcasters will give the serviceman some new problems.

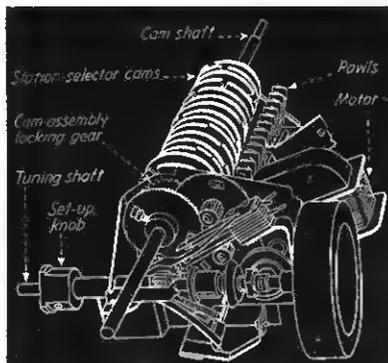
Greatest of these at the present time concern the resetting of pushbuttons.

There have been three general types of automatic tuning produced in recent years, manually operated mechanical systems, electric motor tuning devices and inductance-capacity switching systems. A further breakdown of these into more specific types will be found illustrated on these pages. General instructions for rapid resetting of the button mechanisms are included.

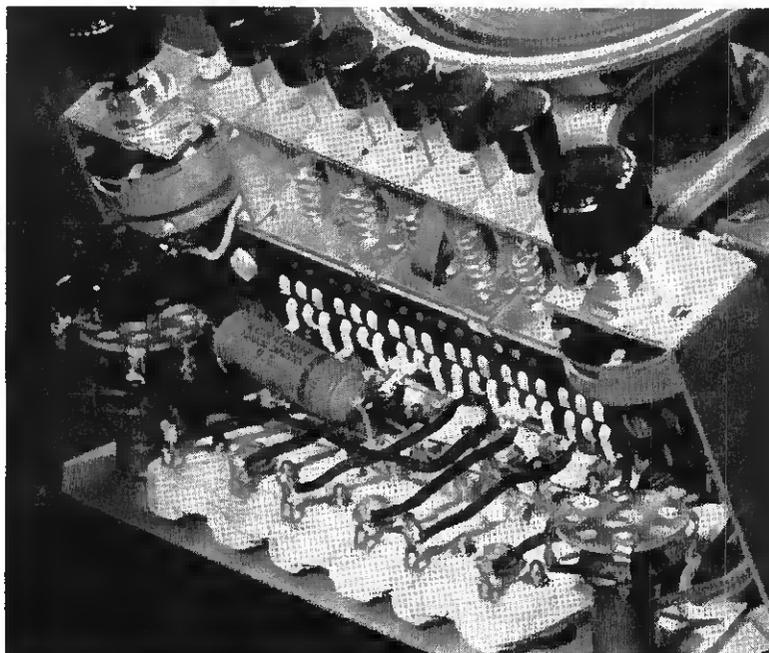
Before setting any of the new changes it will be safest to try each button at the present settings and check on the operation of the various mechanical parts. Frequently one or two pushbuttons will fail to operate and many customers neglect these small repairs until a major breakdown occurs. A quotation for resetting should include these additional repairs.

## I. F. Interference

Several cities will have stations on 910 kc and 920 kc. If a strong signal is received from these stations a heterodyne whistle may be heard on all stations received since the station frequency is twice the average receiver i-f frequency. If this trouble is encountered realign the i-f stages at another frequency just far enough away



**ELECTRIC MOTOR TUNING**—Manual tuning knob is also the cam lock in this model. To reset (1) pull off large tuning knob (2) pull out small metal set-up knob under large knob as far as possible (3) release cams by rotating set-up knob clockwise, even after dial pointer reaches end of scale, until it unscrews to a definite stop (4) push in desired button (5) tune station with set-up knob (6) repeat 4 and 5 on the other buttons without pushing any newly set buttons (7) last button set can be released by pushing set-up knob in and out (8) turn set-up knob counter-clockwise until cams are locked (9) replace manual tuning knob over set-up knob



**PERMEABILITY/TRIMMER SWITCHING**—Buttons substitute fixed-tuned circuits in place of variable dial tuning. Large number of these models have two adjustments for each station but single and triple adjustments may be encountered. To reset (1) select button with proper frequency range for station (2) tune matching oscillator circuit (sharpest tuning) to station (3) adjust r-f and/or first detector to resonance (4) retune all circuits for maximum response (5) repeat for other buttons

from the original to eliminate the "beat."

In this resetting job a signal generator can help considerably. However, the calibration should be checked against the present station frequencies before the changes go into effect. A checkup of the generator tubes and power supply is indicated in all cases.

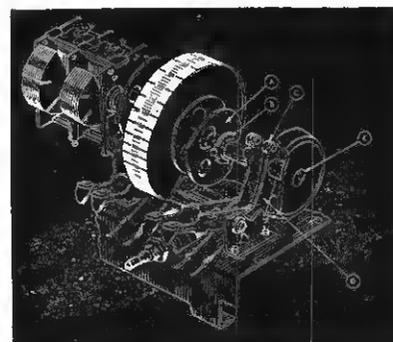
Some of the older generator models may have a dial scale that can be read only in whole numbers. To permit greater accuracy a small three plate variable condenser can be connected to spread the dial. This extra condenser should be mounted as close to the main tuning condenser as the panel and cabinet shielding will permit. An insulated shaft can be mounted on the condenser to extend through a bushing on the panel where a pointer and a 0-100 dial scale can complete the assembly. The main dial should be set exactly on the vertical line nearest to the desired frequency and the pointer varied until zero beat with the standard frequency is obtained. The dial reading and the pointer reading should both be recorded on the chart.

Late model signal generators have dials that permit decimal readings and these can, of course, be read more ac-

curately. When setting the main dial always keep the pointer at zero until needed for adjustment, since a constantly changing position of the pointer will vary all readings of the main dial.

## Recalibrating Generators

If a band-spreading condenser is installed the additional capacity of the unit and leads necessitate recalibration



**LEVER AND CAM ASSEMBLY**—Buttons lock in a group. Lock screw may also be found under escutcheon plate, under one button, or as a pin through shaft. Others unlock by push-in or pull-out and rotation of tuning knob. To reset (1) unlock mechanism (2) push button in (3) tune to station (4) release button (5) set other buttons (6) lock assembly and check

of the generator, a good practice to follow several times a year.

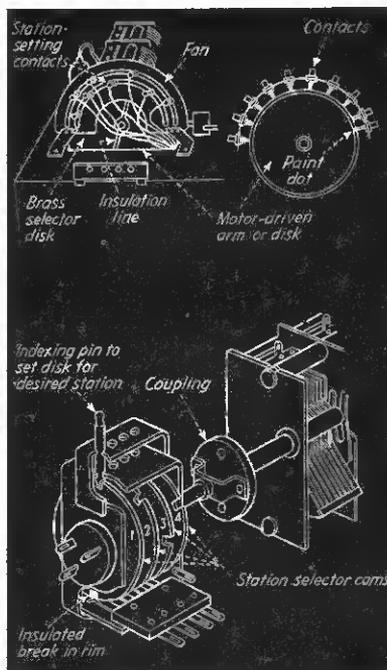
The most practical method of doing this job is to use a sensitive trf receiver. This will eliminate any unwanted beat notes that would occur if a superhet was employed.

Tune in a station whose frequency is known and tune the generator to zero beat with this signal. The receiver does not have to be tuned "on the nose" since the generator is beating against the station frequency and the receiver reproduces the difference frequency as an audio signal. For a very close adjustment of zero beat listen to the low audio beats when a voice modulates the station carrier and allows pauses when the low beat predominates.

The check points can be transferred to a graph for reference or compiled as a list of station frequencies and dial settings. In most localities a list of local stations and their new frequencies can be made up from the *Radio Retailing* station list in this issue and the signal generator readings for these frequencies can be noted. In many cases other stations are at present operating on the needed frequencies and furnish calibration points.

#### Trimmer Tuned Circuits

After March 29th the buttons can be set up from the station carrier. The



**ELECTRIC MOTOR TUNING**—These models may have a semi-circular "fan" or cylinder as a mounting for contact points. When button is pressed motor operates until a moving arm or plate opens or closes electrical circuit and stops motor. To reset, move contact points to new positions to stop dial movement at proper setting. Other models employ a slotted cam for each button. To reset these (1) lock desired cam from rotation with indexing pin provided with set (2) tune manually to station (3) remove index pin to allow rotation of cam and check operation (4) repeat with other cams for each button

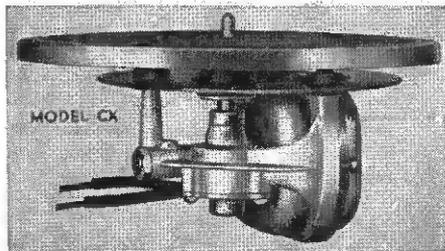
signal generator can still help, however. Tuned to the desired carrier, its distinctive modulated signal will immediately denote the proper station when adjusting the pushbuttons. This is particularly helpful when working on permeability and trimmer tuned models where several stations can be tuned across while adjusting the oscillator circuit and where station identification is often difficult.

It must be kept in mind while adjusting this type that a station found at two points of the oscillator adjustment should be tuned in at the lower capacity or inductance setting if the oscillator is to operate higher in frequency for proper reception.

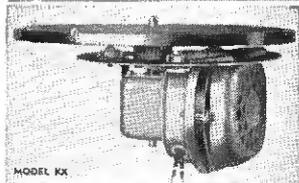
In some cases of extreme station frequency change it may be necessary to roughly adjust the first detector or r-f trimmer in step with the oscillator adjustment in order to locate the new frequency.

In almost all cases the range of each set of adjustments is marked on the cabinet or chassis. If this range does not include stations that will operate in the 1500 to 1600 kc range it will be necessary to examine the circuits switched by the highest frequency push button. Where individual coils are employed for this button the inductance can sometimes be lowered sufficiently by removing turns, one at a time, until the station can be re-

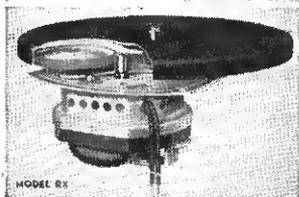
## Put In the Phonograph Motors



That Get  
You  
More  
Profits



The ideal motors to power your portable and table model phonographs—dependable, light-weight, so popular—are yours at low cost in General Industries "X" Series Motors. Choice of Models CX, KX, RX and new rim-drive LX. All precision-made by specialists who have produced millions of successful phonograph motors.



Self-starting, fan-cooled, induction type. Reach required speed quickly. Speed is maintained against varying record drag. Gears run in sealed oil chamber. You cut down assembly costs, get trouble-free service and you can price for bigger volume when you use General Industries "X" Series Motors. Test them in your own cabinets. Delivered ready to install.

Also, a full range of motor-and-pickup and changer-and-recorder assemblies, and heavy-duty motors. Tailored to fit 1941 requirements.

Send now for new free catalog and prices

**The GENERAL INDUSTRIES CO.**

Dept. 16

Elyria, Ohio

Order your Cutting Needles and Play-back Needles from our affiliate, General Phonograph Mfg. Co., Inc., Putnam, Conn.

## ONAN ELECTRIC PLANTS ALTERNATING AND DIRECT CURRENT

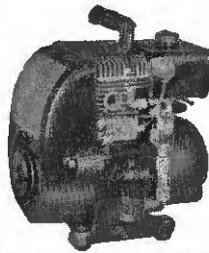
Furnish Electricity for operating LIGHTS, RADIO TRANSMITTERS and RECEIVERS, Motion Picture Projectors, Telephonic Communication Systems, Sound, News and Advertising Cars, X-Ray, Medical and Dental Equipment. Promote sales of Radio and Electrical Apparatus in places remote from Power line service.

ONAN PLANTS are used in many Private and Commercial Enterprises. They furnish electricity for many Departments of the U. S. Federal Government in the present NATIONAL DEFENSE PROGRAM, including Army, Navy, Air Corps and Lighthouse Service.

**OVER 40 STOCK MODELS**  
Sizes available from 350 to 50,000 watts in any Voltage or Frequency. Thousands are in DAILY UNINTERRUPTED SERVICE in ALL PARTS OF THE WORLD in Homes, Farms, Theatres, Public Buildings—for Construction and Repair jobs and Emergency Standby Service.

PORTABLE or STATIONARY Models in Manual, Full-Automatic or Self-Starting. Send for complete details and discounts.

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## How to MODERNIZE Your Store

Practical Interior Layout Plans

Inexpensive Decoration Ideas

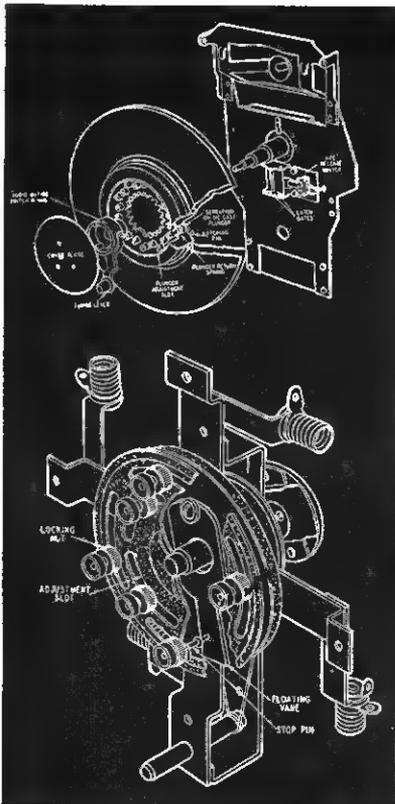
Display Suggestions

"Before and After" Pictures

Lighting  
Stands  
Furniture  
Flooring

Paint  
Counters  
Shelving  
Fixtures

Watch for RADIO RETAILING's April Issue

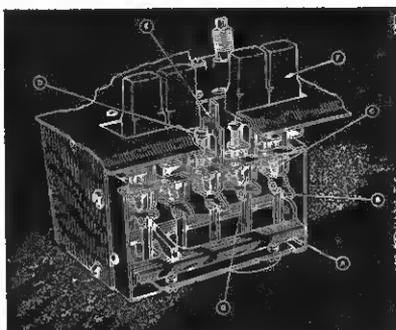


**TELEPHONE DIAL TYPES**—Splined buttons or plungers may be rotated to place extension arm or pin in position to stop against latch gate, vane or slot. Other models contain a mounting disc with slots in which buttons may be relocated. To reset (1) remove carefully front dial plates (2) tune desired station (3) release button or plunger to clear spline or slot (4) set latch pin at stop position and secure plunger (5) set other buttons (6) replace dial plates (in some cases these plates hold splines engaged)

ceived. There is, however, always a risk of losing wanted stations at the low frequency end of the trimmer range so this is not always practical.

#### Heat Treatment Required

To properly set up pushbuttons it is necessary to allow the receiver to reach its normal operating temperature, usually achieved after twenty minutes heating time. This is also



**ROCKER BAR TYPE ASSEMBLY**—Buttons lock separately. Locking screw may also be found at end of assembly, under escutcheon or station tabs, or button may rotate to unlock. To reset, (1) unlock mechanism (2) push button in (3) tune to station (4) lock button (5) release button and check operation

required with line-operated generators.

This might well be carefully considered if setting of the pushbuttons is contemplated in the home. One way out would be to arrange to have the set turned on by the customer a sufficient length of time before the arrival of the serviceman.

Some shops may prefer to bring each set in for the resetting service. When this is done the chassis can be "cooked" in a corner until ready for adjustment. Where a chassis is normally operated in a close-fitting cabinet it may be necessary to let it warm up in the cabinet.

Whenever possible manufacturer service manuals should be consulted. This is particularly important on receivers with loop antennas. Some of these have a winding for use with an outdoor antenna and this may be used for coupling to the signal generator. In other cases it may be necessary to couple the generator to the set with a loop on the generator and oriented at a distance of several feet. A loop consisting of five or ten turns of wire on a four inch form and connected to the r-f output terminals of the generator can usually be closely coupled to the receiver loop, in the same plane.

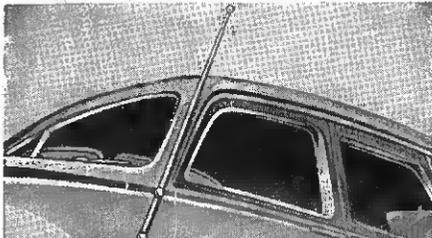
**INSULATED *Metallized* RESISTORS**

*They Stay* **PUT**

**WHY** stake your reputation on unknown or doubtful, cheap resistors?  
**It's** easy to be safe—sure—right.  
**Use** only IRC Type BT Insulated Metallized Resistors—insulated from end to end—always dependable and definitely superior in such essential characteristics as stability, low noise level, low voltage coefficient, mechanical strength and moisture protection—and branded at the factory with the resistance value, type, color-coding and the well-known IRC trademark.  
**IRC** Resistors will insure you against trouble and safeguard your reputation. They work for you, *not* against you. They stay put!

**THE KIT COSTS NOTHING EXTRA**  
 Don't throw your resistors and other small parts into cigar boxes, jars or drawers! Keep them in this IRC All-Metal RESIST-O-CABINET made just for the purpose. Cabinet comes factory-packed with any one of three frequently-needed resistor assortments. You pay *only* for the resistors—the Cabinet is included. See it at your IRC jobbers or write for details.

**INTERNATIONAL RESISTANCE COMPANY**  
 401 N. Broad Street, Philadelphia, Pa.

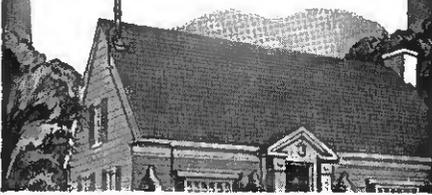


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**L. S. BRACH MFG. CORP.**  
55 DICKERSON STREET  
NEWARK, N. J.



# SERVICING Record Changers

HOW TO FIX troubles most frequently encountered in the mechanisms

By WILLARD MOODY

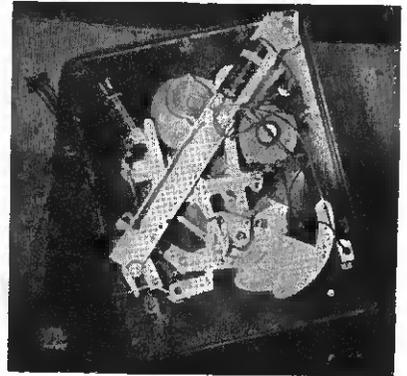
**A**CCUSTOMED to servicing receiver chassis with few moving parts, many servicemen fail to realize that lubrication plays an important part in the proper operation of motor driven mechanisms.

In the writer's contact with automatic record playing mechanisms the most frequently used remedy has been a can of 3-in-1 oil judiciously applied to bearings and contact surfaces where friction is not desired. A recent case illustrates this point.

The mechanism was literally frozen, due probably to the cold weather which had congealed the oil and grease. On piano notes, especially, where the tempo of the music was slow in record playing, the motor appeared to labor excessively and the turntable to revolve at too slow a rate. A liberal application of oil, only in spots where it was supposed to go, as well as an application of emergency grease in the field, vaseline, cured this particular record changer.

However the instruction manual that accompanies each instrument should be consulted before indiscriminately applying oil to every moving part. In some cases friction is necessary at certain points for mechanical drive of the mechanisms. Parts at these drive points are usually made of rubber and oil and grease on these parts will not only cause slipping but also chemically combine with the rubber and "rot" it.

Other service troubles of a mechanical nature primarily will revolve about the poor technical or mechanical sense of the customer. Many of them must be warned with great emphasis



lest they continue to treat the crystal pickup as if it were made of iron.

### Education Needed

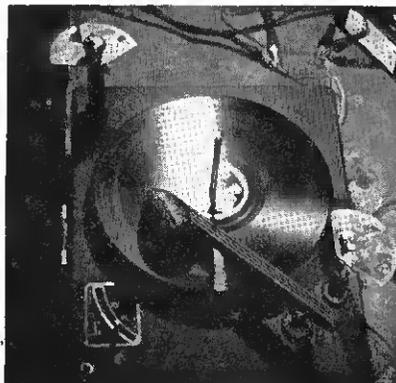
Some people allow the tone arm of an automatic record changer to hang in mid-air in the center of a cycle, instead of putting the crystal to rest properly. Frequently the mechanism will be jammed for this reason. If the mechanism is jammed, revolving of the turntable in a reverse direction, with the power off, will usually free it. The switch can then be thrown. While holding the tone arm loosely, the gears will mesh and everything start to purr smoothly once again.

If the records seem to jam in the knives or fall down unevenly, see to it that the cabinet sets level on the floor, as in many homes the flooring will not be perfectly even. Assuming that this point has been dealt with adequately, the next step is to check the separation of the blades of each set of knives.

### Record Clearance

The record should fit between the blades, of course, and if there is not enough clearance jamming or binding will result. In most automatic record changers there are adjustments provided for this purpose. A small screw with locknut may be loosened and the blades separated a sufficient distance. This screw will generally be found on the underside of the lower knife in a set.

If the tone arm does not swing to the correct point on the edge of a record there will usually be a need for adjustment of the slack in a cable at-



## THE EASY WAY TO CUT HOLES IN RADIO CHASSIS



Here's a handy tool to help the radio worker save many hours of work when cutting holes for sockets, plugs, connectors, and meter holes in radio chassis. No tedious drilling, reaming, or filing is necessary. A cap screw is inserted in a small drilled hole, and the punch is easily forced into the die by a few turns of the cap screw with an ordinary wrench. Ten punches are available for cutting  $\frac{3}{4}$ ,  $\frac{7}{8}$ , 1,  $1\frac{1}{8}$ ,  $1\frac{1}{2}$ ,  $1\frac{3}{4}$ ,  $1\frac{3}{4}$ ,  $1\frac{1}{2}$  and  $2\frac{1}{4}$ -inch holes. Write for more information.

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

**GREENLEE TOOL CO.**

1708 Columbia Ave., Rockford, Ill.

Please Send Information On Greenlee Radio Punches.

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tached to the arm. This consists of a set screw with locknut that may be used to alter the effective length of the cable.

In some models there is a brass or copper plated screw attached to a copper clad steel or bronze wire associated with the tone arm. Adjustment of this screw is made so that the tone arm will lift about 1 inch above a record on the turntable at the middle. The needle will be close to the center of the record, in other words.

### Premature Rejection

On this same record changer, adjustment of the "repeat" is made by turning a screw near the center of the underside of the changer. It is closely associated with the trip pawl located near the large toothed gear on the motor. This screw fits through two holes in a metal collar of copper. Tightening it will cause premature rejection if the adjustment is not right, while loosening it too much will have the effect of delaying and perhaps even preventing rejection and renewal of the record playing cycle. A mean, or balance, must be found between the two extremes.

On the photo-electric cell models, the commonest trouble is likely to be a broken connection due to repeated withdrawal and replacement as the record player is pulled out for use and stored back afterwards. Tying the plug in position with a piece of insulated wire or string will fix this.

In dealing with the simpler synchronous record players, oil in the well in which fits the ball bearing for the turntable center shaft will cure many service ills. A point also worthy of mention is that of gluing the turntable to the rubber suction cups mounted on the aluminum repulsion piece. This will permit the turntable to revolve with less "wobble" and increased stability and strength.

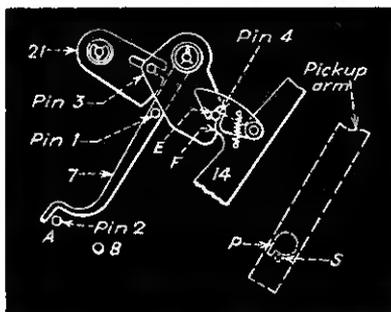
### Changer Changes

Shown in the diagram, the following changes have been made at the factory in RCA automatic record changer mechanisms models RP-152, 153, 155.

The trip regulator lever, part 21 in illustration, has been removed. This lever was formerly used to prevent premature tripping due to a too early return of the trip lever friction finger, part 7, at the end of each changing cycle. The same result is obtained by removing the lever and repositioning the trip finger stop, pin 2, from position A to position B.

Pin 1 on trip lever friction finger, part 7, has been removed.

Pin 3 has been removed in some mechanisms and left in others since



it does not interfere with the operation of the changer.

Binding or hesitation of the tone arm may be due to a small burr on edge E, or binding of pin 4 between edges E and F. In some cases this condition may also be caused by too great an outward swing of the pickup arm. This causes pin 4 to become caught in the upper curved portion of edge F.

On some models the shaft of the pickup arm can be rotated sufficiently by loosening the nut under the motor board to prevent pin 4 from riding into this curved portion when the arm is in the outermost position.

On other models the shaft of the pickup arm is positioned by a locating key. In such cases it is necessary to bend stop guide S on the pickup arm toward stop ear P on the shaft to remedy the condition.

## TRICKS of the TRADE

### ADMIRAL AEROSCOPE

Intermittent . . . faulty condenser at grid of 25L6G.

### ATWATER KENT 318

Drifts on high frequencies . . . disassemble and clean oscillator trimmers with alcohol.

### ATWATER KENT 649

Operates only on low frequency end of broadcast band . . . replace .03 mfd bypass in oscillator circuit of 6A8 tube.

### EMERSON CV-313

Dial slips . . . to obtain more traction, slightly roughen surface of shaft on which cord slips, and apply powdered rosin. Remove gummy substance from ball-bearing of tuning condenser with carbon tetrachloride, and apply a light oil.

### FARNSWORTH BT-22

Dead, voltages and resistances normal . . . replace oscillator coil.

## "TSK! TSK!" SAID ADAM HONEYMUG, "THE WAY THEY FUSS ABOUT CONDENSERS!"

Serviceman Adam Honeymug brushed a cobweb from beneath his chin, propped his feet more securely on the service bench and leaned back comfortably in his chair. "These parts manufacturers are screwy," he said to his wife. "Take the time I was up in North Adams, Mass., and dropped into the Sprague factory. The way those fellows fuss around, you'd think condensers were the most important part of a radio set."

"Yes dear," replied his wife patiently. "That reminds me. While you were over at the taproom, Mr. Jones called and said that condenser you put in his radio set had exploded. It scared the canary so it won't sing any more. He said if you didn't put in a good condenser this time, he'd come over here and kick your teeth in."

"What's he griping about, anyway? Just because I picked up that condenser for 16¢ and it doesn't have any name on, he thinks it's no good. He's screwy, too."

"Yes, dear."

"Well, as I was saying, kid, you'd be died laughing up in North Adams. Just think of it. They've got about twenty engineers, doing nothin' but designing condensers. I could do it with my eyes shut."

"I always said you were wonderful, darling."

"I could certainly show those birds how to reduce the cost of condensers. Why, when they make wet electrolytics, do you think they'd take faucet water? It's good enough for 'em to drink—but it ain't good enough to put in their condensers. They built a special dam up in the mountains and piped spring water into the plant. They even distill that. They're screwy. I could . . . say, answer that 'phone, will ya?"

"It was the telephone company," ex-

plained his wife a minute later. "They said they are cutting off our service until we pay our bill."

"To heck with them," exclaimed Adam. "I don't need a 'phone much anyway. Well, as I was sayin', those guys up at Sprague spent about 'steen thousand dollars developin' special machines to put the electrolytic formation on the aluminum foil used in dry electrolytics—just to make sure that every tiny bit of area was covered with the electrolyte. If they'd asked me, I'd a told 'em to paint it on with a brush."

"But maybe that wouldn't be so good, dear."

"Lissen, kid, I know what I'm talking about. Why, take the way they test condensers. They got about a billion good-lookin' girls doin' nothing but testing. They test the condensers

for everything—capacity, working voltage, surge voltage, leakage and series resistance and goodness knows what else. Think what that costs."

"Yes, dear."

"Yea, but that ain't the worst of it. They even throw the bad ones away. I offered to buy some for half price, but they said they wouldn't let me have 'em at ten times the regular price. They'd rather bust 'em up for junk than get real money for them. If that ain't screwy. Hey—what the . . ."

"Oh, darling, the shop is on fire. Call the fire department, quick!"

"Huh, and give those screwy dopes down at the engine house a chance to wreck my business? Nothing doing. Let it burn. I don't much like this radio service racket anyhow."

**SPRAGUE PRODUCTS COMPANY**  
North Adams, Mass.





"of course, if you want the best..."

On those occasions when "something just as good" won't do you can save the day with CINAUDAGRAPH.

Whether in a fine radio or way up on a pole... a CINAUDAGRAPH SPEAKER does what is expected of it in a manner that causes you to throw out your chest with pardonable pride and satisfaction.

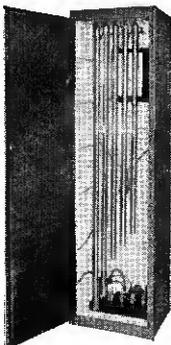
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Two important reasons why Westminster and Hour Chime Systems offer a quick profit outlet are: first, more and more churches, public and semi-public buildings, office buildings and manufacturing plants, are installing them; and second, installations usually sell for more than the average sound installation; hence, you make a greater profit.



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Manufacturers of

SUNCO CHIME CARILLONS  
& CHIME SYSTEM

4791 N. Ravenswood Ave., Chicago, Illinois

#### EMERSON 338 PORTABLE

Weak reception . . . volume control grounds through shaft. Replace.

#### FADA 5F60T

Intermittent howling . . . move plate lead of the 25L6 away from the 6C6 grid lead.

#### FAIRBANKS MORSE 56

Oscillator circuit inoperative . . . electrolyte from the wet filter condenser corrodes the socket of the 6A7.

#### GENERAL-ELECTRIC A-63, A-65

Low sensitivity . . . open 4 mfd condenser, number C26 in schematic.

#### GENERAL-ELECTRIC G-76

Dead . . . output transformer has sharp edge that cuts through and grounds leads to transformer case. Remove transformer and insulate leads.

#### PHILCO 28

Modulation hum . . . capacity of filter decreases. Replace dual 12 and 6 mfd capacitor, number 68 in schematic.

#### PHILCO PT-26

Hums . . . insulation of pilot bulb socket may have high resistance leak to chassis.

#### PHILCO 40-180, 185, 190

Inoperative . . . if resistors in negative return, numbers 59 and 60 of diagram, are exploded and burned look out for shorted 84.

#### PHILCO 40-160

Oscillates . . . remove 6800 ohm resistor shunted across primary of r-f transformer and connect across secondary winding.

#### PHILCO 600-C

Poor tone quality . . . connect a 25 mfd 50 volt condenser from negative return to chassis.

#### RCA 4QB4

Oscillates . . . bypass screen grid of 1C5G output tube with .25 mfd condenser.

#### RCA BP-56

Hum . . . intermittent contact between electrolytic condenser and chassis.

#### RCA C-11-1

Dead on short waves . . . replace 115 mmf oscillator grid condenser, number 50 in schematic.

Don't Miss the  
Big Trade Show



IT'S a great show! . . . the big show of the year! It's the only chance to get together and discuss your MUTUAL PROBLEMS. It's your opportunity to get a world of ideas for your business.

Don't forget — 1941 is a critical year, because of the gigantic defense program.

Don't "miss the boat." Be on hand at the

*Stevens Hotel*

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JUNE 10-11-12-13

JOBBER DAYS

Tuesday, June 10 to Thursday, June 12

OPEN HOUSE

Thursday Eve., June 12 and Friday, June 13

Radio Parts  
National Trade Show

Executive Office

53 West Jackson Boulevard • Chicago

#### RCA V-100

Noise on record operation . . . the drive wheel will hit against the steel turntable if the rubber cover slips slightly off.

#### REMLER 28

No signal, motorboats . . . dial plate is insulated from chassis with fibre washers. These break and ground dial plate.

#### REMLER 45

Cuts out when shaken or jarred . . . the .05 mfd tone control condenser shorts to chassis.

#### STEWART-WARNER R-1451X

Distorts as volume control is advanced . . . leakage in .05 condenser connected from arm of control to grid of 6F5 audio tube.

#### STROMBERG-CARLSON 535-M

Dead . . . shorted and leaky power or rectifier tubes will burn out a 120 ohm resistor connected from cathode of rectifier to first section of filter. Replace with 150 ohm, 5 watt resistor.

#### WESTINGHOUSE 166

Frequent pilot bulb failure . . . replace burned out shunt resistor with 35 ohm, 2 watt resistor.

#### WESTINGHOUSE 173-L

Intermittent or dead . . . check terminals of oscillator coil, located near 50L6GT tube.

#### WESTINGHOUSE WR-186

Dead . . . oscillator coil opens, usually the portion in series with the cathode of the 6SA7 tube.

#### ZENITH 85458

Microphonic when jarred . . . replace tube shields with shields of smaller diameter.

### RADIO'S OPPORTUNITY

*(Continued from page 19)*

tail of the pushbutton re-setting kite, this perfect entree into homes providing a painless opportunity to check equipment owned and the con-

sumer's receptivity toward new items.

In the home, it is simply necessary to remember that one is not there just to re-set pushbuttons, but to talk about every single thing the store has for sale. *If this is done, the almost automatic ratio of sales-to-contacts can make this Spring season the most profitable "off peak" period the radio business has experienced since its inception.*

#### Early Cooperative News

Key groups within the business are still preparing promotional plans so these can at present be reported only in part.

Among Utilities planning to mail re-allocation circulars with their bills are the Potomac Electric Power Company, Kansas City Power and Light, The Monongahela System; Cleveland Electric Illuminating Company and East Ohio Gas Company (Cleveland's telephone company will also cooperate), Mississippi Valley Public Service, Northern States Power, Wisconsin Power and Light, Louisville Gas and Electric.

Trade Associations are dickering with local stations for cooperative.

**Get BETTER NEEDLES from GENERAL**

**SUPREME for Cutting, Playback and Long-Playing**

Your recording units or assemblies will win more praise with General *Truetone* Cutting Needles.

Made by shadowgraph, with supreme precision. Highly finished. Insist on their sale and use for all recording, both professional and amateur. And for true fidelity to your records, insist on the use of General *Our Own Playback Needles* . . .

Also, sell *Futur-is-tic Long-playing Needles* (2000 to 3000 times), and your choice of General's 39 types of *Phonograph Needles*. All held to closest service specifications. Attractively packaged. Write today for prices.

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Box 1 Putnam, Conn.

**HAVE YOU EVER SEEN ALL THE CLIPS THAT MUELLER OFFERS?**

**Special Clips for Every Use  
Solid Copper—Insulated Clips**

**Send for Free Samples & Catalog 701**  
**MUELLER ELECTRIC CO., 1584 E. 31st, Cleveland, O.**

## March 29th brings— the Chance of a Lifetime to Servicemen!

**THE** frequency change-over scheduled for March 29th will make the public more conscious of their radio sets than ever before . . . your golden opportunity to add new and valuable clients to your list.

*And Here's How Sylvania Will Help You Cash In:*

1. Shopper-stopping window streamers FREE—get one from your jobber.
2. Business-getting post cards with your imprint—cost of postage only—1¢ each—minimum order 100—\$1.00.
3. Door-opening Station Finder—permanent in-the-house advertising. Free, plain, or imprinted at the following prices—\$1.00 for 100, \$1.75 for 250, \$3.00 for 500.

How Many Do You Want? Place Your Order Now. Call your jobber immediately or write to Hygrade Sylvania Corporation, Emporium, Pa.

## SYLVANIA

SET-TESTED RADIO TUBES

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

or part cooperative and part paid time, special programs already being reported by stations scattered all over the country. Typical will be inclusion of questions about kilocycles in many "Quiz" programs, and "Man In The Street" interview broadcasts, "First-Pushbutton-Changed-In - Town" competitions, Tuning "Drills." Some stations will have milkmen deliver bottles with printed paper "collars" announcing new operating frequencies on the magic morning. In West Palm Beach the Boy Scouts, Girl Scouts, Red Cross and other groups are to distribute folders. Chicago and Charleston, S. C., already announce "Radio Rallies."

W. A. Mennie, executive secretary of the National Association of Music Merchants writes that it will carry the news of forthcoming reallocation implications to over 4,000 member dealers. Alfred Byers, Secretary of the National Electrical Wholesaler's Association, similarly advises *Radio Retailing*.

The radio trade is getting, and will be grateful for, plenty of cooperation from allied fields to help it make the most of this opportunity for contacting consumers.

## BROADCASTERS SERVICE

(Continued from page 25)

dealers in the same area resulted in similar complaints regarding their new set sales, and requests for wave traps.

### Broadcasters Not Alone

Stations other than broadcasters, such as police and amateur, report the same conditions on this interference problem.

In many cases their operating frequencies are far removed from the broadcast band yet interference occurs on the broadcast stations despite proper operation. (Recent issues of amateur radio magazines contain many letters and articles describing steps taken by individual operators to repair their neighbor's receivers to eliminate the interference.)

New station frequencies to be used at the end of this month will undoubtedly clear up certain kinds of interference in certain parts of the country, particularly in those areas adjacent to neighboring countries. It is likely, nevertheless, that there will also be cases where inter-

ference not before experienced will be encountered, due to these same shifts and especially where station power increases are to be simultaneously granted.

Reallocation is obviously not the whole answer to the troubles described here.

## HOW UTILITIES CAN HELP

(Continued from page 29)

dows and floors.

Promotion also includes mailing of printed sales leaflets with power bills. Alphabetical listings of cooperating dealers are often featured in such envelope "stuffers."

### Helpful Statistical Service

The power company also serves up generally useful sales statistics by means of a "card checker" system.

Cooperating dealers inform the company when they make sales, by mailing cards kept on hand in quantity. By adding the number of individual dealer sales, total community sales figures on all products are speedily ascertained and each dealer then receives, monthly, an estimate of the totals. (Individual fig-

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 → **ARE ACTUALLY ONLY \$1.00 A YEAR**



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the National RSA for only \$1.00 (that's less than 2¢ a week).

You get the RSA Membership Certificate and the RSA House Organ. You have access to RSA Technical Helps Bureau, and you can participate in all the other functions and benefits RSA offers.

## RADIO SERVICEMEN OF AMERICA, INC.

**"Reliable Service Assured"**

**JOE MARTY, JR., EXECUTIVE SECRETARY**  
**304 S. DEARBORN ST., CHICAGO, ILLINOIS**

### Get the RSA Push-Button Changeover Plan!

Are you ready to get your share of the Push-Button Changeover business? Join the RSA now and get the complete plan available to RSA Members.

Protected territories will be established as rapidly as local chapters are formed. Applicants in present chapter areas will be referred to the local chapter.

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304 S. Dearborn Street, Chicago, Illinois

\$1.00 enclosed for 1941 National Dues in RSA.

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*Radio Retailing—Mar.*

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

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

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1775 Broadway, New York City

**FREE:** Our 116 page catalog of Washing Machine and Vacuum Cleaner Parts. Save money by ordering all your supplies from one dependable source. Quality, Service, Low Prices.

**MIDWEST APPLIANCE PARTS CO.**  
2722 W. Division St. Chicago, Ill.

# RADIO

When the store-front flashes  
RADIO . . . . and other  
modern home equipment . . .  
it's a sign of the

## LIVEST DEALER IN TOWN!

He likes RADIO RETAILING best  
because it helps him most in  
selling everything electrical.

ures are, of course, kept confidential by the Utility.)

Such statistics enable cooperating dealers to figure out precisely what percentage of sales on a given device they are responsible for, compared with the average. If the dealer's share seems too low he may wish to check through advertising, display and selling methods for trouble.

This is just one more example of how Utilities can help.

There are, obviously, many more.

## SOUND . . . PLUS

(Continued from page 33)

vals, reunions and the like, it would be better to mount your equipment on a wooden rack, fitted in the back of an automobile. Microphone and power cables can be quickly strung to the speaker's platform. Pictures may be projected through an open window of the car to a portable screen placed somewhere above the heads of the crowd.

For indoor work, type of equipment depends largely on the size and shape of the room. For small groups, such as banquets, a suitcase model of a combined amplifier and projector is all that is needed. For larger auditoriums, more power in both the amplifier and projector is desirable. However, such jobs usually pay enough to make it profitable to install more cumbersome equipment.

## ADVERTISING TABOOS

(Continued from page 34)

tools or by anyone; will improve old radio sets unless limited to those old sets which do not have defective parts). . . . Stipulation 02210.

**INSTRUMENT**—To cease representing that an instrument used for measurement of electrical current retains "high accuracy" or "accurately" measures very low resistance, or functions as a "vacuum tube voltmeter where such is not the case". . . . Stipulation 2280.

**GENERAL**—To cease use of the word "manufacturer," implying that the advertiser manufactures the products which it sells or that it actually owns and operates or controls the plants or factories in which the products are made whereas, in reality, the advertiser is a distributor. . . . Stipulation 2230.

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

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## Where You Tell Us...

### Black Eye Recipes

Thanks for "Recipe for a Black Eye" in your February issue. I hope all radio manufacturers read it.

I have never been able to map out a counter-attack when the customer's old radio of about six years ago outperformed my new one.

It is very hard to sell up on radios when the cheaper set with its inherent ability to pull everything in seems to outperform the higher priced set and that seems more true when trying to sell against mail-order radios.

HEAVENER, OKLA. E. L. HAYES  
*Hayes-Royers Hardware Co.*

Your editorial in the February issue has brought to the attention of all manufacturers a condition that their salesmen have tried to pass off as one peculiar to this area, Suffolk County, Long Island.

There is no doubt a decided tendency to leave out everything except the bare essentials. Most of the new sets perform very badly at night due to interference of all types, mostly due to lack of selectivity and excess sensitivity.

I have, by actual test with a ten year old set, been able to listen to more stations at night with less interference than with a new 1941 set. The new sets in this area will pick up Europe better than many stations in the metropolitan area.

Let's hope the change on March 29 will improve reception so that the public will buy more new sets out here. Hoping that your publication will continue in its straightforward manner to present the facts and assuring you of my continued support.

SAYVILLE, N. Y. HENRY E. BOEHNING  
*Radio Repair Specialist*

### Dirty Discounts

I was interested in the article "More About Dirty Discounts" in your January issue and wonder if the attached printed slip quoting the law and fines concerning purchase of goods for employees by large factories in this State isn't the solution.

When anyone in our organization (1,400 employees) wants to buy something wholesale, our purchasing agent hands them this reprint and it relieves him from abuse.

Please do not print my name in connection with this letter, but merely tell your readers that a copy of the law dealing with such discounts, where their States have such laws, may be obtained from their Secretary of State.

MIDDLE WEST (FACTORY)

I wish to compliment you on your various editorials dealing with the "Buy At Wholesale, or Buy Direct" racket

which seems to be enveloping the radio industry nationally. . . .

Augusta is located about 175 miles from the nearest jobbing center and naturally our city is represented by every type of business from that point. Due to its location, many of the jobbers traveling representatives make their homes in Augusta. This factor alone costs the local dealers quite a volume of radio business for each of these representatives have connections where they can buy wholesale and are not too careful that they don't buy for their friends as well.

AUGUSTA, GA. ROBERT W. WILSON  
*Augusta Radio Co.*

I've known this fellow since I was knee high to a grasshopper. I sold him every radio he ever owned, and he was well pleased . . . up to one day last week.

Sez he, rushing into my store with his chest expanded like Tarzan: "At last I've caught up with you!"

"What's wrong, pal?" sez I.

"Don't pal me," sez he. "You chiseler. You soaked hell out of me on everything I ever bought from you."

"Oh, Oh," sez I. "Lets you and me sit down and talk this over."

"Never mind that," sez he. "What I've got to tell you won't take more'n a minute. I find out I could have got the same stuff I bought from you at list prices for maybe 20, 30, 40 and even 50 per cent off. Now what in hell did you think you were making out of me, a sucker?"

"Now listen, Jim," sez I, "let me explain . . ."

"Explain my aunt," sez he. I know a guy who knows the purchasing agent of a company who can get 50 and 10 off on anything. So I am going out of your store. And I am staying out. And I am telling all my friends you are a gyp."

So what can I do about it?

CLEVELAND, OHIO LOU REEDY  
*Clark Radio Television*

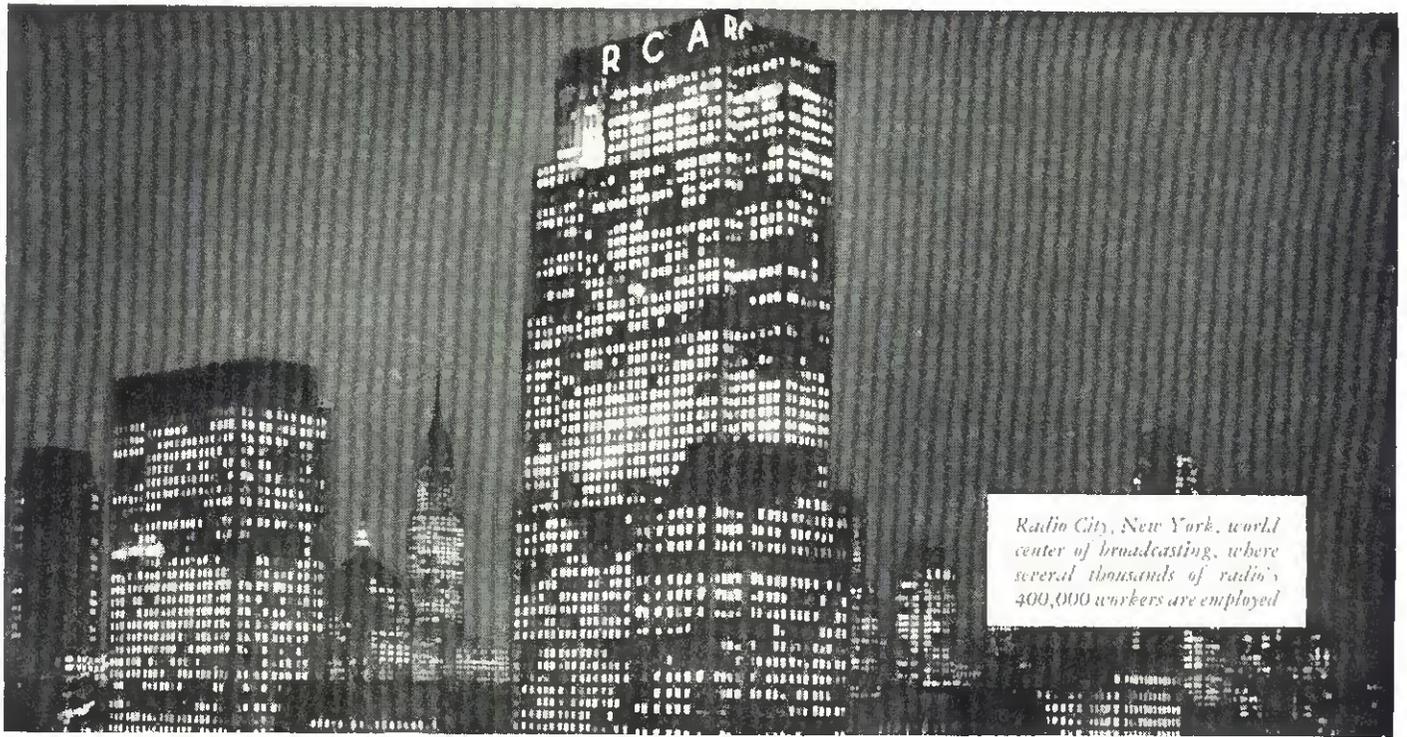
### Page ASCAP

The other day I had one pulled on me which I think would be a good item for your "Sales Static."

Some time ago I put a new set of batteries into a portable radio. Two days ago the owner asked if I put the same kind of batteries in that the set was equipped with originally.

I asked him why he wanted to know and he said that it *don't play the same tunes any more!*

ELIZABETHTOWN, N. Y. ROBERT E. WELLS



Radio City, New York, world center of broadcasting, where several thousands of radio's 400,000 workers are employed

# How Radio Helps Employ 400,000 People!

AS YOU SET A RADIO SET, do you ever stop to think of the many thousands of people employed in the industry of which you are an important part?

The radio industry employs directly 100,000 persons, and indirectly hundreds of thousands of others. From the research laboratory to the song on the air, the employees of radio are at the listeners' beck and call. They earn their living in jobs which only two decades ago did not exist.

### *An Endless Procession of Workers*

Long before the radio set "goes on the air" in the home of your customer it helps to give employment to an army of workers—from lumbermen to cabinetmakers, from miners who mined the copper and iron, to electrical engineers who designed the circuits that perform the magic. And, of course, there are those who fash-

ion the metal chassis; those who make the plastics and the vacuum tubes.

Radio employment is an endless procession—as endless as the production belts that constantly carry new instruments to the public, or the research that constantly plans improved instruments for the future. There are factory workers, salesmen, advertising men, artists, printers, wholesalers, retailers, and many others who work in radio because people in the United States have installed 50,000,000 radios in their homes and automobiles, and will want 10,000,000 more radios this year.

### *The People Behind the Programs*

Each broadcast program has its actors, but behind every voice or song, behind every comedian, opera and drama, are the program planners, script writers, technicians, announcers, sound-effects men, control oper-

ators, and thousands of clerical helpers. Broadcasters alone employ many thousands of men and women in 850 stations, while radio-telegraph stations ashore and afloat, aircraft and police radio, add greatly to the roster of radio and to the payrolls of America.

### *New Gateways of Employment*

Constantly developing new products and services through research, radio is ever widening the gateway of employment. Television holds the promise of another new industry developed by American enterprise, to create employment and raise the American standard of living.

Through the sale of a radio you do your bit as an employer of people unseen, and that role is always yours as long as you are in radio—while radio works for you it enables others to work, too.



**RADIO CORPORATION OF AMERICA**  
RADIO CITY, N. Y.

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