

# RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

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OTHER  
SINGLE  
ORGANIZATION OFFERS..**

as complete and diversified  
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Today, the DeForest name is  
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Transmitting Tubes  
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Transmitters  
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Speech Amplifiers  
Centralized Receiving  
Systems  
Short-Wave Receivers  
Facsimile Apparatus  
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—backed by 25 years of  
pioneering experience.

*de Forest*

**RADIO COMPANY, PASSAIC, N. J.**

*A complete price range enables you*  
**to CONCENTRATE ON BRUNSWICK**



MODEL 11—Table model or midget type, walnut cabinet, carved grille. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 9" dynamic speaker, power detector. List price, complete with Brunswick tubes. **\$79.50**

MODEL 12 — Miniature high-boy console. Recessed panel of rare crotched walnut veneer. Hand-carved grille. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 9" dynamic speaker and power detector. List price, complete with Brunswick tubes . . . . . **\$89.50**

MODEL 16 — Lowboy console, finished in American Walnut. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 12" dynamic speaker and power detector. List price, complete with Brunswick tubes . . . **\$99.50**

MODEL 17 — Lowboy walnut console. Superheterodyne 9 tubes. Color tone control, Brunswick Uni-Selector, automatic volume control, dynatron oscillator, turret type tuning condenser, 12" super-dynamic speaker, two pentode tubes in output stage and power detector. List price, complete with Brunswick tubes. . . . . **\$139.50**

MODEL 33—Lowboy combination Radio-with-Panatropé, finished in American walnut. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 12" dynamic speaker and power detector. List price, complete with Brunswick tubes . . . . . **\$149.50**

MODEL 24 — Graceful six-legged highboy cabinet with arched French doors. Superheterodyne 9 tubes. Color tone control, Brunswick Uni-Selector, automatic volume control, dynatron oscillator, turret type tuning condenser, 12" super-dynamic speaker, two pentode tubes in output stage, power detector. List price, complete with Brunswick tubes . . . . . **\$169.50**



MODEL 12

The new Brunswick line has been received enthusiastically at dealer shows held during the past month in leading cities . . . Increased production permits the revision of prices announced for Brunswick instruments at the Chicago R. M. A. Show . . . The dealer who concentrates on Brunswick has an unparalleled opportunity for profit: the same distinguished line of high quality instruments in a price range that appeals to every prospect.

BRUNSWICK RADIO CORPORATION, NEW YORK—CHICAGO—TORONTO—*Division of* WARNER BROS. PICTURES, INC.

**BRUNSWICK RADIO**

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# RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

VOL. 14

No. 2

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## Wise Words

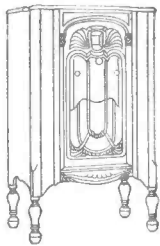
*From a Radio Publication  
Across the Sea:*

*The first thing the radio dealer should attempt to sell at any time is radio programme value rather than specific merchandise. The latter should come into the picture only after the prospect's initial interest in radio as a source of entertainment has been aroused.*

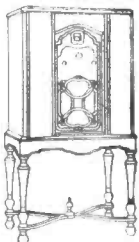
*The WIRELESS and GRAMOPHONE TRADER  
London, England*



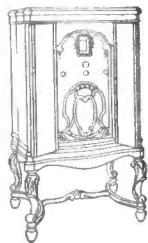
# The PROFIT Line!



No. 19 Superheterodyne Receiver. Mahogany finish.



No. 20 Superheterodyne Receiver. Walnut finish.



No. 22 Superheterodyne Receiver. Solid walnut.

*Listen to the Stromberg-Carlson Hour Monday Evenings over the NBC Blue Network and Associated Stations.*

*"There is nothing finer than a Stromberg-Carlson"*

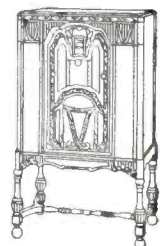
**S**TROMBERG-CARLSON has always given its dealers:—PROFITABLE UNITS OF SALE—STABLE LIST PRICES—TERRITORIAL PROTECTION—STORE PRESTIGE—RIGID ENFORCEMENT OF MERCHANDISING POLICIES.

The NEW Stromberg-Carlson Franchise does even more for dealers. It insures every dealer getting full interest charges on every time payment sale. It prevents the parasite type of dealer from existing on the market-building efforts of the awake and able dealer. Its original and novel features will enable you to sell many Stromberg-Carlsons—at a self-respecting profit.

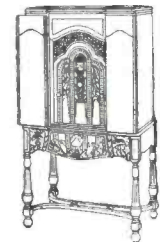
Leading merchants, who have carefully studied this new plan, are now featuring the Stromberg-Carlson Complete Line. If you are serious in wanting to develop a permanent and profitable radio business, write for details.

Stromberg-Carlson unsurpassed quality Receivers range in price from \$175 to \$375. The Multi-Record Radio, (automatic radio-phonograph combination, electrical), \$660. (Prices, complete with tubes, East of Rockies.)

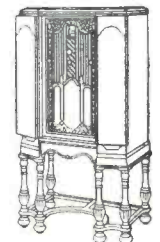
STROMBERG-CARLSON TELEPHONE MFG. CO., ROCHESTER, N. Y.



No. 25 Superheterodyne Receiver. Walnut finish.



No. 26 Superheterodyne Console with phonograph option. Walnut finish.



No. 12 T.R.F. Grand Console. Solid walnut.



No. 14 Multi-Record Radio. Solid walnut.



# Stromberg-Carlson



1894

MAKERS OF VOICE TRANSMISSION AND VOICE RECEPTION APPARATUS FOR MORE THAN THIRTY-FIVE YEARS

1931



Would you like to receive a copy?  
Write to The American Weekly, 959  
Eighth Avenue, at 57th Street, New  
York City.

# THE AMERICAN Greatest Circulation in the World A WEEKLY

Sunday



THE AMERICAN WEEKLY  
builds business for the mer-  
chant who carries and features  
the products advertised on its  
pages . . . because this great  
magazine is eagerly read in  
5,500,000 homes every week.

*Love Stories the Ancients Believed In*  
By the Distinguished English Artist  
Edmund Dulac

**PERSEPHONE AND PLUTO—**

**P**ERSEPHONE, whom the Romans called Proserpine, was the daughter of Ceres, who was the Goddess of Earth. One day there was a great volcanic outbreak of Mt. Etna, and Pluto, the God of the Underworld, or Abode of the Dead, came up from below to see what damage had been done. Venus, for a joke, had her son Cupid shoot an arrow of love into the Dark Monarch's heart. His eyes fell upon Persephone, and he kidnaped her. When she didn't come home Ceres went all around the earth searching for her. In her sorrow she forgot to look after her business of keeping the trees and plants fresh; vegetation began to wither and die, and humanity appealed to the gods for farm relief. Jupiter pitched up a truce between Pluto and his mother-in-law whereby Persephone spent half the year with each of them. Then all the plants became fresh again.

# BACK OF KOLSTER

## ... BACK OF YOU

### THE FINANCIAL AND ENGINEERING RESOURCES OF A GREAT COMMUNICATIONS SYSTEM . . . MACKAY RADIO AND TELEGRAPH COMPANY

**T**HE financial resources back of it assure stability. The reputation of the organization that sponsors it guarantees the soundness and fairness of its merchandising policies. The new Kolster International is here, ready to start hewing its way to the sales peak that its basic quality merits.

Kolster has created the refined superheterodyne...has produced a radio that in selectivity, sensitivity, undisturbed output, fidelity of tone and in its general performance qualities is worthy in every way of the great world-wide communications system that is back of it.

In creating the new Kolster International the basic principles of the superheterodyne have been refined to a new degree. Kolster engineering and Kolster manufacturing have com-

bined to endow it with new standards of superheterodyne performance. The traditional beauty of tone that the world has always recognized in the Kolster has been accentuated. Kolster International performance is going to make the selling of the Kolster International easier.

And one thing more that is of interest to the dealer whose vision encompasses the future: the combined engineering genius of Kolster Radio Inc. and International Communications Laboratories are dual guarantees that the new Kolster International will keep pace with and possibly anticipate new developments in the industry.

Write or wire today for more information concerning the new Kolster International... direct to 67 Broad Street, New York City.

#### THE KOLSTER INTERNATIONAL POLICY

To manufacture up to a definite standard of performance rather than down to a low scale of prices . . . and yet to sell at prices that are well within the moderate range.

To sell only through distributors and dealers of recognized standing in the industry.

To provide sales assistance of a type and character that will help create a ready public acceptance of the new Kolster International.

To support distributor and dealer not only by means of fair merchandising but by carrying on intensive research of a type that will keep the new Kolster International constantly abreast of public demands.

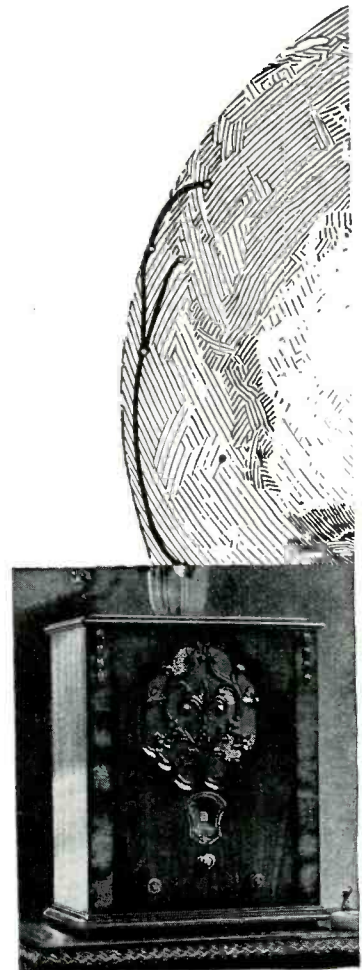
To maintain a distribution policy which will assure sales at prices that will provide a fair profit for dealer, distributor and Kolster Radio Inc.

#### KOLSTER RADIO INC.

International Telephone and Telegraph Building, 67 Broad Street, New York City

In Canada: Kolster Radio Ltd., Toronto, Canada

Factory: 360 Thomas Street, Newark, N. J.



**MODEL K60**

Completely shielded, seven tube, band pass superheterodyne. Cabinet design has been produced with figured walnut front panel and Oriental walnut pilasters with decorative grill.

List \$69.50 with tubes

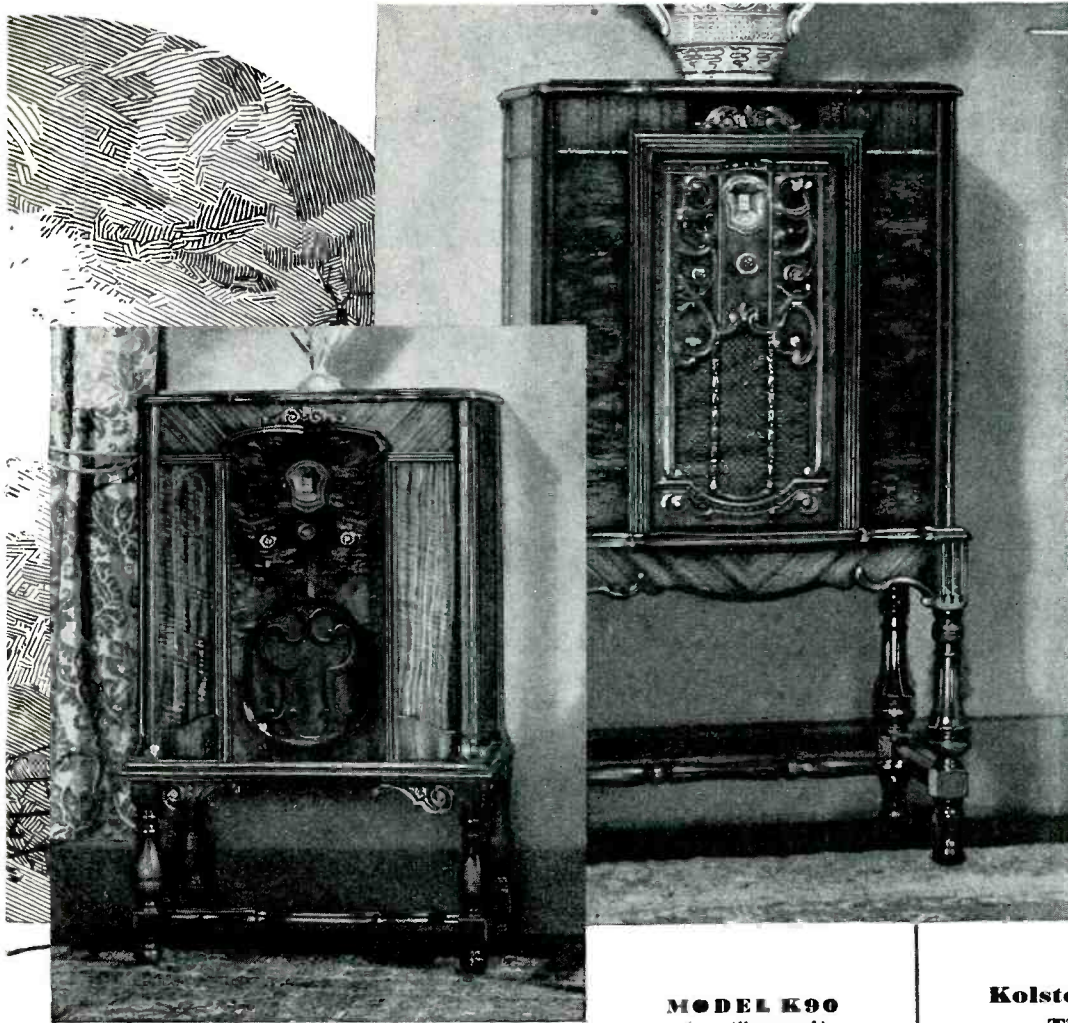
**THE NEW**

**KOLSTER**



The first public announcement of the new Kolster International will appear in the form of two full pages in color in the September 12th issue of The Saturday Evening Post

# WHO SELL KOLSTER!



### MODEL K70

Completely shielded, eight tube, hand pass superheterodyne with automatic volume control. Jan Streng, in designing the cabinet, took his inspiration from the period of Charles II. Oriental walnut top rail, figured walnut pilasters, butt walnut instrument panel, ornamental carvings on top rail and apron. Shaped stretcher. Lacquer finish.

List \$99.50 with tubes

### MODEL K90

(not illustrated)

is a completely shielded, ten tube, interstage double band pass superheterodyne with automatic volume control, push-pull pentode output with specially designed large input transformer.

List \$149.50 with tubes

### MODEL K80

Completely shielded, nine tube, band pass superheterodyne with automatic volume control, push-pull pentode output with specially designed large input transformer. The cabinet by Jan Streng suggests the influence of Seventeenth Century English design. Oriental walnut top rail and apron. Matched butt walnut pilasters. Decorative instrument panel. Spool stretcher. Lacquer finish.

List \$129.50 with tubes

## The New Kolster International The REFINED Superheterodyne

The new Kolster International incorporates the latest developments of the industry, refined through progressive engineering and sound manufacturing to new high standards of performance. These include the band pass superheterodyne circuit, preselector, pentode and variable mu tubes, variable tone control and automatic volume control on the console models. Selectivity, sensitivity and undistorted output have been developed far beyond usual standards. Fidelity of tone has been maintained uniformly throughout the entire frequency range.

The new Kolster International cabinets are in keeping with the high quality represented by engineering and manufacturing. Simple in design . . . excellent in taste . . . they lend to the new series a degree of quiet dignity and beauty.

# national KOLSTER



# A Great New Money Making Opportunity for Radio Dealers . . .



## TABLE HOCKEY

**R**ADIO dealers throughout the country have been losing money. Whatever the various reasons, the result is admitted.

Many radio dealers have found an avenue to new profits in the world's fastest game—the world's fastest seller—Table Hockey.

Here is a game just replete with thrills—combining the speed of basketball and hockey—the wrist and forearm exercise of tennis and the accuracy of billiard shots.

One retail store sold 41 outfits in one day and it has proved a tremendous seller in the shops of Abercrombie & Fitch and Spaldings in New York City as well as in stores throughout the country.

To describe the action and excitement in Table Hockey is impossible, but we can tell you that no other game even approaches it in the zest and vim with which the players enter into it.

Homes—athletic clubs—schools—hotels—miniature golf courses—bowling alleys—resorts—all are prospects for Table Hockey.

Call and demonstrate Table Hockey just as you do a radio—give the prospect a chance to play, and with one-tenth of the sales pressure back of it that you put into your regular radio retailing you will be re-ordering in dozen lots in no time.

There is no maintenance cost to Table Hockey—no repairs—no returns—no approvals. Every sale is a complete finished transaction.

Table Hockey retails at \$35 with a discount to dealers of 40%.

Precision workmanship enters into every phase of the construction of Table Hockey. The table is built with the accuracy of a billiard table and pucks and clubs are beautifully made. Table size is 25 x 61 inches and its height 25 inches. Folds to 2½" x 25" x 61".

Write today for your set of Table Hockey and get those figures in your ledger back into the black again!

**INTERNATIONAL GAMES INC.**  
3814 Chrysler Building, New York City, N. Y.



# Still "The Newest Thing in Radio"

The recent trade show emphasized more strongly than anything else Majestic's leadership in models and values. The opinions expressed by hundreds of dealers, and other unbiased sources in the radio field, convince us that in the Majestic models with the famous Multi-Mu Tube we are offering the greatest values to be found.

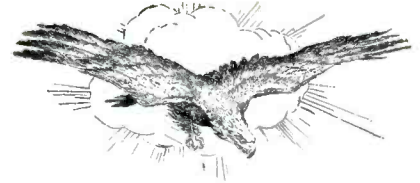
With this merchandise on the floor right now, Majestic Dealers are in a strong position. Price alone will sell nothing, nor will it bring profit. A reasonable price plus the highest quality possible, and freedom from service worries, makes sales and satisfied customers . . . and profits, too, at a time when profits are needed.

Majestic 20-series and 60-series receivers are products that the public wants and will buy—right now. Call the Majestic Distributor and handle the most profitable line in Radio.



Licensed under patent applications of Boonton Research Corporation.

GRIGSBY-GRUNOW COMPANY, CHICAGO, ILLINOIS



**MIGHTY MONARCH  
OF THE AIR**

## EVEN NEWER

Model 121

Battery Powered

Superheterodyne console model powered from new Air Cell "A" battery and "B" batteries. 6 tubes including pentode. List price with tubes, less batteries, \$99.50.\*

## NEWER YET

Model 110

Motor Majestic

Seven tube pentode tube set with dynamic speaker. Mounts below floor boards and tunes from steering column. List, complete with tubes, batteries and installation, \$87.50.\*

\*Slightly higher in the West and Canada.

# Majestic

## RADIO

THERE

IS A

BIG DEMAND

FOR THE



# KELLOGG 401...

In your own locality there are many logical prospects for Kellogg 401 A. C. tube business. A big demand exists for Kellogg 401 tubes because no other tubes can be used to replace them. Every owner of every set listed below is your prospect. Each of these sets was specifically designed to use, and originally equipped with Kellogg Tubes.

KELLOGG Sets—510, 511, 512, 514, 515, 516, 517, 518, 519, 520, 521. McMILLAN Sets—26, 26PT. MOHAWK Sets, SPARTON Sets—62, 63, A-C7. DAYFAN Sets—5143, 5144, 5145, 5148, 5158. MARTI Sets—TA2, TA10, DC2, DC10, CS2, CS10, 1928 Table, 1928 Console. CLEARTONE Sets—110. And the first A.C. models of the following: Bell, Walbert, Wurlitzer, Pathe, Shamrock, Bush & Lane, Minerva, Crusader, Liberty, Metro, Supervox, and Case.

Get your share of this business by stocking and displaying Kellogg tubes now. Write to Dept. 52 for name and address of your nearest tube jobbers.

# KELLOGG

1066 WEST ADAM STREET

*Switchboard  
and Supply*

# CO.

Chicago, Illinois



August, 1931

# RADIO RETAILING

HOME ENTERTAINMENT MERCHANDISING

O. H. CALDWELL,  
*Editor*

A MCGRAW-HILL PUBLICATION. ESTABLISHED 1925.

## *Low-water* MARK

A NEW low price level for sets has irretrievably been established in the public mind—a price level below \$40. Following the Chicago show, the trade listened credulously to stories that this price would continue only temporarily, was possible only because of overstocks of unused parts, and was offered only as a “fill-in” in lines designed to uphold the quality and prosperity of radio.

But with the wholesale appearance of newspaper and national magazine announcements featuring these “low-water mark” sets, illusions must be dropped. The trade may as well reconcile itself to the fact that the \$40, and below, receiver is here to stay—from both manufacturer and prospective customer viewpoints.

TODAY'S retailing methods, however, will not earn a profit when applied to these new units. Figures on following pages indicate that, under the present set-up, the dealer loses money on every sale below the \$50 level. If the trade is to go on putting its major effort into these sub-midget transactions, then new selling methods will have to be adopted, store overhead cut and sales speeded up to build back dollar volume and profit. Customer lists must be combed for prospects for second and *third* sets to be used upstairs, in the kitchen, at camp and office, etc.

ON the other hand, the dealer still has the opportunity to “trade up” many of his prospects and, by demonstrating the better sets, to raise the average unit of sale. Tone value and the thrill of distance reception are the two strongest arguments he has for swinging sales toward higher-priced units.

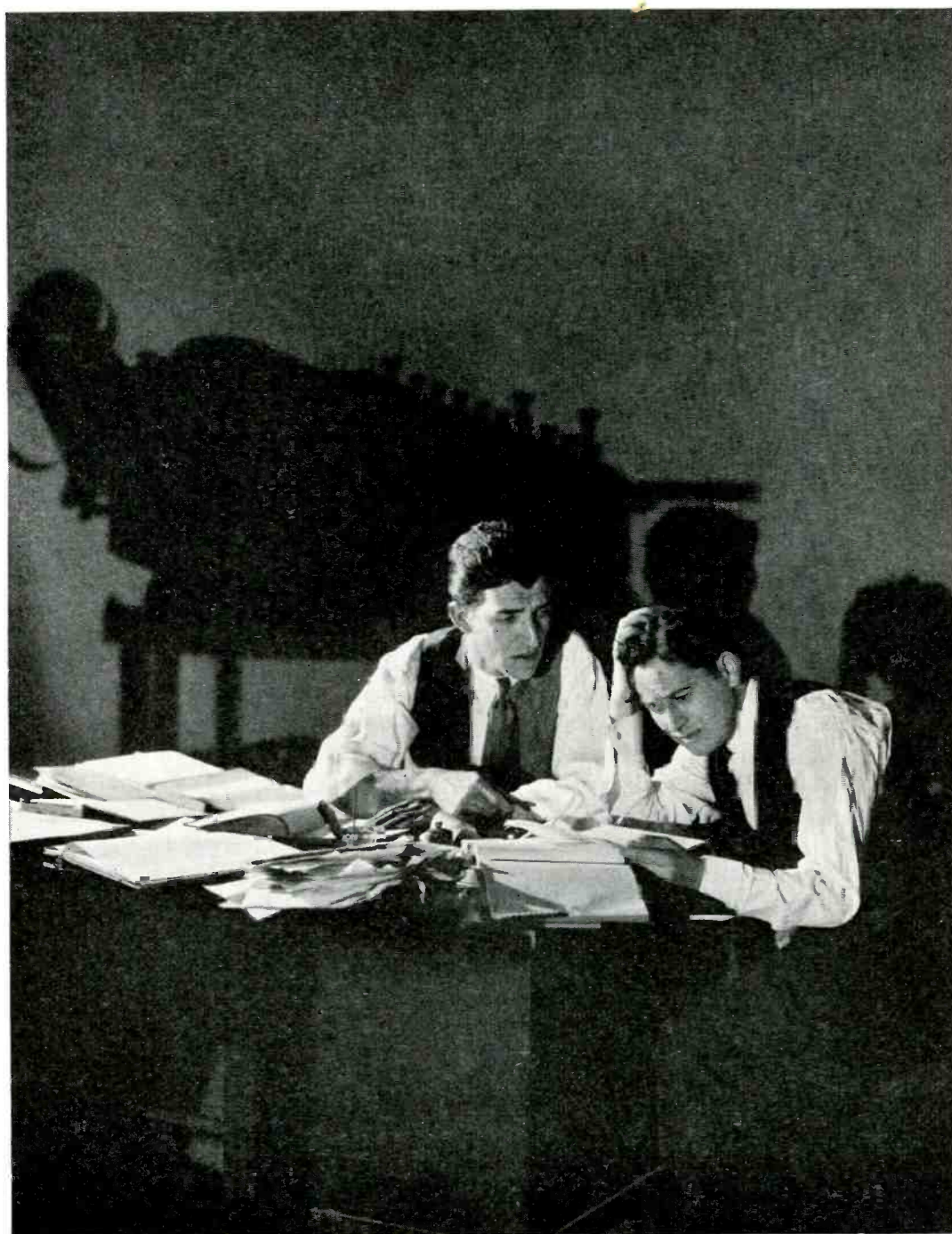
“Low-water mark” is with us this August in more than one sense. But “low-water mark” must be accepted only as a challenge—as a level from which to build up from, in price, quality and sales volume.

We've Sold a Lot of Sets—

*b u t*

**W H E R E ' S**

*t h e*



*A lot of dealers are losing money by selling cheap sets but don't realize it until their accountant gets busy*

LAZARNICK

*An expert accountant views the small set problem from the practical angle of gross margins versus fixed and variable expenses*

RUSSELL RICH

*defines the price "deadline" below which dealers should not venture*

# PROFIT?

THERE was a day when the radio dealer operated on a profit margin which permitted playing with prices. He could indulge in a liberal trading policy with regard to discounts and allowances. Furthermore, he stood a small chance of getting by, for awhile at least, with haphazard administration. But a short time ago a new era of radio merchandising was ushered in by the introduction of the midget. This was further emphasized by recent price reductions on larger models.

With, therefore, the profit margin proportionately lessened, old practices of unsound merchandising must be abandoned for more scientific control and management. Now we must know our business intimately. A careful analysis of the situation into which the radio industry has been forced has brought out one important point—the danger of ignorance with regard to costs. Safe and successful operation will demand our having an accurate knowledge of the cost of sales and using this knowledge in developing our merchandising and administrative policies.

Unfortunately there is no fixed standard of operation that may be devised for all dealers. Each store must treat and solve its own individual problems with the knowledge, judgment and ability at hand. Fundamentally, however, our problems in this respect are much the same whether we are large or small.

HERE is a simple method, operative without special facilities, that may be employed to show the cost of marketing and the remaining profit on *each* set sold. We use, as a typical example, the figures of a store having annual sales of \$30,000.

On the first day of the month we set up a columnar cost sheet (see illustration on following page) heading columns A to G inclusive. Disregard, for the present, column H and I, which can be filled in only at the end of the month. Column A carries the selling price of the set complete, less finance charges, and column B the cost of the merchandise. Columns C, D, E, and F provide for the following variable sales expenses: allowances on trade-ins, discounts for cash, commissions and total reserve for bad debts and service costs.

Column F requires explanation with regard to procedure. Out of each sale there is set aside 1 per cent of the total as a reserve against possible expense of servicing. Further, another 1 per cent of sales *not for cash* is reserved for losses on bad debts. For costing purposes it is well to consider these contingencies, charge them against unit sales immediately and build up reserves with which future expense or loss may be absorbed.

The first set sale in April is No. 517, a "Finetone," model 12, list price complete \$92.50. This amount is entered in column A. The cost of the set, \$55.50, goes in column B. An allowance of \$15 was made on an old set of no value, column C. The salesman was paid a commission of 8 per cent on the selling price, less the allowance, \$6.20, column D. Against possible service expense and collection losses is set aside \$1.70.

We are now ready to develop our selling profit by deducting the totals of columns B to F from the amount in column A. The remainder, \$14.10 goes to column G as selling profit. This is our stopping point for the present as columns H and I do not exist at this time.

The next three sales, Nos. 518, 519 and 520, are accessories, which items are not costed separately, but accumulated for one entry at the end. The next set sale is No. 521, a midget for \$52 costing \$31.20. The trade-in allowance amounts to \$10 and cash discount \$2.60. Commissions were \$3.36. One per cent has been set aside for the servicing reserve. No bad debt provision is necessary as the sale was for cash. The selling profit is \$4.32.

As sets are sold from day to day they go on record as above and all extensions carried out to column G—"Selling Profit." At the close of the month the columns are ruled off and footed.

During April, 32 sets, costing \$1,320, column B, have been sold for \$2,200, column A. Allowances have amounted to \$115, discounts \$60, commissions \$130, and reserve provisions on these sales \$44. A selling profit of \$531, remains. Total accessory sales for the month were \$225, cost determined to be \$135, reserve for bad debts and servicing \$4.50, leaving a selling profit of \$85.50.

Income from servicing, \$75, is extended to Selling



## ACCOUNTING FORM FOR DETERMINING PROFIT "DEADLINE"

"Deadline" may be defined as that point beyond or below which it is unsafe to venture. This suggested accounting system will show dealers the exact amount of profit or loss involved in each sales transaction.

Date	Set	Model	Sale No.	A Amount	-B Cost of Merchandise	-C Trade-in Allowance	-D Cash Discount	-E Commission	-F Reserve	=G Selling Profit	-H Overhead	=I Net Profit or Loss
April 1	Finetone	12	517	\$92.50	\$55.50	\$15.00	—	\$6.20	\$1.70	\$14.10	\$11.85	\$2.25
1	Everclear	7	521	52.00	31.20	10.00	\$2.60	3.36	.52	4.32	11.85	-7.53
2	Finetone	5	526	48.00	28.80	—	2.40	3.84	.48	12.48	11.85	63
2	Finetone	5	529	48.00	28.80	—	—	3.84	.96	14.40	11.85	2.55
3	Everclear	10	532	125.00	75.00	—	—	8.40	2.50	39.10	11.85	27.25
4	Finetone	12	541	92.50	55.50	—	4.63	—	.93	31.44	11.85	19.59
6	Rockbottom 4-5 tuber		548	39.20	23.52	—	—	4.00	.39	11.29	11.85	-56
6	Everclear	7	550	72.91	42.33	—	—	6.00	.61	23.97	11.85	12.12

30	Finetone	14	654	135.00	81.00	25.00	6.75	8.80	1.35	12.10	11.85	.25	
Total, Sets during April				32	\$2,200	\$1,320	\$115	\$60	\$130	\$44.00	\$531.00	\$379.28	\$151.72
" Accessory sales					225	135				4.50	85.50	38.79	46.71
" Service (Labor)					75					75.00	12.93	62.07	
Grand totals					\$2,500	\$1,455	\$115	\$60	\$130	\$48.50	\$691.50	\$431.00	\$260.50

Sale No. 548—Costing by individual transactions shows—in this typical illustration of a dealer grossing \$30,000 per annum—that it is not possible to make a profit on sets listing for less than \$40, even with expenses pared to the bone. Note that no trade-in or cash discount allowances were granted and that the salesman's commission was but four dollars . . . yet a loss of 56c. on the \$39.20 transaction is registered.

Sale No. 654—Here the list price was \$135. But, owing to over-generous concessions, the dealer barely broke even.

Total Set Business for April—Net profit, 6.9 per cent (includes owner's salary). Net showing on all sets sell-

ing for under \$55, first five business days in April: total gross, \$187.20; total overhead expense, \$191.11; total loss, \$5.91.

Owner's Salary Not Included—In many small businesses, such as the example chosen, the owner does not include his salary as part of operating expense. It will be seen that there is available at the end of the month \$260.50 for the dealer. If, as should be done in any well conducted accounting system, we include owner's salary in the general expense column (assumed at \$200 per month) then fixed overhead will be \$17.35 for each set sale. Applying this latter figure will show still more alarming losses on deals of less than \$70 gross.

Profit. The accessory sales and servicing income are now brought into the record and the three groups of figures added together as shown in the illustration. Total sales were \$2,500, giving a total selling profit of \$691.

**B**UT we are interested primarily in net profit. In our general books has been built up a set of figures designated as fixed expenses, items not chargeable to specific sales. During the month of April they were:

Rent	\$75
Heat, light and power	30
Salesman's salary	65
Office salaries	65
Telephone	15
Stationery and printing	8
Insurance	4
Advertising	50
Auto expense	37
Sundry expense	25
Interest	7
Depreciation of fixed assets	50
<b>TOTAL</b>	<b>\$431</b>

The above total of \$431, must be distributed over the sales units by the fairest possible method and the first step is to allocate to Accessory Sales and Service Sales their due portion of this burden. Each should bear the same percentage of the overhead that it represents to total sales. Accessory sales are \$225, or 9 per cent of the \$2,500. Then they should absorb 9 per cent of the fixed expenses amounting to \$38.79. Similarly, service sales of \$75, are 3 per cent of the total and will therefore take up 3 per cent of \$431, or \$12.93. This leaves \$379.28

to be distributed equally over the 32 set sales or \$11.85 per sale.

In column H, "Overhead," we fill in \$11.85 against each set, footing the column with \$379.28, to which is added the previously determined distribution to Accessory Sales (\$38.79) and Servicing (\$12.93), giving us our total of \$431 with which we started.

This puts us in position to extend our net profit or loss, per set, to column I, which is secured in each instance by applying the difference between the selling profit and overhead expense.

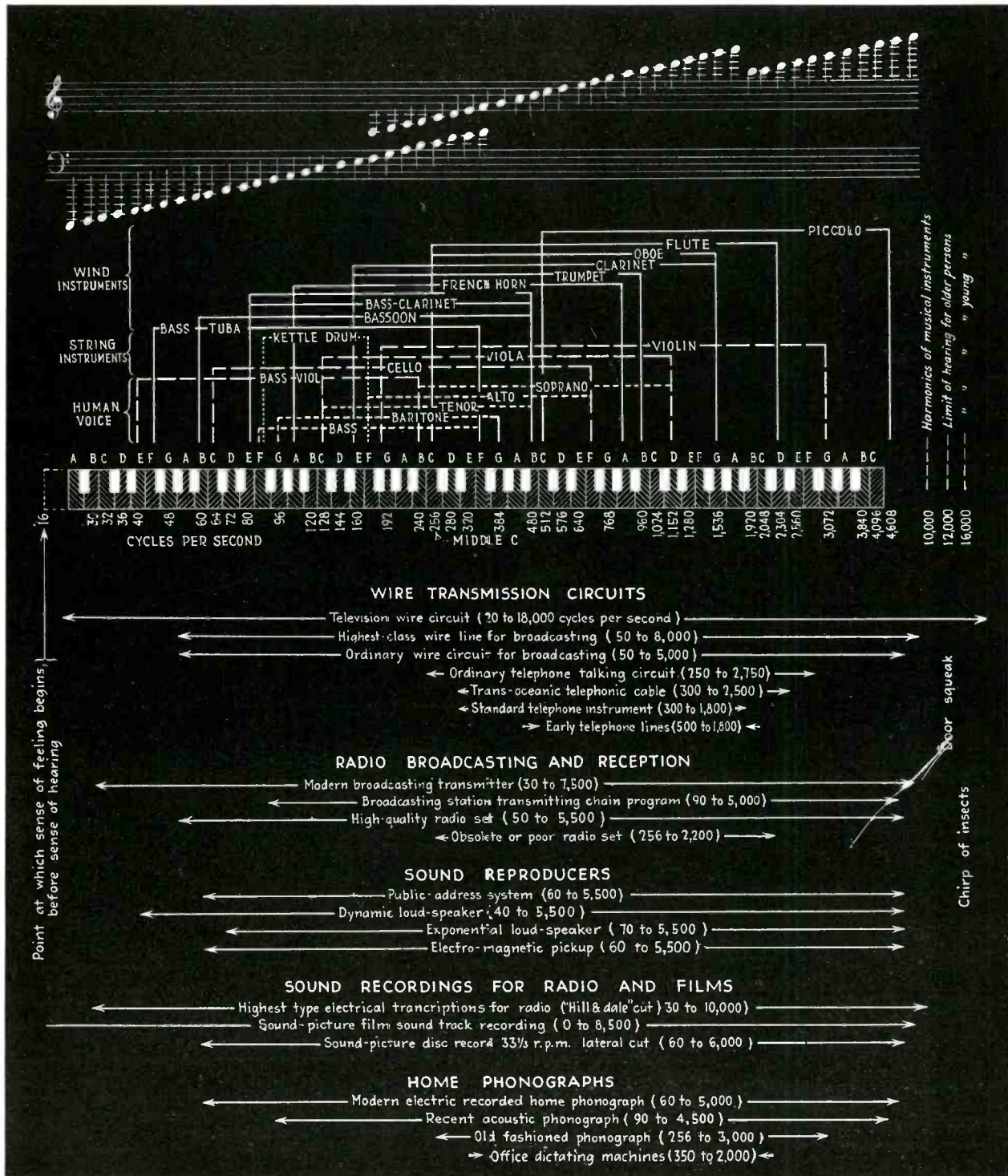
In this way a clear picture of our business has been created, one that tells a powerfully story upon which trading policies can be framed. In cold figures we know that of the first seven sales in April, three yielded satisfactory profits, two barely covered costs and two were complete losses. Furthermore, we know the reasons why. Obviously we cannot give price concessions amounting to \$12.60 on a \$52 set every day if we are to stay in business—refer to sale No. 521.

Now what would have happened if sales had been 25 per cent higher, 40 sets instead of 32? The variable expenses would have risen proportionately—no saving here—and spreading the overhead more thinly would have reduced the unit cost of this item to but \$9.03, a reduction of only \$2.82.

Of course, the most elaborate system of accounting will not in itself make profits. But once such records are established the dealer has at hand a definite basis for sound business judgment and for locating losses.

# Tone Response in Radio Sets and Phonographs

Chart showing the tone range involved in performance of sound sources and sound reproducers



Why some radio sets and phonographs reproduce with rich clear tones, while others are lacking in fidelity and sound "tinny," is readily explained by a study of this chart showing the range of the principal instruments and singing voices and the span of

modern radio units designed to reproduce them.

Such a diagram will help dealers explain to customers the importance of selecting a set of real tone fidelity, one which will reproduce speech and music exactly as they sounded in the studio.



# Higher PRICES

- ▶ "Get manufacturers together and establish a tonal standard."
- ▶ "Appoint a Will Hays or a Judge Landis."
- ▶ "Make \$39 sets for low-income groups but sell better radio to people who can afford it."
- ▶ "Let nature take its course."
- ▶ "Include in factory lists 10 per cent net profit for manufacturer and at least 10 more for distributor and dealer combined."
- ▶ "Enact a law enforcing maintenance of list prices."

*IT IS time to put on the brakes, warned the leading editorial in the July issue of Radio Retailing. Prices are tobogganing far beyond actual need, even in times of depression—and despite the fact that manufacturers, jobbers and dealers are barely able to make a profit.*

*The trade agrees that prices should be higher. From all points of the compass this comment on "Needed, Leadership," poured in. Many of the hundreds of letters received ran two and three pages. Most of them reflected clear thinking and a genuine appreciation of the need for executing a "right-about-face" movement.*

*Vital extracts from as many as space permits follow.*

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## WOOLARD'S

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*Dear Mr. Caldwell:*

Our sales and organization is small but we are nevertheless heartily in accord with your views regarding stabilization of prices. Our experience has taught us that most of us do not mind buying something we want at a fair price. But for the past three years prices have been tobogganing at such a pace that the customer waits for still lower prices.

I thought last fall that this orgy of cheap sets had quit when an improved line of midgets was introduced. But it seems the ropes failed to hold. Our policy is still to push the medium and higher priced sets and think it is our only salvation.

E. M. WOOLARD.

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## SCOTT PROWELL MUSIC CO.

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*Dear Sir:*

I congratulate you on the stand you have taken, only I wish you had made it even stronger. Costs of production have not been reduced 33 per cent and manufacturers did not show a large profit last year. A reduction of 30 per cent might have been absorbed but I believe the present prices are going to be ruinous to the entire industry. The manufacturer must cheapen his product. The jobber and the dealer will just make 33 per cent less because the number of units will not be increased.

The small dealer who has heretofore sold one hundred sets or less per year will not increase his unit sales and therefore will

not make enough money to maintain year round service. I figure that the average price of unit sales this year is going to be under \$75. Therefore a sale of 100 radios will not gross over \$7,500. This would give this dealer only \$3,000 gross profit. Deduct from this \$750 salesman's commissions and he has \$2,250 for overhead, collections, reversions, service and NET profit. My opinion is that there is not enough of the NET PROFIT left to justify the dealer's labor and investment.

SCOTT B. PROWELL.

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## R. S. PROUDFIT CO.

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*Dear Sir:*

We think you are on the right track. When the dealer has to sell radio sets as low as thirty-five dollars apiece it means that he will soon have to quit business. We do not believe it makes any difference to the average consumer whether he buys a set for \$100 or \$35—he is going to demand service on it and the good dealer will have to give service. We all know that he cannot afford to give much service on a \$35 dollar radio.

Another point about this class of merchandise is that the dealer's discount will soon have to be lowered, and we all know that he has been getting little enough discount up to the present time. In our minds there is no quicker way to kill the radio business than to sell cheap sets.

FRANK S. PROUDFIT, V. P.

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## COLUMBIA PHONOGRAPH

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*Editor:*

In spite of the ridiculous popular impression that everything can be improved by new laws, it is my opinion that the present condition of the radio industry can be improved by law. I refer to the enactment of a law permitting an agreement to maintain resale prices. The United States is one of the few large countries which does not permit such agreements and the consequence is that ignorant competition among dealers forces even intelligent manufacturers to cut prices.

Your cartoon depicts the manufacturer as driving the car down hill on the road to lower prices. This is wrong. It is the chain store dealer, the department store and a certain other class of dealers who are really in the driver's seat. One way to save them from the consequences of their own folly is by law, in the same manner as we protect motorists and pedestrians from speed maniacs.





—or—

*We Can't  
EXIST!*

## Trade Replies to Last Month's Editorial

The phonograph industry was successful for over twenty-five years and was built up on the foundation of resale price maintenance agreements. This assured the dealer a profit and built up a tremendous industry. It did not prevent the manufacturer from constantly striving for lower costs and therefore lower list prices, but it left a margin for advertising and a profit for all. The public profited in the long run by quality merchandise at fair prices and the assurance that the manufacturer, jobber and dealer could remain in business to give service.

H. C. COX, *Pres.*

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### ALEX A. GETTLIN

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*Gentlemen:*

It has been my thought for some time that what this industry needs is leadership. But how to procure it? Are we to depend on some altruistic manufacturer to start things in the right direction and expect him to buck a tide that may never turn?

In your article you state that no one wants the condition of constantly falling prices. Neither did the various motion picture producers want certain chaotic conditions continued and the various baseball interests at one time felt that certain bad practices were to be eliminated. And how did they do it? And were they successful? The general impression is that the method they used was successful to a great extent.

Why can't the radio industry, through the RMA and the NFRA, appoint someone to be a Will Hays or a Judge Landis? Give such a person the authority to set minimum standards of construction and make any other regulations necessary to safeguard the industry and the public.

ALEX A. GETTLIN

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### SILVER-MARSHALL

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*Dear Mr. Sulliffe:*

I can only say that I deplore the present price trend and particularly toward four-tube midgets in the \$39 and low price range. I write this even though our own corporation was among the leaders with low prices on standard models—necessarily, because of anticipated competition.

The decline in the average list price of radios during the depression just passed—I write this advisedly—has been far greater than might have been anticipated, due, probably, to the

rather long duration of this depression, coupled with the fact that radios fall in the luxury class, always most affected during poor times.

Yet there is a definite place for \$39 radios in big city and urban markets. An examination of radio saturation of various income groups indicates that the very large low-income group is least saturated. It is a difficult thing, however, to avoid the stigma of "\$39" on all radios if the necessary big attempt to sell this large group is made, and to sell better radios to the higher income groups. While the low-income group is the least radio saturated, it has the least relative purchasing power, since it is largely made up of the floating labor that has been hardest hit. Hence it would seem that advertising effort should be concentrated on the higher price brackets—a frankly Utopian hope, for under present conditions anyone is glad to sell a \$39 radio even to a prospect who can actually afford a \$200 radio—just so long as a sale is made.

The only hope pointing to a solution is that dealer, distributor, and manufacturer, realizing frankly that \$39 sales spell loss, will be forced to make every possible effort to get higher unit sales in order to live.

McMURDO SILVER, *Pres.*

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### ROYCRAFT CORPORATION

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*Gentlemen:*

We congratulate you on the frank editorial "Needed—Leadership!" One of the important points often lost sight of in this drifting to lower prices and unprofitable selling, is the fact that reputable houses will soon divorce themselves entirely from the merchandising of radio, and the industry itself will suffer in prestige and be judged by the outlets that serve it.

It certainly is time to put on the brakes!

R. B. COHEN.

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### AUDIOLA

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*Gentlemen:*

I do not believe that it is wise to attempt to place any limitations on the style of radio sets that may be offered to the public. I am of the opinion that natural causes will control the situation.

We are now down to three tube AC sets. I do not think there will be many of them sold; even as second or third sets, as they reach the level where reception is definitely unsatis-

factory. We question very strongly whether even the present four tube sets will last and think there will be a swing upward from them. However, if there is a class of poor people who cannot afford to buy anything more than a four tube set, that is the set that the industry should make.

The radio industry should be interested primarily in getting as large a percentage of the consumer dollar as possible, and nothing else. Let the public decide the kind of radio it wants, depending on quality, performance, appearance.

MORTIMER FRANKEL.

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## C. A. BURNETT

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*Gentlemen:*

It is my firm belief that with the advent of the midget radio, cheaply constructed super heterodyne, and miniature console, we have stepped back further in the past year and a half, than we made progress in the preceding seven years.

This price orgy has tempted manufacturers to stint on materials and workmanship in order to produce competitive merchandise. Construction of chassis, cabinet and all materials have certainly been cheapened to make it possible to put the present retail prices on these receivers, and the results can all be summed up in a loss of naturalness of reproduction, tone quality, and everything else that goes in to making a radio receiver a real pleasure and benefit to the American home.

The radio dealer of today has to do many times the volume done heretofore in order to make the same net profit. His selling expense, his service, delivery and credit departments and everything else that goes into the merchandising of radio receivers, remains exactly the same as when he was selling higher priced units. Therefore how can any dealer, no matter what his volume of business is, stay in business handling cheaply constructed and cheaply priced units?

The leading broadcasting stations are spending millions to develop and install apparatus for the faithful transmission of broadcasting. It doesn't seem fair to these broadcasting stations to put into the home sets that cannot reproduce more than half of what the stations are putting on the air.

A. E. HILLMAN, MGR., *Radio Dept.*

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## JESSE FRENCH

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*To the Editors:*

Your article, "Needed—Leadership," portrays a condition that has actually prostituted the industry from the retailer to the manufacturer already. I believe that the present economic situation demands a moderate priced radio but I do not believe there is any justification nor any consumer demand for a radio at from \$20 to \$30.

I regret that I have no panacea for the prevalent radio ills nor do I think any individual can help the situation alone. I do think a co-operative group working in unison and under intelligent leadership could make some headway toward steering the good ship on a level course.

JESSE FRENCH, III, S. M.

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## UNITED ENGINE COMPANY

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*Gentlemen:*

I feel that high quality sets are here to stay at real low prices. We cannot adjust conditions to our needs but it is necessary for us to adjust our business to present day conditions.

I favor wearing out rather than rusting out and I believe that the dealer who will adapt himself to the present conditions instead of fighting them will be much better off.

J. G. FINKBEINER, *Treas.*

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## WAGNER'S RADIO SERVICE

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*Editor, "Radio Retailing":*

A person that can't pay \$60 for a midget radio can neither pay \$30 for one. On the other hand a person that will pay \$100 for a console radio will also pay \$150 for the same machine; everything being equal. A person either wants a radio or he doesn't.

HENRY W. WAGNER.

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## RADIO EQUIPMENT CO.

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*Dear Sirs:*

Consider the position of the dealer. He is fast losing confidence. A short time ago he bought radio sets as low as \$69.50 retail. He was surprised that they could be so good at such a low price. Within three months he finds out he can buy as good a radio set for \$39.50 or \$49.50 retail. He has to take a loss and he has been doing it for nearly two years and I know of no radio dealers in our territory who haven't at least dissipated half their capital. The dealers have got a lot of courage to keep fighting along under these conditions.

It seems to us that someone as impartial as you are yourselves in this industry should get the leading manufacturers together and seriously consider the issue. Certainly there is no reason for selling a radio set for less than around \$60.

If the market for consoles can be held between \$100 and \$150, dealers will stay in the business. Otherwise, they will commence to sell refrigerators, wash-machines, etc., and the outlet for the radio manufacturer will just simply not be present.

J. H. SANDERLIN, *Radio Sales Mgr.*

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## ASHUS RADIO CO.

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*Gentlemen:*

Radio has passed through various stages of growing pains. The general trend, however, has been and still is, toward quality. Like the blood in our veins and the steel skeleton in a skyscraper, it must always be present, as it plays a vital part in the structure.

I believe that there is a place for inexpensive sets, sets that are built without stinting of material and workmanship. This will most certainly mean at a retail price well over thirty, or forty dollars. Quality can scarcely be retained for less and without it our whole structure suffers.

ALFRED ASHUS.

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## ZWEIFLER, INC.

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*Mr. Sutcliffe:*

Commenting on your July editorial, it is the writer's opinion that it avails nothing to talk about calling a halt after the horse has run away. Your article should have been published before the RMA Show rather than after. We feel that if the RMA were functioning properly the present situation would have been prevented.

Each manufacturer is endeavoring to feature a price regardless of construction quality. After the public receives this type of merchandise we feel the real trouble will just begin.

WALTER ZWEIFLER.

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## BOSCH

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*My dear Sutcliffe:*

I note your fear that this price orgy "may progress to a point where manufacturers will be tempted to stint on materials and workmanship in order to produce competitive merchandise." I think I may state positively that that condition has already been reached. I had occasion the other day to examine in detail a new set recently announced by one of our larger manufacturers. On a test of performance the set showed up very well, and as the customer knows nothing about the construction of a set, this job might be considered fully competitive in that respect with higher priced merchandise. We kept it running, however, and at the end of a week it was not so good, and it was becoming obvious that some of the mechanical and electrical defects were having their effect on performance.

I am frank to say that my own company has used considerable effort and ingenuity to reduce the cost of production, but we have not yet reached the point where we are willing to sacrifice performance or permanence of our merchandise.

There is a price level below which the manufacturer cannot go without ruining himself, because there is a cost below which he cannot go, and in my opinion that cost level has been pretty nearly reached. Like most new industries we have suffered from a general ignorance of cost of production and I believe that there are not over eight or ten radio manufacturers today who really know what their cost of production is. The result has been

(Please turn to page 44)



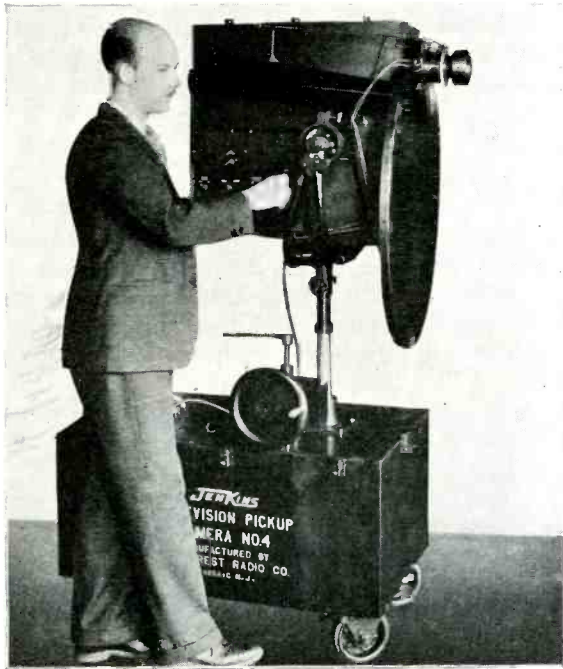
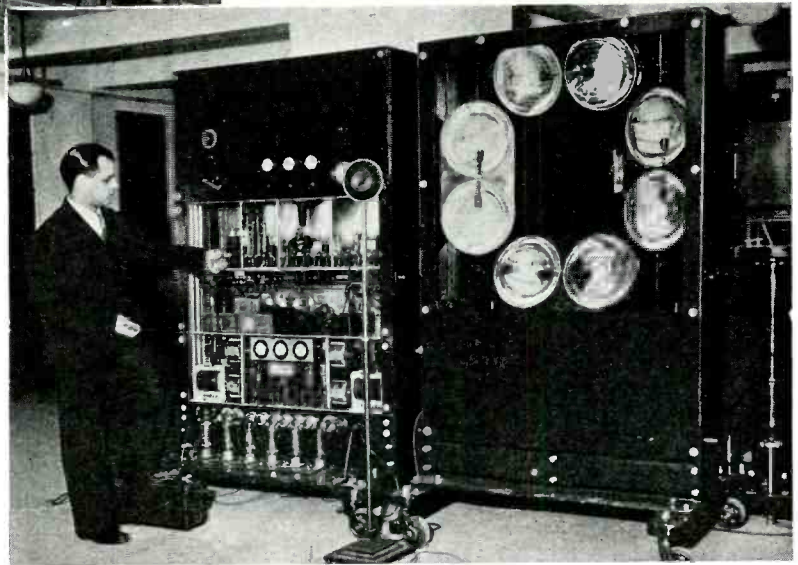


# Going FORWARD

*New television stations and apparatus make their appearance*

*NBC has taken space in the lofty Empire State tower, 1,248 ft. above New York's teeming streets, and is installing a television transmitter. Picture programs broadcast on ultra-short wavelengths (1 to 3 meters) will serve the area optically visible, it is rumored.*

*(Right) J. A. Sanabria, the promising engineer who used a hot-cathode tube as a light source to project 16 ft. pictures at the RMA show, is repeating his demonstration in other cities, in collaboration with the Shortwave & Television Corporation.*



*This direct pickup camera, just introduced by DeForest, may be the forerunner of television news-reel machines. It eliminates the flying-spot, which heretofore has flickered so annoyingly in the eyes of televised subjects and will work outdoors.*



*W2XAB, a new 500 watt television station operated by the Columbia Broadcasting System (WABC) took the air July 21 on 2,800 kc. E. K. Cohan, the chain's technical director "tuned her up"*



# IDEAS *Built*....

## *How E. H. Peffer Has Made His Music Store Known to Everyone in Stockton, California*



*KGDM, one of his early efforts, attracts customers from all over San Joaquin County*

SOME years ago E. H. Peffer opened a music-radio store in Stockton, California. Soon afterward he secured a license to broadcast and erected a station in the store. This was the first of his business boosting ideas—a rather elaborate one most dealers will consider it although it seemed a small thing at the time—and KGDM has been pulling in business from all points of the compass ever since.

At first he was glad to stand the expense of operating the small transmitter in return for publicity. Since then the station has graduated into a self-supporting enterprise, actually returning a profit. Many local merchants pay for air privileges and Peffer advertisements are broadcast twice daily, at six a.m. and at six p.m., also filling in time whenever the station schedule is not filled.

In addition to its advertising value, KGDM also lends interest to one store window in which the studio is located. This truly was a grand sales idea and Peffer has gone right on thinking up new ones.

### *Every "Ad" Is News*

Peffer believes in making his newspaper advertising as interesting as the news pages—and does it. Through a long standing arrangement with the *Stockton Record*

he secures the entire back page of each week-end edition, a special issue which goes to 20,000 San Joaquin Valley homes, devoting this page to a miniature section entitled "Peffer News."

This section has flaring headlines, half-tone illustrations and feature news items prepared by his advertising man. When equipment is sold to prominent citizens announcements are worked up. Installations are frequently pictured. The receipt of new merchandise is announced in much the same way as a reporter would treat the arrival of some notable. And when a new clerk is hired an account of it appears on the page.

The advertising bill comes to about \$8,500 a year.

### *Showmanship Surely Pays*

This dealer is an excellent showman. When a train-load of radios arrived in Stockton recently he secured permission to parade them down main street on trucks, from the flatcars to the store at midday. An essay contest conducted several months ago brought in 400,000 names, proof that his advertising is "clicking."

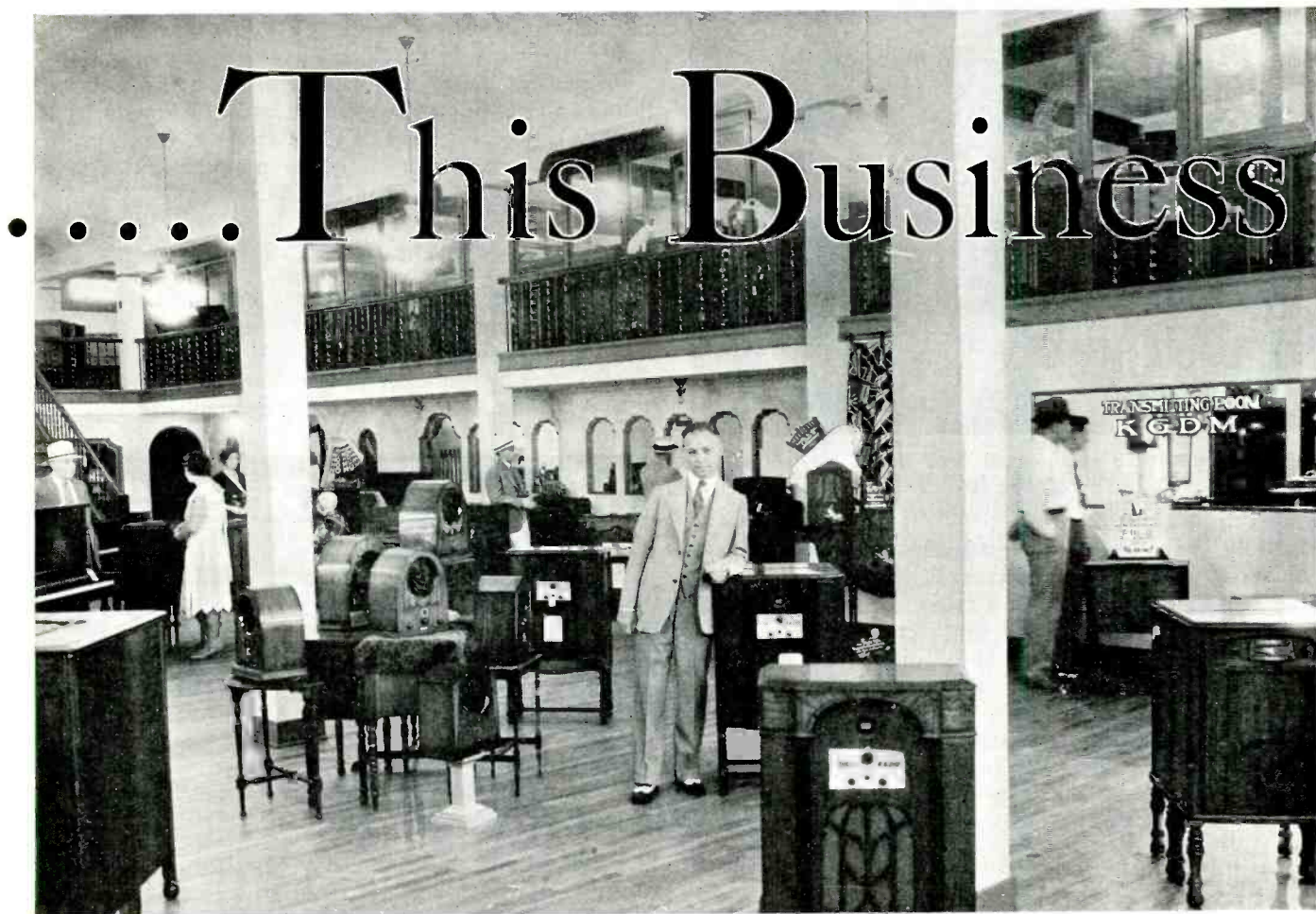
A one-man radio show is an annual event at the store. Sets are brought down to the main floor, all other merchandise is shifted to make way for them and the doors are thrown open. Salesmen, during this period, keep carefully in the background and because of the manner in which the show has been conducted year after year the public keeps coming back for more.

### *Bargain Basement Booms Business*

Traded in equipment is not displayed on the main sales floor of the Peffer store. Merchandise which is slightly used, or sets which have become obsolete, are placed in a bargain basement by themselves and this department advertised expressly for the bargain hunters.



*This bargain basement more than pays its way*



So prompt is the turnover in this department that in spite of the large volume of trade-in business done on the upper floors there is never more than a few hundred dollars tied up in used or obsolete equipment. Flash advertising is safely employed by the basement.

### *Auto-Radio Installed on Main Street*

When Peffer sells an automobile radio receiver the customer drives his car into one of the spacious entrance-ways to the store and there, before the eyes of Stockton's window-shoppers, the set is installed. KGDM often announces simultaneously with the sale that an automobile radio installation will be made, stating the time, as it has been found that these sets are still novelty enough to pull the curious out of their way for a look.

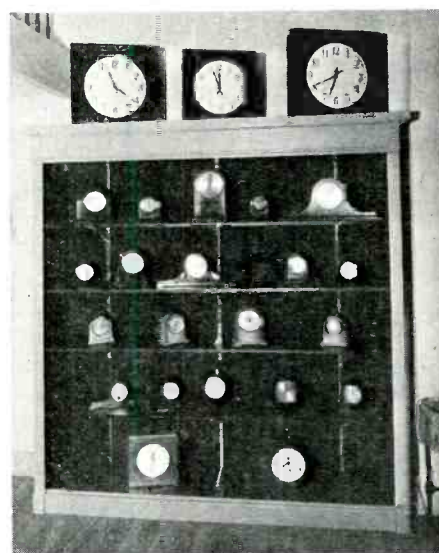
The entrances are exceptionally large and installation work can be carried on in them quite as easily as in the shop. This work does not prohibit customers from using the entrances as the doorways are quite wide and as a result auto-radio often finds itself precisely in the center of the stream of store traffic.

### *"Spot" Electric Clock Displays*

Electric clocks are very effectively displayed at Peffer's in small, compact "bookcase" niches. These, "spotted" where store traffic is heavy, provide several shelves for the various models handled and by virtue of a flat back-finish cause the merchandise to stand out in sharp relief.

A concentrated display, rather than a scattering of

*Peffer (center) shows the proximity of the interest-creating studio of KGDM, which may be seen at the right, to the radio display section*



*Electric clocks are neatly but effectively displayed in small space*

clocks throughout the building, is more effective, the store finds, as customers can make rapid comparison of models and prices.

### *Home Movies Worth \$1,000 a Month*

"Home-movies are worth at least \$1,000 a month to me," states Peffer. He has installed a small theatre in the back of the store, seating about 20 people in order to demonstrate this equipment. Films are usually pic-





*This home-like nook, at the rear of the store, is an excellent spot for "closing"*

tures he has taken of his own business activities. When a carload of merchandise arrives the train is filmed backing into the siding. When a radio is installed in a well known home the complete job is pictured.

Subjects of this type are used in a window shadow box as well as in the store theatre, thus doing double duty as promotional mediums. "This field is particularly interesting to us because of the repeat business involved," Mr. Peffer tells us. "We have several customers who not only invested \$700 or more in initial equipment but who have become, as well, steady buyers of film."

### *Where They Sign on the Line*

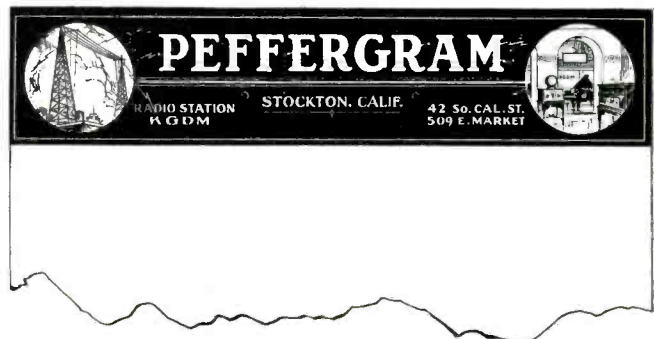
A quiet nook is provided at the back of the store for the display of radio and pianos in a homelike atmosphere.

This spot is comfortable, easy on the customers and incidentally an excellent place for Peffer's salesladies to secure the name on the dotted line.

People can be talked to much better in a quiet spot than in the open store when the conversation turns to money. It is sales ideas of this character, which on the surface do not appear to be so important, that have helped Peffer on his way to fortune.

### *The "Peffergram"*

Peffer has devised a particularly ingenious method of imparting importance to his direct mail advertisements. He uses letterheads which resemble standard telegraph blanks, mailing these in psuedo-standard telegram envelopes. The words "Postal Telegraph" are replaced



*Letterheads simulating telegraph blanks in order to impart attention value to direct mail announcements*

by "Peffergram" and the particular advertising message of the day typed beneath in regular telegraph style.

A "Peffergram" circular of this character recently produced many orders for Preston permanent radio ground accessories.

## RECORDS Are Going Fine . . . .

THE following extracts make mighty interesting reading for the dealer who has an inquiring mind concerning this question of merchandising records. We are indebted to Lee Adams, of the San Francisco branch of the Brunswick Radio Corporation, for these illuminating ideas:

"We are enjoying a substantial increase in records compared to last year. . . . It is the consensus of opinion that combinations are more in demand, which will further the sale of recorded music if properly exploited.

"The dealer who is selling combinations and then sending his customers to his competitor for records is taking a big chance in losing that customer for all future sales.

"I find that the successful record department sales person makes a real effort to become acquainted with the types of music preferred by each individual customer and that he also keeps in touch with his clientele, when new records are released, by mail and telephone. . . . The radio department manager must employ capable help

behind the record counter or his record sales will decrease.

"The demand is growing for the better type of recordings, such as symphonies. . . . Many dealers are showing a big increase in sales this year by featuring this better class of music.

"Record manufacturers are offering dealers more help in the way of attractive window displays—and particularly with the return privilege—than in the past. . . . Dealers now buy every day or so instead of every two weeks. . . . This increases turn-over and decreases the size of the unsalable stock of records. . . . We are limiting new record releases to about 30 a month—consisting of only the hits.

"It has been proven that if a dealer will go after the record business today from the many angles that are available, he will not only be satisfactorily remunerated but will get many customers into his store that otherwise would visit his competitor. . . . The law of averages does not fail, the more persons contacted the greater the sales volume."



*Trade would benefit from—*

# Proposed Patent Pool

*Sales cooperation, advertising stimulation and engineering economies for entire industry*

THE dawning of a new day of opportunity for the independent radio manufacturer is seen as the result of the "open patent pool" proposed by the United States Department of Justice as a condition of withdrawal of the Government's suit to dissolve the Radio Corporation of America.

Such a patent pool has long been a subject of discussion in the radio industry. Its effect would be felt "all along the line," down to the ultimate consumer, in reducing the burden of license fees and of patent litigation cost, and in increasing the freedom with which patents might be utilized throughout the industry. Other incidental advantages, under such a patent-pooling arrangement, are outlined below.

Conferences between the Department of Justice and the defendants in the suit, the Radio Corporation, the General Electric Company, the Westinghouse Company, and the American Telephone & Telegraph Company, were interrupted early in July, when the Department's counsel, Judge Olney, issued the following statement:

#### POOL ADMINISTERED BY INDEPENDENT TRUSTEES

"The principal defendants would consider favorably the creating of an open patent pool, whereby the use of their patents in the radio and certain allied fields would be open to the public generally upon fair and reasonable terms to be fixed by independent trustees.

"Such a pool would, in the opinion of the Department, if practicable, be of distinct advantage to the public both as opening the patents of the particular defendants to general use and also as serving as the beginning of an open patent pool into which all patents important in the radio field might be brought and their use made open to the public on terms fair and reasonable to patent owners on the one side and the industry on the other, and the industry be largely relieved of interminable and expensive disputes over patent rights."

The conferences stand adjourned until September, "when they are to be resumed and pursued without interruption, to a conclusion."

#### PATENT LIBRARY AND ENGINEERING LABORATORY

Many incidental advantages of industry cooperation would ensue from such a patent pool, exerting a wide influence on the manufacture and marketing of radio sets, declare those favoring such a plan.

For example, a central engineering and research laboratory could be set up, to which all manufacturers could

refer engineering problems, new ideas, and circuits for study and analysis.

A central patent library would undoubtedly be created, under competent legal administration, making available a complete cross-index of patent information, which any independent manufacturer might consult.

Such a central organization could pass upon the value of new patents offered the industry and its members, giving information of the greatest value.

#### AN INDUSTRY SALES CAMPAIGN

But perhaps the greatest consequence of cooperation for patent pooling, would be the setting up of an industry body for the promotion of radio-set sales to the public in a way never before attempted. Recent industry changes and general economic conditions have shown that no longer can the industry and trade depend upon radio's mere novelty for the purchasing impulse necessary to keep up sales volume. From now on, it is apparent that some kind of sales stimulation and industry advertising will have to be resorted to, just as in the paint business, the soap industry, and others. An active centralized agency to promote the use and sale of radio is needed, and would be the outgrowth of an industry patent pool.

Opinion in Washington circles seems confident that the conferences on patent pooling between the Department of Justice and the Radio Corporation have gone much further than the Department's statement would indicate, and that an "open patent pool" for the radio industry is now a foregone conclusion. On the other hand, all parties to the June-July conferences at New York officially deny that any conclusion is yet reached.

The patent situation in radio is, however, again brought to the fore for political discussion, and will assuredly be a subject of heated controversy on Capitol Hill this winter, attracting the attention of both houses of Congress.



#### OPEN PATENT POOLING WOULD—

*Create industry cooperative body for stimulation of radio sales*

*Reduce license burden felt by whole trade*

*Set up a cooperative engineering laboratory*

*Establish patent reference library*

*Avoid drastic Congressional action detrimental to radio industry*

*Bring about active cooperation throughout the trade*





# The 4 Square for Selling

By Ray V.

## 1<sup>ST</sup> STEP

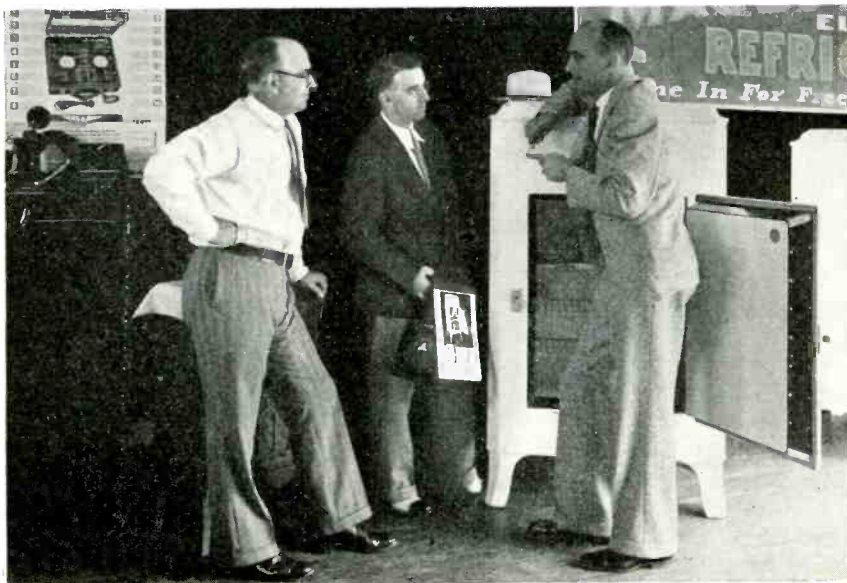
### RADIO DISTRIBUTOR *hires refrigeration veteran*

**S**TERN and Company—through its dealers—has placed over 1,000 electric refrigerators in the homes of New England housewives since March. This well known radio jobber, with headquarters in Hartford, Conn., has been outstandingly successful because it built its refrigeration structure on a “four-square” foundation.

And its dealers, likewise, have made money with electric refrigeration because they always have been considered, by Stern, as a most vital part of this same

### APPLIANCE MANAGER, *with salesman, instructs the dealer*

## 3<sup>RD</sup> STEP



edifice and must function accordingly.

When Francis Stern added refrigerators (Majestic) to his radio business he did so in the full realization of the absolute need for a new sales viewpoint and new technique—right down the line. The four pictures on these pages tell the story of Stern’s basic, 4 point sales set-

up better than a thousand words.

Observe that the initial step (1) is that of a close tie-up with a man who has had a wealth of practical experience in selling specialty appliances in the home.

This veteran immediately imparts this knowledge and technique in thorough manner to each sales member of the jobber’s organization (2).

The scene now shifts to the dealer’s store (3), where the jobber’s appliance manager and territorial salesman start an intensive dealer-training process.

The fourth cornerstone is that of the actual sale (4)—in the home, and made under favorable conditions.

Getting down to dealer application cases: Lawrence and Valmore Vadnair run an auto and radio salesroom in North Adams, Mass., population 22,000. This April they tackled refrigeration in the good old way. Ran local ads and fixed up a pretty window and store display. Result—not one sale.

Then the jobber’s representatives got busy. Between May 2 and June 3 here is what they did:

Switched the two auto-radio-refrigeration local salesmen from \$40-a-week salaries to a 12½ per cent commission basis, with a \$20 drawing account.

Held three instruction sessions with the two local men and the Vadnair boys.

Saw to it that each automobile customer was contacted personally or by telephone.

Ditto for the radio customers.

Both the jobber’s salesman and jobber’s appliance supervisor accompanied the partners and their men into the homes of prospects—closing a total of five sales and thus conclusively demonstrating that outside selling can be made



# PLAN

## Refrigerators

### Sutcliffe

to produce results—if preceded by intelligent training.

Saw to it that each of the Vadnairs bought an "electric" for their *own* homes.

Insisted on night work. In this connection note that 65 per cent of the 15 orders received within that first five-week period of real "out and at 'em" were closed after 6 p.m. The average price received for these boxes was \$275.

Now North Adams has been hit just as hard by the depression as any other town in the country. Questioned as to the one reason for this unusual sales record, under the circumstances, Appliance Manager Hugh Pullen named evening calls as the outstanding answer.

"Radio dealers simply *must* call on prospects after sundown," he declares, "if they would book refrigeration business in worthwhile volume."

Case number two, that of Henry Morans and Sons, New Britain, Conn., is strikingly similar with respect to the nature of the selling methods used and results obtained. It differs in this respect, however, Morans had been operating a sales crew and getting business via the front-door route for a number of years. The job for the jobber in this instance, therefore, was one of special training in the merits and talking points of the particular refrigerator being handled and of keeping the local field sales crew on its toes. The latter objective was attained by means of the well known experience meetings, conducted at frequent intervals.

Case number two is cited for the special reason that it proves the need for close and understanding field selling cooperation between the jobber and the dealer *even when the latter thinks he knows all about outside selling.*

When Leslie and Herbert Morans first started selling refrigerators for Stern, orders were few and far between. Although everyone worked hard, energy, apparently, was being misdirected. This was especially noticeable with the men.



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## 2<sup>ND</sup> STEP

### VETERAN APPLIANCE MANAGER *trains the radio salesmen*

Just as soon as the enthusiasm, inspiration and prestige of an outside expert began to percolate to the commission men orders began to perk up.

"Even though he knows no more about this game than some 'hardshell' salesman, the occasional contacts and the personal interest of a specialist, who calls on dealers in four states and always brings new ideas and a fresh viewpoint, is of tremendous benefit," concludes Mr. Pullen.

Supplementing the preceding story of theory and prac-

## DEALER

### *applies lessons and sells in the home*

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## 4<sup>TH</sup> STEP



tice is the following statement from Francis Stern, the head of Stern and Company. This radio wholesaler, so far, has done one of the best job distributing refrigerators of any firm within the radio industry.



## *As I See This*

# REFRIGERATION PROBLEM

By Francis Stern, *President, Stern & Co.*  
(Hartford, Conn., distributor of radio and refrigeration throughout the New England States)

**R**EFRIGERATION distribution divides clearly into three specific selling classifications: Town or Small City, Large Metropolitan Centers, and Apartment House Owners. Entirely different merchandising methods must be used with each group.

The rapid development of the refrigeration business through radio distributing houses has been due to the fact that the sales curve of refrigeration complements that of radio. The resultant is as nearly flat as can be arrived at with two major lines.

Now may I state frankly, and without malice, that the average radio dealer is perhaps the worst equipped for merchandising electrical refrigeration imaginable. But, although this statement be true, it is made with the conviction that through intelligent cultivation the radio dealer will unquestionably become a *dominating factor* in refrigeration retailing.

First, therefore, let us take the problem of the rural or small city prospect for a refrigerator. In this field the established radio dealer occupies an enviable position of confidence, provided he has sold and serviced well the radio equipment he has handled. He is looked upon in his community as a reliable electrical expert, and as refrigeration is largely an electrical device, he is, by virtue of this recognition, eminently fitted to make a second sale in those households where he has already established himself.

Here, however, is the rub. His radio experience dates from the time when he sat in his office and customers begged for sets. He has seen this phase of selling pass out and recently his business has gone to the other extreme. But in so doing sales have been confined largely to very low-priced units—so that he has gradually pulled into his shell. With low unit price the dealer could not afford to make house-to-house solicitations.

Then came refrigeration—to be the panacea for all radio dealer ailments. Once again the public would rush in and take high priced units off his floor. As he waited at this desk he pictured that new automobile he was going to buy. His disillusionment, however, has been quick and painful. The refrigerator could not be tuned in to a heavyweight championship fight, nor by its own voice draw the crowds to the store.

Here is where Mr. Jobber rapidly realized that he too would have to adopt selling methods radically different and infinitely more thorough than those he used in "taking orders" for radio sets.

First and foremost, Mr. Jobber hired a trained specialty salesman—a man thoroughly experienced in selling household appliances.

Next, in the strategic points in the territory he held a series of sales schools on the method of presenting electrical refrigeration to the consumer. The foremost function of these sales schools was to develop, for the dealer, methods of obtaining prospects.

Logically, the dealer has on his books a number of accounts to whom he has sold radio. This constitutes his initial pros-

pect list. Prizes may be offered, such as a substantial cash prize for the oldest ice chest actually in use in town. Visits to radio owners for the purpose of replacing tubes—keeping an open eye in the kitchen—soon tell whether or not the radio owner is a refrigeration prospect.

And most important, at these schools, is stressed the absolute necessity of personal contact with every prospect.

And now comes the vital phase of small town dealer selling. In spite of his sales school, in spite of his service school and the fact that he goes back to his store full of pep and enthusiasm, within twenty-four hours the dealer is back in his old rut, and within a week he wonders why refrigeration hasn't paid for the new car or painted the house!

This is why the distributor's force must be so organized that his field manager, as well as his territorial salesman, are available for direct contact with dealers. These men should spend from one to three days with each dealer, dragging him out of his store by the back of the neck and throwing him bodily into the homes of a selected list of prospects if necessary. A few such contacts, and Mr. Dealer is either a made refrigeration man, or the wise jobber tells him frankly that he had better get out of the picture. No jobber should be afraid of losing a customer, because a dealer who still remains unfitted for his job after this amount of work and money has been expended on him will ultimately pass out of the picture through the bankruptcy courts.

**O**H, how different is the problem in the metropolitan centers! Here both the jobber and dealer find themselves confronted with established, exclusive refrigeration sales outlets, trained in every phase of selling, and equipped by experience to make incoming competition most unhealthy.

Each type of big city dealer presents a problem for the radio jobber but most of them are less willing to be trained in the manner of the rural merchant than the jobber anticipates. For the present it would seem that the only successful method of metropolitan distribution is to having the metropolitan dealer do a sales job pure and simple. Installation and service become the jobber's problem. The metropolitan dealer maintains a complete line on his floor. These refrigerators are his selling samples, and are the dealer's permanent investment. His selling is from these samples, and when a sale has been completed, his jobber makes the delivery, installs the box, and tacks up a little card telling the housewife whom to call for service.

The sales problem of the metropolitan dealer is identical with that of the rural dealer. However, his potential outlet is so much greater that he can afford man power far in excess of the dealer in the small community, and *man power alone is the answer to the problems of metropolitan selling. The metropolitan dealer's contacts must be more frequent and his selling far more intense because of keener competition.*

The distributor enters into this picture by holding weekly meetings of the metropolitan dealer's salesmen. The jobber's field sales executive must devote as much attention to the individual salesman's problems as to those of the rural dealer.

Then too there is the problem which the jobber encounters in obtaining for the metropolitan dealers' salesmen adequate compensation. Particularly in furniture and department stores, floor salesmen are compensated on a very low percentage basis. This compensation is quite adequate where the majority of the sales are made from the floor, but where the salesman must do the majority of the selling in the home and run down prospects after hours, his compensation must be commensurate with his effort.

After a great deal of experimentation, the following table of percentages has proved to be as nearly ideal as possible for large store refrigeration sales compensation and management:

Crew Manager—This man is in full charge of the salesmen, both floor and outside. His compensation should be 3 per cent of the sales price, as an override on all sales made by salesmen.

Salesmen—Should be compensated at 10 per cent, with 2  
(Please turn to page 44)



SCENE FROM "Shanghai Lady." This popular film is typical of those now available, with sound synchronization, for home projection purposes. Selections of this character may be purchased, with the necessary record, for about \$21. They should lease to the consumer for approximately 50 cents per evening. Running time 11 minutes; film life from 60 to 200 showings, depending upon the handling the film receives

# 16 mm.

Since

# Chicago



**N**OW that the mechanical and electrical problems of the home projection of 16 mm. films, synchronized with sound, are practically mastered, manufacturers of these devices are giving serious consideration to the vital matter of establishing film "libraries" at strategic distribution centers and to the working out of a practical, cooperative, plan for the purchase or leasing of film subjects at reasonable prices. Many conferences between radio executives and film producers have been held since the Chicago show.

One result of this study of the situation is that it is realized that the radio dealer or distributor, of his own volition, cannot, and therefore will not, set up the necessary film distribution service to take care of local territories. The reason being that today's market for 16 mm. films is not broad enough to support the comparatively high initial investment involved. It becomes, then, a matter of manufacturer responsibility.

From this situation emerges the following interesting and encouraging bits of news:

Although the life of film used in theaters seldom exceeds 50 runs, exhaustive tests show that the narrower ribbon, for home use, is good for at least 100 showings with ordinary care and frequently gives a clear picture after 250 times through the smooth acting mechanism of the 16 mm. home projector. This fact is of utmost significance because the number of possible rental times is the major factor in determining rental terms—which should not exceed a two dollar bill per evening's entertainment.

#### THE PACENT PLAN

**D**IRECTLY predicated upon this fact is the "economics of film leasing" plan recently formulated by the Pacent Electric Company. This concern contends, however, that the wholesaler is the logical financial main-spring to start the wheels of film-availability turning. Quoting Pacent:

"Under the proposed plan, the greatest investment would be by the jobber who would purchase a number

of subjects and rent them to his dealers on a circulating library basis. The number of films the jobber would be obliged to purchase would depend upon the demand.

"For the purpose of establishing an average figure it safely may be assumed that the average film may be played 200 times before replacement is necessary. Such a film could be circulated among a chain of 50 dealers, permitting each dealer to retain it for one week. It is evident that a jobber serving 50 home talkie dealers could establish among them a continually circulating library comprising five film subjects for each dealer with only one print each of 250 different subjects. Since the average cost of a 400 ft. print, with record, is \$20 this plan would entail a jobber investment of \$5,000."

Much of the balance of Pacent's idea is devoted to demonstrating the attractive film rental profits that ultimately will accrue to both dealer and distributor. Based on a weekly rental, to dealer, of \$6.25 for five reels and records, and on said dealer re-renting to consumer—for 50 cents per reel per night—the dealer would gross "\$12.50 on a \$6.25 investment. The jobbers annual gross is estimated as about \$15,000 on a \$5,000 investment."

#### 12 INCH, 15 MINUTE RECORDS

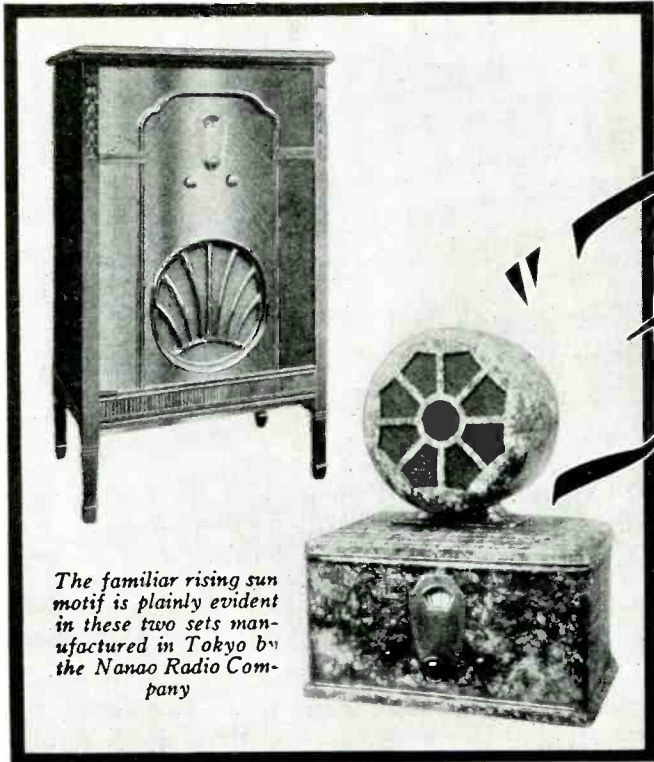
**T**HE present projector calls for the use of standard, commercial 16 inch records. Naturally records of this large size require fairly large driving motors, which are cumbersome to handle and subject to breakage.

As we go to press word comes from reliable sources that a new and better disk for home movie use is practically ready for the market. This latest invention, while but 12 inches in diameter, will play for 15 minutes. Recording is by the "hill and dale" method which permits much closer spacing of the sound tracks.

The introduction of such a record should speed the practical promotion and popularity of home talkies. Shipping and rental cost problems will be vastly simplified. Furthermore smaller diameter records turn at an even pace, thus improving tone and synchronization.



JAPAN



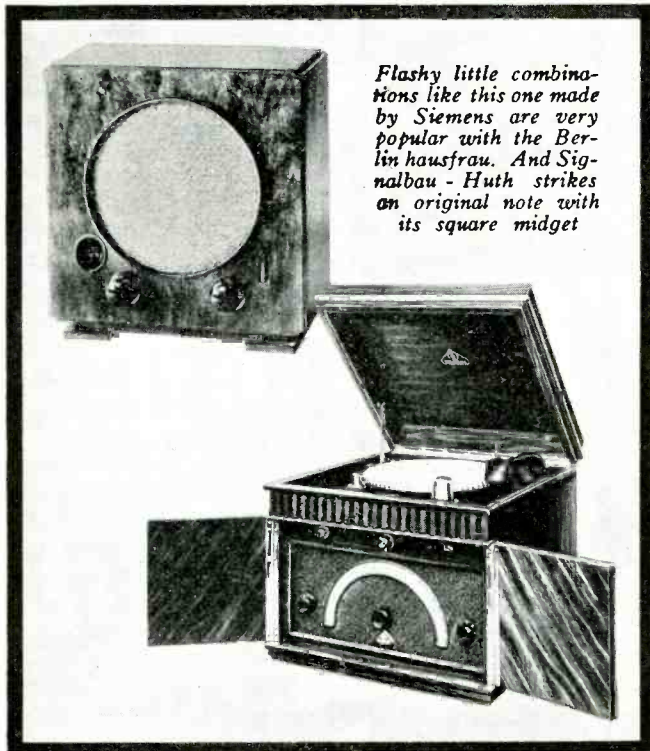
The familiar rising sun motif is plainly evident in these two sets manufactured in Tokyo by the Nanao Radio Company

# "Foreigners"

There's music in the air, too, in lands across the sea. Here are a few of the sets distant dealers will sell this year.



GERMANY



Flashy little combinations like this one made by Siemens are very popular with the Berlin hausfrau. And Signalbau - Huth strikes on original note with its square midget



Something different in consoles is offered to fans in the land "down under" by Amalgamated Wireless. A sturdy midget not unlike our own peewees is made by Electricity Meter Manufacturing



AUSTRALIA



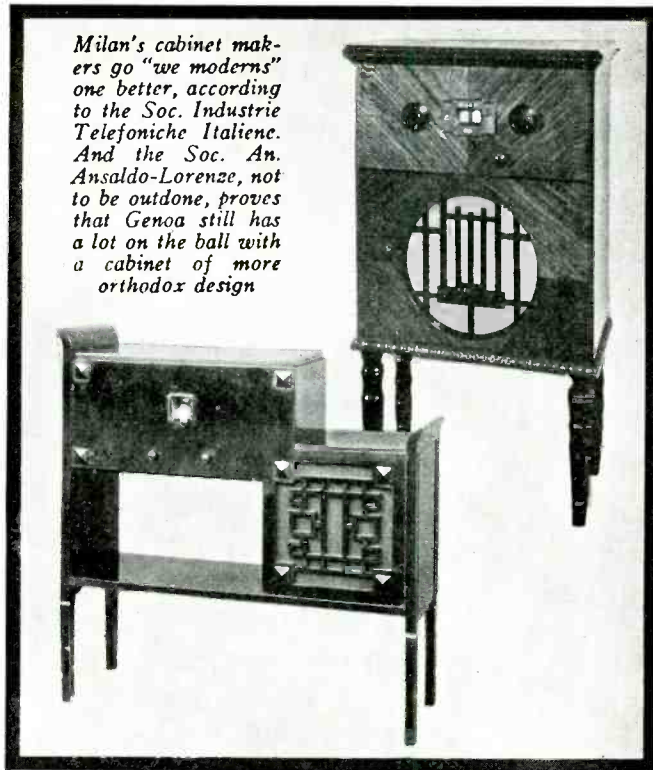
God save our gra - cious King, Long live our no - ble King,



ENGLAND



The King, we are advised, has just purchased two L. McMichael's portables similar to the one shown below. The other is an all electric model!



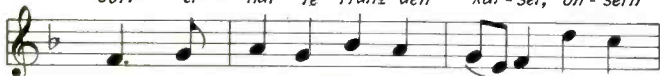
Milan's cabinet makers go "we moderns" one better, according to the Soc. Industrie Telefoniche Italiene. And the Soc. An. Ansaldo-Lorenze, not to be outdone, proves that Genoa still has a lot on the ball with a cabinet of more orthodox design

Si sco-pron le tom-be, si le - va - noi mor-ti,

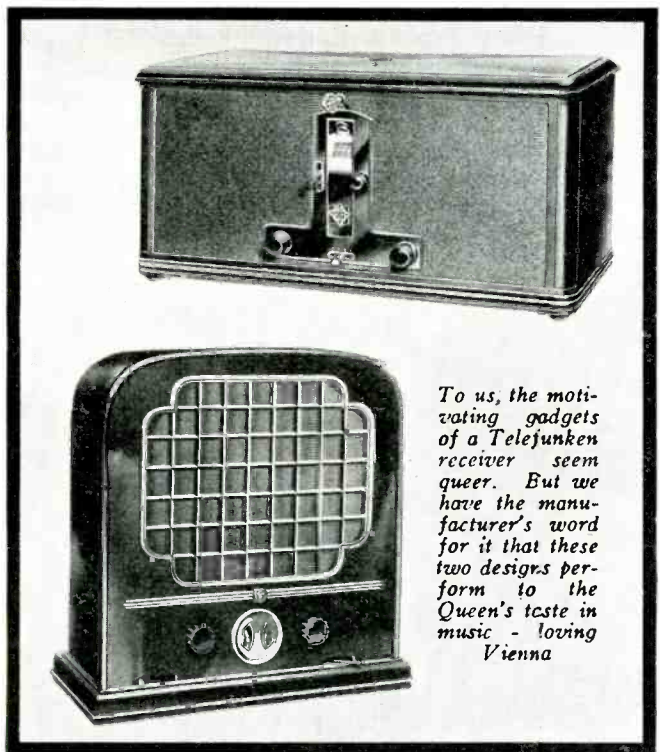


ITALY

Gott er - hal te Franz den Kai-ser, Un - sern



AUSTRIA

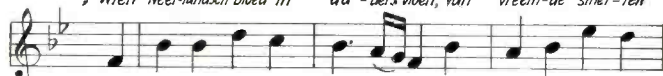


To us, the motivating gadgets of a Telefunken receiver seem queer. But we have the manufacturer's word for it that these two designs perform to the Queen's taste in music - loving Vienna



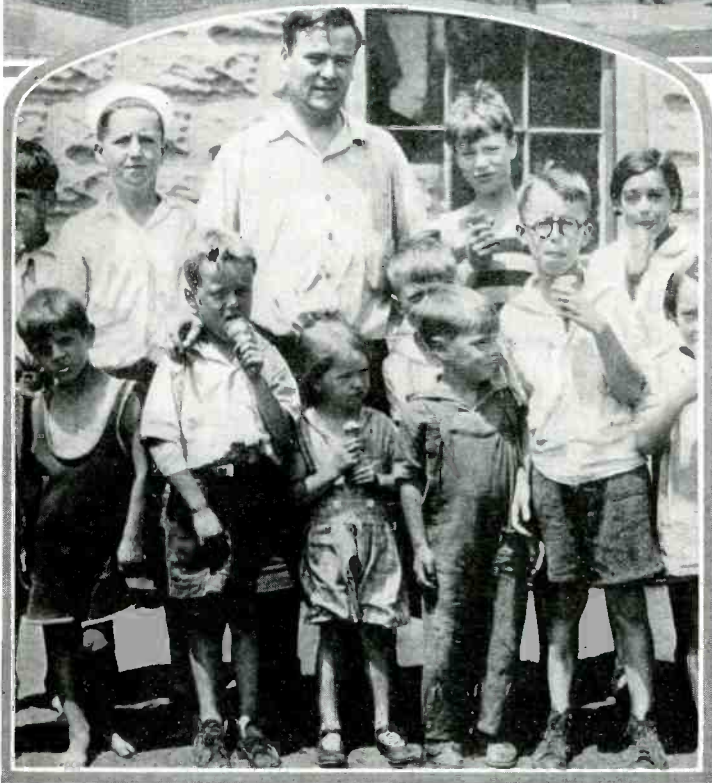
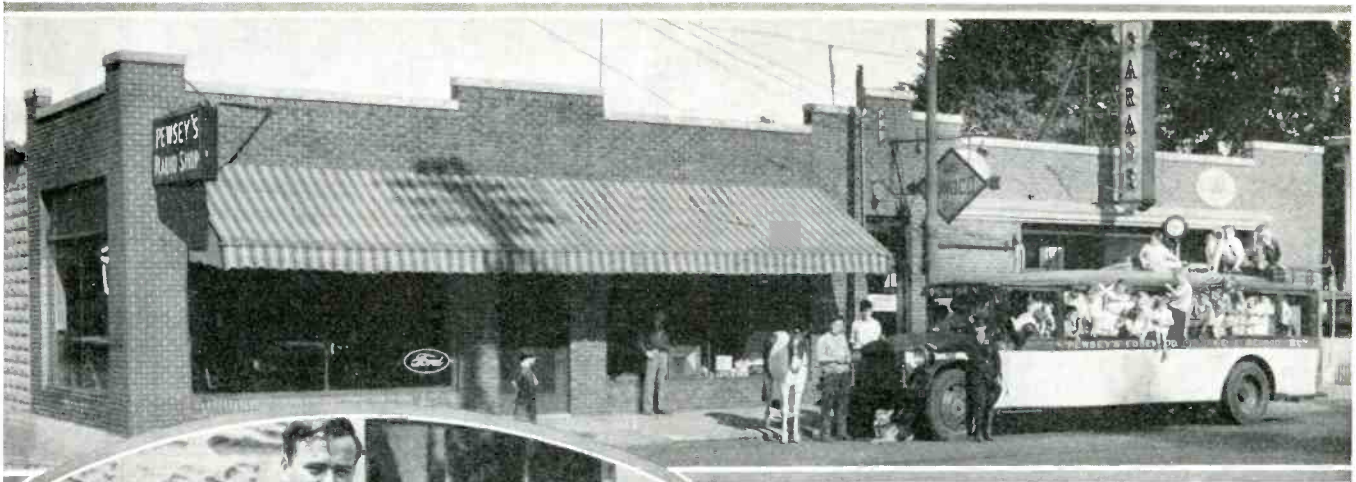
Severe little sets, like these two produced by Van Der Heem & Bloemsma, do yeoman service beside quaint Dutch canals. Small phonograph combinations are extremely popular

„ Wiern Neer-landsch bloed in da - ders vloeit, Van vreem-de smet - ten



HOLLAND





*Over 10,000 letters of thanks have been received from kids who have ridden in this bus. Maintained for publicity purposes alone, it is in constant demand by school teachers and child's club leaders*

"I TREAT the kids of the neighborhood, make them my 'pardners.' They go home and tell their folks about the swell times they have at my playground." This is Ralph Pewsey's own explanation of an advertising innovation that has made his radio store the talk of Edgewood, Rhode Island.

We've heard of dealers blowing kids to cones for publicity before but this man Pewsey goes "whole-hog"; puts every advertising dollar behind a theory that when he befriends children he also makes friends of their parents.

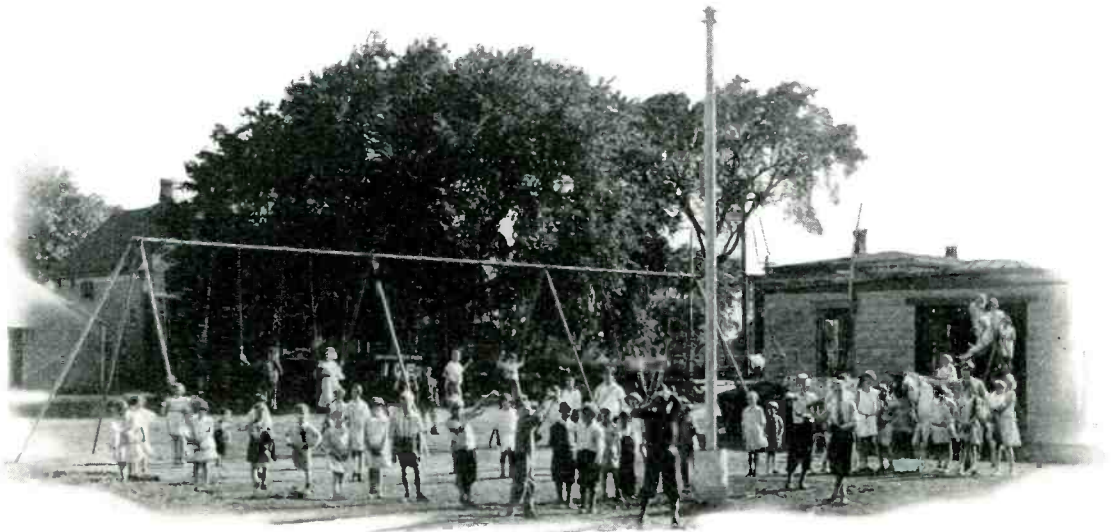
He has converted a vacant lot behind his store into a free playground, owns a bus that does nothing all summer but tote tots without charge to picnic parks, beaches and points of historical interest; rigs up public showers and hands out ice cream on hot days. These are no stunts, but regular, all-year-round activities.

The plan works so well that Pewsey never spends a dime with newspapers. His outside salesmen never find it necessary to canvass.

Cold type appeal is discarded for the warmest kind of customer contact. A blanket of generosity is spread over the kids of the neighborhood. And parents gratefully respond with their business.

# "PARDNERS"

*A vacant lot behind the store has been fitted out with swings, slides and showers. Sometimes ponies are hired for the children from a nearby riding academy*





# Can a SET *be* Repossessed

When it is installed  
in a car . . . . . ?

“YES”

*Claim the Finance Houses, and Tell us HOW*

WITH the installation of radio receivers in automobiles has arisen a new problem in selling. Once the set is fastened to the dash does it become an integral part of the car? Can it be replevined by the radio dealer? The weight of opinion of the expert finance executives is to the effect that it can—providing the original time payment and mortgage contract has been properly drawn up and recorded.

The automobile-radio sales contract should contain an “after acquired” property clause, states Frank W. Lloyd, assistant vice-president of the Commercial Investment Trust, Inc., a New York banking concern which has handled a greater part of the automobile radio paper thus far presented. The general rule is, he goes on to explain, that such a clause conveys no property of the conditional seller or mortgagee unless the conditional buyer or mortgagor has acquired clear title. For example, it is not uncommon for the conditional buyer of a truck to purchase his tires on the installment plan. When the truck is repossessed, the tires must be given back to the conditional seller of the tires: *John W. Snyder v. Aker*, 236 N.Y.S. 28.

In the last case cited, the court held that where the conditional seller of the truck repossessed it, he did not thereby acquire “a lien by levy or attachment.” If the conditional seller of the truck had, however, levied or attached the car by legal process the conditional seller of the tires would not have been protected because of his failure to file the conditional sale contract. Consequently it is important in dealing with auto-radio receivers to file or record the conditional sales contract when required by state law.

Mr. Lloyd concludes that if the filing and recording requirements are followed out and the proper legal contract instruments are used, it is possible to handle automobile radio financing in the majority of states. Obviously transactions of this character will necessarily require rigid credit investigation and a determination of any existing liens on the automobile.

This opinion is further substantiated by Milan V. Ayres, analyst for the National Association of Finance Companies, Chicago. We quote Mr. Ayres: “The

legal situation of the sellers of radio sets for automobile use is much less hazardous than many suppose. In most states the seller’s interests will be properly protected if the right kind of papers are used.

“If the automobile has been sold on a contract which states that after acquired property attached to the car is covered by the contract and if afterwards a radio set is attached and a chattel mortgage given back to the seller, the contract on the car will cover the radio, because the radio is ‘after acquired’ property of the buyer of the car. However, if the radio set is sold under Conditional Sales Contract or Bailment Lease the buyer does not acquire title until all the installments are paid. Consequently it is not his property and it will not be covered by the contract under which the car was sold.”

READ also the opinion of the Commercial Credit Company, Baltimore, another house exceedingly active in handling automobile and radio paper: “We do not know specifically of any cases wherein a dealer or a finance company selling an automobile radio set on the deferred payment plan has been precluded from repossessing the radio set upon default of the purchases, merely because the automobile in which the radio set was installed had been purchased on the deferred payment plan by the purchases of the radio set under a conditional sale contract or chattel mortgage whereby the automobile dealer or a finance company had title to or lien upon the automobile.”

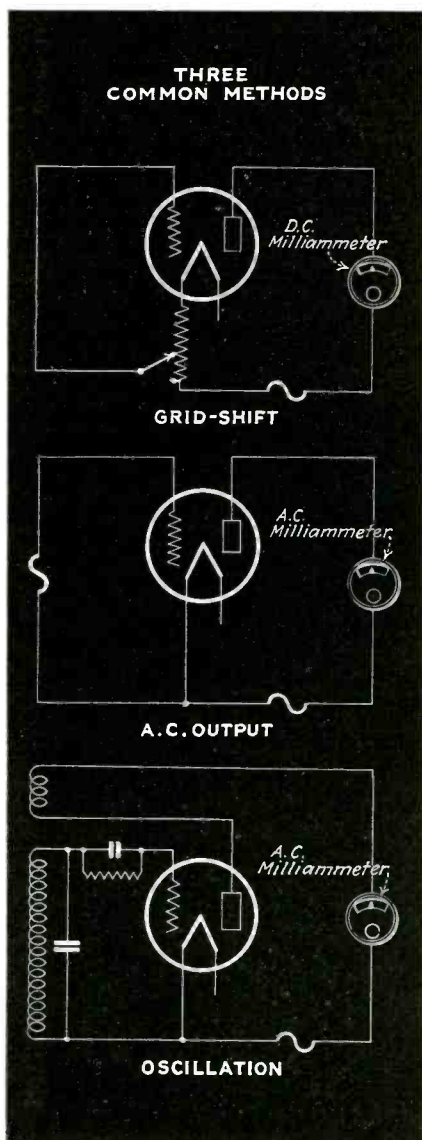
In layman’s language, therefore, it confidently may be stated that if a dealer uses his regular time contract form—providing that the phraseology of such instrument conforms to the laws of the state in which the transaction is consummated and recorded—the law will support the vendor in his replevin proceedings.

It is apparent, however, that the manner in which the automobile radio set is affixed to the car, in other words, the ease with which it may be removed, will have an important bearing on this question. If the set is readily removable without damage to the car and by merely unscrewing a few fixtures and pulling out a few plug connections the case will favor the radio dealer.

# How They Work

*An explanation of the basic principles upon which tube merchandising testers operate*

By W. MacDonald



THE design of "merchandising" tube checkers, which must be inexpensive, simple to operate and easy to read, is a difficult problem. Some sets are more rigid in their tube requirements than others; certain sockets in each receiver must be "pampered" and non-uniform line voltages introduce still another variable. Then the multiplicity of tube types further complicates matters as all of these must be tested somewhere near rated voltages if any degree of accuracy is to be obtained.

Thus it is apparent at the very outset that error is inherent in the job itself, making it almost futile to use precision instruments of the laboratory variety. Because these variables exist most manufacturers prefer to build arbitrarily calibrated testers, tube condition being judged by consulting a chart prepared at the instrument factory. Such readings do not necessarily check with characteristic data furnished by the tube maker.

The instruments are calibrated by noting the average readings obtained when testing tubes known to be good and permit a 15 to 30 per cent variation from these standards in actual use. This permissible variation, ordinarily allowed in connection with either direct-reading or arbitrary-reading devices, blankets not only slight allowable differences between new tubes but also the errors which may be inherent in the tester. For this reason merchandising checkers are valuable principally in segregating good and bad tubes. They cannot ordinarily be relied upon to pick the "ultra-perfects" from a batch of new, good tubes as slight differences in meter readings do not necessarily indicate great superiority or inferiority for actual use in a set. Other characteristics not measured govern tube operation to some extent and a 30 to 40 per cent difference in reading must usually be noted before a tube is definitely discarded.

### Mutual Conductance Checked

Merchandising testers usually check one tube characteristic, generally mutual conductance. The most common method of accomplishing this is by the "grid-shift" system. This involves the application of

a.c. to the plate, noting the self-rectified d.c. plate current at a certain grid-bias voltage, then shifting the bias slightly and noting the new plate current reading. The difference between the two readings varies with the condition of the tube and when compared with a standard this difference constitutes a good test.

The formula for determining mutual conductance by this method is:

$$G_m = \frac{\Delta I_p}{\Delta E_g}$$

The change in d.c. plate current in amperes produced by a change in grid-bias voltage divided by that bias voltage indicates the mutual in micromhos. Readings should be within the readings specified by the instrument maker. Tubes which read too high in mutual conductance are apt to be just as poor as those reading low, producing gain beyond that for which the receiver circuit is designed.

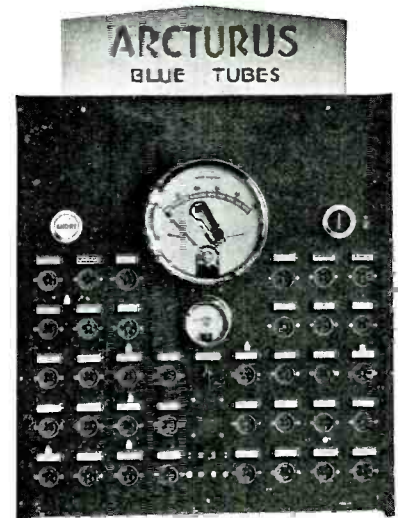
Grid-bias is ordinarily shifted by shorting part of a resistor in the cathode circuit. Plate current flowing through the cathode circuit resistor produces a voltage drop which maintains the grid as a negative potential with respect to the cathode. Cutting out part of this resistor decreases the voltage drop and also the grid bias, increasing plate current. For accuracy, grid bias should be shifted only a small amount so that the test is made on a straight portion of the tube's characteristic curve. If the bias is shifted too far error is introduced because of the curve in the grid voltage-plate current characteristic.

The "a.c. output" test involves the application of an a.c. signal, which may be obtained from a low-voltage winding on the supply transformer, to the grid and the measurement of the a.c. output of the tube. In effect, this system is the same as the "grid-shift" method with the cycle variation in the a.c. signal accomplishing the "shift" automatically. Dynamic mutual conductance is proportional to the ratio between the a.c. input voltage and the a.c. output. In designing such a device care must be taken that the a.c. signal applied is within the tube limits and does not constitute an overload.





The Hickok type A.C. 4300 instrument illustrates a modified "a.c. output" type, using a plate circuit a.c. meter calibrated to indicate mutual conductance directly in micromhos when standard signal is applied to grid



The Arcturus device uses the "grid-shift" idea and resembles the Jewell

The a.c. measuring instrument may be calibrated in terms of micromhos, to read mutual conductance direct. This reading corresponds with data supplied by tube manufacturers when the voltages applied are identical with those under which the original factory tube tests were conducted.

A few instruments use the "oscillation" test, in which the tube operates in a self-excited circuit, supplying its own a.c. signal instead of receiving this from a transformer winding. Measurements may be taken with either an a.c. or a d.c. milliammeter in the plate circuit to permit arbitrary calibration of the meter in terms of good or bad tubes.

### Other Tests Used

Emission tests, which were commonly used in connection with the older, thoriated filament tubes with good results, are rarely resorted to in designing testers for cathode types. These newer types usually have emission to spare whereas tubes such as the old 199 "bled to death" at an early age. The emission test is thus less effective.

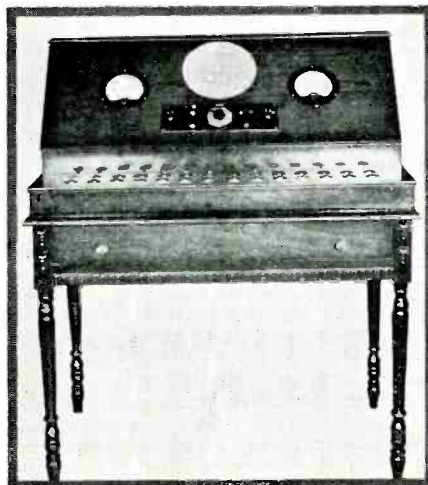
While most of the checkers designed for counter use apply raw a.c. to the plate of the tube under test, this method being economical and satisfactory where arbitrary readings are desired, a number are provided with 280 rectifiers and filters, feeding the tubes to be tested pure d.c. plate current. This is most often true of the types employing direct reading meters.

Some instruments incorporate a gas test. This consists of reading grid current on a sensitive milliammeter, the current readings increasing with gas content. A few provide also for the determination of plate resistance and amplification factor although this is the unusual rather than the rule, most testers making some form of mutual conductance test alone.

A merchandising tube checker should, from the technical standpoint, probably incorporate the following features:

1. Some form of mutual conductance measurement
2. Line voltage control
3. Pre-heater socket or sockets
4. Short-test lamp or lamps

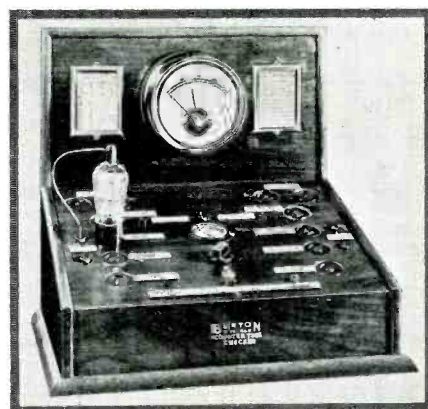
Rigid construction is probably of greater importance than extreme sensitivity.



"Vis-O-Meter," sponsored by Sylvania, is a modified "a.c. output" type similar to the Hickok



Jewell's model 536 operates on the "grid-shift" principle in which plate current readings are taken at two points on the grid-voltage plate-current curve as a mutual conductance check



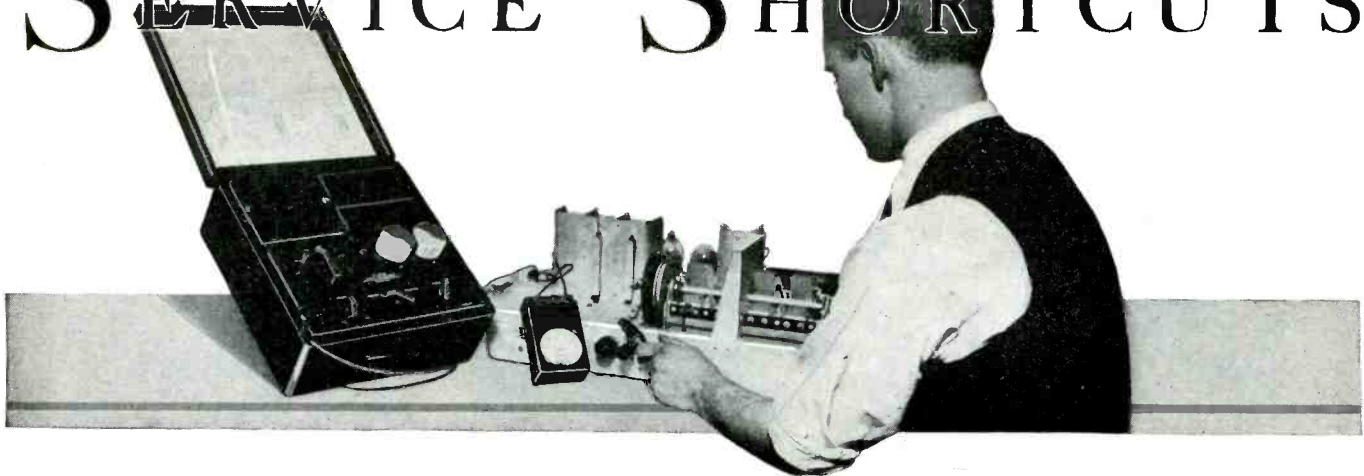
Burton-Roger's model 10 is a "grid-shift" instrument



Ken-Rad's "Acrometer" uses an "oscillation" test (Right)



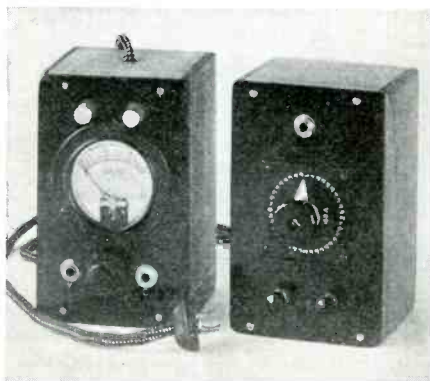
# SERVICE SHORTCUTS



## Capacity Meter and Decade Condenser Box

By J. P. Kennedy

My shop equipment includes two instruments which are of incalculable value—a direct-reading capacity meter capable of determining the size of condensers between .25 and 5 mfd. and a decade condenser



box permitting rapid selection of capacities between .1 and 3.9 mfd. in steps of .1 mfd.

The capacity meter, designed to operate from an a.c. power line, makes provision for variations in line voltage, a necessary feature if the instrument is to be used in the field as well as in the shop. Five per cent variation in line voltage produces a much greater percentage of error in the calibration of such a meter.

The instrument utilizes a 0-10 volt a.c. voltmeter of the iron vane type, requiring approximately 250 milliamperes for full scale deflection. An a.c. milliammeter having a similar range might also have been used. The circuit is best understood by referring to the diagram. R1 is a 650-ohm fixed

resistor capable of passing 250 mls. and is used as a multiplier to increase the scale of the meter so that it will roughly accommodate the applied line voltage. The size of this resistor varies with the type of meter used. One should be selected which gives full scale deflection on about 105 volts. R2 is a resistor variable between 0-100 ohms, so connected that it serves as a vernier on the line voltage. J1 is a closed circuit, interstage jack which permits separate, external use of the meter. J2 is an open circuit jack. Bp are binding posts.

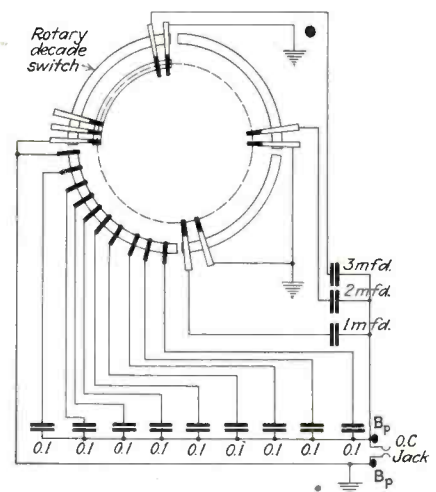
The meter is calibrated by short-circuiting the binding posts Bp and adjusting the resistor R2 for full scale deflection. This adjustment must be made each time the instrument is used if accurate readings are to be obtained. The short circuit at Bp is then removed and fixed condensers of various capacities falling within the range of the device are connected across the binding posts one at a time, the position of the pointer for each capacity being noted. These readings are recorded on graph paper laid out so that capacity may be read in terms of meter scale divisions.

If the instrument is always adjusted to the line voltage at which it was originally calibrated accurate capacity readings will be obtained. Care should be taken that the condensers to be tested do not have serious leakage. Leakage permits additional current to pass through the condenser and produces a fictitiously high capacity reading. Note also that electrolytic condensers cannot be tested satisfactorily with this instrument, requiring a special circuit. ("Testing Electrolytic Condensers," page 41, March, 1931, issue of *Radio Retailing*). Before testing fixed condensers for capacity I test for leakage by connecting them across the output of a B eliminator delivering 200 volts d.c. in series with a 250 volt d.c. voltmeter.

The decade condenser unit contains ten .1 mfd. condensers and 1, 2 and 3 mfd. capacities capable of withstanding power pack voltages. These are known to be calibrated accurately to within 2 per cent of rating.

A Western Electric 169-A forty-point decade rotary switch with .1 calibrations, obtained for 98c. from a mail-order house, permits instant selection of desired capacities. A ten-point single contact fan switch in conjunction with a four- or five-point supplemental switch might have been used.

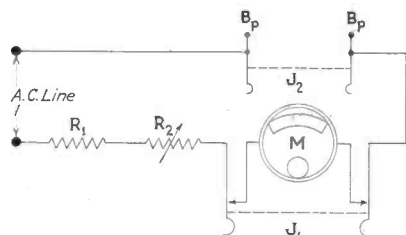
This decade box was wired with an open circuit jack and binding posts in parallel across the terminals to permit the



use of test prods equipped with a 'phone plug or to allow additional capacities to be connected in parallel externally. It was used to calibrate the capacity meter unit already described.

In the drawing, the heavy black tabs on the circumference of the circles are phosphor-bronze contacts. The outer circle is composed of four quarter segments of silver inlaid in bakelite. The inner circle has its quarter section so inlaid. Rotating the switch that has the forty-notch movement cuts each of the .1 mfd. condensers in parallel with the one preceding until .9 mfd. is in the circuit. Then the nine sections cut out and the 1 mfd. condenser is cut in by the inner circle. The .1 mfd. sections are again added, this time in parallel with the 1 mfd. section. This action is repeated with the 2 and 3 mfd. condensers as the basic capacities permitting selection of capacity in .1 mfd. steps to 3.9 mfd.

**RADIO HANDBOOK**, Moyer and Wostrel, \$5. (McGraw-Hill Book Co., New York.) An 886 page reference work dealing semi-technically with the following topics: Fundamental units and radio glossary, electricity in radio, radio accessories and instruments, fundamentals of radio communication, power supply systems and apparatus, vacuum tubes, vacuum tube circuits, radio receiving sets, transmitting circuits, broadcast transmitters, marine commercial transmitters, laboratory equipment and methods, photo-electric cells, television, industrial applications of vacuum tubes, sound motion pictures.



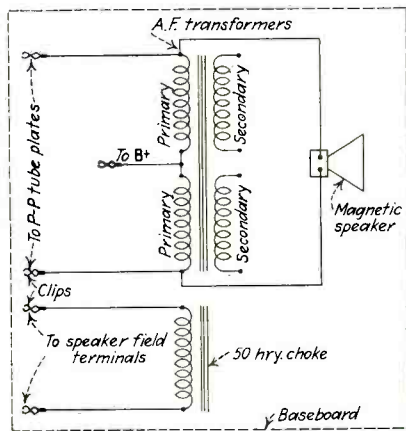


## Dummy Speaker

By Walter A. Cobb

In order to avoid removing dynamic speakers from cabinets when chassis are removed to the work bench I have rigged up a dummy speaker unit which can be used with any type of unit. It consists of two audio transformer primaries connected in series, as shown in the illustration, and shunted by a magnetic cone and a 50 henry choke to take the place of the dynamic field in the receiver filter circuits.

The impedances are mounted on a small sub-base in "bread-board" fashion using clips on the various leads. A five-

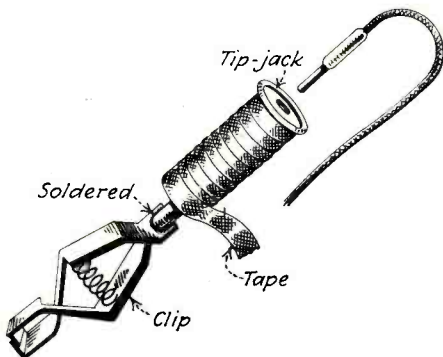


prong plug and standard five-wire cable is provided for adapting the unit to Peerless, Zenith and similar sets with speaker outlets at the back. In connecting this plug the two heater plugs go to the plates of the push-pull tubes, the cathode and plate terminals connect to the field choke and the grid terminal is connected to B plus.

## Temporary Test Connections

By M. A. Porter

Temporary connection to almost any part of a receiver circuit may be quickly made for testing if the serviceman carries several of the illustrated "gadgets" in his kit. Solder a tip jack to a battery clip as shown, wrap the joint and the jack with tape.



Radio Retailing, August, 1931

## How Do YOU Do It?

Radio Retailing will pay for acceptable letters from experienced servicemen describing original methods, or equipment of interest to other shops.

Has anybody built an oscillator for both intermediate and broadcast frequencies?

Mail "kinks" to W. MacDonald, Technical Editor, Radio Retailing, 10th Ave. at 36th St., New York City.

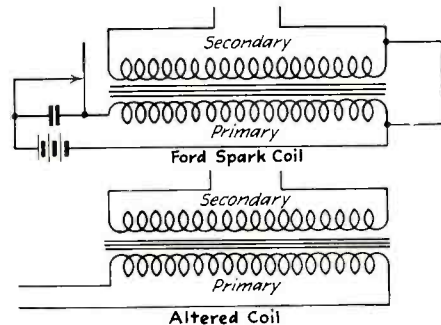
When you want to tap into a circuit it is merely necessary to affix the clip to a part and to plug a test prod, phone or speaker tip into the jack. This leaves the hands free for other work.

## Coupling Extra Magnetics

By Charles Andres

The desirability of additional speakers on present receivers using dynamic speakers has been expressed by set owners many times. Without sacrificing volume or tone quality the following method proves highly satisfactory, accommodating as many as four external magnetics with very little loss.

Secure an ordinary Ford spark coil and remove the vibrator, binding posts and miscellaneous hardware. Where the cover is nailed these nails should be removed and the cover withdrawn. Carefully remove the condenser and connections so that new connections may be provided as shown in



the diagram. By being careful it will be possible to avoid removing the high potential secondary leads when making this alteration.

The primary should be brought to terminals on the front of the case and this winding (the low resistance winding) is connected in series with the voice coil on any of the present day dynamics. External magnetics are then connected in parallel across the secondary winding, the spark coil serving as a coupling transformer which permits the magnetic speaker impedances to be matched with the tube output impedance without disturbing the impedance relation between the dynamic and the set.

By shunting the external speakers with an ordinary phonograph type of volume control it is possible to obtain the desired volume without materially affecting the built-in dynamic or other parallel magnetics. Headphones may also be connected in this same manner.

## PILOT LIGHTS

CROSLLEY 601, 602, 704, 401. These models sometimes go haywire when variable condensers "freeze", a condition caused by moisture affecting die-cast and machined bearings. To permanently eliminate the trouble drill a one-eighth hole through the die-cast bearing of each condenser section to the shaft and inject a few drops of oil.

RADIOLA 33, 60. An audio howl is sometimes experienced as the '27 detector warms up. This happens because the plate current drain at this time is nil, producing an abnormally high plate voltage which feeds through a resistor common to the other tubes. Reverse the leads to the first a.f. transformer. A similar whistle is sometimes heard when a Model 60 is tuned in on a station. Correct this with a .001 condenser across the a.f. transformer secondary.

MAJESTIC 61, 62, 163. To align these sets tune them to a local on about 1,500 kc. and note setting of the visual tuning meter. Set condenser trimmer No. 1 for the lowest meter reading. (Trimmer screws, are numbered from 1 to 8, beginning at the left front edge of the chassis and working back and to the right.) Set trimmers 2, 3 and 4 are set in rotation in the same manner. So also the numbers 5, 6 and 7, on top of the gang unit, which are likewise set for lowest meter reading.

Tune the set to another station near 600 kc. and repeat the adjustment coming back to the original signal on 1,500 for final adjustment of trimmers 5, 6 and 7. The oscillator tracking condenser is not critical and can be set by turning it back and forth as the tuning condenser is rocked across the incoming signal, setting it for the greatest visual tuning meter reading. The antenna trimmer is set for maximum volume at 1,500 kc.

KENNEDY, BUSH & LANE, FIRST NATIONAL. Models 10, 20 and 20B made by these three companies occasionally develop severe hum. To stop it disconnect the wire from the filter condenser to the high-voltage end of the voltage divider and connect it between the choke and the speaker field winding. Then connect a 1 mfd., 300 volt paper condenser from the high voltage end of the divider to the chassis.

ATWATER KENT L. If oscillation is encountered when the local-distance switch is in the local position and the circuit, tubes and trimmers check up O.K., move the red wire running from the switch to the screen-grid prong of the first r.f. stage away from the r.f. coil openings.

MAJESTIC. To replace condenser sections in Majestic B-eliminators in about 15 minutes unsolder the wires from the condenser block, marking the other end of these carefully. Remove one nut and bolt in front of the condenser block and slide the block out. Open the edges of the can with flat pliers and move terminal board to one side, tip the can to one side and use a blow-torch to melt away surface pitch, being careful not to burn inside wires. Check with continuity meter across sections for shorted units, unsolder, lift out and replace those that are blown. Re-seal in B unit.

# EDITORIAL OBSERVATIONS

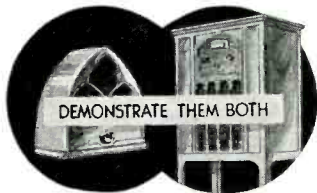
## *A Two-Step Plan*

THE battle between midget and console has been waged so bitterly that we have lost sight of our main objective—the replacement of old sets with new.

The midget provides an excellent means of securing this business if we will only use it. For a good 1931 midget *sounds* better than most radio sets built prior to 1929.

Let's organize a *two-step* sales plan, and carry it out. The first step: Advertise; demonstrate that a new midget is superior to sets more than two years old. Convince consumers that in this period radio has made important advances. The second step: Demonstrate a new console against the same new midget.

Let the customer's ears be the judge.



*"Let the customer decide"*

## *Those Classy Tube Testers*

MILWAUKEE dealer writes: *"Impressive tube testers are with us in force. The August crop includes instruments with milliammeters as large as London's 'Big Ben,' colored lighting which would be the envy of any amusement park proprietor and canned sales talks calculated to make people who have worked poor, defenseless tubes for more than a year hide their guilty faces in shame."*

Grandstand testing can materially swell replacement tube sales, if—1. The instrument used is capable of doing a good job; 2. the free testing service is adequately advertised to the public; 3. the consumer can clearly recognize the result

of each test himself. Concerted, organized effort always moves merchandise.

But is there some danger in the widespread use of these mechanical salesmen? Inefficient testers naturally will do the replacement tube business more harm than good. Well designed equipment, unsupported by special advertising effort, is likely to fail to accomplish its purpose. And any sleight-of-hand manipulation of buttons and gadgets, producing meter-flickers which are Greek to the consumer, will surely label such operations "rackets."

The trade has a useful sales weapon in the flashy, but well designed tube tester. The big question is—what will the trade do with it?

## *Up and Coming*

DEALERS who hesitate to enter the 16 mm. home talkie field in the belief that there is a dearth of films will be interested to know that a total of 276 productions, ranging from one to eight reels each, a total of 388 reels, are now available. These statistics have been compiled by the 16 mm. Motion Picture Board of Trade.

Cine-Art has 18 subjects, Fitzpatrick 46, Kapit 6, Pathegrams 59, Show-at-Home 36, Talkiola 59 and Ufa 43. Sprague, Bell & Howell and several other new entries have more on tap which may shortly be universally available. And in addition, most of these companies indicate their intention of swelling their lists appreciably by the end of the year.

## *Three Strings to This Bow*

THE rental cost of 16 mm. film is the present barrier to the wide popularity of straight home-talkie apparatus. Canny prospects hesitate to tie up \$150 in a device which, because of its operating expense, can be enjoyed but occasionally.

This situation suggests that, for the present, we develop a triple-purpose sales approach—that we feature a radio-phonograph-talkie device. This combination instrument, it should be pointed out, is designed for daily use—the radio or the phonograph to entertain, at low cost, between "movie" shows. And when a crowded house justifies the expenditure of a few dollars for films and records, the same machine also will provide talking movies.

Thus the radio and phonograph features of



this type of complete home entertainment instrument might well be used to tide over the period in which film distribution is in the process of catching up with the perfection of home projection devices.

### *Who Will Sell Auto-Radios?*

**M**ANUFACTURERS have found it possible to greatly reduce the price of auto-radio sets. These are now within the means of millions of car owners and are ready for quantity exploitation. But one thing stumps the makers of this equipment; holds back distribution. Who, they want to know, is best equipped to do a real selling job—the radio dealer, the new car agency or the battery service station?

This is the picture as we see it: In general, none of these groups is in a position to do the whole job at this time. Few radio dealers have facilities to install any great number of sets, car agencies can sell receivers for installation only in new automobiles and battery service stations are not experienced in the sale of \$100 to \$150 entertainment units. All three groups, perhaps, can work together to good advantage. Let radio dealers, who know how to merchandise entertainment equipment do the heavy selling. Let centrally located battery stations, ignition specialists, make flat-rate installations for these dealers. And let auto agencies, that have easy access to new car buyers, secure this necessary business for the radio dealer on a straight commission basis.

This plan will serve to put more auto-radios in use, the one thing a new product needs most to give it impetus. Later, when the ball starts rolling, specialty selling organizations will probably grow out of the successful operations in these three groups—and manufacturers will do well to utilize such auto-radio outlets when they develop.

### *For Cooperative Advertising*

**R**ADIO, as an industry, has spent immense sums of money for advertising but there has been a decided and unfortunate lack of cooperative effort to promote the value of radio as a means of providing entertainment, education and a host of other things to the public virtually without expense. The paramount appeal of our copy, particularly in newspapers, has savored too

strongly of price. This kind of publicity has not helped stabilize an industry that has suffered so intensely from over-production.

It should be possible for the Radio Manufacturers Association to evolve a plan whereby radio can be advertised as an institution, and desire created for ownership of such a wonderful instrument which gives so much for so modest an expenditure. Surely we can follow the lead of other industries who have so successfully used cooperative, institutional publicity.

I believe it might be feasible to interest a weekly magazine with national distribution in publishing outstanding programs for the ensuing week as a news item and to compensate them by buying a page of advertising each week, which would be for the primary purpose of exploiting the value of radio in the home. Publishing programs would undoubtedly make such a magazine a veritable reference library and would probably be the means of largely increasing circulation.

We in the industry are interested in anything that will help the business. I feel sure that I can pledge the co-operation of the Radio Wholesalers Association to the radio manufacturers in helping solve their problems, so that we may all benefit mutually and make of radio a business that will continue to develop and command the respect of not only those engaged in it but the entire public as well.

LOUIS BUEHN,  
*President, Radio Wholesalers Association.*



*"Oh, I guess that's the man to  
attach the radio."*

*Courtesy of Judge*

# Highlights on the

August, 1931

Arranged for

## WTMJ SEEKS RCA WAVE LENGTH

*"Milwaukee Journal" Action May Force Supreme Court Decision on Celebrated Tube Clause Tangle*

Whether subsidiaries of the Radio Corporation of America will retain the 1,409 licenses renewed by the Federal Radio Commission in June has been put up to the courts for determination, with the probability that the United States Supreme Court ultimately will decide the question.

The new development came when station WTMJ, operated by the Milwaukee Journal Company, one of the intervenors at the hearings, asked the District of Columbia Court of Appeals to reverse the commission's judgment in so far as it pertained to the license renewal of station WENR, of Chicago.

The "Milwaukee Journal" station for some time has desired the channel now used by station WENR which it shares with another Chicago station, WLS. WENR recently was leased by the National Broadcasting Company. Had the commission refused to renew the licenses of the National Broadcasting Company because of Section 13 of the radio act, which directs the commission to withhold permits from anyone found guilty of monopolizing radio communication, the Milwaukee station would have been in a better position to press its application for the clear channel now assigned to WENR. The applicant now seeks to have the courts set aside the commission's decision in this respect.

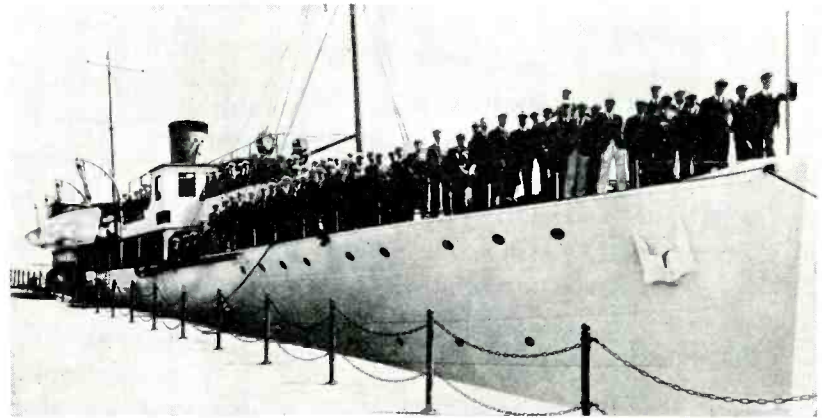
The result of the appeal, however, will have more far-reaching effects, throwing into litigation all of the 1,409 licenses now held by R.C.A. subsidiaries.

## Grunow Disbands Staff

With abandonment of production plans for this year, the William C. Grunow Co., Chicago, is releasing, August 1, H. E. Young, sales manager, F. A. Delano, assistant sales manager, and J. J. Daven, advertising manager. All were formerly with the Grigsby-Grunow Co., Chicago, Majestic radio and refrigerator manufacturer.

## About Local Trade Shows

Plans for the holding of the convention of the WESTERN MUSIC & RADIO TRADES ASSOCIATION at Vancouver, B. C., have been terminated by the refusal of Canadian Radio Patents, Ltd., to grant permission for the importation of United States sets for exhibition purposes. It is also understood that Canadian radio manufacturers do not look with favor upon the holding of a show within the Dominion in which



## For This Have We Private Yachts

When the "visiting firemen" call, what could be nicer than to entertain them on one's private yacht? Here's how we do it in the well known radio industry. To wit: Captain Gene McDonald playing host to his Zenith dealers and distributors on the good ship *Mizpah* and the sparkling waters of Lake Michigan.

American sets not licensed for sale in Canada would be exhibited.

It is unofficially stated that endeavors are being made to arrange for the holding of the show in some American city on the Pacific Coast.

The first PHILADELPHIA RADIO TRADE SHOW, under the auspices of the Philadelphia Radio Board of Trade, was highly successful. Attendance of dealers was approximately 5,000. Twenty large radio distributors manned the booths. To Raymond Rosen and his assistants goes much of the credit for this affair. Note that the cooperation of the local Electrical Association also was a major contributing factor.

## Short Waves on the Green



The new portable short-wave transmitter and receiver developed by NBC was used for the first time during the broadcast of the American Open Golf Championship. Here we see O. B. Keeler, center, microphone in hand, caddy with transmitter strapped to his back, and Dewey Sturgell, NBC engineer, holding the receiver. The transmitter operates on approximately five meters.

## Institute of Radio Service Men Organize

Planning to extend the scope of its activities to nationwide proportions, the Institute of Radio Service men has been organized with headquarters at 400 W. Madison St., Chicago.

While this association will not be officially affiliated with any other radio organization it intends to work in close collaboration with other groups such as the Radio Manufacturers Association, The National Federation of Radio Associations and the Institute of Radio Engineers.

The "Institute" it is claimed has no connection with any commercial enterprise and is not formed for the purpose of making money. It is laid out to function with the radio service men in exactly the same manner that the Institute of Radio Engineers does with the engineering profession.

The Institute comes about because of the phenomenal success of an experimental collaborative program conducted by the Midwest Radio Trades Association of Chicago, and the radio department of The Chicago *Daily News* during the 1930-1931 season. In a series of twelve meetings engineers from manufacturing and research laboratories, instructors from trade schools, and managers of broadcast stations gave discussions to the large audiences of service men that gathered there twice monthly.

Further plans contemplate that the Institute will be divided into sections, the headquarters for which will be located in each radio center of the country. Each section will function under the advice of national headquarters and local chapters will hear the discussions of engineers acquainted with the service men's problems.

The Institute will begin its activities in conjunction with the Radio-Electrical World's Fair to be held in Madison Square Garden, New York City, Sept. 21-26.



# News of the Month

Bus. Readers

New York, N. Y.

## Verschoor Organizes Radio Company in Ann Arbor, Mich.

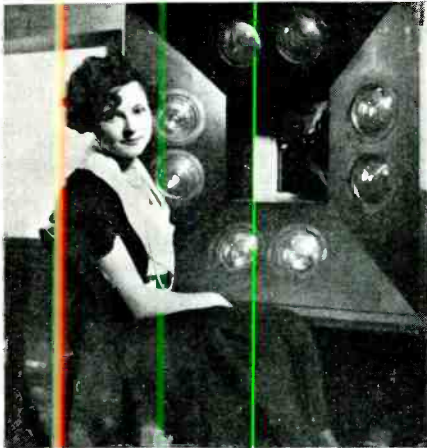
A new concern, to be known as the International Radio Corporation, has been formed in Ann Arbor, Mich., largely through the efforts of C. A. Verschoor, formerly president of the Consolidated Radio Corporation, makers of Arborphone receivers.

Closely associated with him is W. Keene Jackson, who will be the sales manager for this new outfit. Mr. Jackson states that it will specialize on the manufacture of shortwave converters and combination all-wave and regular broadcast receiving sets.

The International organization will further be composed of many former employees of Arborphone and associated concerns.

Mr. Verschoor has a long record of successful management in radio activities. One of his first offerings will be the "International Duo," a receiver combining a shortwave and a regular broadcast chassis in a single unit.

## For Television Only



Natalie Towers, Columbia Broadcasting System's exclusive television girl, went on the air for the first time last month, when W2XAB put on its gala premiers program.

While short waves carried her picture out to television receivers, her voice was carried on the regular wavelengths of WABC and its 86 affiliated stations.

## Pilot Re-enters Television Field

Application for a construction permit for a 250-watt visual broadcasting station, using 60 line image transmission, has been filed with the Federal Radio Commission by the Pilot Radio & Tube Corp., Lawrence, Mass.

This application marks the return of Pilot to the television field, in which it did considerable experimental work three years ago, when located in Brooklyn, N. Y.

## National Radio Week Sept. 21-27

Don't forget that National Radio Week for 1931 is scheduled to start Monday, Sept. 21—coincident with the holding of the Radio World's Fair in New York City.

Full details of NFRA headquarters plans and materials to help you observe this occasion will appear in the next issue of this magazine.

### H. W. SAMS

Howard is directing territorial sales for Silver-Marshall.

Cooperating with McMurdo Silver, this aggressive gentleman has produced an impressive portfolio whose purpose it is to further train Silver-Marshall's dealers in the establishment and operation of its direct selling plan.



## Detroit Chosen for Broadcasters Convention in Oct.

Detroit has been selected for the annual meeting of the National Association of Broadcasters which is to be held October 27, 28 and 29. During this year two regional meetings will also be held, one in the South and one on the Pacific Coast. The dates and places for these meetings will be fixed at a later date.

This action was taken at a meeting of the Board of Directors of the Association March 24 in Washington. In addition, the directors discussed the copyright situation and amendments to the radio act likely to come before Congress at its next session. Failure of the copyright bill at the last session of Congress means that the whole legislative procedure will have to be repeated with a new set of hearings before both the Senate and House committees.

Philip G. Loucks, the managing director of the Association, reports a 40 per cent increase in membership since last November.

## Stewart-Warner Creates New Division

Stewart-Warner Corporation, Chicago, announces the formation of a newly created Wholesale Radio Division, and follows with the statement that Chas. Strawn has been appointed its manager.

Mr. Strawn has been active in the industry for many years, having just held the position of director of sales promotion, for U. S. Radio and Television Company. Previous to that he was with the radio department of Lyon & Healy.

## A-K JOBBERS SEE FIVE NEW SETS

### Convene for "Eighth Annual" at Atlantic City, N. J.

When Mr. A. Atwater Kent holds one of his celebrated conventions his distributors rally as one man to attend. Last month's affair, at the Ambassador, Atlantic City, N. J., was no exception to this rule. Over 250 substantial wholesalers, and their chief assistants, again enjoyed the hospitality of this bountiful host and greeted with enthusiasm a presentation of eight receiver numbers, five models of which were new. For specifications, see page 40.

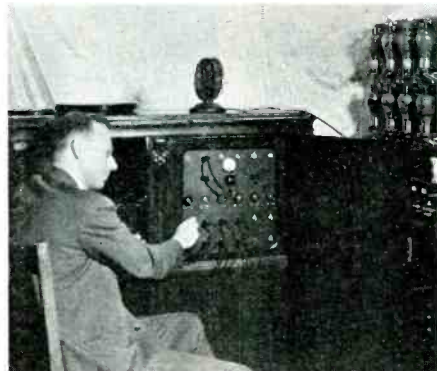
Dealers will receive the latest A-K message via air line. For the second time the broadcasting channels will convey to group territorial meetings the business story of the convention. "Use your store and your prospect's house for this message" will be the slogan of the sales promotion department.

## Curtiss Co. to Distribute General Motors Sets

H. R. Curtiss Company has been appointed distributor of General Motors radio in northern California and western Nevada.

J. W. Thompson, previously northern California manager for the Curtiss company, has been transferred to Los Angeles, where he will take charge of the southern California branch, and C. H. Foote, formerly Los Angeles branch manager, has been transferred to San Francisco to assume the management of the northern California branch.

## Make Mine Vanilla



E. B. Patterson, research engineer of RCA Victor, with his color organ which automatically converts music into changing colors that synchronize with the mood of the music. By speaking into a microphone one may see the colors produced and varied by his speaking or singing voice. Thyatron tubes used in the apparatus make it possible for acoustic power on the order of millions to control lighting power of millions of watts.

## RCA Victor Staging Vigorous Record Campaign

RCA Victor is embarking upon an interesting and vigorous campaign to promote the sale of records, using the following sales promotion methods:

1. Spot broadcasting by electrical transcription.
2. Record advertising in all newspapers featuring new song hits.
3. Critical publicity from newspapers, magazines, dramatic and music critics.
4. Foreign language broadcast electrical transcriptions.
5. Portable Victrola advertising campaign in all magazines and newspapers.

Radio Distributing Corporation, RCA-Victor wholesale distributor in New Jersey and northeastern Pennsylvania, has announced to its trade "A New Basis for Merchandising Records." Max H. Krich, president of this company, is convinced that there is a rebirth of interest in records by radio and music dealers.

In line with this new record activity, Radisco has added to its sales force. V. C. Rottkamp, record specialist, who is equipped from many years of record selling experience, to give dealers practical assistance in making the most of this opportunity for greatly increased record sales.

## The Cooks Disagreed

At a meeting attended by members of the different divisions of the Radio & Music Trades Assn. of Southern California, July 9, the principal discussion centered upon the advisability of running a series of cooperative, association advertisements which would have as their object the notification to the public of the present stability of the industry, the continuation of present radio receiving set models for some time to come, and the still far distant prospects of practical television and its segregation as a distinct unit in the future.

Due to the many differences of opinion expressed and the difficulty in agreeing as to the status and trends of the above subjects, definite action was postponed.

## Get New Jobs

### CARL H. CARSON

Sales Manager of Carter Radio, Chicago. Gravitated to radio from field of educational and sound film. In charge of Slagle sales for two years.

[RIGHT]



### W. G. PIERCE

Assistant to Don Compton, vice-president and general manager of Majestic. Jim, as he is more familiarly known as, was formerly president of Pierce-Phelps, Majestic distributors in Philadelphia.



## New Officers of Hygrade Sylvania

The officers of the Hygrade Sylvania Corporation, successor to the Hygrade Lamp Company, Sylvania Products Company and Nilco Lamp Works, are shown above. Modern factories at three strategic distributive locations are at the disposal of the newly formed company, with a combined floor space of 8 acres.

## Recent Manufacturer-Jobber Affiliations

SUNSHINE MANTLE CO. . . . Bosch. . . . Kansas and western portions of Missouri.

CAM-RAD DISTRIBUTING CO. . . . .Spartan. . . . 35 eastern Pennsylvania counties and 8 southern Jersey counties.

COAST RADIO SUPPLY CO. . . . Spartan . . . . Northern California.

SAN DIEGO STANDARD ELECTRIC CORP. . . . Philco. . . . San Diego and Imperial counties.

SANFORD RADIO CORP. . . . Kolster. . . . New York territory.

WEDEL. . . . Pilot. . . . Washington and Oregon.

SALES AND EQUIPMENT CORP. . . .Zenith . . . . North Carolina.

TURNER-LIPPE. . . . Lyric sets and Mohawk refrigerators. . . . Newark, N. J., territory.

B & O RADIO CO., Hygrade-Sylvania, northern New Jersey.

STEINITE, National Radio & Stove Co., Paris, Texas; Buhman-Pharr Hardware Co., Texarkana, Ark.; Quincy Automobile Supply Co., Quincy, Ill.; Gehl Co., St. Louis; Neal & Hyde, Inc., Syracuse, N. Y.; Perry & Sherman, Utica, N. Y.; Gibbens & Gordon, New Orleans; Daniels-Cornell Co., Manchester, N. H. and Cressey-Dockham & Co., Salem, Mass.

## Executive Appointments

FRED L. DAMARIN is once more with the Dubilier Condenser Corporation in the capacity of western sales manager. Mr. Damarin, who resigned his position as sales manager of Tung Sol Condensers, Inc., in order to rejoin Dubilier, makes his headquarters at 330 S. Wells Street, Chicago.

J. M. SPAIN, formerly manager of the Southern California branch of the California Victor Distributing Co., has been

appointed sales manager of the Public Wholesale, Ltd., Los Angeles.

JACK CARRARO has joined the sales staff of Arcturus and will represent this concern in the great Southwest.

VICTOR MILLER now is the general manager of High Frequency Laboratories, Chicago. "Vic" has had extensive experience in the private brand field.

## Replogle, Chief Engineer

The DeForest Radio Company, Passaic, N. J., announces the appointment of D. E. Replogle as its chief engineer.

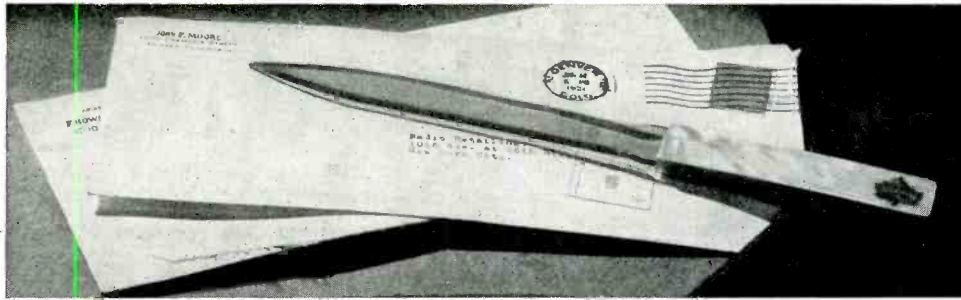
For the past two years Mr. Replogle, familiarly known as "Rep," has been assistant to the president of the Jenkins Television Corporation, and in full charge of the engineering and production activities of that organization. Prior to that period he was identified with the Raytheon Manufacturing Corporation.

## Some Fun!



Can you remember way back when midget golf courses were in vogue? Neither can we, but here's what happened to one of them. It grew into an artificial trout stream, so the Intermountain Majestic Co., Majestic distributor in Denver, took advantage and let its dealer-guests catch their own fish for breakfast at the country club. Golf finished the day.





# V OICES FROM THE MARKET PLACE

## *How the Jobber Can Help*

Editor, *Voices from the Market Place*:

**H**ERE is a move for more business in which the jobber takes an active part.

The jobber is an experienced crew organizer. Why can't he organize retail sales crews for his dealers? Such a scheme has been used successfully in other lines of specialty selling. In putting it into effect he would lay the groundwork by hiring an experienced, competent crew manager, who in turn would hire and train the salesmen.

Under this plan the jobber would retain an option on the salesmen in much the same manner as the big league ball teams hold players, farming them out to dealers.

Naturally, in order for the plan to be successful the jobber must be in a position to finance the initial selling expense. It is also necessary to arrange commission and discount terms which return a net profit on the operation to both himself and the dealer.

In financing, the jobber might deduct 10 per cent from his trade discount of 40 per cent to the dealer for salesman's commissions, to be paid directly to the men. Instead of granting courtesy discounts over and above the usual 40 per cent, this extra 5 or 7 per cent might well be used to cover the crew manager's salary and miscellaneous management expenses. I am certain that if any given dealer could be confident that he would clear 30 per cent on each sale made outside his store without the necessity of managing a crew he would welcome the plan, provided it was ready made.

The jobber would, under this plan, be directly benefited as the men would be especially trained to sell products in which the distributor was interested. I believe it could be worked out to the decided advantage of both dealer and jobber.

MAXWELL A. COLEMAN,  
Allentown, Pa. *H. Coleman Company*

## *A Million Dollar Idea*

Editor, *Voices from the Market Place*:

**I** THINK you have a million dollar idea in the way of advertising in the diagram of stations, and where they are found on the dial used in the article "Thrill of Distance" in June.

It could be used if printed on celluloid in black letters so it could be folded by making four sections, with a small fastener at the apex end. Millions of radio fans

would appreciate something of this kind. I would have given \$10 for one like it many a time.

It could be used as an advertisement for radio sets and tubes if printed on pasteboard. Every new set should have one to save the service man a lot of trouble finding where stations are.

Keep at the good work. I am for *Radio Retailing* first, last and always and get many good ideas out of each number.

Wellston, Ohio. HOMER GETTLES.

## *Broadcasters Please Note*

Editor, *Voices from the Market Place*:

**I** AM always reading how to boost sales by telling our public about the many interesting radio programs. "Put up an attractive sign listing the best programs," they cry.

Sure, this is a swell idea. I am even willing to send out a circular to our customers once a week with the programs. But, from what source am I to get the low-down on said programs?

Out here in this neck of the woods it is next to impossible to get a line on coming events even a day ahead.

I am of the opinion that we can materially help our sales and service by stressing the programs. If you can drop me a couple of hints as to where I can get the desired dope, I will go after the business from this angle.

FRANCIS E. SIMPSON,  
Helena, Mont. *Simpson Radio Co.*

## *More Comment on July Editorial*

Dear Mr. Sutcliffe:

Kindly send us a dozen copies of your July editorial, "Needed, Leadership!" We want our salesmen to carry it with them and discuss this vital matter with our dealers.

Minneapolis, Minn. ROYCRAFT CORPORATION.

Friend Sutcliffe:

Your article, "Leadership," should be put on the desk of every radio manufacturer, another copy in his hat, and still another on his pillow. On this subject hangs the success of the radio industry.

H. B. RICHMOND,  
Cambridge, Mass. *Former president, RMA*



# New Products for

All announcements appearing on these pages are published without advertising considerations of any kind whatsoever.



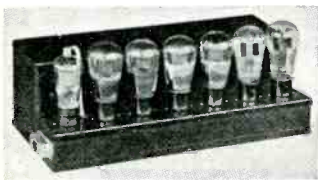
## 16 mm. Sound-on-Disc Talkie Equipment

ELECTRICAL Research Products, Inc., 50 Church Street, New York, N. Y., announces the introduction of a 16-mm. sound-on-disc talking machine to supplement its line of Western Electric talking picture equipment.

It consists primarily of a sound projector inclosed in a 23x21x10-in. case, and a combination amplifier and loud speaker in a similar sized case. The former weighs 75 lb., and the latter 55.

This equipment has been simplified for easy operation, and is made for 110-volt a.c. It is designed for operation in any type of small classroom or auditorium, and has volume sufficient for an audience of about 100.

According to the announcement, this equipment has been produced to make available a sound machine which will give reproduction comparable to that obtained in a larger Western Electric sound system used in theaters throughout the country. —*Radio Retailing*, August, 1931.



## Power Amplifier

A TWO-STAGE power amplifier employing a new circuit using one '24 tube in the first stage, four Pentodes in parallel pushpull arrangement in the output stage, and two '80 rectifiers, has been placed on the market by the General Amplifier Co., 27 Commercial Ave., Cambridge, Mass. This amplifier will provide 10 to 12 watts of undistorted energy to the speaker, and there is almost an entire absence of hum.

Model GA-30, as it is called, lists at \$70, less tubes.—*Radio Retailing*, August, 1931.

## Combination Set

"INTERNATIONAL DUO" is the tradename of the combination shortwave and regular

broadcast receiver offered by the International Radio Corp., Fourth & William Sts., Ann Arbor, Mich. This set comes in a cabinet similar to a midget radio, and the duo chassis has 8 tubes, namely, 3-235's, 2-224's, 1-227, 1-247 and a 280. The two tuning dials are illuminated, and tone control is incorporated.

A switch for short wave or regular broadcast is furnished, as well as a switch for short-wave band selector. A change-over from the shortwave to longwave reception is accomplished by throwing the switch. Five tubes are used for broadcast reception, and eight tubes for short wave.

The price is \$49.95 less tubes. —*Radio Retailing*, August, 1931.



Atwater Kent 80

## GE Grandfather Clock Set

ENCASED in a grandfather clock cabinet and known as the "Longfellow Grandfather Clock" model, the General Electric Company, Bridgeport, Conn., has brought out a 10-tube superheterodyne. The radio is completely concealed, and the speaker is located behind the etched clock face, and finds outlet through a grille in the upper sidewall of the cabinet. A panel door in the front of the cabinet opens to the tuning controls.

The clock, of standard GE movement, derives its current from the same outlet as the radio but acts independently.—*Radio Retailing*, August, 1931.

## Atwater Kent Sets

AT its annual distributors' convention, July 29-30, Atwater Kent Mfg. Co., Philadelphia, Pa., brought out the following sets for the coming season.

Model 80, a rounded top midget, using a 24, two 35's, a 27, a Pentode and an 80, \$62.80. It may be had for 25 cycle operation also.

Model 82 a Gothic style midget with the same tube equipment but with automatic volume control is \$69.80. This model comes for d.c. without automatic volume control, as well as for battery operation.

Model 83 is a lowboy utilizing one less 24 tube \$39.

Model 87, also a lowboy, takes two Pentodes, three 27's, three 35's and an 80. This set may also be had in a highboy cabinet. Lowboy, \$115; highboy, \$125.

Model 89, in either the highboy or lowboy style housing, has an additional 24 tube. Both have automatic volume control. The highboy cabinet has sliding doors. Highboy, \$132; lowboy, \$122. All prices are complete.—*Radio Retailing*, August, 1931.



Steinite Grandfather Clock Set

## Steinite Models

IN keeping with the trend for grandfather clock sets and regulation cabinets with electric clocks in the speaker grille, the Steinite Mfg. Co., Ft. Wayne, Ind., is offering a tall clock model with the 8-tube double Pentode superhet chassis at \$99.50, complete. It is 60 in. high and 13 in. wide.

A midget with an electric clock (5-tube t.r.f. chassis) using the Pentode and multi-mu tubes is \$49.50, complete.

In the straight radio line, this company makes an open face lowboy, \$79.50, a semi-highboy with doors, \$99.50, and a midget at \$59.50, all with the double Pentode chassis. The latter with clock is \$69.50.—*Radio Retailing*, August, 1931.



Steinite 725



## Clarion Models 40, 90 and 95

MODEL 40 "Clarion" radio, made by the Transformer Corp. of America, 2309 Keeler Avenue, Chicago, uses the Pentode and variable-mu tubes, together with a '24 and an '80. It is of the midget type, and lists at \$39.50 complete.

Model 90 is an 8-tube superheterodyne console with automatic volume control. It uses three multi-mu tubes and a Pentode.

Model 95 is similar to Model 90, but has a dual dynamic speaker, each giving specialized performance, permitting individual predominance of high and low notes, assuring an unusual combination of tone.—*Radio Retailing*, August, 1931.



Atwater Kent 89

## Gryp-Connector

NO. 1039 "Gryp-Connector", is designed primarily as a simple means of fusing the A or B circuits in automobile or battery sets without the trouble and expense of an exposed cutout. 15c. Littelfuse Labs., 1772 Wilson Ave., Chicago.—*Radio Retailing*, August, 1931.



*Radio Retailing*, August, 1931



# Dealers to SELL

This editorial section is prepared purely as a news service, to keep readers of "Radio Retailing" informed of new products.



## Brunswick Short and Long Wave Set

THE illustration shows the new Model 25 combination short and long wave receiver just introduced by the Brunswick Radio Corp., 120 W. 42nd Street, New York City. The highboy cabinet of butt walnut contains an 11-tube superheterodyne receiver equipped with screen-grid, variable- $\mu$  and Pentode tubes, together with the uni-selector, tone control, automatic volume control and 12-in. dynamic speaker. The price is \$225, complete.—*Radio Retailing*, August, 1931.

## Electro-Voice Mike

PATENTS have been applied for by the Electro-Voice Mfg. Co., Inc., 338 E. Jefferson Blvd., South Bend, Ind., on the principle of pre-stretching the diaphragm and assembling the frame while the diaphragm is held in a stretched position. This allows a perfect stretch and does not entail the usual lathe cuts, stretching mechanism for each individual instrument and other details, the release states.

Model 22, the latest addition to the line, has the following specifications: frequency response: 30—6,800 c.p.s., overall dimensions 3 $\frac{1}{2}$ x1 $\frac{1}{2}$  in.; button resistance: 100 ohms each; output 39 db. The frame is bakelite, the button bridge is aluminum, streamlined and perfectly centered. \$19.50.—*Radio Retailing*, August, 1931.

## Bud 4-in-1 Tool

METAL only is used for the 4-in-1 screwdriver end of the 4-in-1 neutralizing and alignment tool of Bud Radio, Inc., Cleveland, Ohio, limiting the possibility of added capacity while adjustments are being made. The screw driver end screws into the large aligning tool. A spring clip makes possible the carrying of this tool the same as a pencil or fountain pen. It can be used on any make radio set, with the exception of old style Majestics, for which a special attachment lists at 25c. extra. The list price of this tool is \$1.25.—*Radio Retailing*, August, 1931.

## Multi-Coin Timer

FINISHED in two-tone Italian bronze, the multi-coin timer made by the Coin Devices, Inc., 203 N. Wabash Ave., Chicago, will take nickels, dimes and quarters separately or in combination, the value of the time remaining being indicated at all times. The unit is small, occupying a space of only 4x7 in. and can be attached in most any position.

The time ratio may be quickly changed allowing either one and one-half or two minutes for each penny spent. It will operate on d.c., a.c. or battery and on any voltage up to 220.

It has many other uses besides running radios as it can be used for lighting unattended miniature golf courses, tennis courts, etc.—*Radio Retailing*, August, 1931.



## Telalarm

TELALARM is a self-starting illuminated electric alarm clock retailing at \$9.95. It is made by the Warren Telechron Co., Ashland, Mass. This self-starting, synchronous time-keeper has a case of modern design made of Dura-silver alloy, with a molded black Bakelite base. The "butler-wiped" finish of the metal case will not tarnish, and reflects the color scheme of the room in which it is placed. The dial is illuminated by means of a small Mazda lamp shining through a diffusing glass. The intensity of the illumination may be controlled by means of a rheostat.—*Radio Retailing*, August, 1931.



Howard 35

## Howard Line

HOWARD has just brought out a number of new models for the coming season. In the midget line there is Model 10, with a t.r.f. circuit, employing a 24, 2-51's, a 47 and an 80. \$49.50, complete.

Model 20, a superhet midget, has 2-27's, 3-51's, a 47 and an 80. The cabinet is more ornate. \$69.50, complete. A table with detachable drawer, to be used with this set, is \$10 extra.

Model 30, called the compact console, has the same tube equipment, but is a midget and table combination as shown below. The set is not detachable. \$89.50, complete.

Two consoles are offered. Model 35, an 8-tube superheterodyne with dynamic speaker and tone control, \$99.50 complete; and Model 40, described last month, \$119.50 complete.

Model 60, which is a combination with automatic phonograph record changing device, is \$259.50 complete. Howard Radio Co., South Haven, Mich.—*Radio Retailing*, August, 1931.



Howard 30

## Samson Microphone Stand

SAMSON Electric Co., Canton, Mass., has released publicity on four new microphone stands, finished in light brown electroplated bronze. No. 880 is for use on tables; No. 881 is an adjustable table stand; No. 882 is a full length model and No. 883 is full length with two microphones.—*Radio Retailing*, August, 1931.

## Hammond Bichronous Clock

A NEW movement that continues to keep accurate time through current interruptions, is now incorporated in all models priced at \$14.50 or higher, made by the Hammond Clock Co., 2915 North Western Avenue, Chicago, Ill.

The "bichronous" (dual movement) clock operates on the synchronous principle, but in addition, continues to run and keep accurate time when the current is off by means of a reserve spring power. This reserve power will bridge interruptions up to thirty minutes.

The synchronous models are still available.—*Radio Retailing*, August, 1931.



## B&H Focusing Gauge

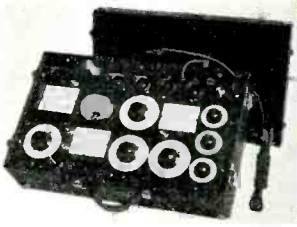
ANYONE requiring precision results in their close-up motion picture work, will be particularly interested in the focusing alignment gauge just announced by Bell & Howell Co., 1801 Larchmont Ave., Chicago, for their Filmo 70 or 70-D.—*Radio Retailing*, August, 1931.

## New Haven Radio Time Switch

A COMBINATION electric clock and time switch with Westinghouse self-starting, slow speed motor is being made by the New Haven Clock Co., New Haven, Conn. The red flag lever, when in position for automatic operation, is plainly visible. Set in neutral position, the radio can be manually operated at will, without interfering with the timekeeping qualities of the clock. The list price is \$12.50. It may be had for 110-volt, 60 cycle a.e. only.—*Radio Retailing*, August, 1931.







### Sterling R-517 and R-519 Testers

ALL tubes can be tested on either the R-517 or R-519 tube tester which the Sterling Mfg. Co., 2831 Prospect Ave., Cleveland, Ohio, has placed on the market. The plates of the 280 tube can be tested separately. Mutual conductance is used in measuring the worth of the tube. Only one meter is used, an ammeter of the d'Arsonval type. A fuse in the form of a 40 Mazda lamp is used to indicate internal shorts. The table of values as published by the tube manufacturer is used as the basis for tests rather than arbitrary values. In other words, it is a laboratory model adapted for dealer use.

Model R-517 lists at \$52.50. This is a mutual conductance meter, the mutual conductance being indicated by a dial actuating one arm of a bridge circuit.

Model R-519, in addition to determining mutual conductance, indicates plate resistance and amplification factor. \$175.

Both are equipped with pre-heater sockets.—*Radio Retailing*, August, 1931.



### Webster Portable Sound Amplifier

MANY conditions require the immediate installation of a sound amplifier, either to fulfill a temporary need or for constant service as a portable unit, and for this purpose the Webster Co., 350 Blackhawk Street, Chicago, Ill., has placed on the market the Style DHP-250. The arrangement of units makes it possible to use it either as a microphone amplifier or as a reproducer for phonograph records using an additional turntable unit, which can also be supplied in a carrying case. The specifications are: number of stages, three; tubes required, three 227's, two 250's, two 281's; maximum undistorted output, 13.3 watts; input impedance 200 ohms and 7,000 ohms; power consumption, 150 watts. The standard equipment includes a DH-250 amplifier furnished with tubes in one case, the other case containing the a.c. dynamic speaker, microphone and stand, 25 ft. of shielded microphone cable, and 50 ft. of speaker cord.—*Radio Retailing*, August, 1931.

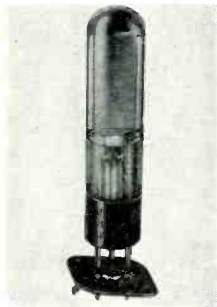
### Cabinets for Resistors

TO facilitate the handling of resistor units by jobbers, a steel 44x12x10 1/2 in. cabinet, with sixteen drawers, providing space

for approximately 5,000 resistors of sixty-four different ranges, is being furnished free of charge to any jobber who orders 1,000 metallized resistors from the International Resistance Co., 2006 Chestnut St., Philadelphia, Pa. If the order amounts to 500 units, the cabinet is billed at half cost.—*Radio Retailing*, August, 1931.

### Burgess Radiovisor Bridge

FREE from critical operating voltages and handling a current many times greater than the conventional photo-electric cell, the Burgess Radiovisor Bridge reduces the light-control art to simplest terms. Devel-



oped in England over a period of years, the bridge is now introduced to American engineers, experimenters and manufacturers by the Burgess Battery Company, 295 Madison Avenue, New York City.

It is available in the d.c. and a.c. types. Handling a far greater current than the usual photo-electric cell, the bridge can be made to operate a sensitive relay direct or a power relay through the medium of a single vacuum tube. At least a four-to-one ratio is obtained between dark and light resistance.

Because of the simplified circuit and associated apparatus, it opens up many new possibilities in the light-control field.—*Radio Retailing*, August, 1931.

### Rubber Floor Levelers

FLOOR levelers of live rubber, with ring vacuum that clings to the floor and cupped vacuum, absorbing vibration, have been brought out by the Siph-O Products Corp., 80 India St., Boston, Mass.

These "Vac-U-Cups" come in two types—black triangular and mahogany round—and are listed at 50c. for a set of four.

They are suggested for use with radio sets to minimize shocks to tubes, as well as for electric refrigerators, washing machines and other motor-driven appliances.—*Radio Retailing*, August, 1931.



### Lynch Suppressors for Auto-Radio

SPARK plug suppressors and distributor suppressors for auto-radio sets may now be obtained from the Lynch Mfg. Co., Inc., 1775 Broadway, New York City.—*Radio Retailing*, August, 1931.



### Jewell Tube Sellers

SIMILAR in every respect, with the exception that the Pattern 535 Tube Seller is intended for wall mounting and 536 is housed in a counter-type cabinet, these two instruments made by the Jewell Electric Instrument Co., 1650 Walnut St., Chicago, cannot become obsolete because spare test sockets, that may be easily wired for testing future types of tubes, are provided.

Pattern 535 has an 8-in. demonstration meter mounted on a black switchboard type panel 2 ft. 4 in. high. Pattern 536 has two panels, one containing the indicating meters and short lights, and the other containing the pre-heater and short check sockets. Separate tube sockets for every standard type of tube are provided, and separate tests of each plate of '80 type tubes may be made. It operates from 110 volts, 60 cycle a.c.

Pattern 535 wall-type is \$148, and \$164 with lettered glass sign. Pattern 536 is \$150.—*Radio Retailing*, August, 1931.

### Radiette Troubadour

OF interest to those who have hesitated to spend the money for a set to be used only in their car is the announcement from Keller-Fuller Mfg. Co., Ltd., 1573 W. Jefferson Blvd., Los Angeles, Calif., of the "Radiette Troubadour," a combination automobile and home set operating without B or C batteries, and using an electric-dynamic speaker.

This set operates either on 6



Troubadour and the Autoverter

volts d.c., or 110 volts a.c., by means of the "Autoverter," a converter which eliminates the need for B and C batteries.

This set uses four 236's, two 238's and one 171. The only change required to change from automobile to home use is the plugs and cables, one of which is furnished for the car and one for the house.

The set is mounted in a black leatherette-covered carrying case 5x12x15 in. It lists at \$62.50, with the converter priced at \$27.25, making the total of \$89.75.—*Radio Retailing*, August, 1931.

### Lightning Arrester

A NEW item of the Cornish Wire Co., Inc., 30 Church St., N.Y.C., is the Visible Vulcan lightning arrester. It is made of crystal clear glass so that a "short" can easily be detected. It is said that it dissipates accumulative static charges.—*Radio Retailing*, August, 1931.

### GE Battery Console

AN adaptation of the General Electric, Jr., so arranged as to operate on battery supply rather than a.c., is the new superheterodyne battery console of the General Electric Co., Bridgeport, Conn. The two-volt tubes are used throughout, and the receiver is operated from a two-volt air cell battery. A new type of dynamic speaker, having a permanent magnetic field, is incorporated in this model.

The lowboy console is sufficiently large to hold all the necessary battery equipment, making the installation a complete unit.—*Radio Retailing*, August, 1931.



### Mohawk Refrigerator

A 4-cu.-ft. model has been added to the line of "Mohawk" refrigerators made by the All-American Mohawk Corp., N. Tonawanda, N. Y. It is 46 1/2 in. high, without legs, (51 1/2 in. with legs) by 23 1/2 in. wide. It employs the Duozone unit and is especially designed for small homes or apartments. Each of the two ice cube trays has a capacity of 18 cubes.—*Radio Retailing*, August, 1931.

### New Pilot Products

A POWER pack, a power transformer and a variable condenser are now a part of the line of the Pilot Radio & Tube Corp., Lawrence, Mass.

The power pack, K-139, is of the heavy duty type, and is sold factory assembled and wired, ready to use. \$24.

The power transformer, No. 445, will appeal to constructors of voice amplifiers and amateur shortwave transmitters. It has two 7 1/2 volt, 2 1/2 amp. secondaries, for the heating of two 281 and two 210 or 250 tubes, and also a 1,200 volt, center-tapped secondary. \$12.

The variable condenser, No. 3022, is intended for use in low-power amateur transmitters. \$2.75.—*Radio Retailing*, August, 1931.

### Cinderella Superhet

MEASURING 11x9x7 in., and finished in two-tone walnut, the "Cinderella" five-tube superheterodyne unit of the Cardinal Radio Mfg. Co., 2812 S. Main St., Los Angeles, Calif., is equipped with three screen grid tubes. It has a six-inch dynamic speaker, full vision dial and tone control.—*Radio Retailing*, August, 1931.

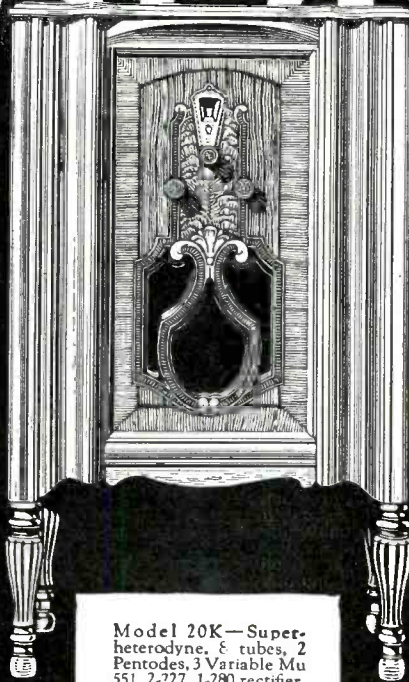




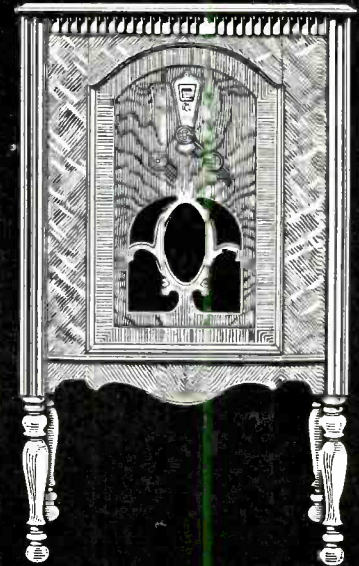
# AMERICAN BOSCH RADIO



Model 20L—8 tube Super-heterodyne, selective, sensitive. Beautiful cabinet 44 1/2 by 25 1/4 inches, sliding doors. Complete with tubes \$139.50.



Model 20K—Super-heterodyne, 8 tubes, 2 Pentodes, 3 Variable Mu 551, 2-227, 1-280 rectifier. Lifelike reception, no interference, 39 in. high, 24 in. wide. Complete with tubes \$99.50.



Model 20J—Super-heterodyne, 8 tubes, 2 Pentodes 247, 3 Variable Mu 551, 2-227, 1-280 rectifier. Great selectivity and volume. 38 3/8 by 24 in. Complete with tubes \$89.50.

**T**HIS new American Bosch Radio Line, featuring as it does this year, six models with a price range of from \$43.50 to \$139.50, complete with tubes, is most profitable to the dealer and instantly appeals to the customer.

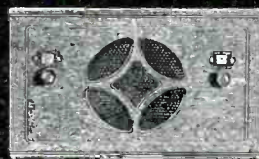
From the "Personal Radio" at \$43.50 up through the super-heterodyne models, every worthwhile improvement and every

important selling and performance feature is incorporated.

American Bosch dealers are selling sets at a profit right now. With all new models, priced right to sell quickly and with a sales policy which is without high-pressure tactics, the American Bosch Radio Line offers you a stabilizing, profitable opportunity this year. Write for the whole story today.



Model 5C—High quality at low price. 5 tubes, 1 Pentode, 2 Variable Mu, 1-224 detector, 1-280. Cabinet 36 3/8" x 21" Com. with tubes \$69.50.



Model 5A—5 tubes, 1 Pentode, 3 screen-grid and 1-280. Great amplification. Mahogany case. Complete with tubes \$43.50.



Model 5B—Consolette 32 1/4 in. high, new circuit and design. 5 tubes, 1 Pentode, 3 screen-grid, 1-280. Great amplification. Com. with tubes \$53.50.

## UNITED AMERICAN BOSCH CORPORATION

SPRINGFIELD, MASS. • Branches: NEW YORK • CHICAGO • DETROIT • SAN FRANCISCO

American Bosch Radio is licensed under patents and applications of R. C. A. Western prices slightly higher.



## Higher Prices Or We Can't Exist *(Continued from page 16)*

that prices have been made solely on the basis of competition and the expediency of the moment, and as always, the small producer, ignorant of his costs, more or less establishes the price level.

As to the cure for the price situation in the radio business, I do not believe that water can be made to run up hill and I see only two logical developments. One will do it, but then it will be too late for many of us. When the manufacture of 90 per cent of radio set production is concentrated in the hands of four or possibly five manufacturers of intelligence and experience it may then be possible to put into effect such reforms and practices as are not possible to accomplish with a larger number of factors.

MORRIS METCALF, *V. P. & Treas.*  
1930-31 President, RMA

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### STORY & CLARK

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*Sirs:*

We are entirely out of sympathy with the present trend of the radio industry, but cannot, with any great assurance, place the responsibility where it actually belongs.

It apparently indicates that the personnel and executives of even well known and well financed houses have gone suddenly contrary to the lessons which they should have learned from the study of other industries.

Certainly it is true that no one can make and sell at a profit, the bulk of the present low priced merchandise. This does not merely interpret our abilities, but is the testimony of reputable production engineers, entirely unprejudiced.

F. T. CHASE, *Sales.*

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### SENTINEL

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*Gentlemen:*

We agree with you, as does probably every radio manufacturer, that the present price-cutting mania is suicidal. Some people tell us that it is a good thing, in that a large number of small manufacturers will be back in the field anyway, and that eventually the radio business will be done by a group of seasoned manufacturers who have good management, and who manufacture high quality merchandise.

We are inclined to take this latter view, and have found that even through the dull months of this year we have been able

in most cases to sell our radio sets and chassis at a price above those of our competitors.

It is our hope that by holding on to this ideal we can eventually do our part to raise the general price level, so that we and other manufacturers may enjoy a reasonable profit on our investment.

J. T. BEATTY, *United Air Cleaner Corp.*

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### STROMBERG-CARLSON

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*Dear Caldwell:*

Thank you for your timely editorial "Needed—Leadership!" in the July issue of "Radio Retailing." The price orgy has gone too far and is killing radio. What is needed, in my judgment, is:

(A) to stimulate in every radio manufacturer these things:  
1. To build up to a given standard, viz., a sensitivity of at least 10 microvolts, single channel selectivity on all 96 channels, reproduce through the speaker the full musical range from 50 cycles to 5,000 cycles uniformly and with reserve output enough to reproduce the program at its original volume level without overloading at the bass end of the musical range, good appearance, and freedom from servicing troubles.

2. To establish and maintain a selling price which includes at least a 10 per cent profit for the manufacturer and at least a like amount of profit for the distributor and dealer combined.

(B) To stimulate in every radio distributor and dealer these aims: To sell every set at the full retail price; to collect a carrying charge on every time payment sale; and to make no greater trade-in allowance than can actually be recovered in cash on the set taken in trade.

If these things were done radio will resume filling its former destiny as a dominant art.

W. ROY McCANNE, *Pres.*

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### ERLA

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*Gentlemen:*

Your recent editorial on price trends is most assuredly an outline of the writer's views on the situation.

It will be interesting for you to note that for many weeks we have been endeavoring to impress upon our prospective buyers the fact that while present economic conditions demand merchandise of a popular price, it is most essential that quality should not be overlooked.

E. ALSCHULER, *Electrical Research Labs., Inc.*

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## As I See This Refrigeration Problem *(Continued from page 24)*

per cent additional bonus, to be paid on April 1 of each year for sales made up to December 31 of the previous year, provided that the salesmen have been continuously in the employ of the company. This 2 per cent bonus is a tremendous factor in cutting down salesman turnover.

Advertising should be based on 4 per cent of sales. Service and installation should be computed at 10 per cent. This makes a total of 29 per cent and leaves the store a margin of 11 per cent on all sales made by salesmen, assuming an average discount of 40 per cent.

Where the distributor does the service and installation, the 10 per cent reserve for installation and service is, of course, eliminated, and there is a corresponding reduction in discount.

**F**RANKLY, the dealer cannot handle apartment house business except in rare instances. The field for these sales consists of new buildings, where the contacts are with the architects, owners and builders, and in old buildings which are in the process of modernization.

It is an established practice in the industry to sell group installations at a discount. These discounts vary, depending upon the number of boxes, and according to competition. There are many problems involved which the average dealer

is not equipped to cope with. Credit is unquestionably the largest of these problems. A careful search of title must be made to ascertain the ownership of the building; an appraisal of the building should be taken to ascertain whether or not the mortgage loans thereon are excessive; the character of the owner must be investigated, for almost always the boxes are sold on time, and there is not alone the question of the lien, but the question of the upkeep of the apartment house, which has a distinct bearing on the ability of the owner to keep it rented and, therefore, to make payments as they come due.

This selling can only successfully be done by a specially organized crew or by an "Apartment House Sales Manager." The latter gentleman is almost a necessity.

However, the dealer should have the opportunity of developing these leads, and it should be part of the dealer's function to develop and register prospects with his jobber, who in turn will pay the dealer a commission upon consummation of the sale. This is unquestionably the most lucrative form of work which the dealer can do. He stocks nothing, he sells nothing, he takes no credit risk, he renders no service, but he comes into his store some morning and finds a nice check waiting for him for having done nothing but register his prospects' names with the jobber.



**ATWATER  
KENT  
RADIO**

**FOR  
1931-1932**

**G O L D E N**

**V A L U E S**

**WITH THE GOLDEN VOICE**

# ATWATER KENT RADIO

## NINE NEW MODELS GOLDEN VALUES WITH THE NAME YOUR CUSTOMERS WANT



← **CONSOLE MODEL 89**—Highboy, with sliding doors. Hand-rubbed walnut. Ornamental grille over beautiful duo-tone fabric. Super-heterodyne. Tubes include variable-mu's, and two pentodes in push-pull, equivalent to *four* 245's. Automatic volume control. Tone control and static reducer. Quick-Vision Dial with Atwater Kent compensating device. Electro-dynamic speaker of advanced design. The finest radio that can be built. Complete with tubes. Same chassis can also be had in lowboy cabinet (illustrated on opposite page)

**CONSOLE MODEL 87**—Same as above, without automatic volume control. Same chassis can also be had in lowboy cabinet (illustrated on opposite page)

**COMPACT MODEL 80**—Strikingly new in beauty and performance—new in engineering design—new in small set values. Rounded arch of distinctive zebra wood. Matched butt walnut panel. Rope-carved pilasters. Ornamental grille. Super-heterodyne. Variable-mu tubes and pentode. Tone control, but without automatic volume control. Quick-Vision Dial. Complete with tubes. →



**Nation-wide  
broadcast to  
Dealers August 12  
LISTEN!**

GOLDEN VALUES WITH THE GOLDEN VOICE



# ATWATER KENT RADIO

**E**VERY one of these new Golden Values models is an absolute engineering triumph... Entirely new chassis embodying special super-heterodyne circuit with perfected use of the new variable-mu tubes and pentode... new tone control and static reducer... new automatic volume control for those who want it... new electro-dynamic speaker.

Cabinets greatly improved, but retaining the characteristic Atwater Kent design of rich simplicity... designed for Golden Voice tonal beauty, made of choice matched woods... masterpieces of "eye value," artistry and good taste.

**CONSOLE MODEL 85**—Lowboy, exquisitely finished in American walnut with matched butt walnut front panels. Super-heterodyne. Variable-mu tubes

**CONSOLE MODEL 83**—Same as above, without automatic volume control.

**CONSOLE MODEL 85-Q**—Same as above, for battery operation. Uses the new economical 2-volt tubes and air-cell battery. Tone control and automatic volume control. Complete with tubes and batteries.

**COMPACT MODEL 82**—Gothic arch of distinctive zebra wood. Matched butt walnut panel. Carved twist pilasters. Ornamental grille. Super-heterodyne. Variable-mu tubes and pentode. Tone control.

Automatic volume control. Quick-Vision Dial. Complete with tubes.

**COMPACT MODEL 82-Q**—Same as above, for battery operation. Uses the new economical 2-volt tubes and air-cell battery. Complete with tubes and batteries.

**COMPACT MODEL 82-D**—Without automatic volume control. For Direct Current. Complete with tubes.

Price range—complete with tubes—attractive to both dealers and purchasers.

This is a Value year and here are matchless Golden Values—value of the most famous name in radio—value of experience—value of skill—value of resources—value of 9 years of consistent large-scale advertising—value of fine workmanship—value of dependability—value of lasting quality—value of turnover—value of prestige—value of over three million satisfied owners—value of public preference—value of Atwater Kent sensible price with a certain profit for the dealer.

and pentode. Tone control. Automatic volume control. Electro-dynamic speaker of advanced design. Quick-Vision Dial. Complete with tubes. ↓



GOLDEN VALUES WITH THE GOLDEN VOICE

# ATWATER KENT RADIO

## GOLDEN VALUES

**SELL VALUE THIS YEAR.** Sell true worth. Sell satisfaction. Please a customer and make a profit, too!

The world was never more eager for true-blue quality. It's insisting on full money's worth—looking behind the price tags—demanding merchandise it *knows*. It's through chasing the will-o'-the-wisp of impossible bargain prices.

Low prices—yes. But first of all, Value!

For 9 years Atwater Kent has offered the utmost in radio value. Our whole business has been built around the idea of making the radio purchaser's dollar cover the most value. More

than three million families have bought Atwater Kent Radio for its *value*.

Now—for 1931-1932—Atwater Kent values are far ahead of anything offered before. Ahead in performance, styling, workmanship. Ahead in everything that makes a customer want an Atwater Kent, and makes a merchant glad he handles it.

Golden Values! You can see them, hear them. Golden Values! You make a profit and it *stays*. Golden Values in turnover. Golden Values in the backing of the great Atwater Kent national sales and advertising campaign. Get the story from your distributor!

ATWATER KENT MANUFACTURING CO.    A. Atwater Kent, President    4700 WISSAHICKON AVE., PHILADELPHIA, PA.

## WITH THE GOLDEN VOICE

More than Three Million satisfied owners







General Motors Radio  
Announces a  
complete new series of  
**RADIOS**  
and Automatic Combinations  
*Introducing*  
*The GM Improved Super-heterodyne*



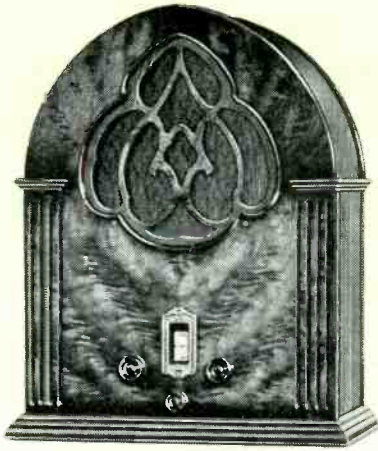
In its new series of 15 models, all equipped with the G. M. *Improved Super-heterodyne* chassis, General Motors Radio announces the most complete line of radios and automatic radio-phonographs known to the industry today. The G. M. *Improved Super-heterodyne* stands out conspicuously as one of the foremost developments in radio engineering. This chassis retains and increases the high sensitivity and sharp selectivity which have made the super-heterodyne chassis famous. In addition, it performs with beauty and accuracy of tone such as no super-heterodyne has ever before possessed. This remarkable chassis is housed in beautiful cabinet, console and custom-built furniture pieces priced, with tubes, from \$69.50 to \$350—a *model for every purse and preference*. There is money in handling a line so wide, so remarkable in performance, so fine in appearance. Write Dept. G for complete information about *radio's great profit line!*

GENERAL MOTORS RADIO CORPORATION  
DAYTON, OHIO

**RADIO'S GREAT PROFIT LINE**



## 7 Standard Models \$69<sup>00</sup> to \$250<sup>00</sup> with Tubes



*The Little General*

A remarkable radio. Equipped with the 7-tube Improved Super-heterodyne with Pentode power tube, special pre-selector circuit, Tone Selector and static modifier, specially matched electro-dynamic speaker, Dual Volume Control. A Gothic cabinet in handsome butt walnut. List price, \$69.50 with tubes.



*The Valere*

One of the most outstanding values in radio today! Eight-tube Improved Super-heterodyne chassis using the Pentode power tube. Attractive console cabinet in beautiful light walnut finish. Tone Selector. Automatic Volume Control. Specially matched speaker. An excellent instrument. List price, \$99.50 with tubes.



*The Queen Anne*

A splendid combination instrument, with the 10-tube Improved Super-heterodyne chassis and automatic-phonograph playing ten records. Tone Selector for both radio and phonograph, Automatic Volume Control, perfectly matched speaker and the exclusive Audibility Compensator. List price, \$250 with tubes.

Cabinets in the standard line—from the Little General at \$69.50 to the Queen Anne automatic combination at \$250—represent the work of America's foremost cabinet designers in in-

terpreting the tastes of radio buyers. Without exception, these models, seven in all, are beautifully designed and carefully produced, and constitute unparalleled radio value.

List prices of other Standard Models, complete with tubes—Continental \$79.50, Cosmopolitan \$129.50, Imperial \$149.50, Pioneer (self-contained power unit) \$129.50.

## 8 Custom Built Models \$95<sup>00</sup> to \$350<sup>00</sup> with Tubes



*The Standish*

An Early American end-table with attractive antique walnut finish. This is a complete radio, with a self-contained aerial. The chassis is the 7-tube Improved Super-heterodyne, equipped with Tone Selector and using the famous Pentode power tube. List price, \$95 with tubes.



*The Cromwell*

An Early English solid oak occasional table, with a drawer. Here is a piece that will lend character to any room. The chassis is the 10-tube Improved Super-heterodyne—radio's finest! Automatic Volume Control. Tone Selector. Marvelous tone quality! List price, \$160 with tubes.



*The Winslow*

A very beautiful Early American chest of drawers in crotch walnut with herringbone inlay. The top three drawers are real. Ten-tube Improved Super-heterodyne chassis. Tone Selector. Automatic Volume Control. Wonderful tone quality. List price, \$225 with tubes.

For those discerning people who want the utmost in radio performance—and, with this, a distinguished and beautiful piece of fine furniture—General Motors Radio presents this series of eight custom-built models. In this group you will find a period furniture style to fit practically every interior decorative scheme.

List prices of other Custom-Built Models, complete with tubes—Tudor \$95, Abbey \$165, Louis XV. Console \$185, Queen Anne Commode \$175, Louis XV. Automatic Combination \$350.

## A Model for every Purse and Preference

# RADIO DEALERS!

## NOTE ALL THESE BIG FEATURES

So simple that anyone can operate it.  
Jam-proof and Trouble-proof.  
Simplest lens adjustment.  
4 speeds—*normal, low, slow motion, talking picture speed.*  
Easiest to load, unload and handle.  
Daylight loading without spoiling film.  
Interchangeable lens mount.  
Accurate Full-vision View Finder.  
Audible film *footage* counter.  
Lightest weight—2 lbs. 10 oz., loaded.  
Compact—9" long, 5" wide, 2" thick.  
Equipped with standard f 3.5 lens.  
Uses any standard 16 mm. movie film.  
50 or 100-foot film capacity.  
Spring-driven motor—no cranking.  
Permanent beautiful grain-like finish.  
Built to Stewart-Warner's traditional standard of quality.

## Big Sales Volume For YOU.. in the New STEWART-WARNER Home Movie Camera

With the new Stewart-Warner Home Movie Camera, you can do a big, profitable year-around business. And on a product that ties in with your present selling methods, requires no servicing or increase in overhead, and has a market that's *never been scratched!*

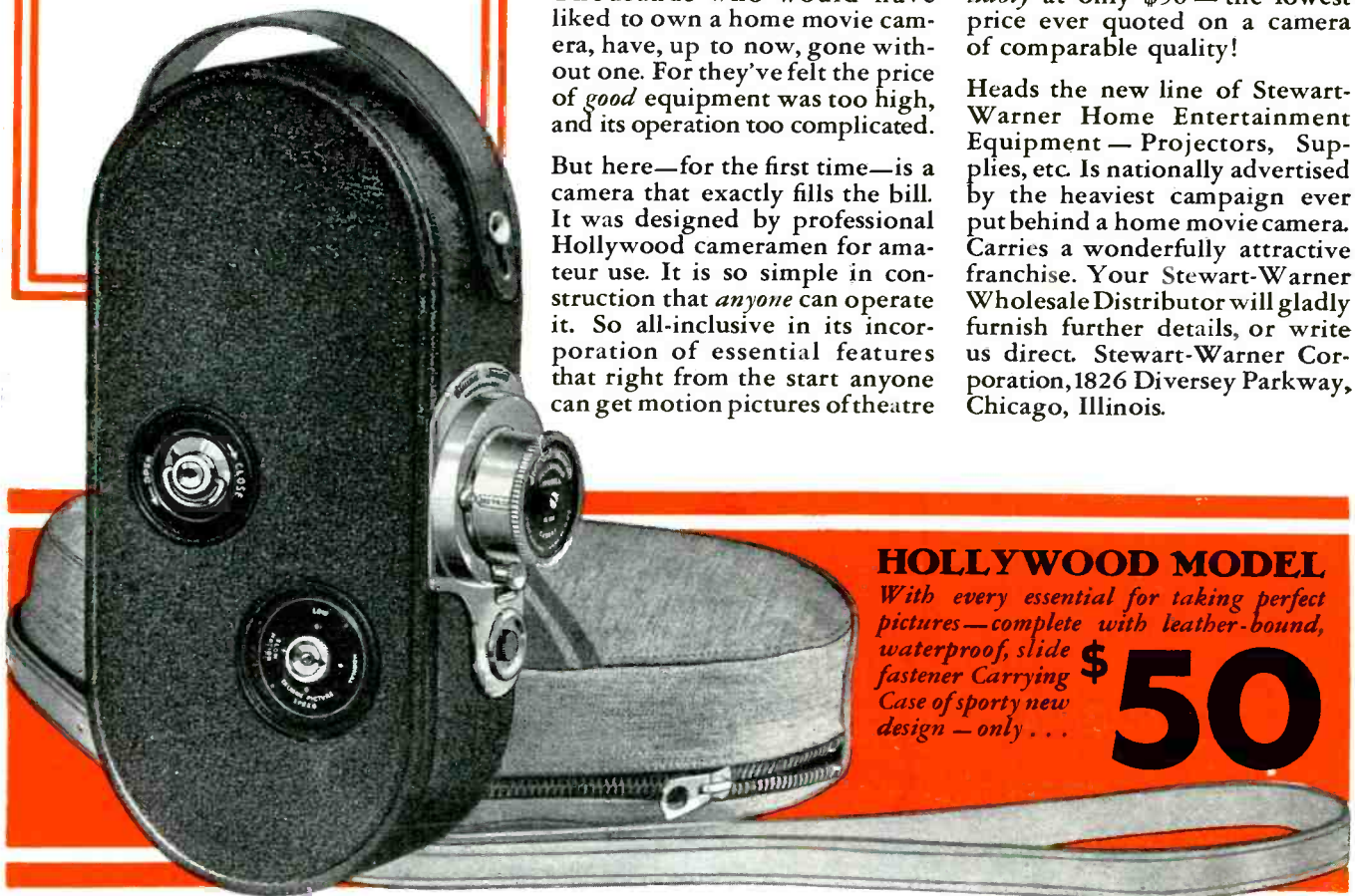
Thousands who would have liked to own a home movie camera, have, up to now, gone without one. For they've felt the price of *good* equipment was too high, and its operation too complicated.

But here—for the first time—is a camera that exactly fills the bill. It was designed by professional Hollywood cameramen for amateur use. It is so simple in construction that *anyone* can operate it. So all-inclusive in its incorporation of essential features that right from the start anyone can get motion pictures of theatre

beauty and brilliance—do it actually *easier* than taking "snap shots." And so low priced it's in reach of all!

Because of the tremendous production facilities utilized in its manufacture by Stewart-Warner, this camera can be retailed *profitably* at only \$50—the lowest price ever quoted on a camera of comparable quality!

Heads the new line of Stewart-Warner Home Entertainment Equipment—Projectors, Supplies, etc. Is nationally advertised by the heaviest campaign ever put behind a home movie camera. Carries a wonderfully attractive franchise. Your Stewart-Warner Wholesale Distributor will gladly furnish further details, or write us direct. Stewart-Warner Corporation, 1826 Diversey Parkway, Chicago, Illinois.



**HOLLYWOOD MODEL**  
With every essential for taking perfect pictures—complete with leather-bound, waterproof, slide fastener carrying Case of sporty new design—only . . .

**\$ 50**

## STEWART-WARNER Home Movie Camera



# "they're Hot"



### Radiolette

RCA Victor's greatest value—the new RADIOLETTE . . . a husky radio in a tiny cabinet . . . only 15 inches high . . . weighs only 16 pounds . . . 4 tubes including an RCA Pentode . . . only \$37.50 list complete.

**\$37<sup>50</sup>**

### Superette

The hit of the season—the new RCA Victor Superette . . . the smallest BIG radio ever built . . . a powerful 8-tube Super-Heterodyne . . . only \$69.50 list complete.

**\$69<sup>50</sup>**



### Portable Phonograph

The finest portable phonograph ever built—with automatic start and stop device . . . wonderful tone . . . durable water-proof case . . . carries 10 records safely . . . only \$35.00.

**\$35<sup>00</sup>**



These  
**3** fast selling  
numbers from  
"RADIO  
HEADQUARTERS"

HERE are three chances to make additional sales outside of your regular run of home business. Your customers all want *music* this summer . . . and that leaves the door wide open for you to sell them light instruments that can be easily carried from one place to another. At the prices now offered on these new RCA Victor instruments, almost *everyone* can afford one in addition to their large radio set. Get full facts from your RCA Victor distributors today.

**RCA Victor Company Inc.**  
Camden, N. J., U. S. A.

*A Radio Corporation of America Subsidiary*



# *The most important* GENERAL ELECTRIC

GENERAL ELECTRIC presents its greatest achievement in radio receivers—a line destined to make radio history during the coming season.

The ten models in this line provide a radio for every pocketbook. Every model is outstanding in its superiority.

The brilliant performance of General Electric Radio has been made more brilliant still. Tone quality so amazingly superior that it can be detected by even the average ear! These significant features are to be found in many models:

Automatic volume control of a vastly improved type—so perfected that it maintains constant volume without the objectionable noise formerly brought in between stations. Pentode output tubes—not single, but in push-pull, making possible high output and supreme tone quality. Variable tone control over a wide range . . .

Cabinets based on a national consumer

survey. Thousands of doorbells were rung to discover what people wanted in radio cabinets and what they didn't want. Then these preferences were translated into wood.

Hence, the new G-E cabinets fit the public taste like a glove!

G-E offers its dealers a full range of models at a full range of prices. It will pay you, and pay you well, to put your best efforts back of this line.

Soon will begin the most convincing national advertising campaign ever put behind a radio line. Watch for it! Get it working for you!

Study the models on the following pages. Then act at once. This is a profit-opportunity which comes only to those who get back of a coming market-leader!

Write or wire your G-E Radio Distributor or General Electric Company, Merchandise Department, Section R-688, Bridgeport, Conn.

GENERAL  ELECTRIC RADIO

*FULL RANGE PERFORMANCE*



# radio announcement has ever made



*Left:* THE MIDGET

To-day's biggest value in small sets. Four tubes—two 224 screen-grid, one 280, and a Pentode output tube. Tuned radio frequency set. Shielded chassis, including power supply system. Dynamic speaker. Attractive walnut-brown, satin-finish Gothic cabinet. Tone quality far in advance of its price class. List price, *complete with tubes* . . . . . \$3750



*Right:* THE GENERAL ELECTRIC JUNIOR

8-tube screen-grid superheterodyne with full-size dynamic speaker. Compact, light—and *portable*. Can be placed on a mantel-piece, bookcase or corner table. Widely variable tone control, and phonograph connections. Housed in rich walnut cabinet of 18th Century mantel clock design. Price, *complete with tubes* . . . \$7250

*These low-priced G-E sets will be big sellers*



*Left:* THE JUNIOR CONSOLE

A smart console model with the chassis of the regular Junior, described above. Takes but little floor space, convenient and harmonious in smaller homes and apartments. Beautiful walnut cabinet, with restrained ornamentation. Phonograph connections, to which the End Table Phonograph—described on following page—may be connected. Price, *complete with tubes* . . . . . \$8950



*Right:* JUNIOR WITH CLOCK

Similar to the Junior in every way, except that a highly accurate General Electric Clock has been included. Price, *complete with tubes* . . . . . \$8450

• *Now turn the page and see the rest of the new G-E line* •



# The new G-E line includes a set for



*Left:* THE GENERAL ELECTRIC  
END TABLE PHONOGRAPH

Makes a radio phonograph combination out of practically any modern radio set. A beautifully-finished end table, with a convenient lower shelf for magazines, books and phonograph records. Slide back the cover and play your favorite phonograph records through your radio set. A handsome, practical piece of furniture. List price . . . . . \$6450



*Right:* CONSOLE BATTERY-  
OPERATED SET

This battery-operated set is an 8-tube superheterodyne with brilliant sensitivity, selectivity and tone quality. Built to the same high standards as all-electric sets. Uses the new "air cell" for A power, which lasts a year or longer under normal use without renewal or attention. List price, complete with tubes—less batteries . . . . . \$9950



*Left:* G-E POPULAR CONSOLE

A 9-tube superheterodyne with 2 Pentode output tubes. Single unit chassis, completely shielded. Power switch combined with tone control knob. Helmholtz Resonator improves tone. Improved automatic volume control. Phonograph connections. Cabinet of brown walnut, with figured matched butt walnut instrument panel, splayed front, butt walnut overlays.

*Right:* GEORGIAN GRAND-  
FATHER CLOCK-RADIO

New 9-tube superheterodyne. Pentode push-pull output. High selectivity and sensitivity. Improved automatic volume control, which eliminates undesirable noises between stations. The cabinet is an authentic copy of an Eighteenth Century Grandfather Clock. Clock is electric—a perfect timekeeper. Case of finest mahogany. (Available in September)





*every home and every pocketbook*



*Left: DeLuxe Lowboy*

Special 10-tube superheterodyne chassis, with three 235 tubes, three 227's, one 224, one 280 and two 247 Pentodes in push-pull. High output. Superb tone. Chassis doubly shielded, the outer shield acting as a Helmholtz Resonator. Brown walnut cabinet of classical design, with graceful curved front. Center panel a replica of Renaissance hand carving. Hand-rubbed wax finish. (Available in September)

*Right: Early American Grandfather Clock-Radio*

Full sized authentic Grandfather Clock. Case of genuine mahogany, finished in rich brown tone, and ornamented with figured overlay. Ten-tube superheterodyne with push-pull output and automatic volume control. Large 8-inch dynamic speaker. G-E Electric clock. May be obtained with remote control at additional cost.



*Automatic Radio-Phonograph Combination*

One of the most remarkable sets in the G-E line. Combines finest radio reception, phonograph with automatic record changing and home recording. Radio is a 10-tube superheterodyne with two 247 Pentodes. Automatic volume control of improved type. Doubly shielded, the outer shield acting as a Helmholtz Resonator. Dynamic speaker. Truly beautiful Queen Anne cabinet. Brown walnut, with center-matched butt walnut panels and

doors, and hand-rubbed wax finish. Plays ten 10-inch records for approximately 30 minutes before repeating. Tremendously improved home recording on 10-inch records is accomplished with no effort or complications. Merely sing, play or talk into a specially designed studio type microphone and then play the record back with remarkable volume and fidelity. No waiting or delay. Records both radio programs and "home entertainment."

(Available in September)



# Crowds STOP TO SEE THE MARVELOUS *Acremeter*

★ *The Acremeter makes a dramatic, uncanny analysis of the tubes while the customer looks on. The important characteristics are flashed on large dials in plain view.*



★ *Typical crowd watching tube tests being made on the amazing Acremeter. The Ken-Rad Acremeter and the sales plan back of it are a sales sensation.*

## *All Tube Sales Records Broken*

They Stop! They Look! They come in and buy . . . not only tubes but other merchandise!

The Ken-Rad Acremeter, and the sensational sales plan built around it, are breaking all previous tube sales records for countless dealers and distributors.

The Acremeter itself is a public sensation wherever it is demonstrated—and the Ken-Rad Acremeter Sales

Plan is the means of capitalizing the interest that is always created.

All this sounds too sensational—too good—but it has all been proved by dealers and distributors everywhere.

Reports of the many remarkable successes with the Ken-Rad Acremeter plan await your inquiry. Mail coupon below now.

## Ken-Rad *Fine Radio Tubes*



THE KEN-RAD CORPORATION, *Incorporated*, OWENSBORO, KENTUCKY.

Please send us full information on the Ken-Rad Acremeter Sales Plan.

Name..... Address.....





Look  
for the shield  
of quality

# ANNOUNCING

## a Super-Heterodyne Console with **PENTODE TUBES**

*YOU*, Mr. Wide-awake Dealer, will be quick to see the sales possibilities of the new Pentode tube. It's as great an advance over the four element tube, as that was over the old three element tube. It increases the acoustic frequency range . . . gives higher audio amplification . . . greater power output. . . The new Graybar Pentode Tube Console has all the greater sensitivity and selectivity of the Super-Heterodyne circuit, plus the increased power and the more faithful tone quality made possible by these remarkable tubes. And besides, this Console has automatic volume control of a *new* kind— which eliminates noise when changing from station to station. . . The price? Here's the biggest surprise— only \$119, including Radiotrons!

# Graybar

OFFICES IN 76 PRINCIPAL CITIES. EXECUTIVE OFFICES: GRAYBAR BUILDING, NEW YORK, N. Y.



GRAYBAR ELECTRIC COMPANY, Graybar Building, New York, N. Y.

RR 8-31

Gentlemen: — Please send us complete information on the new PENTODE TUBE Super-Heterodyne Console Radio.

Name

Address

# HERE'S A CHANCE TO MAKE SOME

## Push this new Home Talkie and rent your customers films

This new Pacent Home Talkie is the latest thing in home entertainment. Wherever it has been shown, jobbers and dealers are exceedingly enthusiastic because they see an opportunity to push a new, non-competitive line that every radio owner will want.

The market is ready and waiting for a new form of home entertainment. Pacent equipment is designed by a manufacturer with more than twenty years' experience in electrical reproduction.

### Rent your customer films

Lack of film product is no longer a deterrent to the development of the Home Talkie market. Steady, comfortable profits will be realized through rentals by wide awake dealers who are now establishing suitable film libraries. Rentals now average \$.50 to \$1.00 per night, per reel. Write for complete list of films now available.

# PACENT

PACENT ELECTRIC CO., INC.  
91 SEVENTH AVENUE NEW YORK CITY

PACENT ELECTRIC COMPANY, Inc.  
91 Seventh Avenue, N. Y. C.

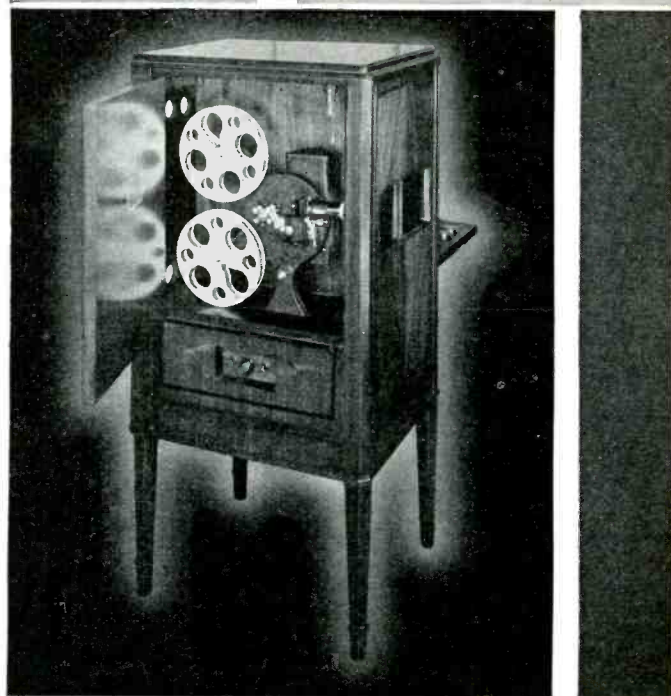
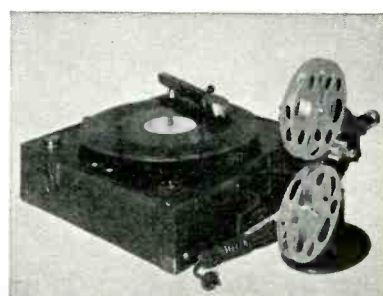
Gentlemen: I am interested in handling the Pacent Home Talkie line. Please send literature and complete information on your cooperative dealer advertising campaign.

NAME .....

ADDRESS .....

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

# R E A L M O N E Y !



## Complete Equipment

as shown—lists

FOR ONLY **\$225.00**

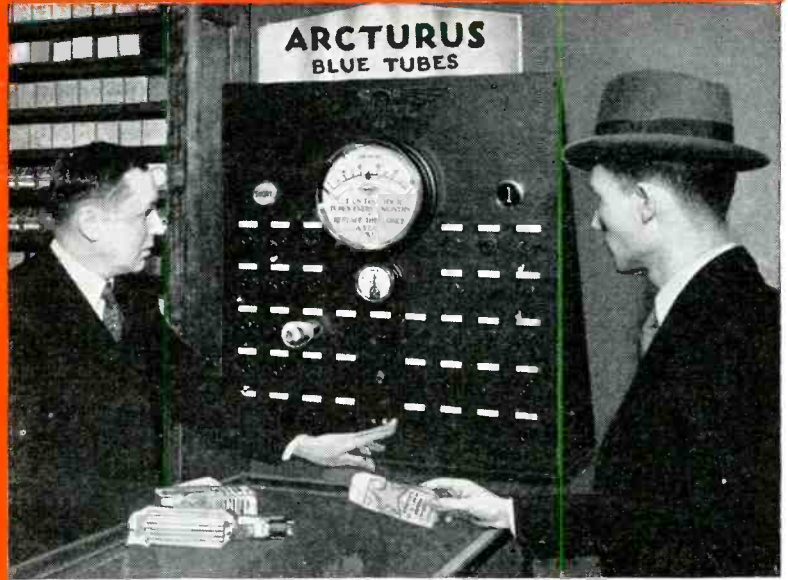
*less tubes and screen*

Catalog No. 751-B projector and synchronous turntable, complete with new Phonovox pick-up and special high-torque motor as shown, lists for ONLY \$145.00. Complete A. C. operated portable amplifier and speaker catalog No. 751-A for use with equipment where radio set is not available lists for ONLY \$55.00 less tubes.



# SELL MORE TUBES to MORE CUSTOMERS

*with this  
improved*  
**TEST  
BOARD**



The Arcturus Test Board, made by a leading electrical instrument manufacturer, was selected by our engineers after careful comparison of many test boards on the market. Specially designed, this Test Board gives the most complete and accurate indication of the efficiency of all popular tubes.

*Records Prove it often  
DOUBLES and TRIPLES  
Tube Sales; Brings New  
Customers into your store;  
Creates Live Prospects for  
Radio Sets as well as  
Tubes; Establishes your  
Store as the Local Radio  
Headquarters.*

*The  
BLUE  
Radio  
Tube!*

LAST month, in the pages of this magazine, we made an unusual offer. We announced an up-to-date Test Board for radio tubes, and outlined a new plan that made it easy for any dealer to own one of these proved business builders.

Hundreds of progressive radio dealers took advantage of this plan. Many have had an opportunity to check the value of the Test Board, and the simplified sales plan we furnish with it. They report remarkable results.

They have learned that a list of old customers can be turned into a gold mine of new tube profits. They have secured dozens of new customers at small expense and turned many of these into radio set buyers. They have established their stores as the radio center of their community—the place to get expert radio service at no extra cost.

### Get This Test Board Now

Testing equipment such as this is often sold at \$150.00 to \$200.00 or more. Yet Arcturus now helps any progressive radio dealer get a Test Board, and many Arcturus jobbers have a plan enabling dealers to earn one by tube purchases.

Naturally, we can furnish these Test Boards to a limited number of dealers only. If you want one, ACT TODAY. Tear out this coupon now, and send it to us with your business letterhead. It will bring you all the facts about the most profitable selling help you have ever had in your store.

Arcturus Radio  
Tube Co.  
Newark, N.J.

# ARCTURUS

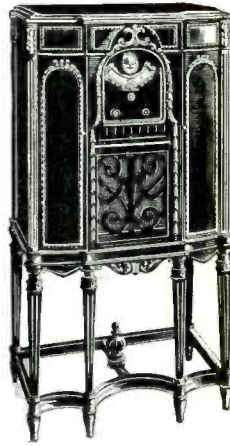
"The TUBE with the LIFELIKE Tone"

**CLIP and MAIL this COUPON NOW!**

ARCTURUS RADIO TUBE CO., 720 Frelinghuysen Avenue, Newark, N. J.  
I am interested in your plan for selling more tubes with your Tube Test Board. Tell me how I can get one of these Test Boards, and use it to best advantage.

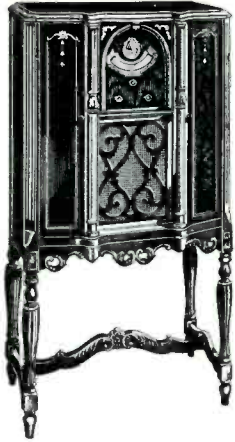
Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_

JS-881



Model 103—New 14-tube Hyper-heterodyne in magnificent highboy console. \$290 Complete with Zenith Quality tubes.

WHEN YOU



Model 92—New 10-tube Super-heterodyne in exquisite highboy console. \$195 Complete with Zenith Quality tubes.

MAKE A



Model 91—New 10-tube Super-heterodyne in beautiful lowboy console. \$155 Complete with Zenith Quality tubes.

SALE MAKE

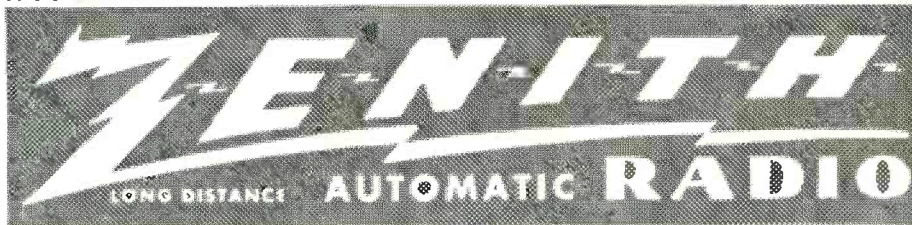
A PROFIT, TOO

... you make BOTH with the new 1932 Zenith line. Here is price that assures your needed extra profit ... and the extra Zenith quality, extra Zenith performance, extra Zenith value that make the price a real "buy" to every prospect. See your Zenith Distributor NOW ... and sign up!

*(All prices slightly higher in Far West)*

**HYPER-HETERODYNE**

**SUPER-HETERODYNE**



ZENITH RADIO CORPORATION, CHICAGO, ILL.

Also makers of ZENETTE RADIO, priced from \$49.95 to \$130—a quality line at competitive prices.

WORLD'S LARGEST MAKERS OF HIGH GRADE RADIO ... SINCE 1914



# "SET-TESTED"

## is worth a Thousand Arguments

**D**ID you ever notice how hard it is to sell some customers even a single tube? Especially those who ask all sorts of embarrassing questions: "Is this tube right for MY set?" "How do you know?"

Today, Sylvania dealers say "set-tested"—and the sale is made.

Back of these words stand the giant copper-screened Sylvania Laboratories. There scientists and engineers test Sylvania tubes in over 300 makes and models of standard radios. Sylvania tubes must pass the strictest requirements for tone, distance, volume and sharp-tuning.

Write today for the new Certified Test Chart. It shows the proper tube assortment for all models of the sets listed on this page. The signed statement by Sylvania's Chief Engineer convinces your customer that Sylvania tubes belong in his set. Learn for yourself how you can make faster sales and quicker profits from Set-Tested Tubes. Here's a coupon for your convenience.



AUDIOLA	GENERAL MOTORS	SPARTON
APEX	GRAYBAR	STAR-RAIDER
ATWATER KENT	GREBE	STEINITE
BOSCH	GULBRANSEN	STERLING
BRUNSWICK	HOWARD	STEWART WARNER
CLARION	KENNEDY	STORY & CLARK
COLONIAL	KOLSTER	STROMBERG CARLSON
CROSLEY	LYRIC	VICTOR
EDISON	MAJESTIC	WESTINGHOUSE
ERLA	PHILCO	ZANEY GILL
FADA	RADIOLA	ZENITH
GENERAL ELECTRIC	SILVER MARSHALL	
	SONORA	



# Sylvania

REGISTERED U. S. PAT. OFF.

## THE SET-TESTED TUBE

Licensed Under R. C. A. Patents

Ask your jobber—or write to us—about the new Sylvania "Emurgentcy" Kit that means easy, extra tube sales for you.



HYGRADE-SYLVANIA CORPORATION  
Sylvania Division, Dept. R-8-1  
Emporium, Pennsylvania.

Please send me a copy of the new Certified Test Chart and information about Set-Tested Tubes.

- I have never sold Sylvania tubes.
- I am now stocking Sylvania tubes through  
(Name of Jobber) .....

Name .....

Address .....

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



**WEATHER-PROOF CARRYING CASE for all Little Radios -- as low as \$1.25**

Universal Covers are made to fit all midget sets of 4 tubes or less, and all Junior Table Models of from 5 to 9 tubes. Only one strap to fasten, forming a convenient carrying handle. Made of strong, weather-proof brown drill, padded with thick layer of high grade comfort cotton — guaranteed not to separate unless actually torn.

No. 10—Table Model, (large size—5 to 9 tubes), \$2. (\$2.50 Colorado and West).  
No. 11—Midget Model, (small size—4 tubes or less), \$1.25. (\$1.60 Colorado and West).  
Shipped parcels post, C.O.D. postage paid.

**MAISH BEDDING CO.**  
1501 Freeman Ave., Cincinnati, O.

On open account if you have account with us.

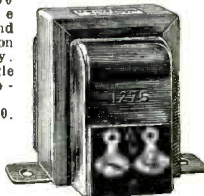
**UNIVERSAL MICROPHONES 12 Types—A complete Line**



**"Handi-Mike"**  
Maximum volume. Minimum hiss. Scientifically damped. Truly natural in tone and the most rugged microphone yet devised. No delicate parts to be damaged if dropped, jarred or roughly handled. For announcing, transmitting or home recording. Our engineering department is at your service. New catalogue covers 12 models from \$5.00 up.

With an Outstanding **3-YEAR RECORD** FOR EVERY POSSIBLE USE Also Accessories for Every Need.

A single button microphone input transformer, 200 ohms on the primary side and 100,000 ohms on the secondary. For any single button microphone. List price \$5.00.



Write for our complete catalog.

Universal Microphone Co., Ltd.  
1163 Hyde Park Blvd.  
Inglewood, Calif., U. S. A.

**CABINETS**

Your most powerful weapon in meeting today's competition in the radio field is cabinet work of irresistible eye appeal and structural precision.

With a successful experience of over half a century in the making of fine cabinets, Adler-Royal offers you a wealth of merchandising ideas and a thoroughness of cooperation that may mean the difference between profit and loss.

Let's talk it over.

ADLER MANUFACTURING CO., Incorporated, LOUISVILLE

**ADLER-ROYAL CABINETS**

... A few manufacturers with whom we have worked: ...  
ATWATER KENT ... FADA ... EDISON-GENERAL ELECTRIC  
COLONIAL RADIO ... COLIN B. KENNEDY ... J. C. PENNEY  
SEARS-ROEBUCK ... MAGNAVOX ... NATIONAL CARBON

**New Sales Ideas For Sale At 8 Cents a Month!**

Yes, *Radio Retailing*, published monthly, serves its many readers with dozens of practical sales plans, service kinks, window displays, collection and accounting plans and many other workable ideas at a cost of only 8 cents a month. One dollar a year.

This introductory offer is for cash with your order only. The regular price of *Radio Retailing* is \$2 a year. If you already subscribe to *Radio Retailing* send in your \$1 and have your present subscription extended at the reduced price.

**FILL IN THE ORDER BLANK AND MAIL IT TODAY**

Cash must accompany order for half price rate.

**RADIO RETAILING**

R. R. 8

**475 Tenth Ave., New York, N. Y.**

Attached is \$1. Enter my order for *Radio Retailing* for one year . Extend my present subscription for one year .

Name .....

Street .....

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

Company.....Position.....

For Foreign Postage add \$1 extra a year.



Everybody who  
ever sold  
**GULBRANSEN**  
**RADIO**  
has made  
*money* out of it...

...and that includes the Gulbransen Company itself! Dealers, jobbers and factory, have cashed in on the precision manufacture that has won Gulbransen its nation-wide reputation as the

*"Radio without the  
Service Headache!"*



# You'll make money selling GULBRANSEN RADIO ...and we can prove it!

**H**ERE is a full line of radio receivers, bearing a famous name, good looking, popular priced, modern in every detail, embodying every important sales and performance feature known to radio engineering.

Every characteristic considered, there is no line of receivers that has any finer balance in selectivity, sensitivity, tone-faithfulness, clarity, tuning ease and stability. The majority of sets cannot approach Gulbransen performance. A mere handful of the costliest are able to equal Gulbransen.

That is why Gulbransen invariably sells, *in volume*, whenever there is an opportunity for the customer to tune in one or more competitive sets on the sales-room floor.

So when we say, and repeat, that *you'll make money* selling Gulbransen Radio . . . and that we can prove it . . . that's not just a wild statement. The sets *sell* on performance, and they *stay sold* because they *stay put* in service—to the everlasting advantage of your business profits.

Wouldn't you like to have this proved to you, by actual eye and ear evidence? Wire or write—

**GULBRANSEN COMPANY**  
Factory and General Offices: 816 N. Kedzie Ave.  
CHICAGO, ILLINOIS

**GULBRANSEN**  
SUPERHETERODYNE *Radio*  
TUNED RADIO FREQUENCY



**Mantel Receiver Model 130.** Seven-tube Superheterodyne (two '35 Vari-mus, one '47 Pentode, two '24 screen grid, one '27 and one '80). 10-kilocycle separation. Full-floating Tuning Condenser. Completely selective, beautiful in tone. Finest cabinet work. Price, complete with tubes, \$69.50



**Mantel Receiver Model 330.** Six-tube, tuned radio frequency, including four '24 screen grids, one '45 power tube. Powerful Dynamic Speaker. Selective, sensitive, ample volume and pleasing tone. Price, complete with tubes, \$48.00



**Console De Luxe Model 235.** 10-tube Superheterodyne (four '35 Vari-mu, two '47 Pentode in push-pull, three '27 and one '80). Compensating Dynamic Speaker, Visual Tuning meter (simplified distance tuning), Automatic and Manual Volume Controls, Tone Control, Full-floating Tuning Condenser, Power Switch. No "blasting," no fading, no "tube" noises, no cross-talk. Price, complete with tubes, \$113.50



**Console Receiver Model 135.** Seven-tube Superheterodyne, same chassis as Model 130, in beautifully designed cabinet, 40 inches high. 2 to 5 micro-volt sensitivity (per meter). Tone Control. No tube noises or cross-talk. Price, complete with tubes, \$79.50



# WEBSTER ELECTRIC CO.



**T**HE hit of the show! . . . . This year, as in previous years, the Webster Electric Pick-up was the outstanding leader at the recent R. M. A. show, in appearance, performance and value . . . . Strikingly beautiful in design, with added features which further emphasized Webster Electric tone quality and the lowest price in Webster Electric history! . . . . These factors make the Webster Electric Pick-up the inevitable choice of manufacturers, jobbers and dealers everywhere . . . . Send for technical details and descriptive literature.



Webster Electric Company

ESTABLISHED 1909

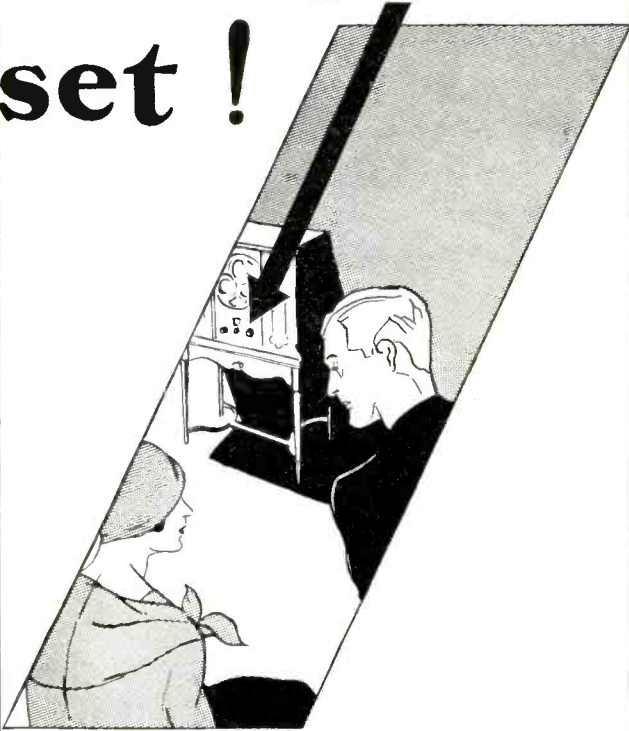
Racine

Wisconsin



Webster Transformers . . . . Webster Electric Pick-ups . . . . Webster Power Amplifiers

# Centralab sells the set!



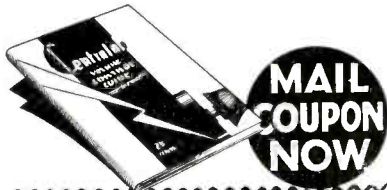
Those critical moments in the demonstration booth tell the CENTRALAB story better than pages of description. No harsh, jumpy noises; but a smooth, quiet, velvety performance typical of CENTRALAB . . . That is what "puts over" sale after sale.

Dealers "in the know" make sure the sets they sell are CENTRALAB equipped.

. . . and for those that are not . . . CENTRALAB offers Volume Control replacements at nominal cost. Write for the new guide.

## Centralab

CENTRAL RADIO LABORATORIES



CENTRAL RADIO LABORATORIES  
920 Keefe Ave., Milwaukee, Wis.

Enclosed find 25c. for which send me your new VOLUME CONTROL GUIDE.

Name .....

Address .....

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

Rad. Ret. ....

Here it is!



JUST FROM THE PRESS is this readable book on Television, its principles and practice, present development—and probable future.

## TELEVISION

Its Methods and Uses

by EDGAR H. FELIX

Radio Consultant

276 pages, 5½x8, illustrated, \$2.50



HERE is a plainspoken discussion of Television today—with a frank and impartial analysis of the problems it faces, its commercial and industrial possibilities. This book will prove informative, interesting to anyone concerned with the radio or television industry.

### 17 Significant Chapters

1. The Present Status of Television.
2. Hearing, Vision and Television.
3. The Six Processes of Television.
4. Scanning the Field of View
5. The Light-Sensitive Element.
6. Transmission of Television Signals.
7. Reception of Television Signals.
8. Converting the Picture Signal into Light.
9. Forming the Image in the Field of Reproduction.
10. Synchronization of Television.
11. The Eye as an Instrument of Television.
12. Detail Requirements of Television Reproduction.
13. Program Possibilities of Television.
14. Commercial Possibilities of Television.
15. Establishing a Television Entertainment Service.
16. Industrial and Commercial Applications of Television Appliances.
17. The Future Progress of Television.

Examine this book for ten days—FREE

## McGraw-Hill FREE EXAMINATION COUPON

McGraw-Hill Book Co., Inc., 370 Seventh Avenue, New York, N. Y.  
Send me Felix—TELEVISION: Its Methods and Uses, \$2.50 post-paid, for 10 days' free examination, I will return the book postpaid in 10 days or remit for it then.

Name .....

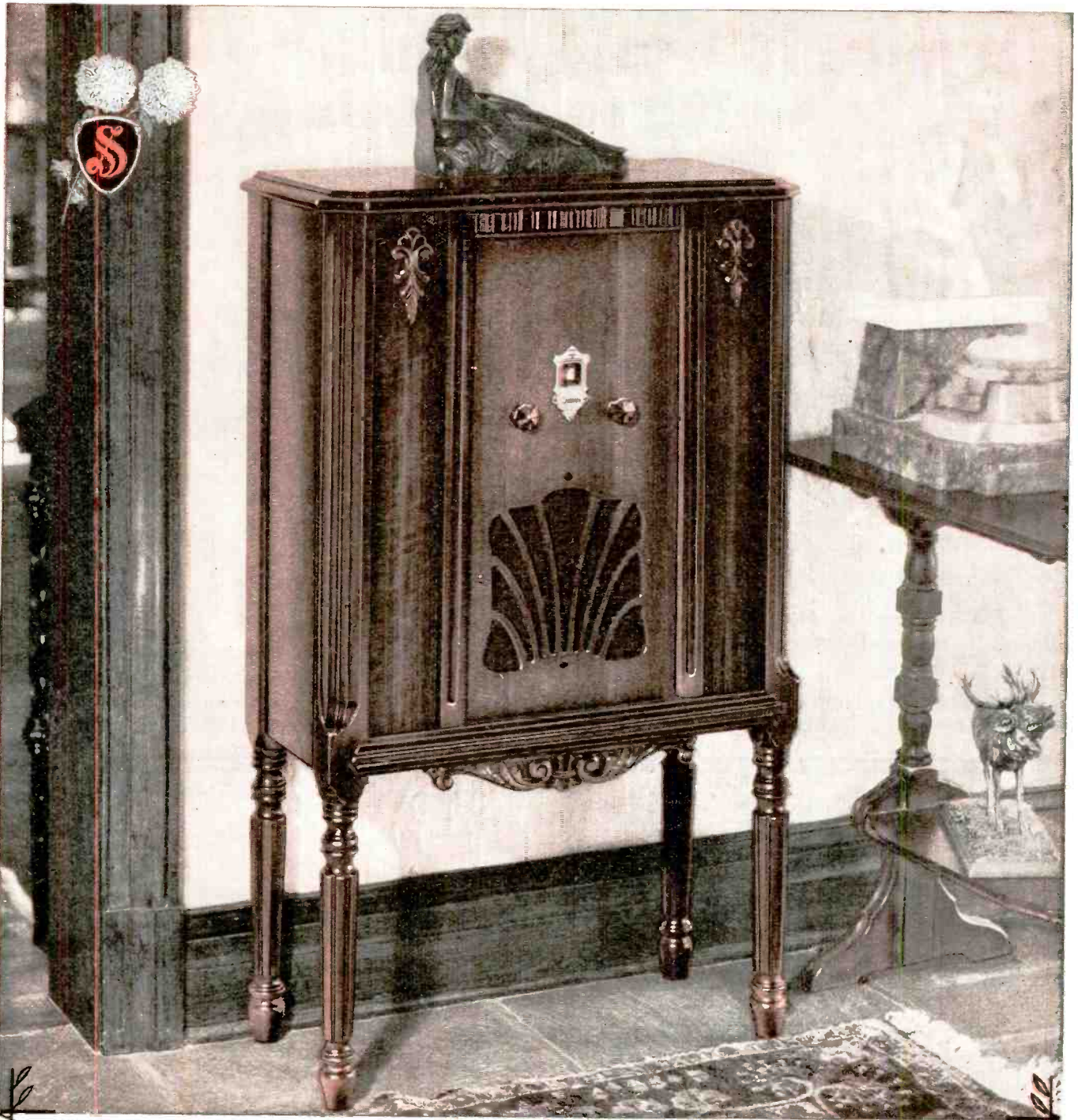
Address .....

City and State .....

Occupation .....

Company ..... R.R. 8-31





*It is significant* that probably the most frequently asked of all questions at the Chicago show was this: "Have you noticed the new Sparton prices?" Remarkable as they are . . . from \$45 up . . . the real thing to be considered is not price but the fact that the same quality that has always characterized Spartons has been incorporated into these prices. If you know the significance of today's market conditions, you know the relation of this to selling in today's market. Your Sparton distributor has a remarkable story to tell you.

THE SPARKS-WITHINGTON COMPANY, JACKSON, MICHIGAN, U. S. A., and SPARTON of CANADA, LIMITED, LONDON, ONTARIO

(655)

*Only Sparton has the Musical Beauty of*  
**SPARTON RADIO**  
*"Radio's Richest Voice"*

# What's the "Dear Public" Going to Buy this Season?

**8th ANNUAL  
RADIO-  
ELECTRICAL  
WORLD'S FAIR**  
Madison Square Garden  
New York, Sept. 21 to 26

**9th ANNUAL  
CHICAGO  
RADIO-ELECTRICAL  
SHOW**  
Coliseum, Chicago  
Oct. 19 to 25

That's what every radio jobber and dealer would like to know. No definite trends in models or circuits were established at the June trade show in Chicago but—there have been big developments since then, developments important to you and your business welfare. Everything new in radio and television will be shown for the first time at the

## TWO NATIONAL RADIO-ELECTRICAL NEW YORK—EXPOSITIONS—CHICAGO

All leading manufacturers will display their newest merchandise at these two authoritative expositions which mark the opening of the radio buying season. Attend one of these shows. See what the manufacturers offer. Get the public's reaction. You can sense the buying trend and learn what's going to sell this season. Such information is well worth a trip to either of these two shows.

### ELECTRICAL APPLIANCE DISPLAY

The foremost manufacturers of home electrical appliances will display and demonstrate their products at these two expositions. You will see just the merchandise you need to boost business and level out your year round sales curve.

*Invitation credentials will be mailed to the trade about September 1st.*

**RADIO-ELECTRICAL WORLD'S FAIR**  
1904 Times Building, New York City

**CHICAGO RADIO-ELECTRICAL SHOW**  
127 N. Dearborn Street, Chicago, Illinois

**PREMAX**

*This cut is  
full size  
except length*



## HALF OF RADIO INTERFERENCE CAN BE PREVENTED WITH *Premax* Ground Rods

**D**O you know that an efficient outside ground will practically eliminate the annoying thumps and rattles of home electrical appliances?

Premax Ground Rods sell at a trifling price, yet your installation charge plus your profit on Premax will net you a nice sum.

Premax Grounds have a specially designed clamp which makes perfect contact with the heavily copper-plated  $\frac{3}{8}$ -in. steel rod. 4 foot or 6 foot lengths. Especially adapted to lightning arrester installation, where perfect outside ground is absolutely necessary.

The Premax Line includes inexpensive telescopic steel masts, insulator brackets and leads—in fact everything you need to make a complete, efficient installation under any conditions.

*Send for special Bulletin RR-31 with prices.*

**PREMAX PRODUCTS CORP.**  
Niagara Falls, New York

*Only reliable products  
can be continuously  
advertised*

## New! for Auto Radio Use

Types to Fit ALL Makes of Cars

**LYNCH  
METALLIZED  
SPARK PLUG and**

**Distributor Suppressors**

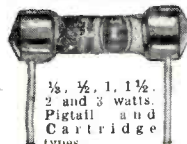
employ the famous LYNCH Metallized principle, insuring dependability and long life.



For connection to each spark plug.



For connection to common cable to distributor.



$\frac{1}{2}$ ,  $\frac{1}{2}$ , 1, 1 $\frac{1}{2}$ ,  
2 and 3 watts.  
Pigtails and  
Cartridge  
types.

### RESISTORS

*Using the New Type "K" Filament*

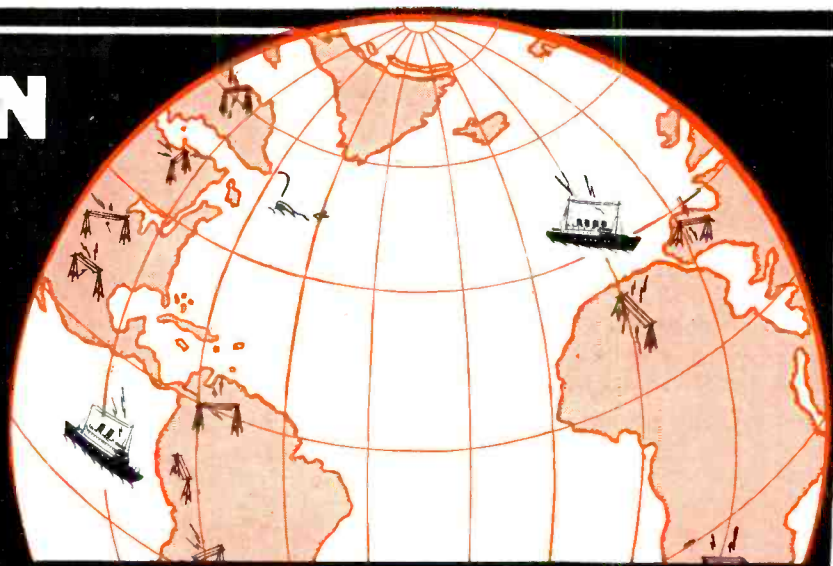
Closer tolerances; greater overload capacity; maximum heat dissipation; greater safety factors; moisture proof—noiseless; pigtails molded in—not strapped or soldered, insuring positive contacts.

*Write today for latest catalog.*

LYNCH MFG. CO., INC., Dept. R, 1775 Broadway, N. Y.



**CASH-IN ON  
RADIOS  
LATEST  
GREATEST  
THRILL**



*De Luxe Console*

**\$23<sup>95</sup> to \$104<sup>75</sup>**

Is the price range of the 11 Super-value Matched Walnut Stewart-Warner models, including everything from the unique Short Wave Converter to the De Luxe Console illustrated. Featured are simplified circuit with Mu and Pentode tubes, Electro Dynamic Reproducer, tone control and television terminals. Price includes tubes, and, in 5 models, built-in Short Wave Converter.

## *World Wide Reception*

**AT THE TURN OF A DIAL**

**H**ERE is a line of radio that receives both long wave and short wave broadcasts—that not only bring in domestic programs but make available stations in all parts of the world, ships at sea, airplanes, local police calls, and amateur stations—

And the transition from short wave to long or long wave to short is made by the *simple turn of a dial.*

That's the story of the new Stewart-Warner Silver Jubilee Line now offered to commemorate Stewart-Warner's 25th Anniversary; and, at the low prices quoted comprising the most *sensational values in the history of radio.*

Besides the *Short Wave Converter*—built in or furnished separate—these wonderful new receivers incorporate today's last word in radio engineering. Everything your customers can want in radio for years to come. And at the lowest price on record.

*Cash-in* on the thrill of world-wide reception while it is *new*—on the super values which Stewart-Warner's vast production facilities have made possible—on the national advertising put behind them. And cash-in on the wonderful franchises that *go with them.* Your Stewart-Warner Wholesaler will gladly supply the details. Stewart-Warner Corporation, Chicago, Ill.

**STEWART-WARNER**  
*Silver Jubilee* **RADIO**

# Here's What the *Dealers* Say

## About the Silver-Marshall Direct-to-Dealer Plan

"Your policy of eliminating the jobber by handling your products direct from the factory to the dealer appeals to us as the solution of the radio situation at this particular time and saves the dealer from extinction under the old expensive methods of distribution."  
—Springfield, Missouri

"I think your plan of elimination of distributors and merchandising direct is excellent. It cannot fail to bring results. Your Vario-Mu Pentode Super will surely lead the whole line for 1932, I think. Your terms, too, seem liberal. The discount is generous and remunerative."  
—Clinton, Iowa

"Thanks for sending your Merchandising Book. You may count on me for pushing Silver-Marshall Radio. I will send another order in the near future."  
—Freelandville, Indiana

"The set we received is just fine and we think you have a wonderful line of Radios and we promise to give it preference and maybe handle it exclusively if you will favor us with this territory."  
—Oak Hill, West Virginia

"The prices seem to adapt your line to the modern trend."  
—Mansfield, Ohio

"I have handled S-M for two years through your old distributor and know what you make. Every single customer of mine who has bought a Silver would not trade it for any other set on the market—and I have just made it a point to see every one of them within a week."  
—West Hanover, Mass.

"I need four sets at once. During the remainder of the year I expect to sell about 35 sets and other parts and radio apparatus."  
—Lawrence, Mass.

## And 70% of Them Have Re-Ordered!

"I want to be one of the first to congratulate you on the best thing ever done to help the dealer."  
—Fresno, California

"I was very glad to receive your Merchandising Book today and I am enclosing a check in full for . . ."  
—Vineyard Haven, Mass.

"Received your 'Merchandising Book' . . . and would like to have you reserve the Kellogg Territory for us."  
—Kellogg, Idaho

". . . by the way, I think some of the other manufacturers, who are using the old jobber proposition, will wake up and find that they have been on the wrong track."  
—Brainerd, Minnesota

"We have been radio dealers for three and a half years in this town . . . would like to merchandise your products exclusively in this vicinity."  
—Mayfield, Kentucky

"Inasmuch as we have sent for a copy of the Merchandising Book and have not received it, we are taking the privilege of sending an order without it."  
—North Platte, Nebraska

"We are in receipt of your Merchandising plans and say you sure are going to make a real good hit here with the radios."  
—Coaldale, Pennsylvania

"I bought two from you and they are both sold and . . ."  
—Rawlins, Wyoming

6421 West  
65th Street  
Chicago, U. S. A.

•  
122 East  
42nd Street  
New York City, N. Y.

Superheterodyne  
by **SILVER-**  
**MARSHALL**

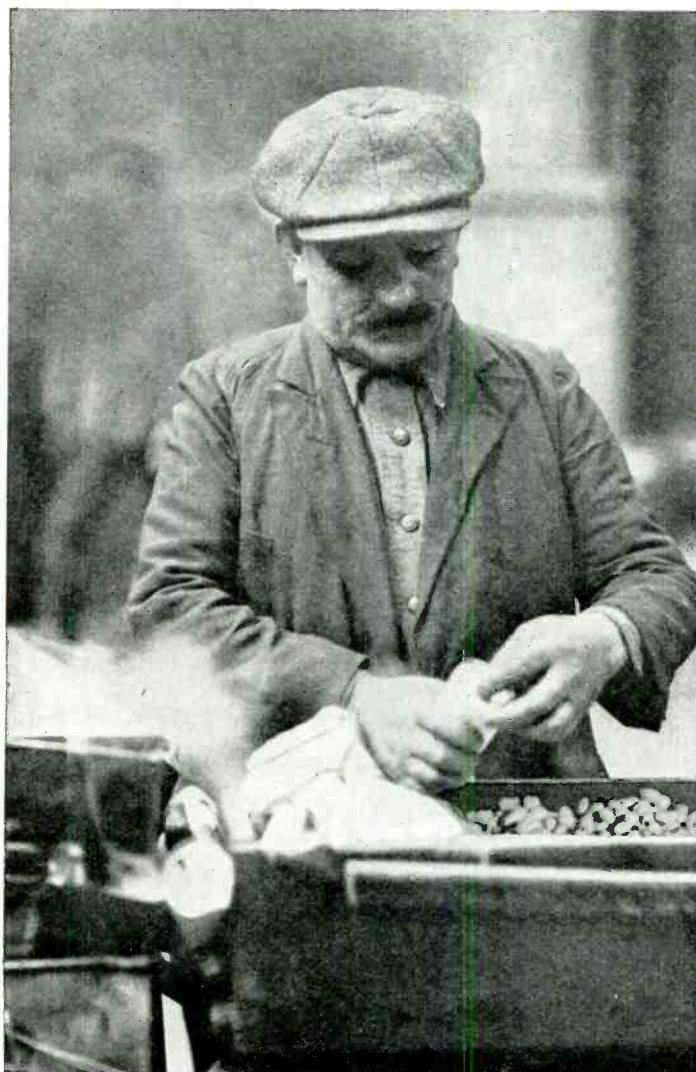
These are samples of hundreds of comments from enthusiastic dealers pouring into the Silver-Marshall offices every week. We will be glad to give you the names of any of them.

If you have not already received your copy of the Merchandising Book, pin a corner of this page to your letterhead. You be the judge.



*"The*  
**PEANUT VENDER**  
*taught me a*  
**Lesson"**

*"He specializes in peanuts and hot dogs, but in summer he adds ice cream to his line. The year around he sells popcorn and chewing gum and he has no bad valleys in his sales curve."*



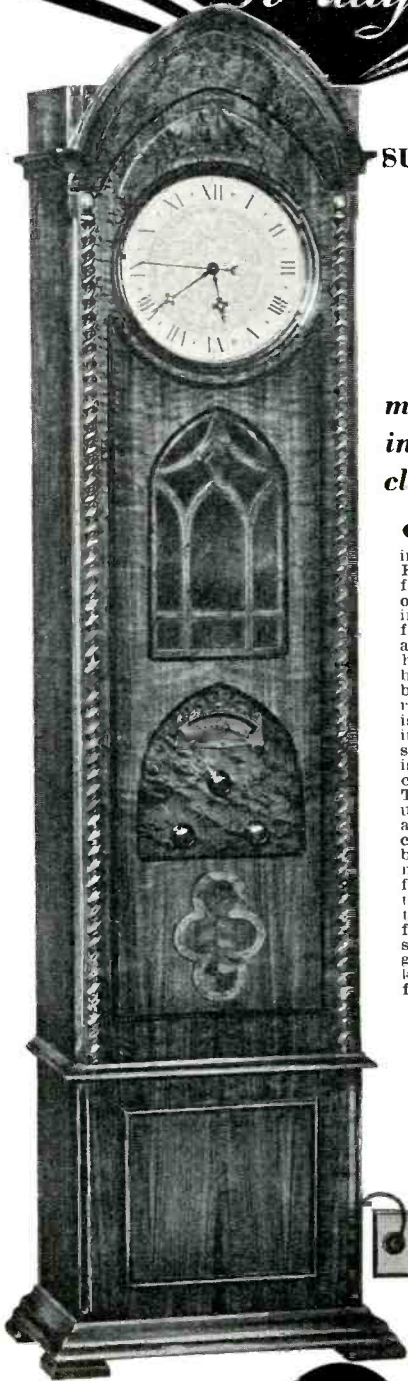
You can obtain prompt delivery of *everything electrical* from a General Electric Supply Corporation wholesale warehouse near your store.

You can smooth over the valleys in your sales curve . . . you can combat the much-discussed summer slump in retail sales . . . you can parallel the success of dealers who have prospered, by using the tested and proved selling plans provided by the General Electric Supply Corporation.

You gain the benefits of a broad experience in merchandising . . . and you sell a bigger percentage of the electrical merchandise used in your territory . . . when you concentrate your selling efforts on products supplied by this national distributor of standard well-advertised lines.

**GENERAL**  **ELECTRIC**  
**SUPPLY CORPORATION**

*The Most Distinctive*  
**RADIO CLOCK**  
**COMBINATION**  
*on the Market*  
*To-day*



**7 TUBE**  
**SUPER HETRODYNE**  
**RADIO**  
 with **HAMMOND**  
 Synchronous  
**ELECTRIC**  
**CLOCK**  
*movement contained*  
*in this beautiful floor*  
*clock cabinet—*

• This distinctive clock cabinet carries the very latest in radio. A seven tube Super Hetrodyne Circuit with a fully shielded chassis. All of the latest improvements in radio are included: full fashioned illuminated dial and tone control. This chassis has been designed and is being made especially for us by one of America's leading radio manufacturers, and is fully licensed under existing R.C.A. patents. An oversize Utah Dynamic Speaker is located at the top of the cabinet concealed by grill. This installation gives the utmost in radio performance as it utilizes the entire clock cabinet as a sounding board. Its tone is really remarkable and true in all frequencies. Simply plug in to light socket and you have the ultimate in radio performance plus an electric synchronous motor clock giving you regulated time keeping in its most advanced form.

**\$99.50**  
 less tubes

*Write for attractive quantity discounts.*

Latest Pentode Tube, Variable - Mu Tubes, Licensed Under R. C. A. Patents.

Can be furnished for 110 volt, 60 cycles A.C. current only. This cabinet is beautifully veneered in American Walnut and carries overlay decoration of Bird's-Eye Maple.

**DISTRIBUTORS**

Exclusive clock cabinets shipped complete less radio installation available immediately. An opportunity for you to merchandise your own radio in this fast selling cabinet. A real opportunity to increase your unit sale. Write or wire for details.

**No. 2510**  
**69" HIGH**



**VIRGINIA FURNITURE CORPORATION**  
 MARIETTA, VIRGINIA **LINCOLN**

# It's Now a MONTHLY

With its September issue the Radio Call Book Magazine and Technical Review becomes a monthly publication—something you've always wanted!

Now you can get response curves and service schematics of receivers you're selling, as fast as measured.

Use these curves as a yardstick to show your prospects what to expect from the set you are offering.

Service men will find schematics in every issue that might ordinarily be delayed for months.

These two features alone (to say nothing of the many others) justify your subscription today. The price is \$2.00 for the 12 issues.

## USE THIS COUPON TODAY

**Citizens Radio Service Bureau, Inc.**  
**508 So. Dearborn, Chicago.**

I need the Radio Call Book Magazine and Technical Review every month. Here's \$2.00 for the next 12 issues, starting with the . . . . . number.

I am a:

- Dealer
- Service Man  PLEASE PUT
- Engineer
- Manufacturer  A CHECK-MARK
- Distributor
- Salesman  OPPOSITE YOUR
- Technician
- Experimenter  OCCUPATION

Name . . . . .

Address . . . . .

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

RR8



# Efficient Servicing Demands Good Instruments!



## Jewell Pattern 444 Set Analyzer

Here's the set analyzer that every ambitious serviceman wants! The Jewell Pattern 444 Set Analyzer is designed from the serviceman's viewpoint. It provides every test required in servicing, plus ease and rapidity of operation.

It is compactly built and contained in a rugged case for easy portability. Here are a few of the features provided by the Jewell Pattern 444:

1. Tests sets using every type of tube, including variable-mu and pentodes.
2. Any circuit test requires only one switch setting.
3. A. C. and D. C. tests selected by separate switches; no confusion.
4. Self-contained triple range output meter.
5. Self-contained triple range ohmmeter with battery voltage compensator.
6. Twenty-four instrument ranges for use with test leads.
7. Non-shatterable meter glasses.
8. Owner's name registered and engraved on the device.
9. A. C. current ranges for servicing electric appliances (0-4-8 amps.).
10. Complete accessory equipment.
11. Removable cord and plug.

Servicemen—Don't work under a handicap. Order a Jewell Pattern 444 and have all the advantages of thoroughly modern, accurate, high speed, testing equipment. Ask your jobber how to buy a Pattern 444 on the Jewell Earn-While-You-Pay plan.

31 YEARS MAKING GOOD INSTRUMENTS  
**JEWELL**



## Jewell Pattern 560 Test Oscillator

Here's the oscillator that enables servicemen to adjust radio frequency circuits in both TRF and superheterodyne sets with hairline accuracy.

These are features servicemen appreciate:

1. SELF-CONTAINED BATTERIES make possible perfect shielding—also make oscillator independent of outside source of power.
2. LEAK-PROOF INTERLOCK SHIELDING is accomplished by enclosing every part with a combination copper and aluminum interlocking shield.
3. BROADCAST AND INTERMEDIATE BANDS—550 to 1,500, 125 to 185, and 170 to 450 K.C. are covered.
4. JEWELL OUTPUT METER can be furnished with the 560 Test Oscillator and conveniently carried in a pocket provided in the case.
5. EASY TO OPERATE. A wiring diagram and calibration chart are carried in the cover.

If you want outstanding performance from the sets you service, use a Jewell Pattern 560 Oscillator!

Jewell Electrical Instrument Company,  
1642-A Walnut Street, Chicago, Illinois.

Please mail literature describing Jewell Pattern 444 Set  
Analyzer and the Jewell Pattern 560 Test Oscillator.

Name .....

Address .....



# Just in time

## Specifications of 1931 Sets and Phonograph Combinations

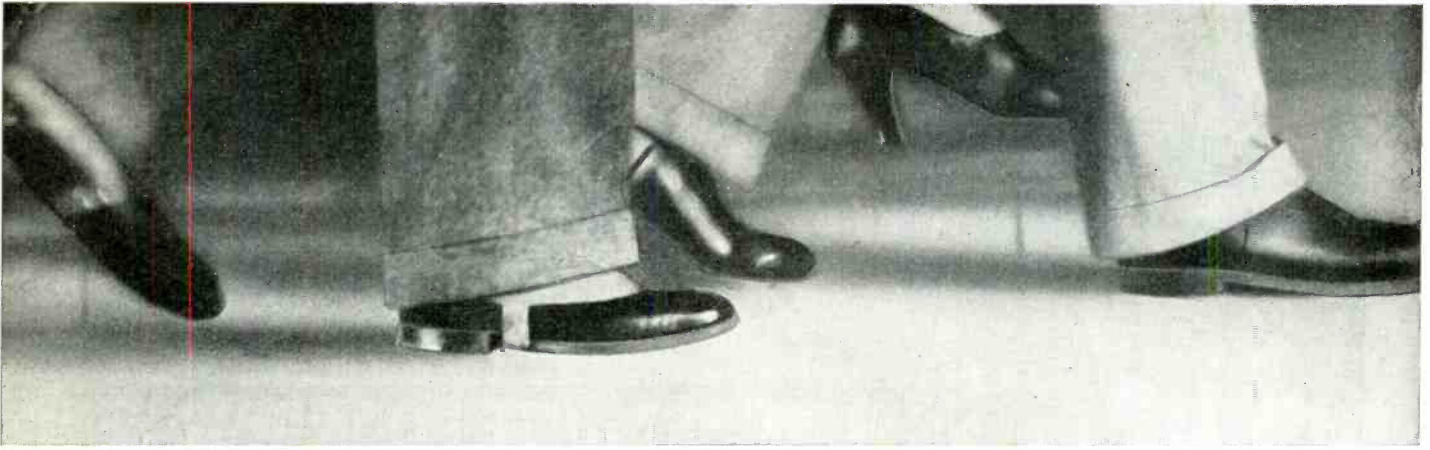
Automobile sets, short-wave tuners (kits excluded) and miniature models appear in this tabulation. However, many new companies are daily entering the small set field and for this reason an additional listing of "budget" receivers will appear in the next issue of "Radio Retailing."

Name and Address of Manufacturer	Model Number	Price	Features	Power Output	Wave Lengths	Frequency	Other
ABC Radio Corp.	Model 101	\$12.50	5 tubes, 500 watts	500	100-1000	500-1000	...
DEF Radio Co.	Model 202	\$15.00	6 tubes, 600 watts	600	100-1000	500-1000	...
GHI Radio Inc.	Model 303	\$18.00	7 tubes, 700 watts	700	100-1000	500-1000	...
JKL Radio Ltd.	Model 404	\$20.00	8 tubes, 800 watts	800	100-1000	500-1000	...
MNO Radio Corp.	Model 505	\$22.00	9 tubes, 900 watts	900	100-1000	500-1000	...
PQR Radio Co.	Model 606	\$25.00	10 tubes, 1000 watts	1000	100-1000	500-1000	...
STU Radio Inc.	Model 707	\$28.00	11 tubes, 1100 watts	1100	100-1000	500-1000	...
VWX Radio Ltd.	Model 808	\$30.00	12 tubes, 1200 watts	1200	100-1000	500-1000	...
YZA Radio Corp.	Model 909	\$32.00	13 tubes, 1300 watts	1300	100-1000	500-1000	...
BCD Radio Co.	Model 1010	\$35.00	14 tubes, 1400 watts	1400	100-1000	500-1000	...
EFG Radio Inc.	Model 1111	\$38.00	15 tubes, 1500 watts	1500	100-1000	500-1000	...
HIJ Radio Ltd.	Model 1212	\$40.00	16 tubes, 1600 watts	1600	100-1000	500-1000	...
KLM Radio Corp.	Model 1313	\$42.00	17 tubes, 1700 watts	1700	100-1000	500-1000	...
NOP Radio Co.	Model 1414	\$45.00	18 tubes, 1800 watts	1800	100-1000	500-1000	...
QRS Radio Inc.	Model 1515	\$48.00	19 tubes, 1900 watts	1900	100-1000	500-1000	...
TUV Radio Ltd.	Model 1616	\$50.00	20 tubes, 2000 watts	2000	100-1000	500-1000	...
WXY Radio Corp.	Model 1717	\$52.00	21 tubes, 2100 watts	2100	100-1000	500-1000	...
ZAB Radio Co.	Model 1818	\$55.00	22 tubes, 2200 watts	2200	100-1000	500-1000	...
ACD Radio Inc.	Model 1919	\$58.00	23 tubes, 2300 watts	2300	100-1000	500-1000	...
DEF Radio Ltd.	Model 2020	\$60.00	24 tubes, 2400 watts	2400	100-1000	500-1000	...
GHI Radio Corp.	Model 2121	\$62.00	25 tubes, 2500 watts	2500	100-1000	500-1000	...
JKL Radio Co.	Model 2222	\$65.00	26 tubes, 2600 watts	2600	100-1000	500-1000	...
MNO Radio Inc.	Model 2323	\$68.00	27 tubes, 2700 watts	2700	100-1000	500-1000	...
PQR Radio Ltd.	Model 2424	\$70.00	28 tubes, 2800 watts	2800	100-1000	500-1000	...
STU Radio Corp.	Model 2525	\$72.00	29 tubes, 2900 watts	2900	100-1000	500-1000	...
VWX Radio Co.	Model 2626	\$75.00	30 tubes, 3000 watts	3000	100-1000	500-1000	...
YZA Radio Inc.	Model 2727	\$78.00	31 tubes, 3100 watts	3100	100-1000	500-1000	...
BCD Radio Ltd.	Model 2828	\$80.00	32 tubes, 3200 watts	3200	100-1000	500-1000	...
EFG Radio Corp.	Model 2929	\$82.00	33 tubes, 3300 watts	3300	100-1000	500-1000	...
HIJ Radio Co.	Model 3030	\$85.00	34 tubes, 3400 watts	3400	100-1000	500-1000	...
KLM Radio Inc.	Model 3131	\$88.00	35 tubes, 3500 watts	3500	100-1000	500-1000	...
NOP Radio Ltd.	Model 3232	\$90.00	36 tubes, 3600 watts	3600	100-1000	500-1000	...
QRS Radio Corp.	Model 3333	\$92.00	37 tubes, 3700 watts	3700	100-1000	500-1000	...
TUV Radio Co.	Model 3434	\$95.00	38 tubes, 3800 watts	3800	100-1000	500-1000	...
WXY Radio Inc.	Model 3535	\$98.00	39 tubes, 3900 watts	3900	100-1000	500-1000	...
ZAB Radio Ltd.	Model 3636	\$100.00	40 tubes, 4000 watts	4000	100-1000	500-1000	...

**T**YPICAL page from last year's Specifications Issue of *Radio Retailing*. Note the completeness and accuracy of every detail, the comprehensive descriptions of the entire output of the radio industry. But this year's specifications will cover additional products. Following is the complete list:

- Radio Sets*
- Tube Characteristics*
- Combinations and Automatics*
- Home Talkies*
- Television*
- Automobile Radio*





# to help you select stock for Fall-Christmas radio shoppers

October—the end of summer static and the beginning of radio's most active season! And only two months before the Christmas shopping parade starts!

At the time when you will be selecting stock and doing your own Christmas shopping, so to speak, *Radio Retailing* will be on the job to make your task easier and simpler.

For the seventh successive year *Radio Retailing* releases at an opportune moment (the October issue) complete buying specifications on everything of possible interest to the radio dealer. This means prices, sizes, styles, tubes, power and such details.

This service, which has covered radio sets, combinations and tube characteristics in past years, will be extended this year to automatics, home talkies, television and automobile radio. Thus, the specifications will cover the entire output of the radio industry.

The attractive prices that radio set manufacturers are offering the public make it imperative for dealers to see that their floors and shelves are plentifully stocked when Mr. and Mrs. John Q. Public and family start their Fall and Christmas radio shopping.

The only things missing will be the details of manufacturers' selling policies, promotion plans, etc.

—but alert manufacturers will give you this information in *Radio Retailing's* advertising pages where such facts belong. From 17 to 21 answers to common questions will be itemized for each product—all in one place, obviating writing scores of letters and wading through hundreds of circulars.

If you will need additional copies of the October issue now is the time to order them—before we give our print order to the press room. Some dealers keep extra copies of the issue in their sales rooms to show to customers who delight in making fanciful comparisons between makes. A neutral aid in settling arguments, so to speak.

## Note to Advertisers

Advertising forms for the October Specifications Issue of *Radio Retailing* close in New York September 21. Make space reservations now. Prepare copy to illustrate your complete line and give dealers details about your selling policy and your advertising campaign to consumers.

A.B.C.

# Radio Retailing

A.B.P.



**“Take  
my TIP!”**

“As one Radio Man to another . . . let me tell you that Kester Rosin-Core Solder is just about the best thing I’ve gotten next to in years. It carries its flux inside itself . . . a plasticized rosin flux that’s absolutely safe for our kind of work. Kester is easy to use, too. All you have to do is apply heat, and anybody can get perfect results with it. We’re doing a lot better work here because of Kester . . . and getting more work too!”

And don’t forget the re-sale possibilities in Kester Solder. Knock-out national advertising is creating a tremendous demand for it. There’s money for you in Kester both ways. Your jobber has Kester Rosin-Core Solder on 1, 5 and 20 lb. spools, and Kester Radio Solder in handy retail packages. Kester Solder Company, 4262 Wrightwood Avenue, Chicago, Illinois. Incorporated 1899.

**KESTER  
FLUX-CORE  
SOLDER**

Acid-Core • Paste-Core • Rosin-Core



All Kester Solder  
Exceeds Class A  
Purity Specifications  
of the A. S. T. M.



**RADIO WIRE PRODUCTS**

ANTENNA WIRE      LEAD-IN WIRES  
ANTENNA KITS      HOOK-UP WIRES  
ANTENNA ACCESSORIES      ANNUNCIATOR WIRES  
LIGHTNING ARRESTERS      CABLES

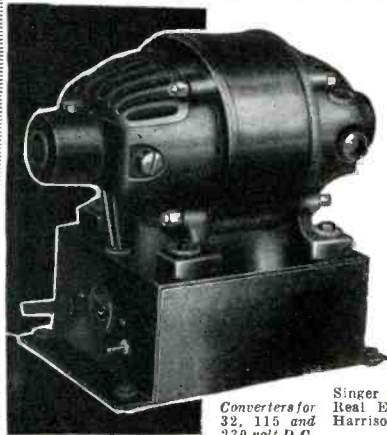
WRITE FOR CATALOG AND PRICES

If Your Jobber Cannot Supply You—Order Direct

**CORNISH WIRE CO.**      28 CHURCH ST.,  
NEW YORK, N. Y.

Makers of the Famous

**BRAIDITE HOOK-UP WIRE**



**More Profitable  
Sales  
More Sales**

Sell A.C. Radios in D.C. districts and make the handsome extra profit Janette Converters give you. Janette Rotary Converters are so reasonably priced and so perfect in operation that they make D.C. districts your most fertile markets.

Write for Bulletin 431-R.

**JANETTE MFG. CO.**  
555 West Monroe St.,  
Chicago

Converters for  
32, 115 and  
230 volt D.C.

Singer Bldg., 149 Broadway, New York.  
Real Estate Trust Bldg., Philadelphia.  
Harrison Sales Co., 314 Ninth Ave., N.  
Seattle, Wash.



The DayraD Direct Reading Tube Analyzer removes the mystery from radio tube checking.

It inspires customer confidence in the dealer because it tells the story in plain English.

Mail the coupon today for Bulletin, “Removing The Mystery.” It points the way to replacement tube profits.

**THE RADIO PRODUCTS COMPANY**

5th & Norwood      Dept. R.,      Dayton, Ohio

The Radio Products Co.  
Dayton, Ohio

(Coupon B)

Please mail your Bulletin, “Removing The Mystery.” This entails no obligation on my part.

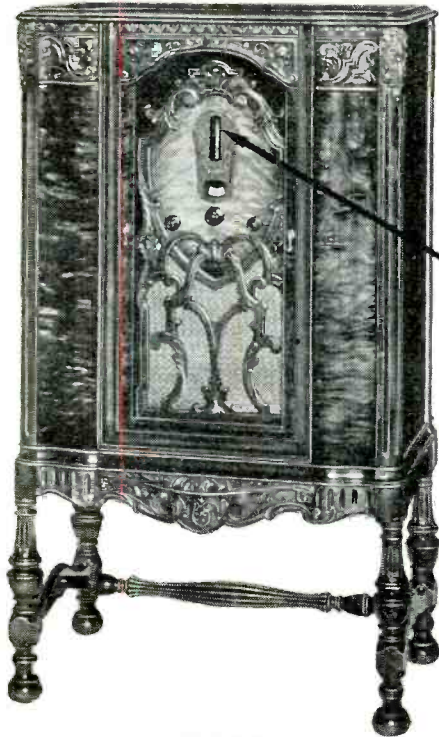
Firm Name .....

Attention Mr. .... Street .....

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



# The Season's Greatest Achievement in Radio Engineering

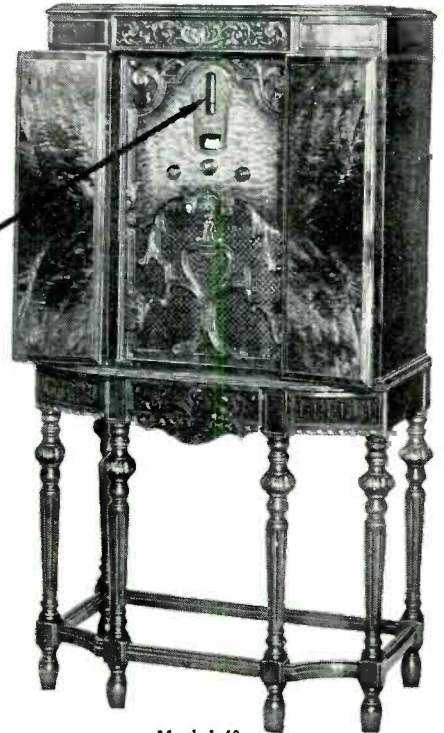


**Model 48**  
10-Tube DeLuxe Superheterodyne, 41½" high, 24½" wide, 15¼" deep . . . \$147.50

**FADA AUTOMATIC  
FLASHOGRAPH  
WITH NEON TUBE  
VISUAL TUNER**



*A rising column of light  
tells when tuning is perfect*



**Model 49**  
DeLuxe 10-Tube Superheterodyne, 47½" high, 25½" wide, 15¼" deep . . . \$175.00

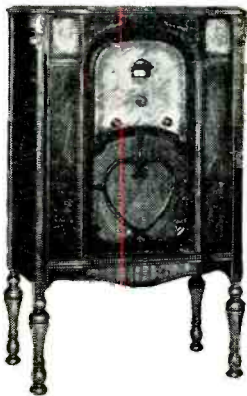
## Introduced by FADA

Turn the dial—there is the station you want, *announced in light by call letter!* But more—watch that column of red light that rises instantly in the neon tube. When it hits the highest point on any given station it tells you that you have the station "right on the button!"

Tuning by eye instead of by ear! Accurate tuning without effort, because it is completely visual and not dependent on the vagaries of the human ear.

In appearance the *Fada Automatic Flashograph* resembles a thermometer except that in place of mercury there is a column of vivid red light. The device is operated by the carrier signal arriving from the broadcasting station and when that signal reaches its greatest intensity the column of red light automatically reaches its highest point in the neon tube.

The Fada Flashograph with Neon Tube Visual Tuner is the greatest contribution to modern radio performance and enjoyment and makes the most dramatic feature for sales demonstration ever offered. Found on deluxe models 48 and 49.



**New Model 53**  
Lowboy Console—37" high, 21½" wide, 12" deep. Seven tubes including Pentode and Multi Mu . . . \$89.50



**Model 45**  
8-Tube Superheterodyne with Push-Pull Pentodes. 38¾" high, 22½" wide, 13¾" deep . . . \$112.50



**Model 51**  
7-tube Superheterodyne with Power Pentode. Table Model, 17¾" high, 15½" wide, 12" deep. \$69.50

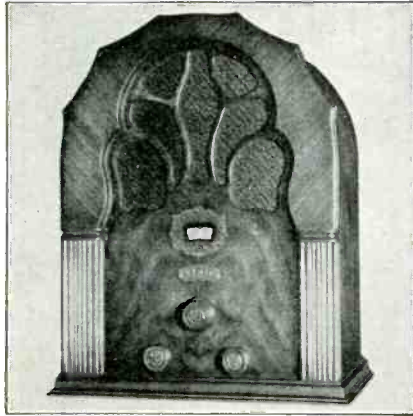
*All Prices Complete with Tubes*  
Manufactured by F. A. D. ANDREA, INC.  
Long Island City, New York



**P**RICED to make the dealer money . . . **BUILT** to keep customers satisfied •

MODEL S-6  
with 6 tubes

\$49<sup>50</sup>



\$49<sup>50</sup> to \$149<sup>50</sup> COMPLETE WITH TUBES

• • • Look at the list of Lyric Features at the right; consider Lyric Price Range; and you'll understand why *dealers* say the Lyric proposition is made to order for this year's market.

All Lyric's great resources have been turned to making the 1931 Lyric a very fine set . . . from the smallest to the largest model. Their moderate prices appeal to the buying public. They incorporate every feature that the buyer wants in radio. They are beautiful to the eye . . . and equally satisfying to the ear. Dealers tell us they've never handled a radio that requires so little servicing. *And when the dealer sells a Lyric he makes money!*

If you're looking for that kind of proposition; let Lyric lay the whole story before you.

Write or wire, today.

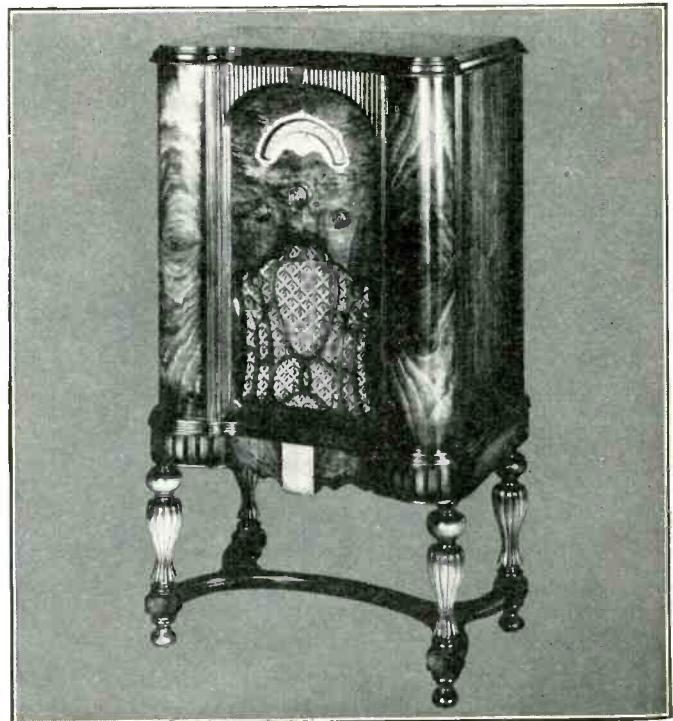
ALL-AMERICAN MOHAWK CORPORATION  
North Tonawanda, N. Y.

**LYRIC**  
**RADIO**

PRODUCT OF WURLITZER

• ALL MODELS SUPER-HETRODYNE, PENTODE and VARIABLE MU TUBES . . . WONDERFUL TONE . . . SUPER-SENSITIVE and SELECTIVE . . . SPOTLIGHT TUNING . . . 4 GANG CONDENSER . . . TONE CONTROL . . . DYNAMIC SPEAKER . . . QUIET, humfree reception . . . VOGUE CABINETS . . . complete range of sizes and prices . . . 6, 7, 8, 10 tubes.

MODEL S-8 with 8 tubes . . . \$99.50





# SEARCHLIGHT SECTION

EMPLOYMENT and BUSINESS OPPORTUNITIES—SURPLUS STOCKS—DISCONTINUED MODELS

**UNDISPLAYED—RATE PER WORD:**

*Positions Wanted*, 5 cents a word, minimum \$1.00 an insertion, payable in advance.  
*Positions Vacant* and all other classifications, 10 cents a word, minimum charge \$2.00.  
*Proposals*, 40 cents a line an insertion.

**INFORMATION:**

*Box Numbers* in care of any of our offices count 10 words additional in undisplayed ads.  
 Discount of 10% if one payment is made in advance for four consecutive insertions of undisplayed ads (not including proposals).

**DISPLAYED—RATE PER INCH**

1 inch .....\$7.50  
 2 to 3 inches..... 7.25 an inch  
 4 to 7 inches..... 7.00 an inch  
*Rates for larger spaces, or yearly rates, on request.*  
 An advertising inch is measured vertically on one column, 3 columns—30 inches—to a page. Radio Retailing

**POSITIONS WANTED**

RADIO department manager, now employed, desires to make change. Capable taking charge sales, service and repairs. Excellent references. PW-146, Radio Retailing, Bell Telephone Bldg., St. Louis, Mo.

**BUSINESS OPPORTUNITY**

**To Lease**

Large specialty department (with beautiful appointments) radio, refrigeration, washing machines, etc., etc., medium sized city. Central east—to lease to responsible concern. An old established, high grade department store. Large specialty business now established. A splendid opportunity. BO-148, Radio Retailing, 520 No. Michigan Ave., Chicago, Ill.

**SALESMAN WANTED**

**Salesmen Wanted**

Men of good address capable of contacting people of wealth and social position, experienced in selling high priced specialty products such as reproducing pianos and expensive automobiles. We are in touch with real opportunities in special retail work with dealers in such centers as New York, Chicago, Boston, Philadelphia, Washington, St. Louis, Cleveland, Detroit, New Orleans, Omaha, Los Angeles, San Francisco, Seattle, Buffalo, St. Paul, Minneapolis and other centers. Write giving full information and details of experience. The Capehart Corporation, Fort Wayne, Ind.

**SPECIAL NOTICE:**

**To the Radio Industry**

Advertising in connection with legitimate offers of surplus stocks and discontinued models of radio merchandise is acceptable in this section of "Radio Retailing."

Extreme care will be exercised by the publishers to prevent the use of advertising in the Searchlight Section to encourage price cutting on current models of merchandise or equipment. Nor will advertising which invites violation of the dealer's contract with the manufacturer be acceptable.

All merchandise offered in the Searchlight Section must be accurate and fully described and must be available on order.

**REPRESENTATIVES WANTED**

**Sales Representative**

Exclusive territorial basis establishing radio distributors for the Novo Mike—the Midget Microphone for home broadcasting, personal phonograph recording, public address system, or can be used on auto or launch. Retail \$5. Distributor discounts 50 and 10. Easily attached to any radio. Write immediately. Territories being assigned. American Laboratories, Ltd., 1157 S. Hill St., Los Angeles, Calif.

**Radio Dealers: Radio Service Men!**

Try Grant's for Replacements, Transformers, Condensers and Resistors at regular dealers' discounts. Our stock is always complete.

**We repair everything in Radio**  
 Estimates gladly furnished

**IMPORTANT**

Limited supply of an up-to-the-minute catalogue just off the press. Send for one AT ONCE before quantity is depleted.

**Grant Radio Laboratories**  
 6521 So. Halsted St., Chicago, Ill.

Write for Your FREE Copy of this BIG Catalog 48 PAGES OVER 2000 ITEMS OF REPLACEMENT PARTS FOR ALL STANDARD SETS

**DEALERS and SERVICEMEN**  
*Write Now!*

**Federated Purchaser**  
 23 PARK PLACE  
 NEW YORK, N. Y.

Now . . . SELL

**Talkie Sound-on-Film**

To Theatres, Schools, Churches, Clubs

Write for manufacturers' prices on Soundheads, Photocells, Optical Systems, Rectifiers, Amplifiers, Horns, Faders, Synchronous Motors, Projectors, Lamp-houses, Screens, Microphones, etc.

Dept. RR—S.O.S. CORP.  
 1600 Broadway, New York City  
 Cable Address "SOSOUND"

*It will interest you to know—*

An advertiser writes: "It will interest you to know that we received our first order from the ad. . . . the day after the paper came out.

Other inquiries have of course followed but we are surprised and pleased at the immediate response to our advertisement."

You, too, can use "Searchlight" advertising in your business, profitably. Just write to—

**Searchlight Department**

Tenth Ave. at 36th St., New York City

# SELL QUALITY AND STAY IN BUSINESS

Here is a Radio for Every Purpose  
Which You can Merchandise at a Profit

### Quality

Chassis is of heavy, rugged, welded steel, cadmium plated. All the integral parts have been thoroughly designed and tested by our engineering department.



# DEWALD

## NEW PENTODE RADIO TRIO

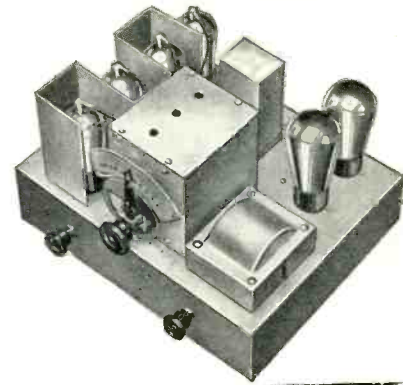
LICENSED UNDER R.C.A. PATENTS

### Reliability

A product manufactured by a company which is financially sound and has had ten years' experience in the radio industry.

1. PENTODE SUPER-HETERODYNE.
  2. PENTODE SUPER-TUNED RADIO FREQUENCY for A. C. Current.
  3. PENTODE SUPER-TUNED RADIO FREQUENCY for D. C. Current.
- IN CABINET OR CHASSIS FORM

Write for Full Particulars. Some good exclusive territories still open.



**PIERCE-AIRO, Inc.** 510 Sixth Ave. New York City

MANUFACTURERS OF FINE RADIO SETS FOR TEN YEARS

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This index is published as a convenience to the reader. Every care is taken to make it accurate, but *Radio Retailing* assumes no responsibility for errors or omissions.



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# In Addition to

The CROSLY 59 Series  
(5-Tube T. R. F.)

The SHOW BOY, \$39.75

The SONNETEER, \$54.75

The SONGSTER, \$59.75

The ORACLE, \$99.50  
(Priced Complete with Tubes)

The CROSLY 123 Series  
(8-Tube Superheterodyne)

The SUPER BUDDY BOY, \$65.00

The MUSICALE, \$87.00

(Priced Complete with Tubes)

The CROSLY 121 Series  
(10-Tube Superheterodyne)

The MINSTREL, \$129.50

The TROUBADOUR, \$169.50

(Priced Complete with Tubes)

(Montana, Wyoming, Colorado, New Mexico and West, prices slightly higher.)

---

## **CROSLY** Distributors

---

will show on or about August 1st

The Startlingly NEW

**CROSLY**  
124 Series

of Superheterodyne Radio Receiving Sets

THE CROSLY RADIO CORPORATION

Powel Crosley, Jr., President CINCINNATI Home of "the Nation's Station" - WLW

Also manufacturers of the Crosley ROAMIO Automobile and Motor Boat Radio Receiving Set and the  
Crosley Battery SHOW BOY Radio Receiving Set for the home

YOU'RE THERE WITH A CROSLY

**CROSLY RADIO**

# Are You Losing Sales By Not Giving Your Customers What They Want?



A WISE MERCHANT once said, "The path of least resistance is the easiest road to sales." How much time, how much effort (that might be devoted to more profitable ends) is wasted in trying to sell the customer something he doesn't want. And how often, even if a sale is made, that unwanted merchandise comes back to look the dealer in the face.



The average citizen is no longer an ignoramus when it comes to radio. Ten years of experience—often costly—have taught him to look for certain things before he buys. One of these is radio tubes. Insist that your distributor deliver your sets equipped with RCA Radiotrons, and be rid of the fear that you are losing set sales because of tubes of unknown quality.

*Insist that your distributor deliver your sets with RCA Radiotrons.*

RCA RADIOTRON CO., INC. ~ HARRISON, N. J.  
A Radio Corporation of America Subsidiary

# RCA Radiotrons

THE HEART OF YOUR RADIO