

seconds..

then 4-pillar tubes are on the job COMPARE a hare with a tortoise—that shows the difference in heating-speed between Eveready Raytheon type 224 and 227 tubes and the old-style, 45-second tubes with which many radios are still being equipped. Unlike the hare in the fable, 4-pillar tubes not only get off in front, but hold their lead through every phase of performance.

New radios with slow-heating tubes are *never* new in performance – handicapped from the start. Eveready Raytheon heater-type tubes have always given quick action. It is impossible to get an old-style one – there never were any!

NATIONAL CARBON COMPANY, INC. General Offices: New York, N. Y.

Branches: Chicago Kansas City New York San Francisco Unit of Union Carbide and Carbon Carporation



4-PILLAR RADIO TUBES

Brunswick's Complete Line... BRUNSWICK'S MERCHANDISING PLANS



Model 25-8225 complete Short and long wave receiver

Model 11 \$79.50 complete

MORE Brunswick Radios will be sold this year than ever before...Advance orders forecast this...And dealers who concentrate on the complete Brunswick line (\$39.50 to \$225) will make greater profits than heretofore...If our 1932 merchandising and sales plans have not MODEL 25...Bighboy cabinet of batt walnut...Brunswick's supreme achievement in cabinet and chassis design...Receives broadcasts on low-wave length or longwave length enabling users to "listensin" on programs broadcast anywhere on the face of the carth... 11-tube Superheterodyne, all modern radio developments incorporated.Listprice,complete \$225

BRUNSWICK BADIO CORPORATION - Division of Warner Bros. Pictures, Inc. - NEW YORK, CHICAGO, TORONTO



Badio Retailing, September, 1931. Vol 14, No. 3. Published monthly, McGraw-Hill Publishing Company, Inc., Teath Arenne at Thirty dyth Street, New York, N.Y. 52 Fer year, 25 cents her roug. Entered as second-class matter April 10, 1926, at the Part Office at New York, N.Y., under the Art of March 2, 1875. Printed in U.S.A.



Just in TIME

I N October, vacations over, people once more interested in indoor sports, radio again comes into its own. Static declining, holidays ahead, new million-dollar programs on the airthis is the time to stock up, wisely but well.

UST in time to help you do it, Radio Retailing presents its annual Specifications Number (seventh successive year). In addition to a complete, accurate description of tubes, consoles, midgets, short-wave sets and automobile radios offered by American manufacturers, other home entertainment products such as Television, Home Talkies and Automatic Musical Instruments are included in this bigger, better service.

WATCH the mails for the October issue of Radio Retailing. It will be so valuable one of your competitors may bribe the postman.

MANUFACTURERS:

If you have not yet received a questionnaire form for our annual Specifications Issue, write for one immediately.

2 A DIG HOME ENTERTAINMENT MERCHANDISING O. H. CALDWELL, Editor RAY V. SUTLIFFE, Managing Editor HARRY PHILLIPS, Art Director W. W. MACDONALD, Technical Editor Vol. 14 T. H. PURINTON, Assistant Editor C. GRUNSKY, San Francisco No. 3 M. E. HERRING Publishing Director P. Woorow, Washington Contents for September, 1931 Copyright, 1930, by McGraw-Hill Publishing Company, Inc. A Darn Good Business By Ray V. Sutliffe 18 The Cost of Merchandising 21 His Men Are Plodders... By Truman Mills 22 He Designs Prize Windows..... 27 Match Your Product to Your Prospect By Arthur P. Hirose 28 Self Advertisers Sales Ideas from the North, East, South, and West 34 The Antennaplex System. By E. Jay Quinby 36 Get Behind National Radio Week 41 Three Angles to the Patent Situation and Other Editorial Comment . 42 News of the Month 44

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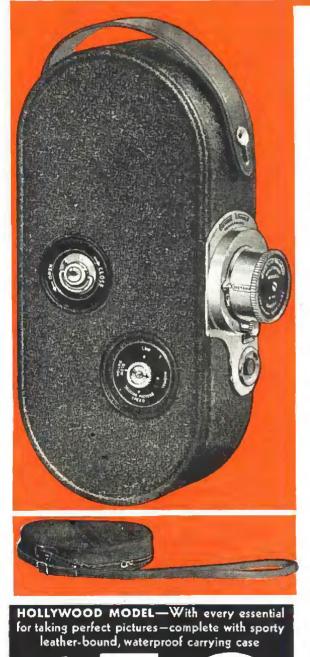
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RADIO DEALERS ... here it is and it's / Nationally Accepted .



Swell Your PROFITS the year around . . . sell the NEW

STEWART-WARNER Home Movie Camera

The new Spring-driven STEWART-WARNER Home Movie Camera has been universally accepted by the established 16 mm. camera trade as the greatest value of its kind ever put on the market.

Only \$50! Yet this home movie camera has built *into* it, *feature* after *feature* heretofore obtainable only in high-priced, semi-professional cameras—and it takes pictures comparable with the best of them.

Interchangeable lens mount—exclusive simplified lens adjustment—four speeds, including s-1-o-w motion audible film counter as well as footage meter—just a suggestion of the amazing value you get here. And in a camera that weighs only 2 lbs. 10 oz., the lightest weight camera on the market. And that, moreover, is so absolutely simple that *anyone* can operate it.

The Stewart-Warner Camera is no TOY! It is the *first* and *only* strictly high-grade 16 mm. camera designated to meet popular needs. Its price and quality are made possible only through the tremendous production facilities and the 25 years of synchronized gear experience utilized by Stewart-Warner in creating it.

Thousands, tens of thousands of people in every locality throughout the length and breadth of this land, as well as the camera trade in general—all have been waiting for the simplified operation, quality of workmanship and results, and the low price which ONLY this camera affords.

Here's a red-hot item for you as a radio dealer. Heads the new Stewart-Warner Line of Home Entertainment Equipment. Has tremendous sales possibilities—is a sure profit-maker all the year. Requires no added overhead. Further utilizes your present sales force. Sold by simple home and store demonstration. Backed by a great name —and by heavy national advertising.

Get in on the ground floor! Write for details of camera and franchise. Send the coupon NOW.

STEWART-WARNER CORPORATION	N, Chicago, Ill.
Your camera proposition might inter	rest us. Please send details.
Name	
Street	
City	State

If you want faster turnover, display merchandise advertised in THE AMERICAN WEEKLY. This great magazine brings that merchandise to the attention of 5,500,000 families, or nearly twice as many as are reached by any other publication.



Main Office: 959 Eighth Avenue, New York City

Branch Offices: Palmolive Blog., Chicado . . . 5 Winthrop Square, Boston . . . 753 Bonnie Brae, Los Angeles . . . 222 Monadnock Blog., San Francisco 11-250 General Motors Blog., Detroit . . . 1138 Hanna Blog., Cleveland . . . 101 Marietta St., Atlanta . . . International Office Blog., St. Louis

Radio Retailing, September, 1931

"Over a Hundred Dollar Value" Quick Turnover-Quick Husky Profit

ADIO dealers, in increasing numbers, are finding the REGAL Washer a new and very acceptable money maker. The REGAL sells quickly because it is easily an "over a hundred dollar value" —and each sale brings you a good, husky PROFIT!

The REGAL is the only washer, with a LIFETIME GUARANTEE, the only washer, at or near its low price, with an Outside Control, a distinctly highpriced washer feature.

The REGAL Washer, furthermore, has a SUB-MERGED Agitator—the easiest washing principle to sell in \$165 washers, certainly the easiest to sell at \$59.50.

Other Features that make the REGAL Washer easy to sell are its nationally advertised Lovell Wringer, large Porcelain Tub, Direct Drive, Westinghouse Electric (or Briggs-Stratton Gasoline) Motor, Durex Oilless Bushings (made by General Motors) and Bassick Casters.

Order a sample REGAL Washer today. We will furnish you with our complete Resale Service, which includes advertising and display material that will sell REGAL Washers for you quickly. Mail coupon below and you will receive a reply by return mail.

GRINNELL WASHING MACHINE CORP. GRINNELL, IOWA







The REGAL with BRIGGS-STRATTON 4 Cycle Gasoline Motor \$99.50

There is a big market for the REGAL Washer equipped with the famous 4-cycle BRIGGS-STRATTON Gasoline Motor. Easy to operate. Easy to sell. Retail price (with a good PROFIT to you) only \$99.50.



GRINNELL WAS Grinnell, Iowa.	SHING	MACHI	NE ÇOR	P.	
New Improved	A. 1. 18		111 14	1 militar	
REGAL					
Store				1	
Store					
Address	******	* * 5 * * * *			1 3 4 9

Attention

es 1

SPRAY-SHIELD "MODULATED" TUBES CIRCUIT

Good news for radio dealers! Contrary to expectations, selling of radio receivers this Fall will not be confined only to the mention of Multi-Mu and Pentode as features. Majestic has them, of course, but Majestic engineers have developed yet newer and more important achievements!

Spray-Shield tubes, a German practice, by which shielding metal is placed directly on the tube itself. No more metal cans yet higher efficiency in the tube.

MAJESTIC HAVENWOOD MAJESTIC HAVENWOOD Exceptionally selective and beauti-fully toned. Georgian design with reconned Gothic grill in matched walnut front panel. Imported bax-wood in lays. Majestic 5-tube superheterodyne chassis providing "Modulated" circuit, tone control, Sprny-Shield and Pentode tubes and full dynamic speaker, on 4 - 0 Spray-Shield and Pensone tuber full dynamic speaker. \$44.50 Complete with tubes.

Twin Power Detection, the proper utilization of two detectors for yet truer tone, was found by Majestic engineers in a British set in the Science Museum in England,



MAJESTIC ELLSWOOD

ELLSWOOD Alowboy of early Eng-lish design with re-cessed center panel and matched butt wind aide panels. Handsome wood carv-ing. Equipped with Majestic 5-tubesnper-heterodyne chuseis of monitor construction, using Spray-Shield and Pentode tubes, "Mobilated" circuit, tone control and Grand Opers Spoaker. Complete \$59.50



MAJESTIC FYFEWOOD FYFEWOOD An end table model of Duncan Fyfe design. Top is beautifully wained matched huit walnut — side panels burdered in imported marquety inlay. Ma-jestic 5-tube super-heterodyns chassis utilizing new "Modu-lated" coronit, Spray-Shield and Pentole tubes, tone control, static modifice and Grand Opera Speaker. Complete \$64.50



Majestic that nall at are

TWIN POWER DETECTION

known as the "Perfect Quality Receiver," and adapted to American tubes and methods. The "Modulated" Circuit, worked out in collaboration with Hazeltine Laboratories, by which the functions of two tubes in the usual superheterodyne are now performed by one... making possible a first-class 5-tube superheterodyne model. MAJESTIC ABBEYWOOD

These features are exclusively Majestic will be heavily advertised to the American public ... and Majestic dealers will make the profits this Fall. Eight great new models, five priced helow \$100.00, each a Value thought impossible in previous seasons. Get in touch with the Majestic Distributor ... NOW!

GRIGSBY-GRUNOW COMPANY, CHICAGO, ILLINOIS World's Largest Manufacturers of Complete Radio Receivers

Prices slightly higher west of the Rockies.



MAJÉSTIC CHELTENWOOD CHELTENWOOD Hepplewhite design in matched buit walnut and imported boxwood inlays. Majestic 9-tube superheterolyne chassia with Twin Power Detec-tion, Twin Penrode Out-put, Spray-Shield tubes, tone control and Grand Opera Speaker. Com-plete with \$79.50



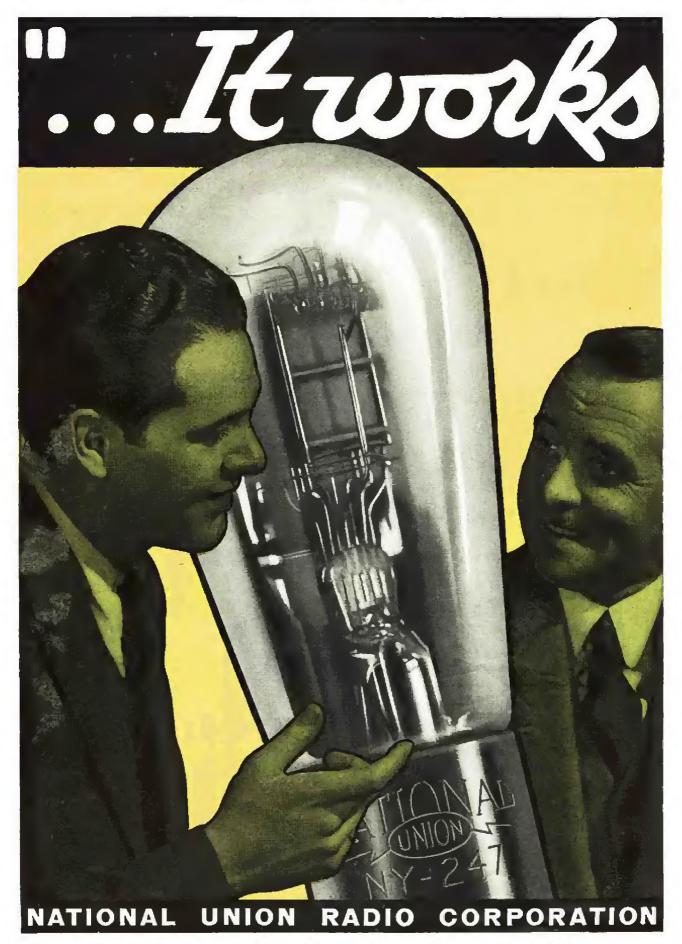
MAJESTIC BRENTWOOD

MAJESTIC ABBEYWOOD Our finest radio-phonograph. True Charles II period in butt walnut, exquisitely inlaid. The Majestic 10-tube superhetero-dynechossis; Automatic Volume Control, Spray-Shield and Multi-Mu tubes, Twin Power Detection and Twin Pentode Output; tone control and Twin Grand Opera Speakers. Electric pick-up and turntable; Auto-natic Record changer, handling 10 records. Complete \$2900

Superheterodyne Multi-Mu **Spray-Shield** Pentode "Modulated" **Twin Power Detection**

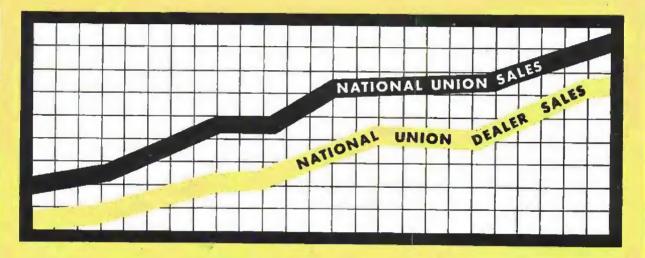


Radio Retailing, A McGraw-Hill Publication



• I

It's the NATIONAL UNION merchandising plan he's talking about. We bring customers to our dealers. We help them move tubes from their shelves. See how National Union Dealer Sales parallel National Union Sales.



THE STANDARD TUBE FOR STANDARD SETS

101

"It works I tell you. It is just the thing you need! It may have sounded like the old story last month when you laughed. But I tried it ... I know!

"Did you ever have a tube company come into your town and help you sell tubes? Did they ever find customers who needed tubes and didn't know it and send them to you? Did they ever bring in new prospects ... both for sets and tubes? Did they ever get your name around town so that an old customer came in and paid a bill he owed you? Or have a plan that sold tubes during the slowest time of the year? I'll say you never did. But friend, take a tip from an old timer who has seen them come and go ... Let National Union help you!"

This is a conversation one of our salesmen overheard. The plan will not perform miracles but we may be able to help you sell more tubes. National Union sales are well beyond the 50% increase mentioned last month. Our National Union dealer sales have kept pace with them. Perhaps we can help you. Please ask the National Union salesman about our tube selling plan if you are interested.

400 MADISON AVENUE - NEW YORK CITY

10

G-E WINS VICTORY AFTER

Powerful nation-wide advertising campaign features repeated wins. Gives General Electric Radio dealers greatest sales story ever put back of a radio



That's what G-E told these leaders in music when they listened to four hidden radios and unknowingly picked General

Electric! And that's what G-E's national advertising is telling America-"Believe your own ears!"-not claims!

VICTORY IN TONE-TESTS

"Better tone." General Electric has proved it beyond a shadow of a doubt. And G-E presents this proof to America in its great advertising campaign, which opened with a two page advertisement in the August 29th Saturday Evening Post.

If you haven't seen this advertisement, by all means look for it in The Saturday Evening Post, Collier's and Liberty, for it sets a new high-water mark in radio advertising! It is the first of a series of advertisements in the biggest circulation magazines and newspapers of the country featuring the General Electric tonetests.

The greatest music authorities in America were the tone-test audiences

The group on the opposite page featured in G-E's first advertisement —is typical of the authorities that have heard the tone-tests. George Gershwin, "Roxy," Sophie Braslau, Mischa Elman—people who know musical tone as a schoolboy knows his ABC's. Such authorities listened to four hidden radios, known not by name, but only by numbers—and gave G-E 23 out of 26 votes!

Other groups that have given General Electric's brilliant radio tone win after win are such organizations

GENERAL 🍪

as the Cincinnati Conservatory of Music, officials of the Steinway Piano Company, passengers of the giant ocean liner "Berengaria," and so on. Out of the dozens of groups that have heard these tone-tests, *not* one has failed to award the victory to General Electric—voting by number —not by name!

And each of these victories will be the subject for an advertisement that will sweep the country, giving people *proof* as to which set actually has "better tone."

"Fair and square"—the first rule for tone-tests

These tone-tests are not testimonials. They are not endorsements. Not one person in the audience ever knows what sets are competing. Trade names are never mentioned, and out of fairness to other manufacturers —never will be. Each set is a leading make, a large console model, with as many tubes as the General Electric, or more. Each listener votes for the radio he prefers by number. All sets are inspected by an outside, nonpartisan service man before the test to make sure that they are in good working order.

What this means to the G-E dealer

Undoubtedly, this forceful advertis-

ing campaign is not only going to exert a tremendous influence on the mind of the consumer but will also give the G-E dealer a powerful advantage in selling G-E sets. For every prospect is invited and urged to "Believe your own ears!" This sales approach is as powerful in the hands of the house-to-house salesman or in selling on the floor as in the advertising. The tone-tests prove that G-E's superiority of tone can definitely be detected by the average ear. The prospective radio buyer can forget all claims, forget all sales talk, and if he follows the judgment of his ears, as suggested by the advertising and the salesman, he will be led straight to General Electric!

Dealers! Act now!

This is going to be a great year for General Electric radio. It's a great product with a great name backed by great advertising.

The season is starting. General Electric has some selling and merchandising plans ready that are going to help sets move towards new sales records.

Get in touch with your G-E Radio distributor or write Section R-689 Merchandise Department, General Electric Company, Bridgeport, Connecticut.

ELECTRIC RADIO

FULL RANGE PERFORMANCE





the World's Most Luxurious Musical Instrument



WUT of the welter of profitless price merchandise;

With an irresistible appeal to the people who are able to buy;

Capehart Series "400" instruments afford Radio and Music Merchants the one outstanding opportunity to make money in 1931!

Consider these details:

(1) The only automatic phonograph in the world which plays complete operas, symphonies and albums of records of both sizes, in correct sequence.

(2) An especially engineered 13-tube Super-heterodyne Radio, of proven sensitivity and selectivity.

[3] Tone with a depth and "wholeness" of character which makes amazingly faithful reproduction in the entire range from 16 cycles to 4608-the piccolo's top-most note.

[4] Exquisitely wrought cabinets of authentic period design, in the finest of woods.

Advertising and merchandising support in harmony with the quality of the instrument-a plan of proven effectiveness, will help you sell the Capehart "400."

There are prospects in your community who will buy this fall! Will you get the profit?

Write now for detailed information without obligation.

THE CAPEHART CORPORATION FORT WAYNE . INDIANA



CAPEHART MODEL No. 400







EVERY customer of yours who owns and operates any of the following sets, must buy Kellogg 401 A.C. Tubes for replacements.

KELLOGG Sets—510, 511, 512, 514, 515, 516, 517, 518, 519, 520, 521. McMILLAN Sets—26, 26PT. MOHAWK Sets, Sparton Sets—62,63, A-C 7. DAY FAN 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. The manufacturers specifically designed these sets to use, and originally equipped them with Kellogg 401 A.C. Tubes. In your own locality there are many prospects for 401 tube business —set owners who can use no other tubes.

The market is already established for you, profits per sale are large. Price levels are maintained—always. Here is an opportunity that you cannot afford to miss. Get your share of



this business by supplying the demand in your locality. Stock and display Kellogg tubes now. Write department 54 for the name and address of your nearest Kellogg jobber.

KELLOGG SWITCHBOARD AND SUPPLY COMPANY 1066 W. ADAMS ST. CHICAGO, ILL.

A CHIP OFF OLD BLOCK

Sylvania "Set-Testing" means Sales because it **PROVES** that tube and set will work together

Put yourself in your customer's place. When he buys tubes, he wants the make that is right for his set. Not just tubes with the right number of prongs on the base or the right type stamped on the box . . . but tubes that will give him the best possible results with the particular make and model he owns!

With Sylvania tubes you make quick sales because you convince this customer he is getting what he wants. Sylvania tubes have been tested and approved in a radio just like his. No distant relatives here! No strangers or misfits! Every Sylvania Tube feels 100% at home!

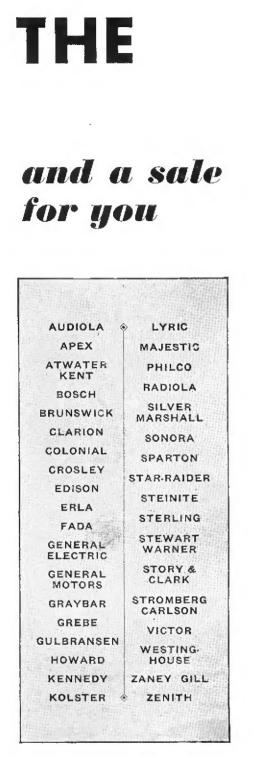
Write now for your copy of the Sylvania Certified Test Chart. Ask about the new Sylvania 100% Dealer Plan, the Emurgentcy Kit Plan and the new Tube Analyzer Plan.

Licensed under RCA Patents

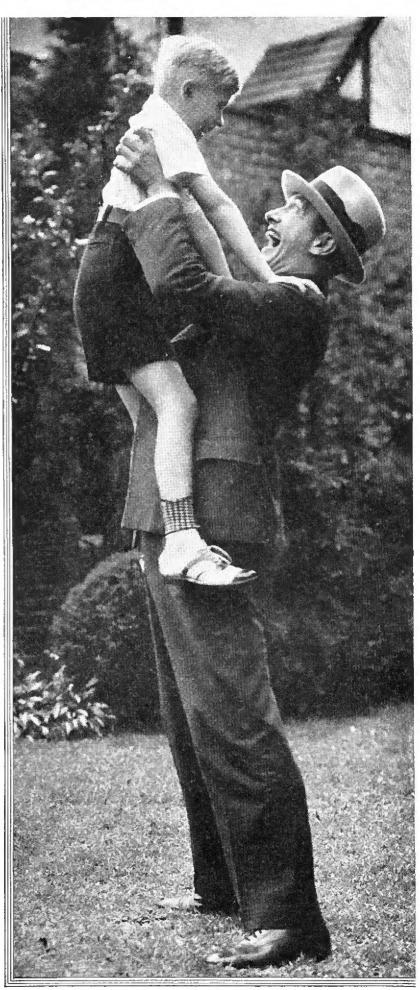
HYGRADE-SYLVA Sylvania Divisio Emporium, Pen	
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(Name of Jot	이 형태 물건이 사람 옷 동네가 가지 않는 것 같아. 이 집 전 사람이 있었다. 이 것 않는 것 같아. 이 것 같아.
Name	
Address	
City	State



* Radio Retailing, Sept.







In the Super-sonne, Sparton introduces a new application of the superheterodyne that improves musical quality beyond words. Other innovations and refinements, and prices more attractive than ever before, are making the new Sparton models the most talked-about radio of the year. Demonstrations give listeners a new thrill of performance ... a new conception of richness... but most of all a new standard of value that could only be possible under today's conditions. The Sparton franchise holds greater possibilities than ever before, right now when you want such a line most. Consult your distributor.

THE SPARKS-WITHINGTON COMPANY, JACKSON, MICHIGAN, U. S. A. SPARTON of CANADA, LIMITED, LONDON, ONTARIO (659)

Only Sparton has the Musical Beauty of SPARTON RADIO "Radios Richest Voice" September, 1931



O. H. CALDWELL, Editor

A McGraw-Hill Publication. Established 1925.

Replacements... A Coming Major Factor

R ADIO dealers know, from hard experience, that the rapid saturation of their worthwhile markets has raised to serious proportions the factors of sales resistance and selling expense.

At first blush the outlook would appear discouraging.

Actually, quite the contrary is the case.

This prediction is based upon a new, and most encouraging, market for quality receivers which has recently taken definite shape. We refer to that growing demand for high class, modern consoles and mantle models—a trend everywhere mentioned to the managing editor of this paper on his recent trip of investigation.

Dealers estimate that fully 50 per cent of their clientele need new radio equipment. These prospects realize that their present sets are obsolete.

But the best part is that, of their own accord, many of these customers are seeking information about the new models in the *higher* price brackets. Again, large trade-in demands are diminishing.

TO FURTHER brighten this encouraging picture comes the news that today's battery sets are much more satisfactory than those of '29 and '30; that practically all set makers will have one in their line and that jobbers and dealers intend to recultivate this vast unwired home market in intensive fashion.

One note of warning remains to be sounded: Those who want to replace an old set with a new one naturally are making this move to obtain better reception and purer tonal qualities. They frequently are prepared to pay, therefore, from \$85 to \$150 for such a set providing its superior performance can be demonstrated. To this end the manufacturer must back up the dealer. Sets priced at \$95, for example, must positively and unequivocally out-demonstrate those excellent little outfits now selling between \$60 and \$70. They not only must look better but they must *sound* better—so that dealers with "ready money" replacement prospects in sight may profit fully by the situation.

To corral volume radio business this fall is going to mean intensive work and keen selling. Dealers and salesmen who have grown soft during the long period of easy order-taking during past years will have to harden up—they will have to shift into a new gear to make the grade this year.

But there will be good radio business ahead for those fighters who will exercise their muscles, tighten their belts, and go after it.



bettermined to Make it A Darn

ONN

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DRICE CURV

TRADE INS

Dealers are fighting their own battles these days and discovering ways to win editorial tour discloses

> Photo by LAZARNICK

By Ray V. Sutliffe

$Business-{}^{\text{Despite}}_{\text{Obstacles}}$

HEN Radio Retailing wants a dealer experience article, or the lowdown on a trend or a practice, its editors leave their desks and seek first-hand information at its source—in the field.

"What's the outlook for fall business? What are the new low prices doing to our markets? Who's buying radio today—if any? What are they buying, and why? We wanted to bring our readers up to date on what's been doing since the Chicago Trade Show.

"But don't go now," my associates warned me. "You'll find nothing but grief. It is the wrong time of the year."

But my associates were wrong. I found the old fighting spirit just as strong as ever. Dealers were "taking their business where they found it," to paraphrase Kipling—and many liked it.

Take a look at some of their actual statements printed in italics in the center of the next following page. Strange declarations these, coming from radio dealers in the year of our depression, 1931. Strange, but true. And not only true but representative of 70 per cent of the thinking of all dealers interviewed in Ohio, Michigan, Indiana, Pennsylvania and New York.

MIDGET MENACE HAS BEEN OVERRATED

 T_{not}^{O} GET down to cases: The \$35-\$45 midgetina is not dragging price and value standards to new low levels. This is because dealers and the dear public itself have been quick to appraise these 3-4 tubers for their real worth—and to sell, and buy, higher whenever possible. Dealers are demonstrating by actual performance that it is not such a difficult thing to "sell up" from these excessively low levels of price and quality which manufacturers have seen fit to establish.

The following quotations—all authentic and indicative of majority opinion—tell the story:

"I wish I had taken on a low priced set sooner. I lost some business by not doing this and could have made my higher priced sales just the same."

"Service men can sell midgets."

"No problem in towns remote from broadcasting stations because they don't perform, and people know it."

"Permits me to reach the unmarried worker of low earning power, but to others can sell sets at \$60."

Here's one to think about: "The \$69.50 model killed the higher priced demand but the \$40 receiver has not hurt the \$69.50 sale."

"It's easy to sell up—but only to the \$75 level." "As only the poorer classes buy the very low priced

Radio Retailing, September, 1931

What the DEALERS are DOING

Switching 9 out of 10 sub-midget prospects to higher levels

Using part time salesmen to cut selling costs

Developing a prime replacement market, at quality price levels

Cutting trade-in allowances

Reducing number of home demonstrations

Learning to control credit losses

Pushing major electrical appliances

and What THEY Want

A set for \$90 which, demonstrably, is as superior to the \$70 article as is the latter to the new \$40 lines

A good combination for \$150

Higher prices on tubes

Annual, instead of semi-annual, changes in styles

unit, credits must be watched with more than usual care." "With the sub-set we can tell the prospect frankly that it just isn't 'radio.' "

"We sell a few, but not many."

"I'll never stock another set under \$49.50," manager. radio department, Cleveland's largest department store. "The low price trend will kill itself,"

"I can resell two out of three customers a better set."

And this, from the sales manager of a set concern: "We purposely made an ultra low price set of necessarily inferior quality with the thought that the public soon would see for itself that it cannot get something for nothing, and would, therefore, revert to the better models."

CUTTING THE CLOTH TO THE MAN

BUT there's more to this radio industry of ours than the pee wees.

"What changes are you making in your ways of doing business to meet changing conditions?" was asked of every merchant.

While many gave vague replies, two definite trends were apparent: the wider

winter."

times."

effort."

to hire more help."

darn good business!"

"There's been enough of fault finding; of

crying for higher prices; of waiting for some

new invention, just around the corner, to restore the days of '28."

"We'll fight it out on this line if it takes all

"Maybe we got a better deal in the past than

"If my radio business was any better I'd have

"The menace of the \$10 list, bah! I can sell

"In spite of all obstacles we'll yet make it a

nine out of ten a better set with a little extra

we were entitled to . . . Maybe present prices

and profit possibilities are in line with the

use of part time workers and of service men for selling and the addition of a line of electric refrigerators.

Lower price levels, the midget set and greater sales resistance are responsible for this first step.

Even on a 12 per cent commission basis the weekly earnings of the full time outside salesman are seldom sufficient to keep him happy. On the other hand an 8 or 10 per cent commission to the man who works two to four days a week elsewhere provides sufficient additional income to keep him at the peak of his produc-

tion possibilities. Furthermore, the latter is "anchored." He has a wider circle of friends and prospective customers, owns a small car, and frequently his home as well,

To both the part-timer and the service man the small set is a boon. It can readily be carried along when either type of semi-salesman is engaged in his primary avocation.

Refrigeration Kept Me Out of the Red

REFRIGERATION is so new to the radio merchant that its ultimate importance is yet to be determined. To many dealers, however, stocking four or five refrigerator boxes has meant the difference between net profit and red ink.

"We haven't sold as many as we expected," they said. "but sales are increasing and it's clean, profitable business."

Fully 70 per cent of the outlets visited, regardless of type, were displaying electric refrigerators. Many managers had in their employ one or more seasoned refrigeration specialty salesmen. Month by month the number of unit sales is increasing. Right now the radio

BIG REPLACEMENT MARKET JUST AHEAD

WITH 50 per cent of all wired homes already **VV** equipped with radio, the saturation question cannot longer be lightly dismissed. Perhaps the most encouraging of the many cheering things I heard on last month's trip was the unmistakable evidence that a large replacement market is rapidly developing and should materialize into a factor of major stock moving importance this winter.

Although 70 per cent of all worthwhile buyers now own some sort of radio equipment, according to dealer estimates, more and more inquiries concerning the newer models are being received from this class of prospect.

"Invariably I sell my quality consoles to the man who already owns a set," said G. H. Walter, New Castle, Pennsylvania. "The newlyweds are contented with something small and cheap but the person who knows his radio demands, as his modern set, the very best he can afford. This replacement market, in my town, must be

at least 50 per cent of all sets now in use. For instance, in 1927 I sold 192 of the first electric, magnetic-speaker type of sets to come out. So far I have replaced 27 of these. There must be a near future market, among the balance of these purchasers, for 70 modern consoles."

Naturally replacement business involves a trade-Here, again, condiin. tions are shaping up more favorably. "I lead these people to my stock of brand new receivers priced from \$40 to \$70," said more than one retailer. "How can I possibly allow more than a few dollars for your old set when the

1932 models are priced so low?" I ask Mrs. Browning. The reasonableness of this question is so self-evident that the customer must acquiesce, especially as few transactions now involve more than \$90."

Present conditions also are mitigating competition from the so-called "gyp." With most new models below \$100 and excellent sets selling for \$65, cut price stores have little to offer in the price line that cannot be matched by the dealer up the street. I took the trouble to consult a number of my chain store friends on this point. They agreed, if unenthusiastically, that today's \$70 average list is killing the trade-in and orphan console business.

One live wire, who specializes in replacing orphans. early electrics and battery sets puts the works of a \$69 midget in special, floor type cabinets and thus can price them high enough to cover all reasonable trade-in demands and return also a more than average profit.

SALES AND SERVICE COSTS

"WHAT about sales and service policies on sets sell-ing for less than \$50?" was a question always asked. General practices run as follows: (Please turn to page 54)

The Cost of Merchandising



Take ALBANY for Example

HAT does it cost to merchandise radio? Or, conversely stated, what are the common losses associated with this business of ours?

For the purpose of gathering first hand information on this subject, and on other distribution and retailing practices, the editorial staff of *Radio Retailing*, working in conjunction with the Marketing Counselors staff of the McGraw-Hill Company, recently interviewed 20 wholesalers and 155 dealers in the city of Albany, N. Y.

Why They Lost

Of the 63 retailers whose detailed costs were available, 17 lost money. Total deficits aggregated \$30,725, and total profits, \$190,507.

Why did 25 per cent of Albany's electrical and radio merchants run into the red last year? The principal reasons, in the order given, were: administration, service, deductions and occupancy.

Administration, which was the reason for 64 per cent of the failures, is a short, and polite, way of saying that the proprietor paid himself first, and then didn't have enough left to cover his other expenses.

The dealers, of course, felt that the real reason for their losses was inadequate sales. This theory collapses in the face of the fact that many more dealers, whose sales were smaller, managed to show a profit. Volume is desirable, but the problem of avoiding losses also is a matter of carefully controlling all operating costs. Under "deductions" a total of \$34,869 was reported. This includes deductions by those dealers who showed a net profit. When it is realized that this amount is more than sufficient to wipe out the total loss of \$30,725 suffered by the unlucky 17 who failed to show a profit the magnitude of this evil is apparent.

This amount was composed of the following items:

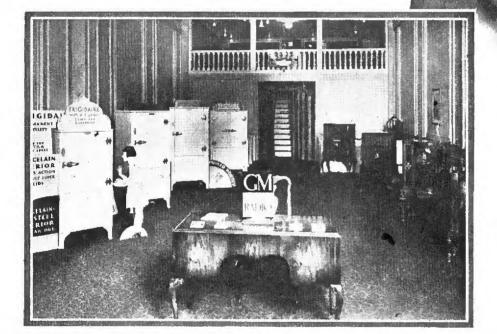
Item	Amount	Per cent
Open credits	\$17,357	49.8
Allowances	7,484	21.4
Installment accounts		13.1
Returns	3,628	10.4
Miscellaneous		5.3

Next in importance was "occupancy"—too much rent per sales dollar. This item cannot be quickly corrected. If one's location is high priced and floor space excessive, moving to a side street, and compensating by the employment of a force of part time outside salesmen, is a logical step.

The other three items of expense, cost of merchandise, publicity and selling, were less important—too much so. One properly might ask of those Albany dealers who lost money in 1930, "Why did you spend so much on administration and deductions and so little on promotional effort?" This question sums up the situation, not only in the Capitol City but for the country at large.

His Men

HOME ENTERTAINMENT, INC., Finds That Steady, Systematic Work Produces More Business Than Periodic Brilliance



HENRY M. GRANZOW and HIS STORE

are

Note the clean-cut carpeted showroom and the unusual location of the customer's service desk

H OW can we sell more radios and make dealership worthwhile? These questions concern every merchant. Henry M. Granzow, head of Home Entertainment, Inc., radio dealer in Dayton, O., believes he has answered them.

Make every salesman a dealer is the plan used by Home Entertainment, Inc. Dayton is divided into 15 districts. Each of Granzow's eight salesmen has a district assigned to him, with the understanding that he is to get acquainted with the people in every home.

Each man must make 25 calls a day. Each must turn in two prospects daily, make two demonstrations and bring at least one person into the display room. The salesmen go to work in the morning as a man would enter a factory. Their work is laid out for them. Mr. Granzow explains the method as follows:

"We have laid out the city so that each man has a district with sufficient homes to keep him going a month and he must cover this territory once a month. Mornings are devoted to calls and getting acquainted. In the afternoon he goes back on the calls which looked fruitful, and in the evening he makes his demonstrations.

"There is much talk now-a-days about eliminating or cutting down the call-back. We reverse this. We have the salesman really get acquainted with the families in his district. He cultivates everyone with whom he comes in contact. He works steadily, ploddingly, and after he has done a certain amount of work he finds that he makes a given number of sales.

"Our records show that a sale is made about every 100 calls. The 'law of averages' seems to operate. Out of 25 calls, the salesman should get two prospects.

"Two demonstrations are required daily with a chassis or midget set, and the salesman must bring someone into the store each day. This does not necessarily mean that he must bring in prospects. He may pick up someone on

Ploders

NAME	No.	ADDRESS Street		Date	aug	11-
min Browng	1/8	market	CRA CRA	Type	Age	REM
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	1-1	What end an	e me	1	good la	mon
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		din to shared		<u> </u>	And Street and	

Each salesman averages 25 calls per day, turns in two prospects, gives two home demonstrations and brings someone to the showroom. A report is required of every contact

the street and show him the display room. The fact that he brings them in, helps him to get in the habit of doing this with prospective customers.

"We have no prospect cards or protected file in the usual sense. The salesmen get commissions on all merchandise sold in his territory. Each man makes out a daily report on calls and is allowed to keep this as his own record.

"Our salesmen work on a commission basis. They are paid 10 per cent on sales up to \$100, 12 per cent on amounts from \$100 to \$200, and 15 per cent on sales over \$200. Commissions on Frigidaires run 10 and 12 per cent. Some of the men sell both radios and electric refrigerators.

"The beauty of our system of having the salesman work at selling just as he would any other job, is that it keeps the man occupied in a valuable way. He doesn't have to spend time digging up prospects. He can make more calls and spend more hours in demonstrating and selling. Today a salesman needs twice as many prospects or 'suspects.'

"Our store is located right downtown. If we had to depend on drop-ins we would starve to death. As it is, our men working on a commission, with careful supervision from the office, and using our 6 point selling method, make the job of the dealer much easier. Overhead doesn't bother us. We do not have to run store 'specials.' Our business is on a solid basis of production.

"Another advantage in our plan lies in the fact that our men get many prospects who have never been ap-(Please turn to page 54)

Radio Retailing, September, 1931



By

Truman Mills



W ITH the coming of September, the curtain rises on the most stupendous entertainment spectacle in the world's history—American Broadcasting for the season 1931-32.

And to every reader of *Radio Retailing*, it is significant that the business beneficiary of all this outlay, running into many millions, is the radio retailer.

For in the hands of radio dealers in every city and village in the land, rest the sales of modern radio sets the preferred seats for this mammoth amusement series which will continue throughout the fall, winter and spring.

Preceding seasons in broadcasting's short history have witnessed notable outpourings of money, talent and resource. But this fall the programs about to be inaugurated will eclipse anything the past has afforded, and will represent a money outlay of at least \$35,000,000 for entertainment and talent alone by the principal networks and independent stations. The entertainment markets of the world have been scoured for unique novelties and interesting features. News events from every corner of the globe will be firsthand affairs to every listener with a good set. Meanwhile, educational programs and cultural topics will have a new place in the sun this season, as the broadcasters, under sharp political pressure, give increasing attention to educational requirements.

CHAIN PROGRAMS REACH MANY NEW COMMUNITIES

CHAIN program service has been extended into many new communities, bringing the choicest selections of the entertainment world to additional millions of the listening population and so increasing the local demand for modern sets.

Probably the most significant of these expansions of chain service is the acquisition by the National Broadcasting Company of four Pacific coast stations, which will become the nucleus of a second Pacific coast net-



work as well as outlets for programs of the Blue net-They are KJR, Seattle; KGA, Spokane, and KEX, Portland, all of the Northwest Broadcasting System, and KYA, San Francisco, of the Pacific Broadcasting Corporation.

On the Columbia System, additions include station WNOX in Knoxville, Tenn., which will hereafter be served on a permanent basis, taking all of Columbia's available sustaining programs. In Florida, stations WQAM in Miami; WDBO in Orlando and WDAE in Tampa will henceforth also receive full program service. Station WTOC in Savannah, also in this group, will benefit by the greater volume of network programs made available from the main studios of the system through WABC in New York, and from WBT, the Dixie Network key-station, Charlotte, N. C. Station WGST, Atlanta, Ga., also has been granted full time.

Northeastern stations that have become full time outlets for the chain programs include WHP in Harris-

burg, Pa.; WCAH in Columbus, Ohio; WOKO in Albany, N. Y., and WHEC, in Rochester, New York.

IMPROVED QUALITY OF TRANSMISSION

PROGRAMS of the Columbia Broadcasting System originating in New York are being transmitted to listeners throughout the nation with much improved tonal quality because of the recently completed installation of a new lead-covered cable circuit between New York and Chicago. Operators of the various stations report unanimously that their listeners have materially benefited by the installation.

The cable permits a wider frequency range than was heretofore possible. The old circuit would pass only those frequencies between 100 and 5,000 cycles. In the new circuit, frequencies between 30 and 8,000 cycles are passed with true reproduction without distortion. The figurative effect of the installation provided by the American Telephone & Telegraph Company, is to bring distant stations in the network 1,000 miles nearer to Columbia's origination point in New York.

NEW NBC PROGRAMS STARTING THIS FALL

WHILE the popular features of last season will, practically without exception, be continued during the coming fall and winter, a number of new features are being added on both groups of national networks.

During the summer months, directors and program experts have been hard at work ironing out minor program wrinkles and will shortly offer favorite features in new and attractive guise.

Included as outstanding features, according to National Broadcasting Company's representatives in the office of Merlin H. Aylesworth, president, will be:

Collier's Radio Hour to be heard each Sunday night beginning September 13. In this presentation, stories from Collier's Weekly will be dramatized by NBC artists. Guest speakers and musical selections will also be included.

Echoes of "Quick, Watson, the Needle!" will be heard when the adventures of Sherlock Holmes are enacted in true detective drama style beginning Thursday, September 17.

Turning to popular melodies, a concert orchestra, with soloists and guest artists, will "high spot" the McKesson Musical Magazine series on October 6, and to be heard each Tuesday night thereafter.

The Brownbilt Footlites series introduces smart dance tunes by a well-known orchestra, assisted by guest artists. This feature begins September 30.

Another instrumental aggregation will be the "Gaytees Orchestra" of the United States Rubber Company, which will feature each Tuesday night, commencing September 29. This program, while it differs somewhat from the former type of presentation, holds much promise.

"Little Orphan Annie" will be dramatized beginning Sunday, September 28, and will be on each Sunday thereafter.

Another dance band, this one under Wayne King, will lend prominence to a program of the Lady Esther Company each Sunday afternoon beginning September 27.

Two morning presentations, one a dramalogue to be inaugurated on September 17, the other sponsored by the Charis Corporation which begins October 1, will brighten the before-noon hours of many housewives.

COLUMBIA ADDS DISTINCTIVE FEATURES

ON THE Columbia Broadcasting System, a number of new programs will be begun during September and October, adding to the rapidly-growing popularity of the system under the direction of President William Paley. Among these features as listed from Mr. Paley's office are:

Leopold Stokowski and Philadelphia Symphony Orchestra—Occasional, starting October 12th, 8:15 to 10 p.m.

New York Philharmonic Symphony Orchestra. Sundays, starting October 11th, 3 o'clock.

Abe Lyman's Band, sponsored by Sterling Products, Inc., makers of Phillips Dental Magnesia.

Carborundum Co. (Listing and time to be announced later.)

Hecker Surprise Party. Thursday, September 17th, 9 to 9:30 p.m., Pacific Time.

Helps for Feeders, from the Pratt Experimental Farm, Pratt Food Co., Thursdays, starting September 17th, 1 to 1:15 p.m.

Arthur Murray School for Dancing. Starting September 5th, (other information to be announced later.)

Blue Coal Hour, Sundays 5:30 to 6:30 p.m., Del., Lack. & Western Coal Co., starting September 6th.

Goodyear Musical Program. Mondays, 6:47 to 7 p.m., Goodyear Tire & Rubber Co., starting September 14th.

Tropic Aire, Inc. Starting September 19, Saturdays 5:45 to 6 p.m.

K. A. Hughes Co., starting October 5. (Listing and time to be announced later.)

INTERNATIONAL AND RELIGIOUS BROADCASTS

ANOTHER basic change in program plans, of wide interest to many listeners, is the recent decision by Columbia to follow the policy adopted by National, not to sell any more network time for religious broadcasts, but rather to tender fixed Sunday periods free of charge to the organized Protestant, Catholic and Jewish faiths.

This decision, long anticipated, was one of the first made by Mr. Paley upon his return after his European tour, during which he entered into important affiliations with the broadcasting administrations of England, Italy, Austria. Hungary and Czechoslovakia for more international broadcasts both to and from those countries. The new international series, which will supplement Columbia's regular Sunday rebroadcasts from Europe, will start in October and will probably be heard on Thursday and Saturday nights.

The decision to eschew religious broadcasting on a commercial basis means that Columbia will no longer take such paid programs as those carried from the Churchill Tabernacle in Buffalo and from the Church of the Little Flower in Detroit. Columbia has found that selling time to particular religious units has meant recriminations from others willing to pay for time, but for which hours were simply not available.

To have continued selling periods to religious organizations might have meant that others would invoke public utility standards upon radio, and thus demand so much time that balanced programs of popular appeal would have been impossible.

Columbia's broadcasting system's business for the first six months of 1931 increased 46.6 per cent over that of the first six months of 1930. During the same period, the National Broadcasting Company's own large business showed a 33.5 per cent increase.



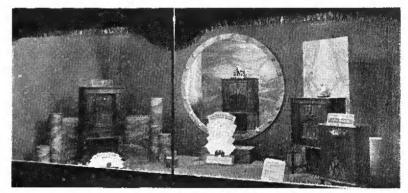


J. Walter Johnson has won ten national prizes offered by radio manufacturers. He is with the Ira F. Powers Furniture Company of Portland, Ore.

PRIZE-WINNING WINDOWS



Cutouts of a negro quartet, obtained from a bill-poster, pasted in front of a semicircle of black interlining formed one of Johnson's best, inexpensive windows



Brown, figured linoleum, rolled into modernistic tubing and used as a lining for the "porthole" display did an excellent job



Here's one that used only two window cards and a three-foot vase of imitation nasturtiums. The backdrops were entirely black

EXPERIENCE has taught J. Walter Johnson to abide by a few simple rules for good windows:

Designs

THE merchandise must be the center of attraction. Keep the background in the background.

MOTION windows, mysteries, must be used with caution. They often divert attention from the sets.

COLORED light, improperly used, misrepresents goods. Seen under ordinary light in the store they may seem much less desirable.

A WELL-WIRED window is a good investment.

DO NOT be afraid of black. It gives strength to displays.

BE SURE the color of the window contrasts with colors outdoors.

DON'T attempt realism with artificial flowers. Use them for theatrical effect.

BURLAP, oil-cloth, wall-paper, linoleum and wall-board can be used just as effectively as more expensive materials.

A POWER cutting tool saves time and drudgery.

NEUTRAL colored carpet is usually most satisfactory as a foundation floor covering.

GIVE the public what it wants. Tie in with the song everybody is whistling, the popular hero, local or national celebrations.

KEEP the window simple. People should be able to get the story as they pass by.

MATCH... the Product

Analyzing the Local Market

NOV. DEC. JAN. FEB. MAR. APR. MAY JUNE JULY AUS. SEPT. OCT-Name (IT) Mrs. Miss James Sunther Prospects For Have Bough Addross 133 Livingston are Midget Mantie Model Kind of Homo Quon - Single foreigt loctricity A.C. Small Cons. Better Cons. Occupation Bank Carlier Income # 100 Deluxe Cons Ouston Job Number in Family 3 - has daughter Radio-Phon. Auto Radio Battery Se Brand of Present Radio King Tubes X Tubes Brand of Auto Caplan Automatic Friend Of Joseph Pell, Sound And Pub. Add. Refrigerato Analysis but likes ACTION sadie toward

NO SALES activity will produce greater resultbringing action than a paper and pencil analysis of one's market possibilities and the keeping of a real prospect card system.

To actually ascertain the buying character and capacity of your local territory first prepare two listings, "Things I Sell or Should Sell" and "People I Should Sell To." For example:

THINGS I SELL

Midgets (\$25-\$50)	Automobile Radio
Mantle Models (\$50-\$75)	Battery Sets
Small Consoles (\$60-\$95)	Tubes
Better Consoles (\$85-\$150)	Service
De Luxe Installations	Automatics
Custom Jobs	Amplification
Combinations	Refrigeration
Electric Clocks	Misc. Appliances

PEOPLE I SHOULD SELL TO

Bachelors	Auto Owners
Bachelor Girls	Boat Owners
Working Class Families	Summer Homes
Salaried Men	Hospitals
Professional People	Institutions
Executives	Stores, etc.
Well-to-Do	Schools
Farmers	Public Meetings
Executives Well-to-Do	Stores, etc. Schools

Notice that sets are broken down into at least six classifications. That is because there are fully six different types of buyers who require a receiver of a specific size and price.

Sales Data That

TYPE HOME—Boarders don't buy fancy consoles, as a rule. And the "man on the hill" should be sold a de luxe installation. Hunt elephants with an elephant gun.

OCCUPATION—With this knowledge available you have a hot clue for building up a special canvass talk. Mention others in his line who have bought from you.

INCOME—The prime need for this information is obvious. Type set, terms, credit and sales approach all hang on this item.

NUMBER IN FAMILY -- Important, since an income of \$60 a week, for a bachelor, is quite different than for feeding a family of five.

AUTOMOBILE—Key to spending power and to prospects for auto radio equipment.

Now cross out those items which it is unprofitable for you to handle and those classes of prospects you are not prepared to follow up. Next jot down the number of homes, farms, stores, institutions, etc., in your selling area. Much of this data may be obtained from the Chamber of Commerce, the newspapers, local lighting company. With this preliminary work accomplished the number of immediate-sales-action ideas, which a review of this marketing picture will inspire, will surprise you.

Offer the right merchandise to the right man or woman at the right time and a sale generally results. But what is the *right* radio for the *right* family?

This is where the need for a properly designed card comes in—so that you may "match the product to the prospect." In other words "market analysis" applied to each "case history." With all essential information marshalled you can then practice the kind of planned, selected selling that today's conditions necessitate.

It's just translating into radio selling the insurance man's approach when he says: "You're buying a home, Mr. Hirose, but what would happen to it if your wife were left without you? . . . You have a little girl in school . . . Will she be able to go to college if you pass on?" Heaven only knows how he finds out all these things about me. But he does and it makes his story convincing.

By Arthur P. Hirose

to the Prospect

and the Individual Lead

Mean Something

PRESENT SET—Very vital. Source of business for accessories, tubes, service, and especially for a replacement sale. See leading editorial in this issue.

FRIENDS—How much depends upon the words of friends. Most leads come from this source. Word-of-mouth advertising is most effective

ANALYSIS—Here notate the salesman's impression of chances for a sale, when, how. Also reactions of prospect and key remarks.

ACTION—Continue your remarks by jotting down trade-in situation, offers made, and best time to reopen the discussion. Now tab the upper edge of card on the right month.

Here's how to turn the trick: First get some filing cards, about 6 inches wide by 4 inches high. Write, type, mimeograph or have printed on them headings for the kind of information you want to get about each one of your prospects and customers. The form illustrated with this article is suggested, and the paragraphs between the two cards explains its simple and logical application.

"What about the months of the year at the top of the card?" you may ask. Check off the month as you make a call on the prospect, or send him a circular. Surprising, isn't it, how easy it is to neglect a prospect without a follow-up system?

After fairly complete data has been collected for each prospect, you can decide what kind of merchandise he or she can buy and ought to buy. And when they buy, jot down in the "Have Bought" column the date they made the purchase.

Examine the two sample cards reproduced on this page. Can't you get a real picture of the difference between these two homes, these two people, these two prospects just by reading their histories? You can have the same helpful selling data for every prospect. And plenty of prospects will be needed this next year. These prospects won't come on a silver platter, wrapped in cellophane. They'll have to be dug out, continuously and systematically. This card system will add names

JAN. FEB. MAY JUN 00т NOV CEC. Kind of Home Learn - Y. W.C.A. Prospects Fo Occupation Stencouples Ha Electricity D.C Midget Manti come 25 week Small Cor Better Con Present Radio Teaveler fort, DeLuxe Oo Custon 0ar/219 Auto Radio Battery Set Tubes Service ACTION-Automatic Sound Ano. in Oct Refrigerato Clocks Other App.

that mean something—quickly and easily. These cards also constitute an admirable mailing list for circulars, letters and other material.

Just about now I can hear you say, "Sure, it's easy enough for that fellow to tell me I ought to have all this information about my prospects. It's fine dope, but how'll I get it?" Here's how: Much of the data you have. You know what sort of place John Jones and his wife live in, you can recollect what his job is, and what it ought to pay him. You can, with a few minutes thought, recall the names of his friends or neighbors to whom you've sold merchandise.

And where this information isn't available there are scores of ways of getting it. Most important of all, carry around a dozen cards with you whenever you go out. Ask about prospects and jot down the information conscientiously and systematically. Send your men out when they're not busy. Get them to do some gumshoeing. Tell the repair men you need their help. Hire a school boy after classes are through for the day. He can help by looking in the garage, by ringing door bells and asking what kind of a radio, refrigerator or clock is in use. The phone book and the classified directory are invaluable. Other merchants can help—your butcher, baker, grocer and auto dealer. You can swap names with most every store in town.

The whole basis of business getting is "Know your prospect." This is just another way of saying that comprehensive facts about prospects, an intelligent analysis of this data, carried on regularly and systematically, and planned action are bound to result in more business.

Self

Public Address

VING FIRMS & INDIVIDUALS HAVE GIVEN THEIR THE MAT HEGHENE SONS LA STATE LUMBER CO. 9510 BA CILLS ENGAN D TERMA (III Sould

ess Celearan

AGNETIC SCORE BOARD

150 CONTRACTS LAST YEAR

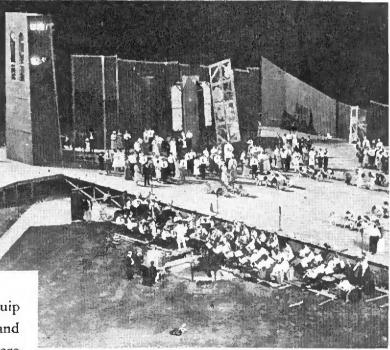
Roger Howell, Reliable Radio Shop, Long Beach. Cal., donates his public address system for public gatherings. At regular intervals, during the programs, this fact is announced. This type of publicity has proven sufficient to keep him busy.

Though radio set sales and service have fallen off considerably this year, extra business renting and selling amplification apparatus has put Howell ahead of 1930. While typical installations average \$175, rentals are even more profitable.

His best prospects are: high schools, skating rinks, dance halls, parks, churches, hotels, factorics, ball parks, swimming pools and apartment houses.

 $\mathbf{M}_{\mathrm{to}\ \mathrm{handle}\ \mathrm{the}\ \mathrm{local}\ \mathrm{demandle}}^{\mathrm{OST}\ \mathrm{radio}\ \mathrm{demandle}}$ for public address and amplification service, are amazed at the size and diversity of this potential market.

Two of the most outstanding examples of aggressiveness and success in this attractive allied line are the Reliable Radio Shop, Long Beach, Cal., and Sun Radio, Inc., Akron, Ohio. Both state that, after the first two or three jobs, the "selfadvertising" character of this apparatus accounts for at least 70 per cent of all future contracts or sale. Business usually comes in by itself.



DEALER INSTALLS BIGGEST AMPLIFICATION JOB

Nineteen thousand people heard every word and caught every note, when "Aida" was presented at Cleveland's monster Municipal Stadium last month. Truly an outstanding demonstration of the value and present perfection of public address equipment . . . and of the future possibilities of this line for radio dealers.

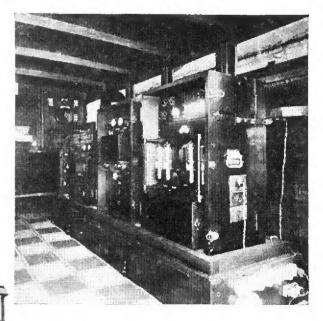
Just a few specifications, indicating the kind of a job Sun Radio put over; characterized by Dr. Howard Hanson, head of the Eastman School of Music as, "the most remarkable aid to the development of outdoor music yet produced": 27 microphones; 10 loudspeakers; all speakers and microphones independently connected to a central manipulation board in upper deck of Stadium; complete control of sound intensities thus possible.



Installations Create Their Own Market

WILLIAM PENROSE(left) and his partner,S. BERNARD BERK,

Sun Radio, Inc., of Akron, Ohio. These men installed and successfully operated one of the biggest amplification jobs yet attempted—outdoor grand opera, in the Municipal Stadium, Cleveland.



ON WHEELS

This portable address system is one of the largest in the industry. It is frequently used at Akron municipal air port and at Goodyear-Zeppelin ceremonies. Top photo shows interior of truck.

Radio Retailing, September, 1931

SUN RADIO

Nestern Electric

PURIN ADDRESS SYSTEM

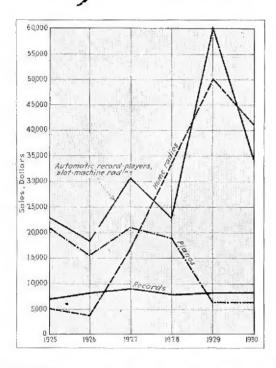
Owin

SUN

AKROT

With two or three instruments loaded in a truck, the salesmen cruise in 20 counties, making demonstrations





The ERICKSONS have grossed \$189,000 in automatic record players and slot machine radios since 1925

By

Tom Blackburn

"I WISH we could have da radio music at da restaurant lika I have at home," an Italian restaurant th owner ecstatically said to A. J. Erickson of a LaCrosse, Wis., one day about two years ago. E:

Pondering over the remark, Erickson returned to the store operated by him and his cousin, G. J., and known as the Erickson Music Company.

Erickson was open minded. He gave a second glance at the literature from an automatic player company which lay on his desk. It promised a continuous program of music, with the excellence of night radio reception, at all times, through phonograph records.

Certainly LaCrosse, with a population of 40,000 didn't offer much of a market for an instrument which listed at \$1,290. However, a territory of twenty counties in Iowa, Minnesota and Wisconsin, including such towns as Sparta, Kilbourn, Rochester, Winona, Hudson, Red Wing, Waverly, Decorah, Cresco and Stevens Point, amplified the opportunity. And the trucks which had been used to deliver pianos could be turned to the job. The rage of the hour in LaCrosse was radio when the Ericksons took on the record player. There was a scramble of competition for radio business, but the Ericksons traveled their path alone on the automatic item. Their salesmen called on prospects whose credit ratings were known, worked a longer day, and made a bigger profit on each sale. In 1929, the banner year, sales of automatic players reached \$61,989.75, surpassing that of home radio at \$50,948.02.

"The picture has changed somewhat with hard times," cautions Mr. Erickson. "In 1931 our collections are off, and we are having our share of the hard going, you must remember."

The Erickson adventure proves the existence of a market for automatic phonographs in rural communities. Approximately 500 good spots for radio players exist within a 200 mile radius from LaCrosse, Mr. Erickson thinks. About 150 are covered already by the Erickson Company, 200 by competitors. Popular restaurants and places where young people gather are the choice spots.



The Ericksons scoop the entire coin-box intake during free demonstration periods, while the store-keeper looks hungrily on

G.J. and A.J.

The three salesmen (one full time) now follow a policy of piling two or three instruments on their trucks and taking to the road. The minute a likely prospect is located, a coin operated radio-record player is put in on trial, with the understanding that the Erickson Music Company is to have the entire coin box intake as payment for the demonstration. One of the greatest mistakes, in the Erickson opinion, is to put a radio record player in the rear of the store. It must be up front.

À stumbling block in the making of automatic sales has been the old fashioned piano player. A dealer usually refused to entertain the notion of an automatic player as long as there was a piano player on the premises. The solution has been found in offering to take the piano player to another spot, usually a pool room, with all the money from it going to the dealer. Less than \$1,000 has been allowed for trade-ins, so successful has been this policy. The Ericksons will not put a radio player in a pool hall. It takes the boy-and-girl combination to start the nickles going, they claim.

STRANGELY enough, the most resistance has been met in Iowa towns unfamiliar with nickel-in-the-slot musical instruments. Salesmen found it best to cut out all references to a coin box, and simply state that they had an instrument which they desired to demonstrate without cost to the storekeeper.

When the coin box was opened, dealers in country towns reacted precisely as in larger cities. After gazing hungrily at the voluminous intake of nickels, and learning the moderate monthly payments, they were not difficult to close. Payments are spread over eighteen months.

In two and one-half years the Erickson Music Company has purchased 121 automatic players, and has sold more than 75. Those not sold are kept at work on demonstrations, and have averaged in good times, around \$45 a month in intake. At the start all sales were for cash. Then followed thirty-two sales of the higher priced instruments at \$1,350 (a \$60 charge being made

Radio Retailing, September, 1931



for coin boxes) and a guarantee of from \$40 to \$75 a month obtained. On the smaller model automatic player, selling for \$915 on time, a guarantee of \$45 monthly was obtained. Seven per cent interest was charged on unpaid balances.

The salesmen handle the coin box collections, which are made monthly, and look after service, which is free during the payment period. They also supply owners who subscribe to the record service, at \$1 weekly, with four new numbers. Getting 10 per cent on sales, it has been a good proposition, paying about \$300 a month.

So closes the Erickson saga on the radio-record player. Had not both partners been young and open minded, the adventure might never have been undertaken. However, the firm's policy has been to establish a musical center in their \$175-a-mouth building, rather than promote any one form of instrument. Besides the automatic phonograph, three makes of radio and three brands of pianos are carried. A record stock of about 1,000 numbers and sheet music is handled by two girls.

NORTH

AD IN A TOWER-Something new in billboards is introduced by Winegarden's furniture store. Signs, pasted inside the windows of this Flint, Michigan tower, and reading from top to bottom, advertise a tube testing service

SPLITTING THE OVERHEAD

A NEW JERSEY dealer who has asked us to withhold his name for reasons which will be obvious writes: "We are located in a town of 5,000. Our overhead, including owner's withdrawals, has been averaging about \$350 a month. Gross yolume had been falling off and it seemed desirable to reduce fixed expenses.

fixed expenses. "The rent could not be reduced directly, as we were under lease, but we did have some room not needed for display and by sharing this space with a florist just starting in business we cut our rent, light and heat in half. The floral display "dolls up" our own goods and the line does not in any way conflict with our own. We are working on a plan to let one clerk handle both sides of the store, thus cutting our labor overhead. "In our opinion the florist will be able to do from \$6,000 to \$10,000 gross the first year and in view of his low occupancy expense this will be sufficient to yield him a modest living. "The nearest store handling musical supplies is nearly 15 miles away. By taking on strings and other small musical accessories and ukeleles we have been able to secure about \$25 a month

and ukeleles we have been able to secure about \$25 a month additional gross profit. Many a week the owner did not turn in enough outside business to justify his own salary and to help this situation he made arrangements with a large hardware store

this situation he made arrangements with a large hardware store to handle bottled gas on commission in the outlying districts. This has proved itself a profitable sideline. "Radio repair work is not nearly as abundant or as profitable as it was. To help keep down the loss on time on a salaried service man we have begun to advertise for repair work on vacuum sweepers and on washers. This department is growing and as most of the work calls for skilled labor rather than instantial it has baland us to nore down idla labor unster" materials it has helped us to pare down idle labor waste.

STUNT FOR SATURDAY NIGHT

THERE is always a crowd in the store of C. A. Whited & Sons, Raton, New Mexico, on Saturday nights. "We have sold more radios on Saturday nights than on all the other days





Dealers every out of the rut. schemes to stim

of the week combined, "states Whited, Sr., who goes on to explain how he

goes on to explain now ne does it. "Every male prospect we contact is invited to join an informal DX party on the following Saturday in the back of the store. We usually manage to have from 5 to 12 men on deck. Thirty-three years of ex-Thirty-three years of ex-perience with western men has taught me that they enjoy a quiet evening and a

smoke. Most of them still . We keep our "smoker" get a kick out of listening for DX. We keep our "sn interesting by tuning in stations as far away as New York.

"When we sell radios at such a meeting we sell two and three at a time. One man buys and his friends buy with him. We have had no trouble getting a satisfactory attendance."

\$1 DOWN, BUT OH THOSE WEEKLY PAYMENTS!

C ARL Chilson, Youngstown, Ohio, has found a way to make the little set help business. In the first place he uses it as an advertising leader. "\$1 Down, only \$40 List," his copy reads. But when the prospect comes in the store he discovers that there are better buys at slightly higher prices and that the weekly pay-ments are not so weak. Terms are so jacked up that, within a month the customer has at least a 30 per cent equity in his pur-chase, and within three months he owns it.

The first four payments are watched with special care. remittances are not forthcoming right on the dot the set is likely to be "pulled." On the other hand if experience shows that the new customer is financially conscientious he is interviewed with the idea of selling him better equipment. Again, full value is allowed on the first outfit and the new terms are based on monthly, instead of weekly, payments.

> UP GOES ELEVATOR, SALES-Lachman Brothers, San Francisco, keep a radio working in an elevator, demonstrating to shoppers that a good set will work well even under adverse conditions

WEST

where are stirring themselves devising their own promotional ulate sales. Here are just a few.

BILLBOARD ON WHEELS—During a recent campaign in which B.O.R. Radio of Reading, Pennsylvania sold 40 refrigerators the company truck was fitted up with three colored billboards. These pulled business while the truck worked its delivery route

EAST



AN IDEA FOR RADIO WEEK

AS THE final feature of Radio Week in San Francisco and Oakland, Calif., last year the Pacific Radio Trades Association staged a radio artists' ball for the purpose of raising funds for the purchase of radios for the blind and shut-ins of the section. Artists from nine stations appeared in a three hour show, first at the Oakland Auditorium on a Thursday night and on Saturday in the Dreamland Rink, San Francisco.

Fifty cents admission was charged in each case, the proceeds being used to purchase sets at manufacturers' costs. These were delivered by Boy Scouts who also undertook their maintenance. The event stirred up much community interest for radio, churches undertaking to sell tickets and five-minute speakers appearing before department store entrances, civic organizations and service clubs to announce the plan. Estimates of attendance were between 5,000 and 10,000 at each performance.

TRADES JUNK FOR STORE TRAFFIC

.

THE Niles Phonograph and Radio Shop, Denver, Colo., recently placed in its display window a miscellaneous collection of old panels and parts salvaged from antiquated trade-ins. A sign offered: "Come in and help yourself-no strings to this offer."

This stunt attracted plenty of store traffic. Additional parts were displayed, together with price tags, in counters adjacent to



STAGE FOR SPECIALS—By placing especially good buys on a raised platform equipped with drapes and lighting to form a stage the National Furniture Company of Washington, D. C., builds business. Other sets are arranged in a semi-circle in front of the stage for efficient comparison the window and Niles found that in most cases people who had a use for the free stuff needed some of the parts offered for sale as well.

INTERFERENCE PUT TO WORK

E VERY now and then, in almost any locality, the subject of radio interference becomes an all-absorbing topic among radio enthusiasts. This was the case, not so long ago, in Spring-field, and the Amber Radio Shop utilized this interest to build up a really valuable prospect list.

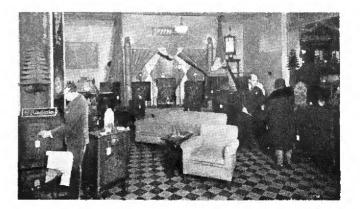
At a total cost of \$72 this store had printed and distributed from house to house, 20,000 post cards, one side of which bore the proper return address and a stamp, the other side this wording:

RADIO INTERFERENCE LOCATOR

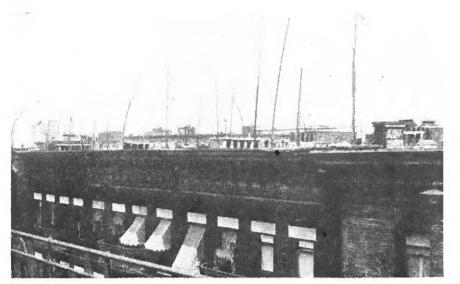
In order to assist in locating certain radio interference, with a view to preventing, as far as possible, its recurrence, we will be pleased to have you answer the following questions.

Are you troubled with noises in your radio set? At what time of the day are they most noticeable? Make of setModelBattery or electric
Have you any of the following electrical equipment? Battery chargerElectric ironToaster Heating padWashing machineRefrigerator Curling ironPercolatorOil burner VibratorsMotors
Remarks

Forty-three per cent of these cards were filled out and returned. About two thirds of those returned were complete, the remaining third noting little more than the make of set used and the name and address.



The Antennaplex



How it Works. Operation Notes. Aerial, Shielded

> By E. Jay Engineer, RCA-

From This.

A typical roof-top, uptown New York, showing inefficient as well as unsightly condition of aerials

In this day of advanced radio tech-nique, we might very well ask "why the haphazard tangle of antenna wires

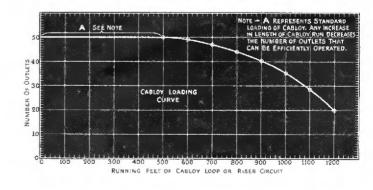
the haphazard tangle of antenna wires atop the average apartment house?" The answer, that this muddle is an arrangement to facilitate radio reception for tenant's housed in the apartments below, is comical. Obviously, the tenants themselves have rigged up these contrivances in an effort to drain enough signal energy from the skies to operate their sets. Upon close inspec-tion one sees that many of the wires in this topsy-tury injugle are abandoned this topsy-turvy jungle are abandoned. There they hang, however, eventually to tangle up the rest of the wires.

R. F. Amplifier Included

The "Antennaplex" system. on the other hand, employs one central an-tenna, approximately 100 feet long, located in the most advantageous position on the roof, where it will be clear of surrounding objects, and as far away as possible from any source of undesiras possible from any source of undesh-able local interference, and where it will collect a maximum of radio signal energy. This energy is fed into a de-vice known as the "Antensifier" usually vice known as the "Antensifier" usually located in a penthouse as near as pos-sible to the anteuna. It employs four tubes—one 280 rectifier, and three 245 amplifiers, which make it possible to transmit and distribute much of the antenna signal energy to each and every radio outlet throughout the building. This device draws approximately 100 watts under normal operating condi-tions. Where power line noises are troublesome, a specially designed filter is

employed between it and the 110 volt 60 cycle power line, to keep these disturbances from passing through the Antensi-fier into the "Cabloy" lines. A suitable fused switch for the power line, and an approved lightning arrester are also emapproved infining arrester are also em-ployed at this point. The Autensifier is coupled into the Cabloy line with a lead-covered conductor. The Cabloy is $\frac{1}{16}$ " in diameter, and it may be run in concealed metal conduit or in surface wiremold. It may be fished through hollow partitions, or it may be run on the surface, secured by clips designed for the purpose. Thus it is suitable, practicable, and economical for installa-tions both in new buildings and in existsuitable, ing structures.

At each point on this line where it is desired to locate a radio outlet, a small metal box is located. For concealed work, a metal box, 441" x $4\frac{1}{6}'' \ge 1\frac{1}{2}''$ deep, is used with cover $\frac{1}{2}''$ deep, which accommodates the single gang flush plate on which are located the two little pin jacks, one for antenna and the other for ground. Within this box is located a cartridge-like device, known as a "Taplet," which is connected between the conductor of the Cabloy and the radio outlet terminal, to prevent any interaction between the various radio sets which may be connected simulsets which may be connected simul-taneously to the system. The Taplet is so designed that after its pig-tail leads are connected, it may be conveniently stuffed into any available space in the box, and being entirely protected by a sleeve of insulating material, no precau-tion is necessary to keep it from coming into contact with metal parts within the box. box. To expedite the work of installa-tion, this device is designed without fastening screws.



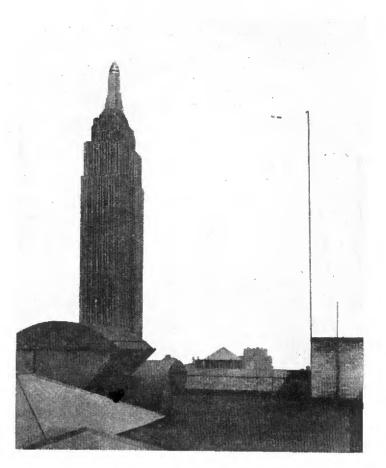
Special downleads have a practically "flat" response from 500 to 1,500 kc. with standard loading

System

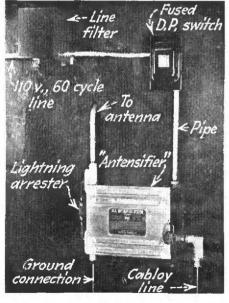
Installation, Single Wire Lead-ins Used.

Quinby Victor Co., Inc.

..... To This

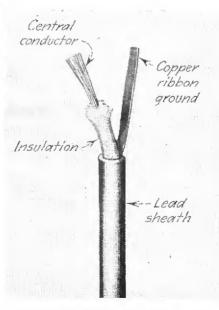


A modern shielded lead-in job atop the Apartment Hotel Governor Clinton, opposite Penn. Station and serving all the rooms below



Showing typical arrangement of "Antensifier" and associated devices near antenna lead-in, usually installed in a pent house

For exposed or surface work, "Wiremold" boxes, 1[#] deep, may be employed for these radio outlets in which case, the RCA single gang flush plate with the antenna and ground pin jacks is the same. However, for extensive surface work, as in the case of wiring up the entire premises of an existing building, a surface box has been designed, which facilitates the work of installation and presents a neater appearance than the usual rectangular surface box with square corners. This new box is circular, with a rounded top, and is provided in two parts, base and top. First, the base is attached to the wall by screws, then the Taplet is spliced into the Cabloy, after



"Cabley," shielded conductor $\frac{1}{16}$ in. in diameter used for signal distribution which the Cabloy is secured to the base by small clamping ears which are punched up as an integral part of the base. Next, the corresponding "twistouts" are removed from the cover, and after the cover member is connected to the "pig-tails" it is placed over the base and secured by two screws. Wherever the lead sheath of the

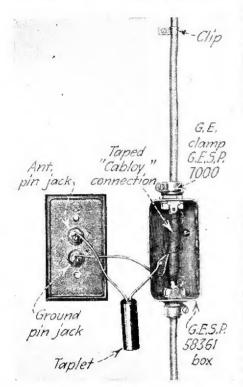
and secured by two screws. Wherever the lead sheath of the Cabloy has been opened for splicing or connecting, rubber tape is securely wrapped over the joint, applied in such a manuer that it will not only insulate the conductors, but also run well up over the ends of the lead sheath to effectively exclude moisture from the opening. A layer of friction tape is then applied to secure the rubber tape in place. All joints or splices are soldered, using rosin core solder only. Under ordinary circumstances, as many as 50 radio outlets may be connected to the line fed by one Antensifier. In the last radio outlet box on each line—in addition to the Taplet—another device is employed, known as a "Terminet." It looks just like the Taplet, but instead of being finished in black, like the Taplet, the Terminet is finished in bright red. This latter device is a line terminating resistance.

The lead sheath of the Cabloy is at ground potential, and immediately under this lead sheath, there is a flat copper ribbon, also at ground potential, which provides a low resistance ground connection for each outlet and each terminal, and at the same time maintains the proper distributed capacity design of the Cabloy. The sheath and the copper

strip are grounded at both ends of the line, and also at the lowest point on lines which loop downward and bend upward again.

250 Sets to Each Wire

The system is designed for a 500-foot maximum line with a maximum of 50 radio outlets, but longer lines with correspondingly fewer outlets may be employed, as shown by the curve printed on these pages. The design of this system permits as many as five Antensifier units to be connected to one antenna, and since as many as 50 radio outlets can be fed by one Antensifier on a 500foot line, this means that a maximum of



Arrangement of radio outlet in an apartment using a narrow box

250 outlets may be energized by a single antenna. It is of special significance that even at this maximum loading, all outlets on the system deliver most of the antenna signal energy to the radio set, minus the local intereference which would otherwise be picked up by long lead-in wires.

Lead-ins Thoroughly Shielded

The Cabloy, being metal sheathed, effectively shuts out most everything except that which is picked up at the antenna, and having located the antenna where it will pick up good, clean signals, these signals can be kept clean and transmitted all over the distribution system to all points where it is desired to deliver them to the radio sets.

tem to all points where it is desired to deliver them to the radio sets. Experience has demonstrated the practical value of this system, it having not only carried strong signals down into locations which were heretofore This is the second of a series of articles about master antennas. The first appeared in the June issue of "Radio Retailing" and the third will follow in an early number

considered hopelessly shielded from radio waves, but at the same time, effectively shutting out the bedlam of electrical interference from various surrounding sources, such as sparking commutators, arcing contacts, X-ray devices, etc. Obtaining satisfactory radio reception is largely a matter of improving the ratio of desirable signal energy to undesirable-local interference, and very often this means employing a remotely located antenna.

System is Flexible

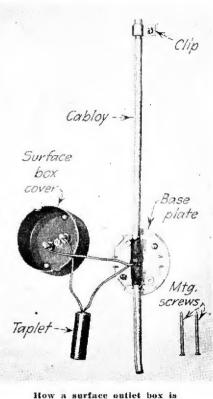
One of the worst problems of this sort to be encountered was readily solved by the Antenaplex System on an island in Lake Ontario near the entrance to the St. Lawrence River, where an antiquated D.C. power house created a hopeless din of local intereference, which was radiated by all the transmission lines of the system. Since it was not deemed economical to spend any money on the improvement of the power generat-ing equipment at the time, and it was highly desirable to get good radio reception immediately at two or three important points, an antenna was constructed at one end of the island some distance away from the nearest branch of the power network. Here an Antensifier unit was located in a weatherproof box on a pole, and an overhead line was built for a distance of 500 feet to the first point where radio reception was re-quired. Supported by poles spaced 50 feet apart, a ^a" stranded galvanized, steel "messenger" cable was employed, to which suspenders located at frequent intervals held two lead cables, one being the Cabloy line, and the other a lead covered No. 14 110 v. 60 r. a.c. The duplex supplied operating current to the Antensifier from a properly filtered con-verter in the building where the first radio set was to be located. This same converter supplied A.C. power to run the radio set at this location.

radio set at this location. Between this point and the next location where radio sets were to be operated, an underground line was constructed for a distance of 1,000 feet, necessitated by an intervening golf course. This line consisted only of the single Cabloy conductor, as another filtered rotary converter was available in the other building to which this line was run. The total length of this line was 1,500 feet, the sheath being well grounded at both ends and at the 500-foot point where transposition was made from overhead to underground construction.

The ground at the antenna end was

effected by a large copper plate anchored at the bottom of Lake Ontario about 30 feet from the shore, and the other two grounds were made in the conventional manner to water pipes. The results were very gratifying, as WEAF, WJZ, WABC, and many other major stations were brought in clearly for the first time on record—that is, at such times as old man Static chose to give us a break. As only a few outlets were required, the length of this line was within the allowable operating limits of the system. While the above instance represents

While the above instance represents an extreme case, it demonstrates the possibility of locating an antenna where receiving conditions are good, and of conveying the signals thus picked up over fairly long distances right through the heart of bad local interference sources.



tow a surface outlet box is connected

Of course, it is important, in such cases, to keep the flexible leads from the radio outlet to the radio receiver as short as possible, or to properly protect them with well grounded shields. Moreover, due attention should be paid to effectively filter the power supply to the radio receivers as well as to the Antensifier unit.

Has Many Uses

We have yet to encounter a receiving problem that the Antenaplex System will not solve, and although the multifamily dwelling seems to be the most extensive field for this type of equipment, it is coming into popularity in radio dealer's demonstration rooms, the radio section of department stores and office buildings, hotels, hospitals—even for many large detached dwellings. Herein lies a new and fertile field for the radio man and the electrical contractor to jointly exploit.

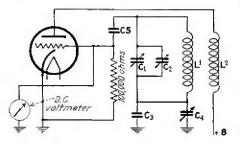


Test for Open Oscillator Grid Coil

By Louis Wilken, Jr.

An open grid coil in the oscillator circuit of a superheterodyne cannot be checked with an ordinary circuit analyzer. This usually makes it necessary to go to the suspected coil itself and this is a lengthy and difficult process.

The coil may be checked externally by means of a d.c. voltmeter. The diagram (Majestic 20) shows how the coil is isolated



from the rest of the circuit by the con-densers C, C2, C3, C4 and C5. When the tube is oscillating current flows in the 100,000 ohm resistor between grid and cathode and produces a voltage drop. If an attempt is made to check this circuit with an analyzer the plug and its long leads prevent the tube from oscillating.

By twisting a short length of flexible wire to the grid prong of the tube and inserting the low-range d.c. voltmeter between the grid and ground we are able to read the drop across the resistor. If the grid coil were open the tube could not oscillate, the resistance would not pass current and hence there would be no voltage drop, proving that the trouble is in L.

This test is applicable to most supers, although the oscillator circuits differ in detail.

Dope on the Pentode

When a curious glow is noticed in a pentode just under the surface of the glass

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this is not an indication of gas but is caused by cathode ray bombardment of the glass. This condition is produced by clectrons passing through the grid either above or below the plate, receiving an accelerat-ing energy from the plate but not being stopped by it, then striking the glass and causing the "getter" deposits on the glass to fluoresce with a blue color.

According to the Cable Radio Tube Corporation this phenomenon is proof that a pentode is exceedingly gas free as a slight trace of gas disperses the electrons in such a manner that their energy and path is not concentrated enough to produce this effect. This fluorescence should not be confused with the true gaseous condition which produces a glow immediately surrounding the plate, between filament and plate or sometimes filling the whole bulb volume.

Replacing Dial Drives

By Frank L. Bowers

To replace cable drives on all sets remove the dial and slip two sponge rubber cushion disks such as those supplied with the Bosch 33 chassis on the shaft. Put the dial back on the shaft, compressing the rubber disks and tighten up the setscrew. Then whistle and tighten up the setscrew. soft music while you replace the belt. The dial won't turn.

Home-Made Auto-Transformer

By J. P. Kennedy

An old Balkite trickle-charger transformer may be re-vamped to function as an auto-transformer capable of raising or lowering a.c. line voltage. With a 1 amp. load it is possible to vary 110 volt a.c. supply about 10 volts in either direction merely by connecting the secondary in the proper manner. If one end of this wind-ing is connected to the primary as shown

Another Service Survey

A nationwide survey just completed by Radio Retailing indicates that 97 per cent of all retail sales outlets do their own service work. The remaining 3 per cent split it between specializing organizations and the shops of other dealers.

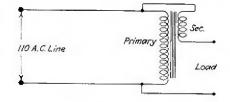
The average radio store employs 2.3 fulltime servicemen. In addition, managers are maintained by 52 per cent. Primary radio dealers boast the largest repair forces, electrical, music and department stores trailing in this order.

Faulty tubes are responsible for 57 per cent of all service calls. Condensers cause 11 per cent of the grief, resistors 9 per cent; antennas and grounds 8 per cent. The average dealer repaired 878 sets in 1020

1930.

the voltage will be increased while reversal will decrease the output voltage. This home-made device may be used in

the shop if the line voltage is consistently



too low or too high in order to operate testing equipment and sets at specified voltages.

To Remove Chassis Rivets

By Ralph Le Brun

I have just finished work on an all metal chassis with plenty of rivets. Several of these had to be removed and I didn't want the repair job to show. It was impossible to get at them from underneath and diffi-

cult to work on top of the chassis without scratching it.

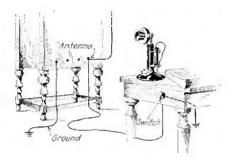
So I started a drill, one as small as possible without slipping through the opening, in each rivet, keeping as near to the center as I could. This was followed by a drill about the same size as the rivet top. As a result the rivets dropped out and no scratches or marks showed.

A Convenient "Silencer"

By B. S. Naimark

In most homes the radio receiver and the telephone are some distance apart. To be able to silence the radio when the phone rings, at the phone, represents a conveni-ence that cannot be overestimated. The method by which this may be ac-complished, pictured in the accompanying

sketch, is both simple and effective and has



the following advantages. (a) Only an ON and OFF switch and a single length of wire is required. (b) The mechanism of the set is not tampered with. (c) The wiring does not carry power hence does not require Underwriter's approval. The ON and OFF switch is placed in a convenient position close to the phone, it

may be of the pendant type if convenient, and when the phone is to be used the switch is turned to the ON position, effectively grounding the antenna greatly re-ducing or completely eliminating reproduction from the set.

Charging From a 32-Volt Plant

By Edwin W. Holscher

Farmers who have 32-volt electric plants may charge batteries without moving them close to the generating and storage system. Connect the positive side of the line directly to the positive pole of the battery to be charged and connect the negative side of the line to the negative pole of this battery through a 25-watt electric lamp.

A larger lamp charges the battery faster, a smaller one reduces the charging rate. A switch may be connected permanently to the lamp socket to permit the battery to be charged at will. This method is much better than using 3 cells of the plant bat-terics as this causes the system to be un-evenly loaded even though it is periodically charged.

Auto-Radio-

a new service instrument

Auto-radio, in the service car, is a good investment. When a customer complains about noisy reception and the racket is in the power line, the serviceman who has a radio-equipped car can prove it.

And there is every chance that such a permanent exhibit in the car, which spends its time right in among prospects, will produce auto-radio business.

Pilot Lamp Test Adaptor

By Edward F. Dugan

To construct an adaptor which simplifies the job of testing pilot lamps, solder fine wires to the filament prongs of a fourprong base, inside the base, and connect these to the terminal screws on a miniature socket.

Fill the base nearly full of hot pitch and press the miniature socket down into it, holding it in place with wood screws passed through the retaining holes into the pitch.

Place this adaptor in a '45 socket for testing 2.5 pilot lamps and in an '80 socket for testing 6 volt types. The adaptor can be used with a receiver, analyzer or tube checker as its power supply.

Another Dial Cable Kink

By Richard G. Devaney

If you have ever had occasion to change a dial cable on a Majestic 71, 72 or 52 or a Philco then you have wished for three hands. Here's the third one for you. Secure a 1 in. rubber band and loop it around the dial shaft, wrapping it around several times to secure the desired tension and then slipping it over the volume con-trol knob to hold it in place. I always wind up the rear cable drum

first, then put on the rubber band and then wrap the front drum.

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.

We can use dope on modernization of old tube testers, analyzers and oscillators.

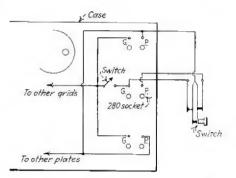
Mail "kinks" to W. MacDonald, Technical Editor, Radio Retailing, 10th Ave. at 36th St., New York City.

Re-vamping a Jewell 209

By Macks Conaivay

A Jewell model 209 tube checker may be re-vamped so that it will test both plates of an '80 rectifier by adding a push type single-pole, double-throw switch and a single-pole, single-throw switch as shown in the illustration.

The push type switch may be mounted on the side of the tester case within the instrument by bolting it to the wood and drilling a hole for the button. The singlepole, single-throw switch, closed for test-ing tubes other than the '80, is left open



when a rectifier is placed in the socket. Pressing the button swings the milliammeter from one plate of the rectifier to the other.

Microfarad Meter

By F. W. Seaton

An inexpensive, but quite accurate, microfarad meter capable of checking condensers with capacities of from .25 mfd, to 4 mid. may be constructed by connecting a cheap 0-50 "plunger" type voltmeter, such as those used to test B-batteries, in series with a 50 watt lamp, a light line plug and a pair of test prods.

When the plug is connected to a 60 cycle a.c. line and the prods touched to the terminals of a condenser the meter needle will rise, the reading being high for high capacities, low for low capacities. The instrument may be calibrated by connect-ing a number of condensers of known capacity in the circuit one at a time and marking their values on the meter dial.

Tool for Setscrews: **Condenser Test Set**

By M. E. Hensler

By taking an old screwdriver and cutting off the blade, just leaving the round shank and then by filing a notch in the end a very handy wrench can be made to fit setscrews on the condensers of Crosley models.

To make a good filter condenser checker connect an old B-eliminator supplying about 180 volts d.c. in series with a small neon lamp and a pair of test leads.

Get



Posters such as this will help make the public "radio conscious." One should be in the window of every store in the country

1 / T!111(

"OOD sales ideas can be no better than the salesmen J behind them.

Retailers must be the salesmen behind National Radio Week, September 21-27.

This annual celebration, sponsored for the fourth consecutive year by the National Federation of Radio Associations, can be the means of selling many new sets. Just how much each individual dealer gets out of it depends largely on just how much he puts into it.

The trade should by all means join the movement. if not for the general betterment of the radio business. then for purely selfish reasons. Dealers who played it up to the full in past years have derived material benefit. The idea has proven sound.

WHAT HAS BEEN DONE

N FRA's committee (Harold J. Wrape, J. Newcomb Blackman, Peter Sampson, Michael Ert, Harry Alter and H. G. Erstrom) have laid interesting plans for the national celebration. They have started the ball rolling in this manner:

Posters (21 in. x 28 in.), one of which is reproduced on this page have been prepared. Stickers, carrying the same design and useful in advertising through the mails. are also available. In addition, a window streamer and a vellow and black poster reading "Buy Now, Come in for Demonstration" (11 in. x 21 in.), may be obtained at moderate cost. All display material may be purchased directly from headquarters, 32 West Randolph Street, Chicago, if your distributor cannot supply it.

The cooperation of two broadcasting chains has been requested and there is every reason to believe that many special programs by nationally known artists will be arranged during the week to attract the attention of the listening public. Sponsors of chain programs have been requested to make some sort of announcement concerning radio's 11th birthday during the celebration and many have already signified their intention of so doing. It is believed that the number of chain programs dedicated to National Radio Week will easily exceed the 33 obtained last year.

All individual broadcasting stations are to be contacted prior to September 21 and it is expected that more than 300 will carry frequent announcements pertaining to the celebration.

More than 100 newspapers will create special sections. Set and tube manufacturers will make it the theme of their billboard, newspaper and magazine advertising.

WHAT YOU CAN DO

TSE Radio Week to stimulate business in your own neighborhood. Don't "let John do it" for the chances are that if he does he will get the lion's share of business resulting. The following methods of attracting attention to the store are suggested. Work out your own details:

1. HOLD "OPEN HOUSE." Store open evenings. Special window space and interior decoration. Perhaps a one-man radio show. Entertainment in the store. 2. PLAN JOINT ADVERTISING. Dealer-distributor tie-

ups with manufacturers copy. Cooperation through local trade association.

3. PLAN JOINT BROADCASTS. Suggestions: Sporting event, local talent, perhaps a noted educator to talk to children. 4. COMPETITIVE WINDOWS. Suggest at your next as-

sociation luncheon: Prizes for best local radio windows, newspaper publicity.

5. RADIO BANQUET. Another idea to be suggested at your association meeting. Secure attendance of radio stars. Broad-

association intering. Secure attendance of ratio stars. From-cast the banquet.
6. RADIO BONFIRES. Burn up old sets. Secure publicity.
7. RADIO QUEENS. Cooperate with other retailers and start a beauty contest.
8. ESSAY CONTEST. Offer prize for best one on "What

Radio Means to Me."

ANNOUNCERS CONTEST. Enlist cooperation of local stations. Get public to vote for favorite voice.

Many other ideas, and variations of those listed above, are possible and can be the means of producing business during the week of September 21-27. Plan your activity now. Advertise Radio Week. Cash in on the national publicity which will be given to radio.

EDITORIAL OBSERVATIONS



Battery Sets More Numerous

ACCORDING to the figures of a large manufacturer of batteries, designed for radio receivers, 15 prominent radio concerns now make, and are pushing, at least one "farm" model— "and the balance of the big fellows will announce an item of this nature not later than October 15."

Jobbers, too, are appreciating the merit of such a line, which carries a higher list and opens a large and less saturated market.

Now it's the dealer's move. Better battery sets are available. What will be done with this opportunity?

The "Patent Pool" from Three Angles

OUT of the welter of discussion of the proposed radio patent pool, three different and distinct points of view are emerging:

1. Threatened with a gun at their heads, in the form of the Department of Justice suit, accompanied by the menace of staggering fines, the Radio Corporation group have been giving careful consideration to the "open pool" proposed by the Government's agent, Judge Olney.

2. The independent radio manufacturers want a pool, but a pool limited to their own or present industry membership. An "open pool," they insist, would throw the radio business indeed "open" to every outside manufacturer who ever took a whim to enter radio as a side-line, thus compounding the present situation of too many factories and too much production.

3. The radio inventors claim that unless the proposed pool machinery is carefully designed, the inventor would have only one prospective customer to whom to take his future inventions, the pool monopoly, and that such concentration of patent buying power would leave little opportunity for incentive or reward for invention.

Here are the three conflicting viewpoints which must in the end be coordinated—and a compromise reached — in the interest of the public, which is the ultimate customer to be served.

A Tip on Tubes

THE radio industry is apt to witness, in the next few months, growth of the replacement tube business from a sideline into a major activity. As set prices decline, and as cheap midgets become still cheaper, tube business will become, by comparison, more attractive to dealers. For the same amount of net profit may often be realized on the sale of 30 tubes as from the sale of a small set. And tubes sell for cash and are practically devoid of installation and maintenance worries.

Tube manufacturers, recognizing this possibility, are producing efficient "silent salesmen" in the form of elaborate, eye-filling testers for use by retailers. Around these instruments, which will probably be as numerous as cash registers by fall, high-pressure sales talks calculated to reach right out and take the customer by the pocketbook will materialize.

Dealers would do well to climb aboard this band-wagon. Little enough has been done to tap the replacement tube market and it is likely that

POOR VS. GOOD RADIO Reproduction-(1.) Ordinary speech,

www.www.wheelerintertionary

Radio Retailing, September, 1931

concentrated effort will produce much unsuspected business. The profits accruing might well be used to tide over until set prices again return to more profitable levels.

Raucous Radios

AS HAS often been voiced, our business is that of selling entertainment, not noise. Certainly no one factor is of greater importance to this objective than pleasing tonal value. Why, then, do 95 out of 100 dealers completely overlook this point in their continuous front door demonstration (?) of the merchandise they are selling? The answer is thoughtlessness, pure and simple.

Time and again, when visiting dealer's stores, the volume and quality of the noise "background" against which conversation must be conducted, has been so raucous as to practically prohibit an intelligent exchange of ideas. What must be the state of mind of the discriminating customer, when subject to like conditions?

Wanted: to hear from a dealer who specializes in tone purity. How does he do it, and with what results?

Pack with Care, Mr. Setmaker

COMPLAINTS are being registered that many of the tubes now being received by dealers in the smaller sets are damaged in transit. This is causing endless trouble and expense, generally borne by said dealer.

Because of the small margin of profit on sets selling for less than \$70, one unnecessary service call frequently means the difference between a retailing profit or loss. It is distinctly up to the manufacturer, therefore, to exercise unusual care in packing these tubes in the original shipment. We recommend that they be enclosed in individual cardboard containers.

It is the unescapable duty of the shipper to so pack tubes that everyone will be received in 100 per cent working order.

Seeing Sound

SOME radio sets "sound real"; others distort, and reproduce imperfectly and indistinctly.

Whether a set delivers clear distinct speech and "reality" of musical tone, depends upon the faithfulness with which the speaker diaphragm vibrates to all the complex frequencies in the sound wave—and especially to the very high frequencies. Note those rapid, tiny vibrations present in Curve No. 2 below, but not in No. 1. It is these rapid vibrations (high frequencies) which give crispness and clearness to speech, and timbre and quality to music.

Recent developments in high-speed oscillographs have made it possible to photograph the complex sound vibrations, including the highest frequencies. In the accompanying oscillograms, prepared for *Radio Retailing* through the courtesy of the Bell Telephone Laboratories, the original pure sound-wave graph of the word "radio" is compared with the same word as received through a set cutting off frequencies below 250 cycles and above 3,000 cycles.

By comparing curves of recorded speech and music in this way, it is possible to show to customers the difference in the response of a good and a poor set, and to explain why the poor set sounds muffled, distorted, and indistinct.

Fidelity of reproduction in a radio set is not, of course, a matter of the speaker alone. Not only the speaker diaphragm, but every link in the circuit, from antenna to sound box, must oscillate faithfully to this complex wave form. This includes the electrical currents flowing in the many local circuits, the electron streams in the tube, and the mechanically moving parts of the speaker.

Only if all take part, in unison, in this complex vibration pattern, does the ensuing sound produced emerge "real" and undistorted.

A Good \$150 Combination

THE trade wants a good non-automatic combination to list for not more than \$150. This need was frequently pointed out to the writer on his recent "swing around the circle" trip. Engineers and sales managers please note.

with high and low frequencies eliminated. (2.) All frequencies present



Radio Worlds Fair

September, 1931

ELECTRICAL APPLIANCES TO GET EQUAL REPRESENTATION AT MADISON SQUARE GARDEN

'HIS year's Radio-Electrical World's Fair, the 8th annual, to be staged at Madison Square Garden, New York, will feature complete displays of all types of electrical appliances as well as the newest radio sets and accessories.

Elaborate scientific displays, revealing the latest wonders in the fields of radio and electricity, will be headlined. The crystal studios will bring an array of stellar microphone performers of National Broadcasting Company and Columbia Broadcasting System before the show visitors.

In connection with the Fair, the manage-ment is sponsoring the "Third Annual Search" for the most beautiful radio artist Search²⁸ for the most beautiful radio artist in America. Every radio studio in the land is being surveyed for the fairest feminine microphone performer. An emi-nent committee of judges will select the winning entrant who will be brought to New York City with all expenses paid, to reign at the Fair. An elaborate suite will be reserved at the Park Central Hotel--official show headquarters — for "Miss Radio, 1931" and her chaperon. A car and chauffeur will also be at her disposal, as was the case last year. was the case last year.

Bernardine Hayes, of WBBM, Chicago, the reigning "Miss Radio," has appeared in talking motion pictures and filled numerous personal appearance engagements in Los Angeles. Olive Shea, of WAEC, New York, "Miss Radio, 1929," has been fea-tured in several Paramount and Warner Bros. productions and, last season, was seen on the Broadway stage in "Blind Mice." The New York show will launch a cam-raign to close the game in radio ownership.

paign to close the gaps in radio ownership. In some states slightly more than 50 per cent of the families own sets, while in others the percentage of ownership is as low as 10 per cent.

A sharp increase in the use of electrical household appliances, which will react to the benefit of the thousands of radio dealers, is destined to accompany the advance of radio, show Manager Clayton Irwin believes. "With the increase of cheap power, everywhere," Mr. Irwin declares, "more of

the work about the home is going to be done with electricity. A trend is now started for widespread ownership of household appliances to be merchandised by radio dealers. In recognition of this trend, the name of the annual radio exposition, after name of the annual radio exposition, after seven years, has been changed to include the word 'electrical' and it is now known as the Radio-Electrical World's Fair for that reason" that reason.

Coming Down

Substantial reductions in admission prices to the Eighth Annual Radio World's Fair and the Tenth Annual Chicago Radio-Electrical Show are announced.

The admission to the New York show at Madison Square Garden, September 21-26, inc., will be 50 cents afternoons, and 75 cents evenings; for the Chicago show at the Coliseum, October 19-25, inc., 50 cents afternoons and evenings.

RADIO SHOWS

New York City Sept. 21-26 8th Annual Radio World's Fair and Electrical Exposi-tion, Madison Square Garden St. Louis Sept. 21-26 7th Annual Southwest Na-tional. Radio Exposition. New Coliseum Sept. 28-Oct. 3

Minneapolis

Philadelphia

Sept. 28-Oct. 3

Electric & Radio Shoue. Municipal Convention Hall Oct. 3-10

Kansas City

Oct. 4-11 Los Angeles 9th Annual Radio and Elec-trical Exposition, Special building, cor, Fairfax and Wiltshire

Milwaukee

Chicago

Oct. 19-25

Oct. 6-10

10th Annual Chicago Radio Show and Electrical Exposition, Coliseum

National Assn. of Broadcasters

Qet. 27, 28. 29 To be held in Detroit, Mich.



Highlights on the



Plane Minded

This monster Douglas amphibian is Powel's third plane—or is it his fifth? Uses 'em for strictly business purposes. This photograph was taken at his arrival at the Atlanta airport with first samples of new radio sets for de-livery to Beck & Gregg, Crosley dis-tributors in Georgia. Left to right: J. R. Jones, of the Kelley Co., dealer; W.A. Parker, presi-dent, Beck & Gregg; Powel Crosley; C. A. Cooper, factory representative, and J. H. Ahnand, Sterchi Bros.

Supreme Announces Contest

Incidental to the introduction of its new Diagnometer AAA1, the Supreme Instrument Corp. announces a contest of interest to service men. A group of prizes will be given for the best letters on the subject "Why I Prefer a Supreme Diagnometer AAA1 for Modern Serv-ice." First prize is a new tester, and the First prize is a new tester, and the

contest is open to anybody. The contest closes at midnight, Octo-ber 15. Full information may be re-ceived from the Supreme Instruments Corp., Greenwood, Miss.

Ken-Rad Holds Jubilee Week

Ken-Rad Jubilee Week, sponsored by the Owensboro Messenger Inquirer, re-cently closed with one of the greatest Owensboro, Ky., has ever seen. More than fifty of the largest stores co-operated with Ken-Rad in a city-wide window display contest.

J. R. Bizzelle, formerly assistant sales manager of Pacent, has been stepped up to the rank of general sales manager.

The Certified Radio Servicemen of Oakland, Calif., have just elected the following men to office for the coming year: Paul E. Current, B. E. Estes, Claire W. Lannan, and A. F. Kurrels.

New York, Sept. 21-26

News of the Month

RMA ACTIVE IN PATENT POOLING

President Coit Appoints Managing Committee

Many services to the radio industry have recently been launched by the board of directors of the Radio Manufacturers Association. Chief among these is the resolve of this body to take an active participation in the forthcoming meetings, at Washington, D. C., for the purpose of evolving a workable, equitable patent pooling plan. Other members of this series of conferences will be the U. S. Department of Justice, the Radio Corporation of America and the Radio Protective Association.

Preliminary meetings of the RMA special patent committee already have been held. The first meeting with government officials and other interested parties is scheduled for approximately the middle of this month.

An innovation in the RMA organization, instituted by President Coit, is the establishment of a managing committee to take action in emergency matters between meetings of the directors. This committee also will act as a contact body with other radio organizations. With president Coit as ex-officio chairman, the new managing committee includes: A. L. Wells of Chicago; Fred D. Williams of New York and N. P. Bloom of Louisville, Ky., vicepresidents of the RMA; L. F. Muter of Chicago, treasurer of the Association, and H. B. Richmond of Cambridge, Mass., past-president.

One of the important enterprises of the managing committee will be cooperation with the Radio Wholesalers Association and the National Federation of Radio Associations in promoting "National Radio Week," September 21-27.

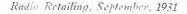
Company for Radio Service Formed

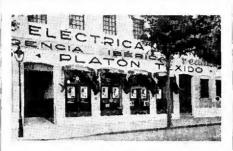
Pacific Radio Service, San Francisco, has recently been organized to handle dealer service departments. Thus far this organization has been successful in arranging with several large dealers to handle their problems. They are members of the Pacific Radio Trade Association, and are employing certified men, D. J. Dreessen is manager.

Santa Barbara Licenses Dealers

An ordinance has recently been passed in Santa Barbara, Calif., that requires every radio dealer to pay an annual license fee of \$50, to provide funds for a radio interference department.

The Colonial Radio Corporation announces the appointment of R. L. Englaston Sales Company, Chicago, as manufacturer's agent.





And in Spain

Radio distribution headquarters of Platon Textio, Barcelona, Spain, who represents Clarion in the land of the bull and the olive.

State Dept. Aids RMA in Tariff Fight

Assistance of the State Department at Washington has been accorded to the Radio Manufacturers Association in opposing drastic increases in tariff rates on radio apparatus recently ordered by Latin-American countries. Argentina, Uruguay, Costa Rico and Mexico decreed higher customs rates on radio sets, tubes, phonographs and phonograph records,

Kennedy Distribution Policy

Colin B. Kennedy Corp. has decided not to distribute exclusively through jobbers in all territories, owing to present day conditions, but has adopted the policy of going direct to dealers in some cases. New York, N. Y.

COLUMBIA TO JOB FADA AND NORGE

Eight Branches to Start Distribution—-Will Make Dry Cleaner

Realizing that if it would meet the needs of dealers, it must supply them with a more varied product, the Columbia Phonograph Co. is adding other radio lines so as to more thoroughly cover the field.

At the present time this well-known concern is distributing Fada sets through eight of its branches: Boston, Atlanta, Jacksonville, New Orleans, Dallas, Los Angeles, San Francisco and Seattle. Additional standard makes of receivers are to be taken on for sale through other branches as fast as arrangements can be made.

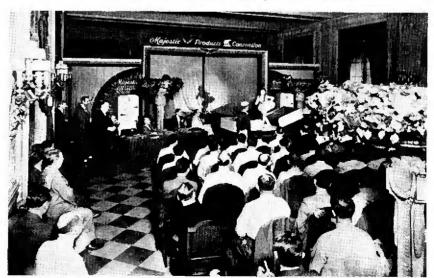
Distribution of the Norge refrigerator through Columbia's Atlanta branch is also announced—to be handled by other branches later.

In addition to these added activities, Columbia will bring out a popular priced "home dry cleaner" for use with a special non-explosive fluid.

non-explosive fluid. W. C. Fuhri, vice-president, feels that with this new policy, dealers' sales curves will be considerably straightened out.

To serve dealers in Montana, R. S. Proudfit Co., Lincoln, Neb., has opened a branch in Great Falls, under the managership of S. E. Ely.

"Mighty Monarchs" Fall for "Chicken"



Although much water has flown under the wheel since Majestic held its first convention, the custom of having a pretty girl unveil the new line is still retained.

"The most businesslike, effective and pleasing convention in our history", according to all who attended Grigsby-Grunow's recent convention in Chicago.

DISTRIBUTOR APPOINTMENTS

ZENITH-Scranton Dist. Inc., Scranton, Pa., northeastern Pennsylvania; Zweifler, Inc., Harrisburg, central Pennsylvania; Post & Lester, Hartford and New London, Conn.; Connecticut except Fairfield County and the southern half of New Haven County.

GOLD SEAL ELECTRIC CO.—Continental Television Corp.—National sales rights of Continental Television kits,—Territory now being allotted to distributors throughout the country.

RCA-RADIOTRON-H. R. Curtiss Co.-Territory-northern California.

Kolster-Western Radio, Inc., Los Angeles; Columbia Stores Co., Denver; Columbia Wholesalers, Inc., Baltimore; Edwin C. Lewis, Inc., Boston; F. Tiemann Stove & Hdwe. Co., St. Louis; B&O Radio, Inc., Newark; Thomas J. Northway, Inc., Rochester; Heat & Power Engineering Co., Toledo; Roberts Auto & Radio Supply Co., Philadelphia; Radio Wholesalers, Inc., Scranton; J. E. Dilworth Co., Memphis; and Wadel, Connally Hdwe. Co., Tyler Texas.

BRUNSWICK-W. F. Frederick Piano Co., Pittsburgh and Morley Murphy Co., Philadelphia.

MAJESTIC-Specialty Wholesalers Inc., Buffalo. Seven counties in western New York.

Lyric-Wakem & Whipple, Inc., Chicago-northern Illinois.

Trav-Ler to Make Sets and Television Equipment

A license under patents of the RCA and affiliated companies to manufacture radio receivers, combinations and television receivers and apparatus, has been granted to the Trav-Ler Mfg. Corp., St. Louis. Trav-Ler intends to go into produc-

Trav-Ler intends to go into production immediately and market a complete line of receivers, including both t.r.f. and superheterodyne types, ranging from \$29.95 to \$89.50 retail. An auto-radio and short-wave set are also included.

Of interest, are the plans of this company to also go into production on a complete line of reasonably-priced television equipment, including both separate television receivers and combination radio and television instruments, as well as kits, parts and accessories.

Studebaker Purchases Fricker-Irvine Patents

The Fricker-Irvine patents, and patents pending, on a system for suppressing inductive interference and minimizing fading and atmospherics, have been purchased by Clement Studebaker III from William C. Grunow. Mr. Grunow retains a non-transferable license. The services of R. H. Fricker, inventor, and Chas. C. Henry, who have conducted research on radio noise suppression, have also been secured.

conducted research on radio noise suppression, have also been secured. The trade name "Elimostat" has been adopted. The Sonora Company of Canada, Ltd., Tornoto, has secured a license to manufacture and sell the Elimostat in Canada.



Keep Your Eye on the Ball! Mr.?

Radio's masked marvel. Who is he? Large and unusable prizes will be awarded the first three who name this "land cleaving" jobber. Another "ray" of light on this mystery will be found elsewhere on this page.

New Quarters for Bechtol

Ray Bechtol has moved his Cleveland Ignition Co. to new and sumptious quarters at 1301 Superior Ave., Cleveland. Claims the other location was too near the golf links.

Sparton Will Not Start Branches

The following letter was received Aug. 21 from William Sparks, president, Sparks-Withington Co., Jackson, Mich.: "Information has reached me that a great mapy rumors are passing around in the industry that the Sparks-Withington Co. is about to start branches of its own to handle its product in place of distributors. We have never had branches and today it is the farthest from our thoughts to handle our distribution in any such way."

PERSONNEL CHANGES

"BILL" HUTTER'S many friends will be interested to learn of his recent election to the directorate at Capchart. He will act as chief electrical engineer and be in charge of the Manufacturers' Division sales of the record-changing devices.

E. G. HEFTER has taken charge of the Zenith office at 1225 Broadway, New York City. For ten years Mr. Hefter was president and general manager of the Great Western Auto Supply Co., St. Louis, distributor.

ARTHUR S. DETSCH has been appointed district sales manager for Polymet in Washington and Oregon. His office address is: Security Building, Portland, Ore.

P. T. CLAY, F. R. SHERMAN and F. W. STEPHENSON, president, vice-president and secretary-treasurer, respectively, of Sherman Clay & Co., have retired from active participation and C. H. DE ACRES has been elected president and general manager. Mr. de Acres has been with this company since last July, when he resigned as vice-president and general manager of Lyon & Healy.

FRED H. STRAYER has decided to strike out into a new line of work, and has left Sylvania for the Hammond Clock Co., where he will be in charge of the advertising and sales promotional work. Mr. Strayer, who has been with Sylvania for the past four years, was guest of honor at a farewell party given by the executives, and presented with a sterling silver service.

HENRY E. GARDINER has been appointed Western sales manager for Colin B. Kennedy, and will be in charge of all sales in that territory, as well as Hawaii.

WYLLE M. DORAN, San Francisco; C. W. Towns, Los Angeles, and G. B. FLOOD, Seattle, have been appointed Colin B. Kennedy zone managers.

H. SEERV, formerly representative of Jackson-Bell, Ltd., succeeds R. S. Pribyl as sales manager of the Cardinal Radio Mfg. Co., Los Angeles.

GERARD H. SLATTERY, for the past few years director of broadcasting with Harry M. Frost Co., Boston, is now manager of the new Shortwave & Television Co.'s stations WIXAV and WIXAU. He still retains his radio affiliations with Frost.

ROBERT HERTZBERG has resigned as sales promotion manager of Pilot to return to New York where he was formerly active in radio publishing circles.

This Month's Shipboard Picture



The publicity boys, apparently, have agreed that we must run at least one nautical photo per issue. This month's contribution comes from Sparks-With-

ington and shows the winners of the Sparton Scholarship Awards, totth chaperon, on European trip. "Capt." Sparton is chaperoning the chaperon.



With the Wholesalers

This is the time of year when the jobbers are putting out those irresistable invitations to gather at the "Home Office" and get another shot of pep medicine. Judging by the character of the news items recently received, the big fellows—while in their customary hospitable mood—are planning their fall campaigns with unusual thoroughness.

M. J. Lewis Entertains

Is M. J. Lewis entertaining? Well, rather! Ask the Crosley, Sprague, and Cunningham dealers—or their wives—who attended the open house reception party August 25 at Philadelphia. M. J. is president of the Lewis Radio Co.

Buehn Also Put Out Latch String

The Louis Buehn Co., another Philadelphia distributor, held open house last month. This was in conjunction with the Atwater Kent "new line" national broadcast programs,

cast programs. Incidentally Louis now represents the Pacent Electric Co.—which is pushing its



"Its Pays to Advertise"

"The well known saying certainly is true", declares A. R. Goddard, of Athol, Mass., whose truck generally carries a special advertising banner. new home talking movie projector-and has the exclusive on the Ken-Rad Accementer for the Philadelphia territory.

Alderman Holds Pre-Showing

H. B. Alderman, Inc., Sparton distributor in Buffalo, N. Y., held its pre-showing August 10-15. Individual attention to dealers, a planned program of serious selling --rather than whoopee, characterized this group treatment affair.

Trade Show Held by Wilks Company

In their new location in the Convention Hall Building, Detroit, The Wilks Distributing Co. set up a miniature theater for the showing of the Visionola, and the full line of Sparton radio sets. During the show, the Visionola was required to put on a practically continuous performance for the dealers.

Selling Refrigeration in a Big Way

That radio dealers are rapidly learning how to sell electric refrigeration in a big way is evidenced by a recent statement from the Hieb Radio Supply Co., Des Moines, Iowa; that the following dealers in Hieb's territory have placed carload orders for Majestic ice boxes: Smulekoff's, Cedar Rapids (two carloads in 40 days); Nicols & Gates, Waterloo; and Cerro Gordo Maytag Co., Mason City.

In Modern Quarters

PHILCO RADIO DISTRIBUTORS, INC., Portland, Ore., has built one of the most modern demonstration and display rooms in the West. Elimination of outside noises and deadening of interior echoes in demonstration rooms has been secured, through the use of a new type composition insulation board, and without the use of drapes or an excessive amount of furniture.

FIRST 16MM SHOW DUE THIS MONTH

To Be Held in New York, Sept. 21-26—Under Auspices of 16MM Board of Trade

Indicative of the closer relationship arising between the radio industry and the home (16mm) motion picture interests is the news that the latter's first exposition and convention will be held at New York concurrent with the 8th Annual Radio-Electrical World's Fair.

Dealers may view all the latest devices for providing talking pictures for home and commercial use in the Ball Room of the Hotel Victoria, 51st Street and 7th Avenue, Sept. 21 to 26, inclusive.

In addition to narrow film equipment and pictures, the exhibits and demonstrations will include silent projectors and cameras, motion picture productions and other equipment, supplies and accessories that could be handled by radio dealers.

Various meetings and conferences will be held during the week, with particular attention being given to the organization and early operation of talkie film rental libraries.

Julius Singer, president of the Show-At-Home Movie Library is president of the 16MM Motion Picture Board of Trade; A. B. Ayers, Sprague Specialties Company, is 1st vice president. A ticket for the election of additional members of the Board of Directors, to be voted Monday, Aug. 31, includes the names of M. Ellison, president of Peko, Inc., and S. Harrison Noden, secretary, Pacent Electric Company.

Pacent Electric Company. A permanent Information Bureau is maintained by the Board of Trade at the Hotel Victoria. This is at the service of all dealers whether members of the board or not.

Book Review

TELEVISION. By Edgar H. Felix. (McGraw-Hill Book Co.) Selected by the Scientific Book Club as the August Bookof-the-Month.

This thorough, unbiased and well written work discusses the progress of television over a period of years, pointing out the difficulties to be surmounted before the art may be said actually to have "turned the corner." It provides an answer for the man who wishes to know what may be expected of television and when it may be expected. Price, \$2.50.

Service Men To Raise Standards

The Institute of Radio Service Men has committed itself to raise the standards of radio service and make of it a profession. Headquarters are located at 400 W. Madison St., Chicago. A booklet setting forth the details of its workings and coming activities may be obtained by a request to this address.

The Third in Oakland

Sherman, Clay & Company, the Coast's big music merchant, has opened a new store at 2006 Broadway, Oakland. This makes its third in that city.





Echophone Model 60

Echophone Line

THREE standard size superhet midgets, a baby model and a console, together with two spe-cial furniture models, make up the new line of the Echophone Radio Mfg. Co., Ltd., Waukegan, TU.

chai furniture models, make up the new line of the Echophone Radio Mfg. Co., Ltd., Waukegan, III. Model 60 has 7 tubes, includ-ing pentode and 3 variable-mu's, Jensen dynamic speaker, full vision dial, and lists at \$53.75 complete. Model 70 is made for direct current, and is \$59.50 complete. Model 80 is an S-tube set, with two pentodes in push-pull, \$69.50 complete. Model 90, 8 tubes, comes in a lowboy cabinet with burl wal-nut panels and lists at \$\$9.50. "Echoette" is the 4-tube "baby" midget, \$32.75 complete. Echophone offers a console cabinet to those who already have the midget, into which either Models 60 or 80 may be fitted, to make a complete 50b. The cabinet only is \$12.50. A unique combination of beauty and utility is offered in the book cabinet, made also to hold either Model 60 or 80. The set is placed at the top, and the combination gives the general effect of a grandfather clock. This cabinet is \$22.50.—Radio *Retailing*, September, 1931.



Echophonic Model 99

Electric Chime Clock

REVERE CLOCK CO., Cincin-nati, Ohio, has introduced a low-priced electric chime clock, known as the "Loyal." It is a mahogany tambour model, Tele-chron-motored, retailing at \$22.75 with hour and half-hour strike, and \$29.75 with West-minster chimes.—Radio Retail-ting, September, 1931.

Automatic Phonograph

Phonograph "King of All Automatics" is intomatic phonographs made by the Superior Automatic Phono-graph Co., Huntington, Ind. Seventy minutes (ten records, twenty selections) can be played without attention and the cab-inets are of a size that look well in any surroundings. Both onumercial and homes types are available, the former being coin operated with glass front. The records stand on end in the record magazine to prevent warping. The chassis, simple and silent in operation, Jensen dynamic poeaker, 2 stage amplifier, uses two 46°, a 27 and an 80.—Kadio Retailing, September, 1921.



Television Kits

TELEVISION PRODUCTS CO. To America has recently been established to manufacture and merchandise the "See-Ail" tele-visor kit and shortwave radio receiver, as well as a complete line of television accessories. At the present time, produc-tion is under way on two lienus -the televisor kit, listing at \$19.75, and the shortwave re-ceiver with a retail price of \$39.50.

\$19.76, and the short-near relation of \$39.50.
 The Northeastern Sales Co., 5 Union Square, New York, has been appointed exclusive sales distributors for these products. -Radio Retailing, September, 1971

Low-Wave Adapter

Low-Wave Adapter THE manufacture of a low-twave adapter to be known as the "Policer," to retail at \$2.50, for use with any t.rf. radio set, has been undertaken by the Rahm Corp., 1481-A. Merchan-dise Mart, Chicago, III, With this adaptor the set will tune over the regular dial from 80 to 200 meters. It is manufac-tured in two numbers, one for the 227 detector and one for the 224. At a later date, this company will bring out an adapter to work with the superheterodyne circuits.—Radio Retailing, Sep-tember, 1931.



Majestic "Pyfewood"

Majestic Line

Majestic Liffe MAJESTIC'S engineering staff has been working on three new features which will be built into the new 1932 line, ready for delivery, Oct. 1. The first of these is the spray-shield tube. This heavy shield-ing coating not only replaces the perforated metal caus generally in use, but because of its closer proximity to the elements within the tabe, is a much more effec-tive shield, it is said. The second lies in the use of two detectors working together to pass the voice and music from the r.f. stages to the tubes handling a.f. impulses. This is known as "twin power detec-tion." The third is what Majestin

known as "twin power detec-tion." The third is what Majestic terms "modulated circuit," its chief purpose being to enable one tube to carry out the func-tions of two. In this case, one tube performs as both first de-tector and oscillator. Five-, 9- and 10-tube models are offered; all superhets, using spray-shield, multi-mu and pen-tode tubes, and a dynamic speaker, the "Grand Opera." Havenwood, table type, 5-tube chassis, \$44,50, complete.



Majestic "Brentwood"

Ellswood, a compact console, 5-tube, \$59.50. Fyfcwood, end table model, 5-tube, \$64.50. Castlewood, a radio-phono-graph combination, 5 tubes, \$109.

\$103.
Cheltenwood, miniature highboy, 9-tube chassis, \$79.50.
Brentwood, Jacobean lowboy, 9 tubes, \$99.50.
Going into the higher-priced range, Majestic presents the Collingwood, with Twin Grand Opera speakers which are fed

by the 10-tube chassis. This set has automatic volume con-trol and lists at \$165. Abbeywood is a radio-phono-graph combination with the same radio chassis and auto-matic record changer phono-graph handling ton records. \$290.—Radio Retailing, Septem-ber, 1931. ber, 1931.



UNITED AIR CLEANER CORP., 9705 Cottage Grove Ave., Chicago, has changed the cabinet in its Model 108-A table model, 108-A console, and 109



Sentinel 108A Lowboy

console. The cabinets are now designed along extremely grace-ful and flowing lines, and carry the new prices of \$59,50, \$69,50 and \$89,50 complete. These models, together with a revised 4-tube midget set, rep-resent the fall line of this com-pany. — Radio Retailing, Sep-tember, 1931.

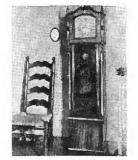
Audiola Superhets

Addition to its 6- and 8-tube superheterodyne, A u d i o l a Radio Co., 430 S. Green St., Chi-cago, Ill., has brought three '-tube models in the same cab-inets as the others. These new sets employ two 35's, two 24's, a 27, a pentode and an 80. They have tone control, full vision dial and dynamic speaker. Model 710, the midget, is \$54.50; Model 712 lowboy is \$79.95, all prices complete. Radio Retailing, September, 1931.



Audiola 712





Crosley "Playtime"

Crosley 124 Series



Crosley "Merrymaker"

Ampro Sound System

A MPRO Corp., 2339 N. West-ern Ave., Chicago, has de-veloped a new portable 16 mm. sound-on-disc unit, which is con-tained in two cases approxi-mately the same in size and weight, cach weighing about 45 lb. One contains the projector

and turntable, while the other houses the amplifier and speaker. Six discs and six reels can be carried. No speed regulation is re-quired as the motor does not depend upon the line voltage for maintaining constant speed. By means of a single control knob, the projector can be made to run at 16 or 24 frames per sec-ond. This knob also has a neutral position so the turntable can be operated while the pro-jector is idle, to entertain the audience with a musical selec-tion while the projector is be-ing threaded. The turntable can be operated at either 333 or 80 r.p.m. Pictures 9x12 ft. can be shown at distances up to 100 ft. The price is \$575.—Radio Retailing, September, 1931.



Portable "Talkiola"

DEMAND for a portable "Talkiola" talking picture machine has caused the Talkiola Corp., 1600 Broadway, N. Y. C., to develop a portable model cm-ploying 16 mm. film. and play-ing either standard or 16 in. records. A medium-size trans-parent screen is part of the equipment, but if desired, a 7x9 ft. screen is available. A 250-watt Mazda hamp is used within the projector.

watt Mazda lamp is used within the projector. A 1/20th hp., a.c. motor is used to drive the projector and the phonograph turntable. Both 33å or 78 r.p.m. speeds are ob-tainable by means of an auto-matic device, synchronization between film and record is ob-tained upon starting the motor. The portable "Talkiola" is en-closed in a leather-finished case 23x18x14 in.. and weighs 80 lb. complete with screen and other necessary equipment. —Radio Retailing, September. 1931.

Fleron Duo Taps

Fleron Duo 1 aps M. FLERON & SON, INC., out a line of radio-electric con-venience outlets. Aerial and ground connections are made by a strong positive bronze contact which meets the Code Requirements. The recep-tacles are of Bakelite and special polarized caps are furnished with each receptacle. There are three models. The first is for the radio aerial and ground connections only, \$1.10. and ground connections, to-gether with an outlet for the radio set \$1.70 and the third has two electrical outlets and the ground and antenna connections. \$2.—Radio Retailing, Septem-ber, 1931.



Stromberg 22, 25, 26

Stromberg 22, 25, 26 Model 22 superheterodyne Telephone Mfg. Co., Rochester, N.Y., comes in a solid walnat highboy, equipped with auto-matic volume control, silent vis-ual tuning and a new design apparatus and circuits for a per-manent phonograph connection and electrical remote control. 8375, complete. Model 25 is lower in price offered by Stromberg. It is a superhet with permanent phono-graph counection. The cabinet is a walnut lowboy, 43 in. high, 175, complete. Model 26 is constructed so that by the addition of the No. 1 phonograph puel assembly it becomes a complete radio-phonograph without cabinet atteration. It has the sume oper-ating unit as the No. 25, and comes in a highboy cabinet. 210, complete. Model 27 has automatic volume control, visual tuning mater, and push button to elim-inate background noises while uportion and provision for connect-tion and provision for connect-ing electrical remote control. The set is 485 in. high, and lists at \$365 complete.—*Radio Retailing*, September, 1931.

Peter Pan Midget

Non-intervention of the set of th



Columaire **Junior De Luxe**

Two tone walnut has been used to form the simple but attractive cabinet which houses the Columaire Junior De Luxe, recently announced by the West-inghouse Electric & Mfg. Co., Mansfield, Ohio. It is an elec-tric clock model, modernistic in design, incorporating automatic volume control, multi-mu and push-pull pentode tubes, West-inghouse air-column reproducing system, and built in electric clock. The set is a 9-tube super-het. \$125, complete. — Radio Retailing, September, 1931.



Universal Auto-Radio

EVERYTHING necessary for a Complete installation of the "Universal auto-radio receiver made by the Universal Auto-Radio Corp., 1223 S. Michigan Ave., Chicago, can be purchased for \$69.50. Installation is \$15. There are three main parts: the set which uses 6 tubes with push-pull amplification, and slips out of the case for service; the dynamic speaker and the remote control which attaches to the steering gear. It is equipped with automatic volume control. —Radio Relating, September, 1931.



DeWald Midget

THE new midget radio being shown to the trade by Pierce-Airo, Inc., 510 Sixth Avo., New York, is named the DeWald "Chb Companion," and is a 4-tube set, employing the new pentode and variable-mu thbes. The set measures 13 in. high by 10 in. wide, and features illuminating dial, power detec-tion and electro dynamic speaker.—Radio Retailing, Sep-tember, 1931.



Auto-Radio **Remote Control**

B V using the remote control offered by the Carter Radio Co., 407 S. Aberdeen St., Chi-cago, an auto-radio set can be placed at any convenient loca-tion in the car with the control panel conveniently located on the steering gear

The remote conveniently located on the steering gear. The remote control has flex-ible control cable, a control unit case, measuring 4kx28x1 in., illuminated dial, junction box, volume control and hock-switch. Other Carter products for automobile radio include volume, controls, audio transformers, resistors, switches, screen grid caps, speaker plugs and jacks.— *Radio Retailing*, September, 1931.

Operadio Portable P. A. System

P. A. System To its line of public address co, st. Charles, III., has added a portable system. The com-plete unit is carried in a single carrying case, the front of which is utilized as a baffle for the self-contained dynamic speaker. The input from the two-button microphone, or from any 200 ohm phonograph pick-up, is raised by the three-stage ampli-fier to a volume level sufficient for addressing a group of people in a room 1,000 ft. square. The amplifier operate sufficient for all accessories including the separate volume controls for microphone and phonograph in-put, and a changeover switch of the shifting the amplifier to that allows from one to four additional a.c. dynamic or mag-metic speakers to be operated without affecting the output of the main speaker.—*Radio Re-tating*, September, 1931.

Community Aerial Coupler

Coupler CARTER RADIO CO., 407 S. Abordeen St., Chicago, is making a community aerial coupler which permits the use of several receivers on one com-mon aerial. There are two types—No. 1 is mounted in black crystalline finish metal box, 31x11x14 in, size. Removal of cover exposes a Bakelite panel on which there are four soldering lugs for con-nections. This model is designed for outside mounting and is pro-tected against short-circuit caused by dirt, corrosion, etc. Type No. 2 comprises coupler mounted on a Carter No. 870 or 871 outlet plate, with two a.c. outlets, aerial-ground jacks, a No. 1 separator plate and two Imo plugs for attaching set. Type 1 is priced at \$5, Types Radio Retailing, September, 1931.

Supreme AAAI Diagnometer

Diagnometer New from stem to stern, and facombination of five service instruments built as a single unit, to be used as a portable requipment, or mounted on the wall or back of a test bench as a test panel, service men will find Model AAH "Diagnometer" an ospecially handy set analyzer, the two major testing functions of this instrument are: analyzer, the tester, shielded oscillator, the tester



Aztec Model 50

A PENTODE, triple screen grid, t.r.f. midget, using 3 224's, a 247 and a 280, and known as Model 50, has been added to the line of the Aztec Radio Co., Atchison, Kan. The list price is \$39.90, complete. Radio Retailing, September, 1931.

Variable Tuning Condenser

To meet the demand for vari-able tuning condensers of the split stator type, the Allen D. Cardwell Mfg. Corp., 81 Pros-pect St., Brooklyn, N. Y., has produced such condensers, not only for broadcast receivers, but also for medium power and high power transmitters. Known as Model 202-E, they are especially designed for use in push-puil radio frequency clr-cuits. — Radio Retailing, Sep-tember, 1931.

Automobile Aerial

WORKING on a roll similar "Aeroll" automobile aerial can be installed in 10 minutes. The housing containing it is 1½ in. wide, 2 in. deep and 16 in. long. It fastens with four screws above the windshield and to the right of the mirror. The aerial part is a copper screen 14½ in. wide by 36 in. long, and can be pulled out to any length and hooked to small pegs screwed in the cross bows of the roof. When not in use, it can be closed up. The price is about \$10.50 installed.—Radio Retail-ing, September, 1931.



Automatic Radio-Tel Switch

THE question of how to answer the telephone, and shut off the radio set at the same time, is answered with the automatic radio tel-switch the Insuline Corp. of America, 73 Cortlandt St., New York City, has placed on the market. The set is automatically turned off when the telephone receiver is taken off the hook, and turned on when the receiver is replaced in position. It works with either the French or desk type tele-phone. — *Radio Retailing*, Sep-tember, 1931.

Alden Adapter

Alden Adapter IN ORDER to use the 247 pen-tode in place of the 245, the Alden Mfg. Co., 715 Center St., Brockton, Mass., is making an adapter, A twin adapter for using the 238 pentode in sets having 171 push-pull amplifica-tion is also available. In addition to these adapters, there is a complete line for use in testing pentodes in the va-rious makes of tube checkers and set analyzers. A new latch-lock analyzer plug handle is also being supplied to lock the testing adapter to the plug. Alden's new binding post takes any size wire and keeps it in place and away from the chassis.—Radio Relating, Sep-tember, 1931.

Webster

Power Amplifiers

Power Amplifiers W EBSTER ELECTRIC CO., Racine, Wis., at this time announces to the trade three new power amplifiers. Model 6039-R is a 3-stage pen-tode amplifier, designed to work directly from the PE cell, and has suitable volume for houses having a seating capacity of from 300 to 400. If greater output is desired, the A-350 Power stage amplifier may be coupled to it, thereby giving a power output of 15 watts. Model 6040-R is a 2-stage amplifier with a single pentode output, and 6041-R has push-pull pentode output. Model 6040-R is \$39.50 and 6041-R is \$49.50. These are also available for 226 volt 60 cycle, and 116-volt, 25 cycle operation. — Radio Retailing, September, 1931.

Wren and Lark Midgets

The "Lark" is a somewhat larger set, using 3 variable-mu's, the state of the set of the

"Elimostat"

"Elimostat" THE Fricker system of radio interference suppression is sow ready for delivery. The system consists of the "Elimo-stat" and a special aerial with shielded lead-in (less pipe and up wire). This claimed that this system, when properly installed, will suppress man-made static, mini-nuze swinging, fading and selec-tive fading, and materially reduce atmospheres. Essentially the Fricker inven-tion consists of extending the earthed shielding of the receiver and a shielded electric resonator for building up the radio signal voltage much as if it were amplified. The "Elimostat" is a product of the Studebaker Laboratories, and is sold exclusively by the Defree Sales Co., South Bend, Ind.—Radio Retailing, Septem-ber, 1931.

Quick-Set Aerial

QUICK-SET AEPIAI A PORTABLE radio home demonstration aerial is being manufactured by the Quick-Set Aerial Mfg. Co., Mary-ville, Mo. Complete installation can be made in one minute, it is said, and the device is easily portable. A nickeled steel ball, housing the reel and antenna wire and strong wood sections attached to a heavy iron ground spike, make up this device. It is priced at \$6.75.—Radio Retail-ing, September, 1931.

Speed Tube Checker

CHARACTERISTICS of all Otypes of tubes can be read with the Speed tube checker just announced by the Cable Radio Tube Corp., Brooklyn, N. Y.

N.Y. It is fitted with an easily readable, flush-mounted meter, 7 in in diameter, so that the customer can easily see how the various types test and compare the test with the limits of each type

the test with the limits of each type. It is assembled in a walnut finished cabinet and can be sup-plied with a table to match, if desired. The checker can be bought outright or through the Speed purchase plan whereby it can be acquired at no expense what-ever.—Radio Retailing, Septem-ber, 1931.

Volume Control

CLAROSTAT MFG. CO., 285 has perfected a new type of on-and-off, 110 volt line switch, which is built into the volume control. The mechanism is posi-tive in action, being enclosed in a Bakelite case and mounted so as to form an integral part of the control. The switch employed is approved by the Underwriters Laboratory for 1 amp. at 256 volts or 3 amps at 125 volts. These combination units are especially well adapted for use where space is at a premium. — Radio Retailing, September, 1931.

Sylvania **Emergency Kit**

A used in the receiver is offered by the Hygrade Sylvania Corp., Emporium, Pa. Six com-binations are made up covering practically all models. In this way a cutstomer need not buy a complete new set of tubes but only one of each type, attrac-tively packaged, in a special carton small enough to be tucked away. No charge is made for the kit container.—Radio Retail-ing. September, 1921.

Is Faulty Reception

A Just Basis For Non-Payment?

THE question of the right of a customer to refuse to pay for a radio on the ground of faulty reception has several angles. If the fault in reception is shown to result from some imperfection in the radio, the customer may be within his rights in such a stand, and especially so if the merchant has warranted the machine.

On the other hand, there are so many causes for imperfect reception, that this in itself hardly constitutes ground for avoiding a contract of purchase. The burden is on the customer to show that the cause of the trouble arose because of some defect in the instrument, before he will be in a position to repudiate his contract—as the following recently decided case illustrates:

The plaintiff sold the defendants an all-electric radio of a well-known make for \$177. The defendants made a down payment of \$15 and the balance was secured by a note and chattel mortgage upon the radio. Defendants made no further payments and finally plaintiff brought suit on the note and mortgage to enforce collection.

In defense the defendants relied solely upon the contention that the reception over the machine was defective. From this alone they argued they should be relieved from the contract, though they continued to use the radio from time to time, never offered to return it, nor did they offer any explanation for the faulty reception. In reviewing the record of the transaction between the parties the court said:

The Record Reviewed

"The evidence shows that the radio was installed in defendants' home by plaintiffs and that it was in good condition at that time; that afterwards there was some complaint on the part of defendants and plaintiffs took the radio back to their place of business and, on examination, found a defective tube in it; that they replaced the tube with a perfect one and thoroughly tested out the instrument and found it to be perfect.

"That within a few days thereafter they delivered it to defendants and hooked it up and that it operated perfectly, that the reception from Cincinnati, Chicago and New York was good; and that since that time, some three weeks or more prior to the filing of this suit, there had not been any complaints from defendants about the set.

"Defendants contended that the radio had noises in it and that they could not get out of town stations on it except Dallas. They failed to account for the noises in the instrument or to show whether it was caused by local interference or by mechanical defects in the machine. Neither defendants nor any of their witnesses claim to have any mechanical knowledge of the workings of a radio and defendants offer no evidence tending to show that anything was wrong with the machine, except that it had noises and they could not get far-off stations well." So much for the evidence of record, which has been set out rather fully because it is typical of a certain class of complaints that frequently arise in the radio field. Needless to say, complaints of this sort are especially hard to deal with if put forward by customers, without regard to fair play and what may be reasonably expected of any radio set.

And now let us see how the court dealt with the problem raised in this case.

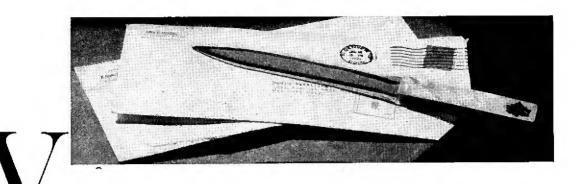
What the Court Decided

"It is a matter of common knowledge that many things can interfere with reception on a radio; a loose connection, a bad tube, or any one of the numerous electrical machines and things of that kind that cause local interference and mar perfect reception. This could all happen and the machine be perfect. It was incumbent on defendants to show by proper testimony that the machine itself was defective and they cannot resist payment of the price of the machine until they have done that. It is not shown that any of defendants' witnesses were experts or knew anything about radio.

"The radio was in possession of defendants all the time after its delivery to them in February until the trial of this case in June, with the exception of the few days plaintiffs had it and checked it over. Defendants have not at any time offered to return the machine . . . and on the day prior to the trial of the case defendants received over this radio the report of the ball game that was being broadcasted. It would be a strange law that would hold that defendants could keep the radio and make use of it daily and not be compelled to pay for this use . . . It is therefore ordered that (plaintiffs) recover judgment against the defendants." (128 So. 418.)

The foregoing case was carefully reasoned by the court. The holding announced is unquestionably in accord with the weight of authority on the question involved. This authority taking the position that where a customer altempts to repudiate a contract of purchase on the ground of defects in the article the burden of proof of the alleged defects is upon the customer. This rule appears to be peculiarly applicable to radios where the complaint is grounded solely upon the claim of imperfect reception without a showing of defects in the machine itself.

Needless to say every radio merchant wants to give his customers full value and will go to any reasonable extent in making adjustments. However, since the radio has not yet been made that will insure perfect reception under all conditions, no merchant should be expected to warrant this feature. And the courts do not require it as a condition to the enforcement of a contract of sale.



OICES FROM THE MARKET PLACE

The Richmond Wiring Code

Editor, Radio Retailing:

THE Richmond City Code concerning electrical inspections, classes radio as an electrical fixture so that no radio not approved by the National Fire Underwriters Laboratories can be installed in the city of Richmond.

If either the installation or antenna do not conform in every respect to the requirements of the Code, the radio is disconnected and, if necessary, the current cut off. Thus, the dealer obviously cannot afford to attempt the sale of radio that does not have the proper approval nor to put up makeshift antennae. These regulations are enforced to the letter.

The result, Mr. Editor, is this, that of all the radio manufacturers there are, at this writing, exactly twenty six manufacturers whose radio may be installed.

You may think that a lovely situation is thus provided for the retailing Richmond radio dealer. Such however is far from true, though the condition is much better than in other cities.

Seventy-five per cent of the cities have identical rulings. The inconsistency comes from the fact that only one other city appears to have either the desire or the courage to enforce this ruling already on their statute books.

My whole desire in writing you is to call your attention to this local ruling, to state its results, and to say that to my mind if such enforcement could be nationally recognized by city electrical bureaus—and conformed to by manufacturers—then no small percentage of the dealer's competition from objectionable merchandise would probably be eliminated.

> G. C. Rowe, Pres., Commonwealth Radio Co.

Richmond, Va.

Gives Us an Argument

Mr. Caldwell, Editor:

I^T LOOKS as though you want an argument on, "Who will sell auto-radios."

For a number of very good reasons, the radio dealer will sell them. Why?

I am a small town dealer, selling from 50 to 75 sets a year. I am known in my community as a radio man, one who has always sold honest merchandise at an honest price, one who calls to see that the buyer is getting the service intended. Therefore I have my "radio reputation" already built.

I am capable of selling and installing auto-radio equipment and of seeing that it gives service after it is sold.

Do you think an automobile salesman will exercise much effort to the sale of one little radio set, if it endangers the sale of his car? No, he would close the sale of the car thinking he would talk radio later, but would he? Then if he did sell them, he would have to have a trained technician to do the installation job.

The battery man? Well, you know what per cent of his service work is old autos.

So, the radio dealer will sell 'em!

Kaw City, Okla.

W. A. PETERS, Kansas City Radio Co.

ALEX A. GETTLIN.

Oh for a Moses!

Dear Sir:

WE SHOULD appoint some dominant personality to be the Will Hays or Judge Landis of the radio industry. Give such a person authority to set minimum standards of construction and make such other regulations necessary to safeguard the interests of both the industry and the public.

Philadelphia, Pa.

More Power to Mathes

Editor, Voices from the Market Place:

MORE power to Mr. Phillips Mathes of Kiel, Wis., and his ideas regarding that master stroke of the Radio Tube Trust in its recent drastic reduction in tube prices. They tell us dealers it was to enable us to sell more tubes due to the lower list. Well, all I have to say is that so far it has not achieved that for me. The only thing it did was to give me an inventory that put me in the red for \$40.

Instead of our master brains of the industry thinking out ways to increase the income of the trade, they bring out midgets at a song and tubes for the price of lamp bulbs. I have not noticed the movie boys lowering the price of admission during the past few years. With the coming of the talkies, which by the way is a stepchild of radio, they raised their prices instead of lowering them.

Nazareth, Pa.

C. A. ANGLEMIRE.

Radio Retailing, September, 1931

TING INSTRUMENT HIST GREATEST IN SUPREME NOMETER

SUPER-DIAGNOMETER plus Shielded OSCILLATOR plus

Advanced TUBE TESTER

AA1

combined in this master, ultra-modern model, at the price of one. Genuine economy

"PREVIEW JOBBERS"

ALABAMA Mobile: McGowly Lyon Howe. & Sup-

Supreme Instruments C 412 Supreme Bildg., Green	orp., wood, Miss.
Gentlemen: Please send rules and regulations on "Why I Prefer a Supremo Model AAA1—For Modern	the contest.
Name Address	
City	State
City State	

Smaller, lighter, handler The "last word" in a port-able, compact, complete lab-oratory. A combined test panel and portable labora-tory-mounts on the wall as easily as removing the lid.

łE

A T LAST-the testing instrument modern service men have awaited . . . and look to "Supreme" to create. Conceived months ago. Model AAA1 is now offered, tested and proven, under most exacting standards. Presented to the radio service world GUARANTEED as the most inclusive, the most positive, the most advanced-and withal the easiest to handle-radio testing equipment in history. advanced-in history.

in history. A Super Diagnometer with meter ranges to 2500 volts; a Completely Shelded Oscillator calibrated for every frequency between 90 and 1500 kilocycles; Tabe Testing and Ohm-Megohameter features never leftore incorporated in any service instrument. 4 instruments in 1 at the price of one! Space won't permit, words can't tell, the com-plete amazing narrative of this Supreme engineering triumpi. All Jobbers will soon be stocked, but the ones listed in panel to right are lines selected for the pre-showing of this sensational new instrument on September 1at, and now have the 1932 Model DIAGNOMETER ON DISPLAY AND AVAILABLE FOR DEMONSTRATION. Go see it today. It may be possible for you to



See the Model AAAI at the New York Shone. . New York demonstration rooms 130 West hand St. Also at Philadelphia Shor-M & II Sporting Goods Co.



Disinterested judges will award a NEW Model AAAI to the person who writes the best letter on the subject "WHY TPREPER A SUPREME DIAGNOMETER—MODEL AAAI— FOR MODERN SERVICE," Everyone is eligible. Use the coupon below—loday for complete contest rules. Ask your jobber ...or one of these listed here ...to demonstrate. Hurry—contest closes October 15th, 1931. See the DIAGNOMETER. This may be your "Sumeanedy" Lucky Day? In the event of a tie, duplicate prizes will be awarded.

SUPREME INSTRUMENTS CORPORATION 412 Supreme Bldg. Greenwood, Miss.

Distributors in all Principal Cities. Foreign Division: 130 West 42nd St., New York City Calle Address: LOPREH, New York.

Outside selling is conducted by part time men, servicers or the proprietor. It is not practical to use full time commission men on this work. Most sales are made over-the-counter, many dealers depending entirely on this method for moving the little sets.

Sub-midgets, when sold by reputable dealers, must be guaranteed for at least 30 days. A budget allowance of \$1 for servicing expense would cover the majority of cases. Frequently the guarantee provides that the set must be brought to the store if faulty.

Home-demonstration requests as a rule are avoided or refused outright. One dealer featured in his newspaper ads: "\$1 down." However, he reduced the time allowance to five months and doubled the size of the weekly payments. "If they cannot meet these terms on a \$45 article, then they certainly are a poor risk and never should be sold. Furthermore, if an account lets payments lapse by as much as two weeks I pull the set. On the other hand, if payments are met promptly for two months I make a personal call and frequently sell a better receiver—allowing full price for the first outfit."

THE GRIEF IN A NUT SHELL

NOT until I reached Indiana did I encounter my first example of good old fashioned "bellyache." It was the typical case of a dealer, originally well financed, who sold plenty of sets in '28-'29 and at Steinway prices. He was geared for high speed and couldn't shift to second for the steep hill. Too much overhead, too many sets out on time, at former prices, and unwillingness to start again on a new and firmer foundation were his troubles.

But his self-diagnosis (and there's still a mighty lot of truth in what he says) pinned the fault on these four things:

1. Manufacturers' advertising of free home demonstrations. To meet this promise dealers must carry large stocks. Then—in the middle of the season—models are changed and prices lowered. Result: the dealer holds the bag and must take a heavy loss.

2. Poor tubes at starvation prices. Dealer must service sets and replace tubes for at least six months. But tube manufacturers' guarantee does not parallel this dealer obligation. Result: tubes now are a costly liability instead of a source of income. 3. Present dollar volume not sufficient to cover fixed and promotional expenses.

4. They're making the \$69 set too good. Can't demonstate convincingly the proportionate extra value of a receiver at \$110.

OTHER OBSERVATIONS

ABOVE a background of raucous radios, everywhere demonstrating the ultimate in unbeautiful tonal values, my reportorial ear caught these additional interesting comments:

"What this country needs is a good combination to sell for \$150." (Many times was this need expressed, and with a surprising uniformity of agreement as to the list price. Radio manufacturers, where have you been?)

"The set for less than \$30 is just an incident-we, and our public, refuse to take it seriously."

"Sets between \$30 and \$45 have a place in the very low buying power field but are not seriously challenging the great popularity of the \$70 models. Thinking people are not buying wood and metal, they want radio enjoyment. We're selling up."

"The \$65-\$75 models are too darn good for the money. Just can't sell a model for over \$100 these days. But we believe we can make money this winter with the present set-up."

"1931 dollar volume is off about 40 per cent over 1930. But we're still selling sets even in midsummer and see a substantial replacement business opening up."

"The 'weak sister' dealers have pretty well fallen by the wayside. We who have survived have no illusions. We won't get rich over night, on the other hand we see stabilization and a good living at hand and a better one when things pick up."

What are we going to do about this business of ours? Friend dealer is answering this question for himself, with—and without—benefit of other members of the clan. And if the manufacturer doesn't spill a few more beans on the stove we predict that Dick's Radio Music and Refrigeration Shoppe will take jolly good care of itself this winter.

But why in Heaven's name, do they run those front door sets so loud, so long—and so sour?

His Men Are Plodders (Continued from page 23)

proached before. These people are called on in the home before they had ever thought of buying. They haven't gone shopping around and seeing which dealer they could get to chisel his profits the most. Being able to find such prospects and sell them, enables us to keep our price up the year around.

"From the standpoint of the salesman, the plan works well. He doesn't waste his time jumping from one part of the city to another. He doesn't have to drive a car, except to bring prospects to the store. The men have to worry less about competition. And they have back of them the demonstrated fact that if they make a certain number of calls they will close a given number of sales.

"We don't need to hire star salesmen. In fact we get along better without them. In former days it was easier for fellows to sell, and the smart individual forged ahead without much effort. But the star doesn't fit into the present picture. There are too many obstacles for him today. He becomes discouraged. The man who has never had experience in easy selling, accepts the present conditions as normal, and plugs away at the job.

"Our sales have been very gratifying. In June we sold 80 sets. So far sales have been ahead of last year. We have a feeling of security. We know we have sold yesterday and last week, and have no fear of the law of averages failing us in the future."

Mr. Granzow has handled radios from the time the first sets were put on the market. He has sold them when they were easy to place. People say these are evil times in selling, but Mr. Granzow feels a greater security as a dealer than at any time in the past. Through the sales methods being used, it is possible for him to plan and budget ahead knowing that come what may the door knob turners, if kept at it, will get the business. Radio Retailing, September, 1931

now presents

Clarion challenges the world with these improved models! Never have such features been offered at such low prices! Profit with Clarion this year! Write today!



MODEL 85 (Above)

Beautiful cabinet in high-lighted two-tone walnut; fluted gum pilasters support a beautiful zebra-wood arch. Height, 19¼ in.; depth, 11 in.; width, 161/2 in. 7-tube Super-Heterodyne circuit with PENTODE and Multi-Mu tubes. Full-vision dial; variable tone control. Standard of performance equal



\$39.50 to \$129.50





(Left) MODEL 84 A dignified, graceful console model in handsome walnut. Stands 40 in. high; 12½ in. deep; 221/2 in. wide. 7-tube Super-Heterodyne circuit with PENTODE and Multi-Mu tubes. Full-vision dial: variable tone control; unheardof sensitivity and selectivity. Performs like a 8- or 9-tube set.

MODEL 94 (Right) The aristocrat of the Clarion line-the greatest value ever built into a receiver. High-lighted twotone walnut with four-piece matched butt walnut doors. 8-tube Super-Heterodyne circuit with PENTODE and Multi-Mu tubes. AutomaticVolumeControl with Clarion's new Super-Sensitive Switch eliminating the between-station noise; variable tone control; Fullvision dial. Standard of performance equal to 10or 11-tube sets.

50 7 Complete READY TO PLAY

Five models priced from TRANSFORMER CORPORATION OF AMERICA Ogden and Keeler Avenues · Chicago, Illinois

Clarion Radio

PORTABLE MIDGET PAM ADDRESS SYSTEM

Costs but 3 Rentals

Look what you get

The list price of the complete Midget PAM Address System is \$115.00, and see what you: customers receive for their money:

2-button Hand Microphone with volume control in handle and 50 feet of shielded cable.
Microphone Amplifier.
Power Amplifier.
Dynamic Speaker.
Complete set of tubes.
AC connection cord and plug.

All of the above in a single carrying case having a total weight of 28 lbs.

Write for Bulletin RR No. 26 descriptive of the Portable Midget PAM Address system.

amson Tlectric

Manufacturers Since 1882 Main Office: CANTON, MASS. Factories at: CANTON AND WATERTOWN, MASS.

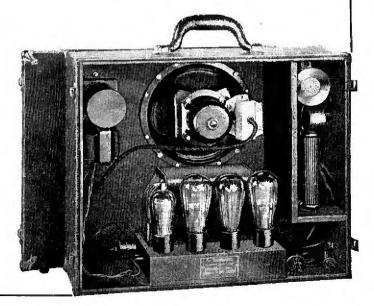


and Makes 3 Profits

You can pay for this system with one, two or three rentals, and when sold—usually on one demonstration—you net three times the profit that comes from a sale of the average Midget Radio Set, and your service problem is negligible.

You sell classes of prospects now best able to buy because you are handling an article designed for commercial use, and not a luxury.

When you purchase a Portable PAM Address System, you are buying a product of a manufacturer now in its 49th year of business; a pioneer in the Amplifier field, and the originator of the all AC-operated microphone amplifier and the all ACoperated portable Group Address system.



Radio Retailing, September, 1931

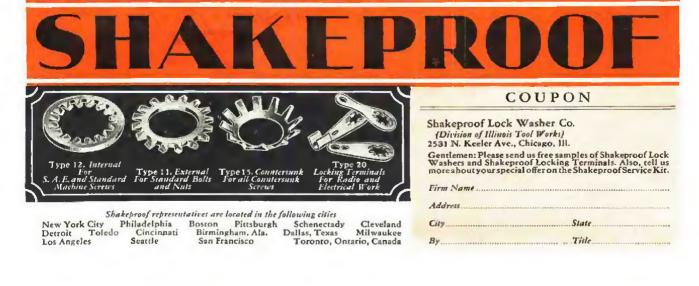
Cut down Your Service Calls

57

WHEN a customer calls for service it means two things. First, the product you have sold has failed to give perfect performance and second, because of this failure, you are forced to spend time and money to correct the trouble.

Hundreds of manufacturers are helping you avoid costly service calls by equiping their products with Shakeproof Lock Washers and Shakeproof Locking Terminals. The patented twisted teeth of this positive locking device keeps connections absolutely tight and reduces customer complaints to a minimum. Be sure the appliances you handle are Shakeproof equipped—it's the surest way to cut down service calls.

Test Shakeproof on your next service job—free samples will be mailed on request—send the coupon today!



S P E C I A L O F F E R! Here is a handy kit of Shakeproof Lock Washers and Shakeproof Locking Terminals that is just what you need. It contains an ample supply of many types and sizes, neatly arranged in this special box. It makes a very convenient assortment for the shop and can be easily tucked in the tool bag. Mail the coupon below for free samples and complete information on

how you can secure a Shakeproof Service Kit.

1 24

SERVICE DEPT





Just plug Cinderella into any electric outlet. It does the washing in a jiffy for only one cent an hour.



Cinderella is useful for the week's wash, and for the quickly needed things that are washed every day.



Cinderella is a big seller to small families, especially to families with young babies.



Cinderella is safe for the daintiest silks and laces; it has no moving parts to injure clothes.



Cinderella is just right for apartment dwellers. It can be tucked away in small space when not in use.



This glass demonstrator shows Cinderella's "Vacuum-Action" in action. It helps you make sales.

8,000,000 Homes Every Month Get this Sales-Making Story





IF EVER there was a price set for selling an electric clothes washer—that's \$37.50. If ever a clothes washer was set for selling—that's Cinderella. With Cinderella's amazing new "Vacuum-Action", doing away with all moving parts, with Cinderella's quick portability, its low operating cost, its larger-than-you-suspected capacity—it's easy to understand why Cinderella's story makes sales.

We're telling the story. Telling it to more than 8,000,000 homes every month.

Telling it through five of the most powerful women's magazines. Telling it forcefully, simply, effectively.

Jump on the band wagon. Display Cinderella in your window, in your store, in your advertising, and cash in on this productive national advertising. Take full advantage of the liberal sales policies that are making profits for dealers throughout the nation.

Don't delay. Send in the coupon for full details of the plan NOW.

The Black & Decker Mfg. Co., BLAC	K & DUCKER J World's Largest
502 E. Pennsylvania Ave.	World's Largest Manufacturer of
Fowson, Md.	Portable Electric Tot
	A OTTIONO AND A OT
Please send me full information on the Cinderella S	
Please send me full information on the Cinderella S Name	Sales Plan.
	Sales Plan.

OR

UNITED STATES

Tudor Console-Only

equipped for regular

broadcast reception

Same model equipped for both regular broadcast and foreign or domestic short wave reception, \$8775

Stoward Warner Simplified Superheterodyne Circuit, using the latest Steward Warner Simplified Superheterodyne Circuit, using the latest Pentode and Multi Mu tubes. Tone Control, Television Terminals, Full Vision Dial, Electro-Dynamic Reproducer. Other models from \$23.95 to \$104.75 complete with tubes. Western prices slightly higher.

as shown, complete with tubes

with

tubes



ALL THE WORLD

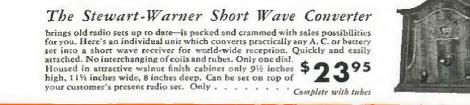
And that means the New Stewart-Warner Silver Jubilee Line.

Here is an amazing line that includes models giving both long-wave and short-wave reception. Sets that not only bring in domestic programs with all the traditional Stewart-Warner clearness and life-like tones, but that tune in on all the world!

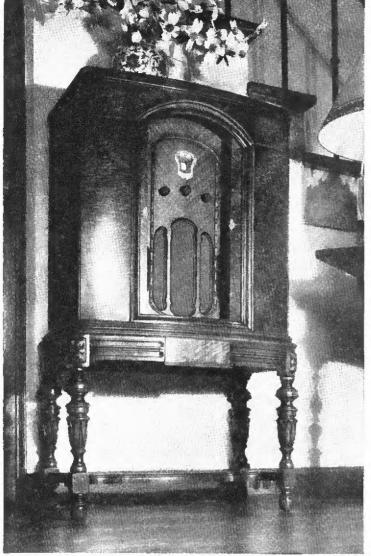
Foreign stations, ships at sea, airplanes, police calls and all others sending on short-wave lengths -are brought within range! And the change-over from regular to short-wave reception is effected by the simple turn of a dial.

Silver Jubilee Models are housed in cabinets of outstanding beauty in design and finish. They incorporate every essential for radio reception at its best. Yet, because of the tremendous production facilities behind them, they are sold at the lowest prices in radio history.

Don't sell just radio-sell world-wide reception, radio's latest, greatest thrill! Handle Silver Jubilee Sets. Capitalize the Stewart-Warner franchiseand all the prestige and benefits of national advertising that go with it! Your Stewart-Warner wholesaler will gladly supply details. Stewart-Warner Corporation, Chicago, Illinois.



Vilver Jubilee RADIO STEWART-V GREAT RADIO BACKED BY A GREAT NAME



MODEL K90

Completely shielded, ten tube, interstage double band pass refined superheterodyne with automatic volume control, push-pull pentode out-put variable mu tubes and power detection. List \$149.50 with tubes.

Other models: Model K80 (console) 9 tubes. List \$129.50 with tubes. Model K70 (console) 8 tubes, List \$99.50 with tubes. Model K60 7 tubes, Jist \$69.30 with tubes, Jist \$99.30 with tobes, model work includes List \$69.30 with tubes, All Kofster International models include the hand pass refined superheterodyne circuit, pre-selector, pentode and variable mu tubes and tone control. All console models have automatic volume control.

SEE OUR EXHIBIT Radio-Electrical World's Fair New Madikon Square Garden, New York September 21st to the 26th, incl. SECTION BB BOOTH 9.11

There's a place at the Jop

FOR YOU AND KOLSTER

There's a market that has waited for years for the New Kolster International ... waited for the refinement in radio that the New Kolster International represents... waited for the new beauty and clarity of tone that it offers.

Nothing has been left undone in producing the New Kolster International that would add one single degree of quality to its performance. No expense has been spared in making the New Kolster International measure up to the combined reputations of Kolster and of the great communications organization that is back of it-Maekay Radio and Telegraph Company.

There's a place at the top for you and Kolster. Write or wire today for more information direct to 67 Broad Street, New York City,

KOLSTER RADIO INC.

International Telephone and Telegraph Building 67 Broad Street, New York City In Canada: Kolster Radio Ltd. Factory: 360 Thomas Street Toronto, Canada Newark, N. J.

It will be the Kolster International policy to sell only through distributors and dealers of recognized standing in the industry and only on a basis that will provide a fair profit for all concerned.

The New-KOLSTER TERNATIONA

In this laboratory endurance test several hundred standard Arcturus Pentode Tubes are operated under conditions paralleling the most severe usage en countered in a radio receiver. These tubes, up to the time of going to press, which have already excerded the life expected from the baracteristics (including emission) of every tube are alove the requirements for efficient performance. These tubes are perfodically selected from actual production, and these results are representative of the consistent uniformity of Arcturus Pentodes.



are you getting this kind of service from your **PENTODE TUBES**?

Remember National Radio

Week, September 21-27

LABORATORY TE<mark>S</mark>TS SHOW THAT ARCTURUS PENTODES GIVE THE SAME LONG LIFE AS TYPE '45 POWER TUBES OF THE BEST MANUFACTURE. LONGER MANUFACTURING EXPE-RIENCE EXPLAINS THIS EXCEPTIONAL ENDURANCE

The Arcturus Pentode Tube made possible many important radio improvements, and is performing efficiently in many of the country's leading radio receivers. With this better performance Arcturus Pentodes are giving the same long life that made the Blue Tube famous. Arcturus has been making Pentodes since 1928—more than a full year's extra experience to perfect manufacturing processes for this complex tube. That is the reason why the Arcturus Pentode Tube gives unusually long service — service that has proved most satisfactory to many of the leading manufacturers of today's Pentode Radio Receivers. That is the reason why Arcturus Pentodes are ranked as standard and used in laboratory tests by critical engineers. And that is why jobbers and dealers, to avoid expensive service calls, demand Arcturus Pentodes with their sets.

ARCTURUS RADIO TUBE COMPANY, NEWARK, NEW JERSEY



Radio Retailing, A McGraw-Hill Publication

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How to BUILD PROFITS IN SERVICING 13 () 1

The first step to bigger servicing profits is good equipment. It means rapid, thorough, complete work — satisfied customers. "Call-backs" are cut down? Profits go up.

For this type of service work, use Weston Model 566, type 3, Radio Test

Set. It makes all the necessary and required tests on any receiver ... checks all type tubes with voltages supplied by the set-easily and quickly. Extra wide instrument ranges plus an ingenious arrangement of switches and pin-jacks speed up tests and cut out errors. Set or tube trouble is quickly and accurately located—its extent easily determined.

Besides, Weston gives FREE with every Model 566, type 3, a Complete Service Manual. It tells the causes of poor reception; how to WRITE FOR locate and fix them. It gives many helpful tips—information that **BOOKLET J** builds your profits. It is another extra that you get in a Weston.

3 100



FRELINGHUYSEN AVENUE 581 NEWARK, . NEW JERSEY rasa

Radio dealers will do a lot of business in the Kadio dealers will do a lot of business in the Fall of 1931. For some of them—the more business they do the more money they will

quicker sales.

lose.

10 TUBE SUPER-HET. \$126 COMPLETE

5 TUBE T. R. F. MIDGET \$42.50 COMPLETE

MODERNISTIC \$79.50 COMPLETE But NOT THE PILOT DEALER. Pilot but NU1 THE FILUT DEALER. FILOT has a line and Pilot has a Plan! The has a line and Filot has a Flant the radio dealer who handles the Pilot line will make money with it. First because be has a superlatively free line of earlier

will make money with it. First because he has a superlatively fine line of radio ne nas a superlatively fine line of radio receivers; second because they are fairly priced to give full value to the consumer and a full proference the tairly priced to give full value to the consumer and a full profit to the dealer; third because Pilot has a plan to UTT P the dealer per more and dealer, unity because rive has a plant to HELP the dealer get more and

Here in the largest self-contained radio plant in the world, where we

radio plant in the world, where we make everything that goes into Pilot radio sets except the cabi-pilot radio sets except the cabi-

Pilot radio sets except the capl-nets, we are backing our 23 year old reputation for KNOWING THE RADIO BUSINESS!

In certain territories we are interested in arranging distribution and dealer franchises. utor and dealer handlinger us give you the Pilot Plan. It will help you no matter what line you handle.

LAWRENCE, MASS. I want to make money in the radio business this year. I may or may not be interested in the Pilor Line—but anyway SEND ME THE DETAILS OF THE PILOT PLAN.

Address

Second and second and

PILOT RADIO AND TUBE CORP. LAWRENCE, MASS.

Name ...

Company -----

www.americanradiohistory.com

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CONSOLE 7 TUBE SUPER \$89.50 COMPLETE

ATWATER KENT RADIO Voices from the FIRING LINE



NINE NEW UP-TO-THE-MINUTE 1932 MODELS

Every one a Super-heterodyne—tone control and static reducer... automatic volume control if you want it, to counteract "fading"... variable-mn and pentode tubes...screen-grid...10 kilocycle selectivity ... adjuster for any length of antenna ... Quick-Vision dial ... velvetaction station selector—the smoothest, easiest control in the world ... volume control and on-and-off switch combined...Golden Voice electrodynamic speaker...special Atwater Kent single-spot circuit, climinating interference...weight-saving armored chassis...cabinets of grace, beauty, and good taste—a further refinement of the characteristic Atwater Kent design, approved by famous interior decorators as the kind of radio one likes to live with...every model complete with tubes.

See us at Radio World's Fair, Madison Square Garden, New York, September 21-26, Booths 1 and 3; Section G.

CONSOLE MODEL 89—Hand-rubbed walnut highboy with sliding doors. Ornamental grille over beautiful duo-tone fabric, Tubes include variable-mu's and two pentodes. The finest radio that can bebuilt, \$132.00, complete with tubes.

COMPACT MODEL 82—Automatic volume control and other big-set features. Gothic arch of zebra wood. \$69.80, complete with tubes,



Model 82

GOLDEN VALUES with

Atwater Kent Radio

SEE what the radio trade says, after testing the new 1932 Atwater Kent Radio for itself—a few sentences from a great pile of spontaneous, unsolicited, free-will reports:

"... No set at any price will out-perform the new Atwater Kent."

"....Wonderful! Tone is perfect."

"... Absence of cross-modulation very noticeable. Ability to handle loud volume without distortion fine."

"... Most remarkable set Atwater Kent ever put out."

"...Wonderful performer in every way...Tone and selectivity excellent."

"....Very sensitive and selective. Carries the power great."

"...Sharpest tuning set ever tested. Tone quality fine. Plenty of power on all frequencies."

"...CONGRATULATIONS! It has everything the public wants."

Low prices—yes. But a thousand times more important to dealer and public is VALUE. Here are the greatest values in Atwater Kent history, with a price for every purse, and *every* price containing a fair profit for the dealer.



ATWATER KENT MANUFACTURING CO. A. Atwater Kent, President 4700 Wissahiekon Ave. Philadelphia, Pa.

> CONSOLE MODEL 85—Exquisite American walnut lowboy with matched butt walnut front panels. \$96.00, complete with tubes.

COMPACT MODEL 80—New standard of small-set values . . . amazing example of Atwater Kent workmanship. \$62.80, complete with tubes.

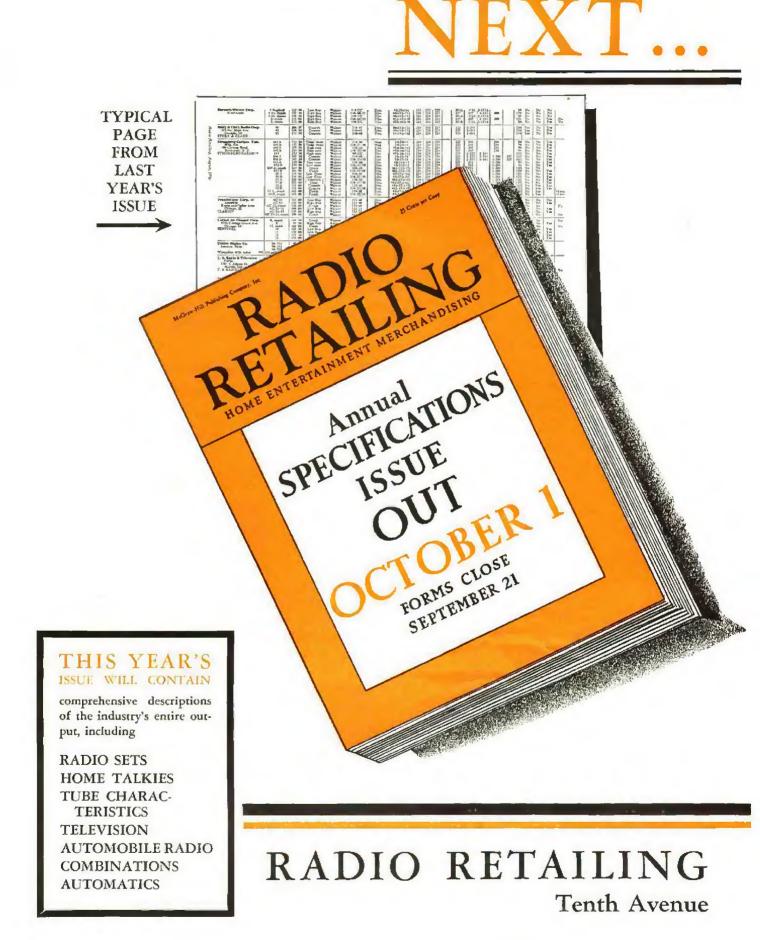
> Other models, including battery sets using the new 2-volt tubes and uir-cell battery.



65

the GOLDEN VOICE

Radio Retailing, A McGraw-Hill Publication



MONTH'S ISSUE

will be your Buying Guide for Fall and Christmas....In your hands October 1....

LATEST SPECIFICATIONS OF ALL PRODUCTS

W

ITH October 1 begin Radio's most active three months. The year's last quarter is always the best business quarter.

And, as usual, *Radio Retailing* in its issue of October 1 will give you complete buying specifications on everything of interest to the dealer in radio merchandise—prices, sizes, styles, tubes, power, and so forth. This year the scope of *Radio Retailing's* SPECIFICATIONS ISSUE will be extended to cover Automatics, Home Talkies, Television and Automobile Radio.

This complete, condensed, easily-consulted buying guide makes it possible to stock up just at the right time with exactly the items your judgment tells you will be most attractive to your customers. The attractive prices now offered can hardly fail to bring good business *if you have the goods on hand*.

In addition to the specifications contained in the editorial pages of the

October Specifications Issue, you will find in the advertising pages messages from active manufacturers giving timely information concerning their products, sales features, advertising plans, and so forth. Crossindexing in the editorial pages will increase the usefulness of the advertisements.

IF YOU ARE GOING TO NEED EXTRA COPIES of the October Issue, order them now.

· ABC · ABP · · · · · · at 36th Street, New York

TO ADVERTISERS:

Advertising forms for the October Specifications Issue close September 21. Reserve your space AT ONCE.

NOW THAT RADIO HAS GONE "5 AND 10"

. . . SELL PACENT

HOME TALKIE AT A REAL PROFIT

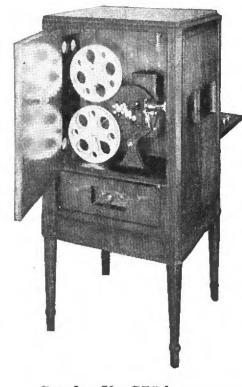
The market is ready . . . waiting for you. Everyone goes to the movies . . . everyone would like to hold shows at home. And they can! With the new Pacent Home Talkie!

Here's your chance! Pacent, with more than 20 years' experience in electrical reproduction, has produced a three-purpose model of unusually compact design. Sturdy and wellbuilt. Beautiful. When not in use, it is a handsome, distinctive piece of walnut furniture; in operation, a complete talkie projector capable of perfect professional performance.

And that is not all! In addition, the new Pacent Home Talkie will play silent moving pictures. If you have your own movie camera you can have music with your films. And with the projecter cut out, it is the finest electric phonograph you ever listened to, using either 33¹/₃ R. P. M. or 78 R. P. M. Records.

Customers to whom you have sold radios will be interested in the special console model

PACENT ELECTRIC COMPANY, INC. 91 SEVENTH AVENUE, NEW YORK CITY	
	ainly am interested in learning ent Home Talkie line. Please send
literature and comp	lete information.
Name	
Address	
City	State



Three-Parpose Equipment as illustrated lists for \$225 less tubes and screen

Catalog No. 750A Consolette without amplifier and speaker for use with standard radio receivers **\$180.00.**

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

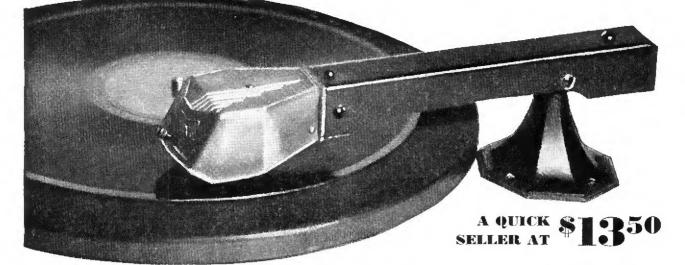
designed to use the amplifier and speaker of standard receivers. Get out your old customer records and see how easy it is to sell Pacent Home Talkies.

A STEADY GROWING IN-COME FROM FILM RENTALS

There is now plenty of film product for your customers to play. Continuous and increasing profits are being realized by wideawake dealers who are establishing suitable film libraries. Rentals average \$.50 to \$1.00 per night per reel. Write for complete list of films.

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

. . AN EXTRA-PROFIT SUGGESTION!



DEMONSTRATE and SELL THE NEW PHONOVOX

Read how Wide-Awake Dealers are Increasing their Sales. Every one who comes into your store is a potential customer for the new Pacent Phonovox, If they own both a radio and a phonograph (and almost everyone does) then explain ... and demonstrate ... the marvelous reproduction obtainable with Phonovox.

Whenever a customer buys a phonograph record demonstrate Phonovox. Point out that only with this equipment can they get such beauty and brilliance of tone.

Pacent's more than 20 years of experience in the field of sound amplification and reproduction have made this pick-up possible. Physically the new PACENT NO. 120 PHONOVOX follows the modernistic trend in receiver design. Its new rigid and delicately balanced tone arm finished in a deep black forms a striking contrast with the glistening bronze sound head. Moreover, changes in engineering design now make possible an output, more than 20%.greater than possible with an ordinary pick-up. The new design metal armature is far ahead of anything yet attempted in pickup construction. Faithful reproduction is assured through the use of a special steel alloy.

Get back of this new item NOW and learn what thousands of other dealers already have learned – THE PACENT PHO-NOVOX REPRESENTS QUICK TURNOVER AND BIG PROFITS.



A VIRGIN SALES FIELD IS OPEN



32 VOLT Superheterodyne

The dawn of a new day in radio retailing! The opening of a new opportunity for you to rapidly increase your profits — your business — is now here.

The L. Tatro 32 Volt Superheterodyne brings to hundreds of thousands of farm light plant own-

ers the first chance to own a modern, light socket operated receiver. Never before have they been able to obtain it.

New Low List Price

A complete radio receiver — light socket operated. Eliminates "A" batteries — a feature that farmers instantly appreciate. Does away with costly replacements of "B" batteries every few months. Economical operation — uses less than 50 watts. Marvelous tone — beautiful cabinets. Every modern radio circuit and tube feature.

and No Competition

The L. Tatro 32 Volt Superheterodyne stands alone — it is not in a competitive field for no other receiver offers the farm light plant owner modern up-to-date radio reception. You can quickly and easily sell your share of this great market.



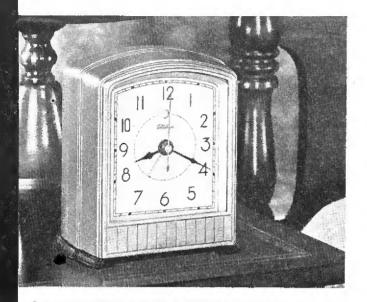
A National Advertising Campaign That Will Make Sales For You!

L. Tatro consumer advertising is appearing on regular schedule in the leading national and sectional farm papers with a total circulation of more than 7,000,000. Your territory will be completely covered — prospects in your community will know the L. Tatro 32 Volt Radio — and you can sell them.

Write or wire today for full details of the L. Tatro unusual new dealers' sales plan — It opens a virgin sales field for you. Remember — The L. Tatro 32 Volt Radio is time tested and proven. More than two years in the field. Thousands of satisfied users are building sales for dealers.

L. TATRO PRODUCTS CORP., DECORAH, IOWA

Sell TWO Electric Clocks instead of ONE!



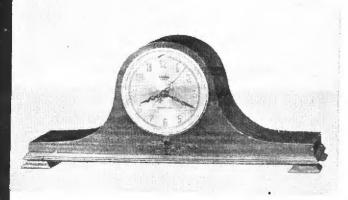
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TELECHRON SELF-STARTING "TELALARM"

TO RETAIL AT S 95

No. 711. Non-tarnishing "Dura-silveralloy" metal case with black Bakelite base. Five inches high. Dial illuminated by ILLUMINATED small Mazda lamp with rheostat control for bright or dim.

WITH DIAL



REVERE SELF-STARTING TAMBOUR

TO RETAIL AT 75

"LOYAL" Colouial design. Case of Honduras mahogany, 181/8" wide. No. 300, with Westminster chimes, \$29.75. No. 500, hour and half-hour strike, \$22.75.



This combination makes it easy

TELALARM and LOYAL, launched last month, are selling like wildfire! We knew they would. They're right in every respect. Possibly you didn't realize, at first, the perfect combination-sale that these clocks and their prices make possible.

Clever retailers are pushing the two of them together . . . pointing out that Telalarm stands guard day and night upstairs, while Loyal chimes away waking hours downstairs . . . emphasizing the fact that both can be bought at the new low prices for what one such clock would have cost a few weeks ago. That sales strategy means two clocks to a customer instead of one - two profits - two salesmen in two important rooms in the home daily demonstrating the need for electric accuracy and convenience in other rooms as well.

Telalarm is listed as 711, a lucky number for any man who stocks it ! It almost sells itself, with its handsome case of "Dura-silver-alloy" (won't stain or tarnish)-its dial lighted by a little Mazda lamp (rheostat control for bright or dim)-its pleasant alarm bell-and its silent, self-starting Telechron motor.

Loyal packs a potent sales-punch, too - case of finest Honduras mahogany, Colonial design-\$22.75. with hour and half-hour strike - \$29.75, with mellow; Westminster chimes -- the lowest prices ever put on such a product!

Everybody needs an alarm clock. Everybody wants a chime clock. And, of course, a Hostess model for the kitchen. You can do wonders with these-backed by big-space advertising in national magazines. Let the coupon show you how.

Telechron is the trude-mark, registered in the U. S. Pat. Off., of the Warren Telechron Company. The Revere Clock Company, of Cincinnali, Ohio, manufactures strike and chime clocks with Telechron motors, priced up to \$650.



WARREN TELECHRON COMPANY 39 Main Street, Ashland, Mussaclusetts Please send me information on Telechron Electric Clocks and details of your Authorized Dealer Franchise.

Name. Address

RADIO'S GREAT PROFIT LINE



We Quote With Pride!

Cal. J. Zamoiski, *President* Jos. M. Zamoiski Co. Baltimore, Md.

H. P. Harbison, *President* Harbison Mfg. Co. Kansas City, Mo.

Warren Cox, Vice President Midland Radio Corporation Cleveland, Ohio

T. H. Lewis, Vice President Elliott-Lewis Electrical Co. Philadelphia, Pa. "The deciding factor in making our decision to distribute General Motors Radio was flexible ability to manufacture, plus ability to merchandise successfully."

"We selected the General Motors Radio line this year because we knew a popular priced line, coupled with the name General Motors, would have immediate public acceptance. Up to the present time we have established over 200 retail dealers. Our dealers report to us that the General Motors line has immediate consumer acceptance and we are getting some nice repeat business."

"The General Motors Improved Super-Heterodyne establishes a new standard of value for radio merchandise. Never before has the dealer had a line which offers the profit possibilities, and we are fortunate to have a line which will occupy a prominent position in the industry."

"Our decision to distribute the General Motors line of radio receiving sets was influenced largely by our recognition of General Motors prestige—quality of product manufactured in its other lines—the keen merchandising brains of the entire General Motors organization—its financial responsibility and its recognition of good business principles in dealing with the trade. We find that, with the quality which is being built into the 1931 production and the fact that General Motors is offering custom-built sets at prices that compare favorably with other manufacturers' general lines, the dealers are quickly recognizing that they are being put in a position to step ahead of competition."

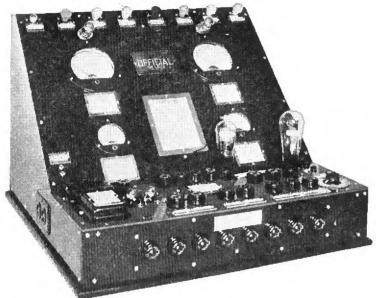
Multiply the opinions of these four men a hundredfold and you have the reasons why General Motors Radio is today considered the great profit line of the industry by leading distributors and dealers throughout America. The G. M. Improved Super-Heterodyne is as fine a radio chassis as can be built. The eight standard models ranging in price from \$39.50 to \$250, with tubes, and the eight custom-built models ranging from \$95 to \$350, with tubes, represent the widest range of cabinet styles and prices offered by any manufacturer. It will pay you to investigate the new series General Motors Radio. We feel confident that you, too, will want to enjoy the advantages of handling "radio's great profit line."

GENERAL MOTORS RADIO CORPORATION DAYTON, OHIO

72

A Model for every Purse and Preference

THIS **\$750.00** TUBE TESTING EQUIPMENT

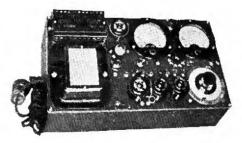


HICKOK SPECIAL A. C. 4301 (List Value \$750.00) and WHAT IT DOES

1—Reads dynamic mutual conductance directly on meter. 2—Reads plate current directly on meter. 3—Reads grid current or gas directly on meter. 4—Checks for cathode-filament leakage. 5—Indicates shorts between all elements of tubes on series of colored lamps. 6—Supplies up to 250 volts DC for plate circuit, thus making possible a dependable and accurate test. 7—Checks all type tubes. 8—Meters cannot be burned out or injured. 9—Operates from 60 cycle 110 volt AC line—requires no batteries of any kind. 10—Compensates for all line fluctuations.

HICKOK SPECIAL A. C. 47 (List Value \$125.00)

1-Applies DC to plate and grid. 2-Indicates directly on meters, dynamic mutual conductance and plate current. 3-Operates from 60 cycle 110 volt AC line. 4-All indications independent of line fluctuations. 5-Tests all the latest type tubes.



FREE to Preferential TUNG-SOL Dealers

HERE is an unprecedented dealer offer. A Hickok Special Tube Tester delivered without cost, and at once, to those accepting the new Tung-Sol Preferential Plan.

Placed on your counter and announced in your window this equipment will bring radio owners flocking to your shop to have their tubes tested. Its impressive appearance will gain their immediate confidence—make more sales—more profits—both in tubes and sets. Then too, it furnishes dealers with a quick and accurate means of testing tubes of all types.

A smaller Hickok Special Tube Tester, listing at \$125.00, is also available through the Preferential Plan. This tester is especially valuable in that it may be used either in the store or easily carried about by the service man.

For full information on how to own one or both of these testers, get in immediate touch with our nearest branch.



THE KEN·RAD Acremeter

and the Complete Merchandising Plan back of it have proved to be a whale of a Success!



74

Every smart merchandiser agrees that Ken-Rad has the real solution to radio tube replacement sales. They all see how this complete plan also increases the sale of radio sets —and how it brings customers into the store for other merchandise as well. While the Ken-Rad Acremeter is a remarkable tube merchandising instrument, it is but one small part of the complete Ken-Rad plan. Ken-Rad is not just selling a tube tester—something that has been done for years. Ken-Rad is offering what you want and need now—a complete and really successful merchandising plan.

There is only <u>one</u> Acremeter—and only Ken·Rad can give you the complete and fully protected merchandising plan that has proved to be such a sales sensation for so many dealers and distributors everywhere.

> Write for the story of the many remarkable successes with the Ken-Rad Acremeter Plan. THE KEN-RAD CORPORATION, *Incorporated*, OWENSBORO, KY., Licensed Manufacturers of

Ken·Rad Fine Radio Tubes

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The Columaire Jr. Deluxe-a completely screened 9tube super-heterodyne set with fully automatic volume control, fully graduated tone control, Multi-Mu and Push-Pull Power Pentode tubes.



The Portable Midget; The WR-5 Conventional Model; The Columaire Jr.; The Columette.

RADIO NEW BEAUTY! IMPROVED PERFORMANCE POPULAR PRICES!

ling

Mate

Take smart, new style plus the improved performance of radically different radio design. Then add a popular price-no higher than for old-fashioned radios of conventional type. There you have a sure-fire recipe for increased radio sales. That's what Westinghouse offers in the new Columaire Junior Deluxe-a radio that in beauty, in performance and in price leaves radio tradition behind.

See your Westinghouse Radio distributor for information about this important new model and about the complete line of companion sets in the Columaire series and conventional designs. Ask him to tell you about the advertising and sales support that Westinghouse offers.

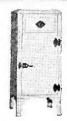
WESTINGHOUSE ELECTRIC & MANUFACTURING CO. MERCHANDISING DEPARTMENT MANSFIELD, OHIO





Radio

The Westing-house "Complete-ly Balanced" Refrigerator with amazing improvements and new discoveries.



. . Constant





The famous Flavor Zone Ranges in types, sizes and prices for every home.

> complete line Λ of irons, led by the new 1000-watt Master-Matic.



WEBSTER ELECTRIC CO.



SOUND DISTRIBUTION SYSTEMS—their sales, installation and servicing — offer a rich field for men or organizations with sales ability and engineering facilities.

These systems require amplifiers . . . Webster Amplifiers, the product of an institution specializing in the manufacture of delicate and precise electrical apparatus for nearly a quarter of a century. They are the product which provide an opportunity to enter the Sound Distribution field for well established organizations. Our complete line includes models ranging from small, base type amplifiers for portable or home use to "Rack and Panel" types for the largest permanent installations. We solicit inquiries.

Webster Electric Company Racine Wisconsin

Webster Transformers Webster Electric Pick-ups Webster Power Amplifiers



Radio Retailing, September, 1931



AMERICAN Bosch Radio announces its most sensational offering of 1931-a modern super-heterodyne built to American Bosch standards for \$67.50 complete with tubes.

This remarkable receiver includes all the latest developments—a perfect tone control which permits a brilliant or mellow reception—single station selector—Line-O-Lite tuning—it is thoroughly selective and unusually sensitive. A perfect super-heterodyne receiver in a walnut veneered cabinet 39¹/₁₆ inches high—all for the low price of—\$67.50 complete with tubes.

Write at once to the factory or the nearest branch for complete details on the American Bosch Radio Line.

UNITED	Α	MER	ICAN	l B	OSCH		CORP	0	RA	TION
SPRINGFIELD, MASS.		Branches:	NEW YOR	к -	CHICAGO		DETROIT		SAN	FRANCISCO
	A	merican Bosch Radio	is licensed under	patents and ap	plications of R. C. A. V	Vestern	prices slightly higher,			

Radio Retailing, A McGraw-Hill Publication



No. 550 OSCILLATOR (Licensed by A. T. & T. Co.) \$21 Net to dealer Net to dealer \$18 \$30 list with output meter

If not at your Jobbers we will ship direct when remittance accompanies order.

A sturdy modulated instrument carefully made. Completely shielded with separate battery compartment. Furnished with 221/2-v. and 3-v. batteries. Uses one '30 tube. Covers broadcast band (550-1500-k.c.) and intermediate band (120-185 k.c.). Operating instructions attached in case cover with shielded wire leads. Very compact. In leatherette case, 6x111/2x51/2 in. Weighs but 8 pounds. Built to high standards.

Every serviceman should have the No. 550 oscillator to align r.f. gang condensers, locate defective r.f. transformers, adjust i.f. transformers, check oscillator stage and determine sensitivity of a receiver. Λ necessary instrument. Get yours today. Write for catalog of servicing instruments.

Readrite Meter Works Established 1904 6 College Ave., Bluffton, Ohio

This calinet is beauti-fully reneared to Ameri-can Walnot and earries overlay decuration of Bird's-Eye Maole. The famous for its reliable, famous for its reliable, accurate time keeping, Full Westminster Chimes are available with West-inghouse movement at \$30,00 extra.

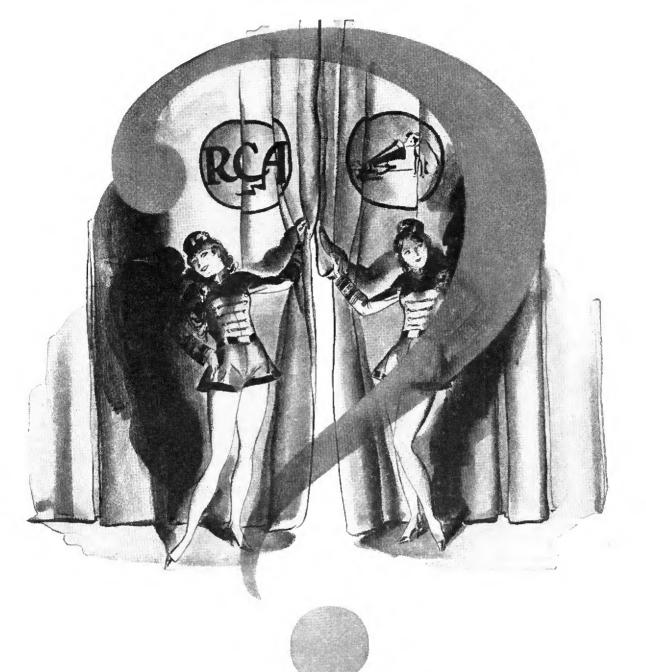
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VIRGI

Pentudo Tube-Variable-Mu Tubes--Licensed Under R.C.A. Patents. Can be fatnished for 110 vol. 60 cycles A.C. cur-rent out

SSTUBES DISTRIBUTORS We have an attractive dis-tributor proposition with some desirable territory still open. Exclusive churk exbinets shipped complete less radio instattation available immediately. An opportunity for you to merchandlse your own radio in this fast selling cabinet. A real oppor-tunity to Increase unit retail sales. Write or wire for details, Folder sont upon request. cabinet. A real tunity to Increas retail safes. Wr wire for details, sent upon request.

CO



Get set for the biggest radio selling idea in a decade... the outgrowth of a truly great engineering development. It's another great achievement from "RADIO HEADQUARTERS."

RCA Victor Company, Inc. A Radio Corporation of America Subsidiary . Camden, N. J.

RCA CALLER WILLE

Radio Cabinets



And here is a console that is getting big attention every-where—it's a real piece of merchandise priced lower than ever before. You'll find it the right receiver with which to keep sales brisk and profitable.



Audiola receivers incornorate every dominant sales feature --- note them

SUPERHETERODYNE List price complete with genuine Cun-ningham or Radiotron Tubes

PENTODE, VARIABLE-MU, FULL RANGE TONE CONTROL, FULL VISION DIAL, PHANTOM LIGHT INDICATOR, R. C. A. TUBES, JENSEN DYNAMIC SPEAKER, BEAUTIFUL CABINETS SUPERB TONE QUALITY, EXCEPTIONAL PERFORMANCE, EXTREME VALUE.

Since the first Audiola receiver was produced, 10 years ago, Audiola has been outstanding in quality. During all this time Audiola has made money for dealers and made good for its owners. Audiola continues to pro-gress right along. Audiola today offers dealers a real money-making opportunity and we suggest you give imattention to Audiola Consoles. Write for mediate details.

Model 712



No. 15-Fits all fligh-boys-both consoles and combinations. \$6 (\$6.75 Colorado and West.) No. 12-Fits all Low-boys and console models not over 42 inches bigh, \$4 (\$4.50 Colorado and West.) No. \$1-Fite -7 -for ALL Radios and Washing Machines Washing Machines Universal Covers are made to fit ALL radios, from the smallest midget set to the tallest highboy—and ALL wash-ing machines; round or square tub types, either wringer or spinner models. Perfect protection against damage in delivery. Made of strong, weather-proof brown drill, padded with thick layer of high grade com-fort cotton—guaranteed not to sep-arate unless actually torn. Adjustable heavy webbing tightly straps cover around cabinet or washer. West.) No. 11—Fits all very small Midget sets of 4 tubes or less. \$1.25 (\$1.60 Colorado and West.) No. 10—Fits all Junior Table models of from 5 to 9 tubes. \$2 (\$2.50 Colorado and West.) MAISH BEDDING CO. 1501 Freeman Ave., Cincinnati, O. 1410(030)113710721011811751000 INTERNAL INCOMENDATION OF THE STATE OF THE S 51. . Chillet & committee EXPLOSION FRANKLAND FRANKLAND FRANKLAND Model "B B" The Most List Price Rugged \$25.00 Microphone Microphone Only Made The Superlative Broadcast Microphone EXTRA HEAVY TYPE-TWO BUTTON Outstanding beauty of workman-ship and finish. Extra Heavy 24-Karat Pure Gold Centers. Duralumin diaphragms, Accu-rately Machined. Scientifically Damped. Three Degrees of Sensitivity. Other Models from \$5.00 up. UNIVERSAL MICROPHONE CO., Ltd. 1163 Hyde Park B'vd. INCLEWOOD CALIF., U. S. A. CABINETS Your most powerful weapon in meet-

WEATHER-PROOF

PADDED COVERS

ing 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

Everyone's Fingers Just Itch to Operate The NEW FADA AUTOMATIC FLASHOGRAPH

NOW YOU CAN DRAMATIZE YOUR DEMONSTRATIONS AND MAKE MORE SALES

The newest, the most salable and the most exciting feature in radio today is the new FADA Automatic Flashograph.

Instantly and automatically this ingenious device tells you when you are accurately tuned. The station you want at the precise point of perfect tone quality -and further records your favorite stations by call letter.

If you have not seen and heard a demonstration of this newest method of visual tuning, write or wire us today.

Other new features of the new 1931-32 DeLuxe Fada: Improved Superheterodyne Design, Pentode Tubes in Pushpull, Multi-Mu Screen Grid Tubes, Automatic Volume Control, Tone Filter and Noise Suppressor, Tuning Silencer.

A NEW FADA RADIO COMBINATION just added to the FADA line Model 57, 7 tube superheterodyne variable speed turn-table and specially designed screen grid detector to give full dance volume when required, complete with tubes

only \$159.50. The new FADA line is complete with full price range for every pocketbook giving dealers maximum profit possibilities with a name that has stood for the best in radio for years. Prices are as shown below from \$69.50 to \$175.00 all complete with tubes.

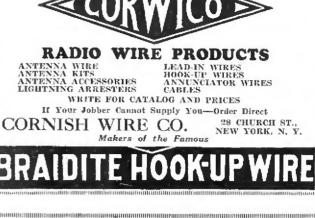
Manufactured by F. A. D. Andrea, Inc.,

del illustrated above \$147.50 com-te with tubes DeLuxe Model 48 tube superbaterodene.





PEPLACEMENT SAL Looming Langer Every Y COOD TUBES You know from experience that Radio Tubes should be replaced at least once a year-**Do Your Customers Know This?** DAVRAD You know that good and bad tubes look alike-TUBE PERFORMANCE METER **Do Your Customers Know This?** α Testing in the DayraD Tube Performance Meter shows which tubes should be replaced. Let Your Customers Do the Testing Tie in with the modern tube merchandising plan, by installing an impressive, accurate Tube Tester, one that tells conditions in plain English words-**Good Tubes** Weak Tubes 30-**Poor Tubes** -06 The DayraD Types 380 and 375 Tube Testers, wholly efficient and rapid, priced to suit your store and pocket book THE RADIO PRODUCTS COMPANY Dept. R., 5th & Norwood Sts. DAYTON, OHIO





Write for Builetin 431-R. JANETTE MFG. CO. 555 West Monroe St., Chicago, III,

and

THE EXCLUSION OF A DESCRIPTION OF A DESC

Singer Bldg., 149 Broadway, New York. Converters for Real Estate Trust Bldg., Philadelphia, 32, 115 and Herrison Sales Co., 314 Ninth Ave., N., 230 volt D.C. Seattle, Wash.

www.americanradiohistory.com

HOWARD

HOWARD CONSOLE Model No. 35 \$99.50 including tubes



New Superheterodyne circuit with Special Howard Dynamic Speaker and Tone Control. Walnut console cabinet, $40 \frac{1}{2}$ in. high, $22\frac{1}{2}$ in. wide, and $14\frac{1}{2}$ in. deep. Tubes employed; $2-27^{\circ}$ s, 1-80, $3-51^{\circ}$ s and $2-47^{\circ}$ s.

attains its highest quality and now carries the lowest price in HOWARD history » » » » » » » » » » »

The Howard Radio Company opens the season of 1931 and 32 with this positive statement:

1st., That during the ten years it has been making precision radios it has never made a receiver the equal of its present superheterodyne;

2nd., That notwithstanding it has reached its peak in quality, its current prices are now competitive with those of commercial sets.

This condition has been brought about by rigid adherence to a constructive policy,

THE 1931-1932 HOWARD LINE

 namely—To make only a quality radio—to merchandise it only upon lines which heretofore have been proved successful and not to be tempted into a program of over production.

The result of this sound policy has been that for more than ten years HOWARD has consistently made one of the outstanding receivers in the industry—that it has had a solid, substantial and continuous growth and that, today, it possesses one of the most highly respected names in radio.

To hundreds of dealers who sold their first HOWARDS eight, nine and ten years ago, and have sold them continuously since, it will be a matter of unbounded pride to read the statement made above—"that HOWARD has never made a receiver the equal of its present Superheterodyne, and that its current prices are now competitive with those of commercial sets."

These dealers know from long experience the character and integrity of this statement and to them it means assured profits.

Dealers who are interested in making a real profit in their radio business are asked to correspond with us.

HOWARD RADIO COMPANY Factory and General Offices SOUTH HAVEN, MICHIGAN

All models represent the latest developments in Radio Engineering in the scientific employment of the Pentode and Variable MU tubes.

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





PENTODE TRANSFORMERS

Three AmerTran Output Transformers for use with the new 247-type pentode power tube have won the enthusiastic approval of set builders. These pentode transformers are designed and built with the same skill and fine quality materials and workmanship that has made AmerTran Products the Standard of Excellence since 1922.

Type 6150—Output from two type 247 pentode tubes to 500 ohms (center tapped primary)

Type 6152—Output from two type 247 pentode tubes to 4000 ohms (center tapped primary)

Type 6200—Output from two type 247 pentode tubes to 15 ohms (center tapped primary)

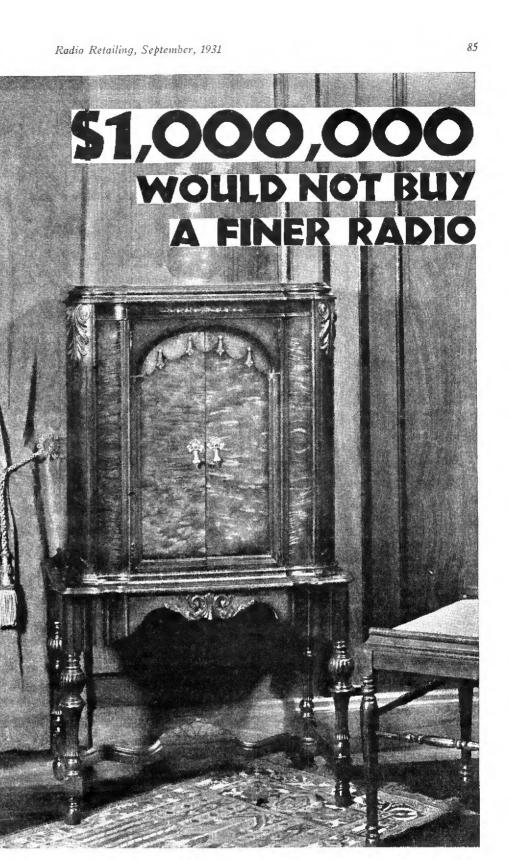
DO YOU KNOW

that your set can provide perfect reproduction of music if AmerTran audio Transformers are installed?

that radio results are improved if burnt-out transformers are replaced by AmerTran in your commercial set?

that an AmerTran audio transformer is available to satisfy every amplifier need?

Transformer Company American Factory and Main Office New York Office Room 1963 178 Emmet St. Hudson Terminal Newark, N. J. 50 Church Street R.R. 9-31 American Transformer Company 178 Emmet Street, Newark, N. J. Gentlemen: Send me bulletin with complete information of AmerTran Output Transformers. Name



10 TUBE SUPER-HETERODYNE

•

3 VARIO-MU TUBES

2 PENTODE TUBES IN PUSH-PULL

•

2 TONE-CONTROLS A SILVER-MARSHALL EXCLUSIVE FEATURE

10KC SELECTIVITY GUARANTEED

80 STATION SENSITIVITY

NON-RADIATING OSCILLATOR

•

WITH BUILT-IN AERIAL

Pin this page to your letterhead for details on the entire line. The Model G6 is the best receiver that the great S-M laboratories can build. No expense has been spared. It was built, not to a price, but to give the absolute utmost in radio performance. Yet, due to Silver-Marshall's Direct-to-Dealer system, eliminating the distributor's profit, its list price is only \$109.50 complete with Eveready Raytheon 4-Pillar tubes. Dealers in every state are finding that almost every sale of a G6 automatically brings in repeat business for it.







A QUALITY LINE AT COMPETITIVE PRICES

no sale need escape the Zenith Dealer



MODEL 91 ILLUSTRATED ABOVE

ZENITH prices complete with tubes range from \$155.00_{to}\$2,500.00 You can't miss with the Zenith Franchise. For here is Quality and outstanding Value in EVERY price class. You can't miss meeting the wants of every prospect who enters your store. You can't miss making real profit every time you make a sale. Zenith ... leader in the high-price field. Zenette ... leader in the low-price field. BOTH Zenith-designed, Zenithbuilt...BOTH known, proved Quality. Get in touch with your Zenith Distributor TODAY... and sign up.



MODEL RH ILLUSTRATED ABOVE

ZENETTE prices complete with tubes range from \$49.95 to \$125.00

See the complete line at the Radio Shows. NEW YORK: Section J 1 and 3, Arena Floor, Radio World's Fair, September 21st to 26th. CHICAGO: Space M 1, Radio Show, Coliseum, October 19th to 25th.

ZENITH RADIO CORPORATION, CHICAGO, ILL. WORLD'S LARGEST MAKERS OF HIGH GRADE RADIO SINCE 1914

Radio Retailing, A McGraw-Hill Publication



JEMONSTRATIONS these days are more exacting than ever before.

Turning on the volume control may make or mar a sale.

Sets that are CENTRALAB equipped permit of ideal demonstrations . . . for they operate smoothly and noiselessly.

CENTRALAB-equipped sets are easier to sell.

CENTRALAB volume controls are now available for replacements . . . write for new Volume Control Guide showing how you can service practically all sets with a mere handful of CENTRALAB controls.



MAIL COUPON NOW

CENTRAL RADIO LABORATORIES 920 Keefe Ave., Milwaukee, Wis.	
Enclosed find 25c. for which send me your new V CONTROL GUIDE.	/OLUME
Name	

Address	 	 	
City	 	 State	Rad, Ret.



Complete data on construction and repair of modern radio sets

These three books cover the entire field of building, repairing and "trouble-shooting" on modern broadcasting receiving sets. The Library has been brought right-up-to-the-minute in every respect, and is based on the latest 1931 developments in the design and manufacture of equipment. The recent interest in television and short-wave reception is reflected in sections dealing with the construction of these types of receivers.

Radio Construction Library

[1931 Edition]

Three volumes, 993 pages, 6x9, 561 illustrations

By JAMES A. MOYER, Director of University Extension, Massachusetts Department of Education and JOHN F. WOSTREL, Instructor in Radio Engineering and Supervisor in Charge of Industrial Subjects, Massa-chusetts Department of Education.

CONTENTS

CONTENTS VOLUME 1.--Practical Radio: This volume presents the funda-mental principles of radio so clearly and simply, that anyone of average training will be able to read, understand and apply them. In one chapter alone, it gives actual working drawings and lists of materials necessary for the construction of seven typical sets. VOLUME 11.--Practical Radio Construction and Repair: All of the elementary principles of radio construction and repair are given full consideration. An explanation of the necessary steps together with a description of the accepted practices, for repair and construction of radio sets are covered. VOLUME 11.--Radio Receiving Tubes: In this volume the essential principles underlying the operation of vacuum tubes are explained in as non-toch-nical a manner as is consistent with accuracy. It gives the construction, action, reactiva-tion, testing and use of vacuum tubes and applications for us-tant control of industral proc-esses and precision measure-ments.

THESE three books embody not only a thorough home-study reference for the experienced radio-trician. Step-by-step information is given on wiring, "trouble-shooting," installation and servicing to get the best tone quality, distance and selectivity in broadcast reception in all types of sets.

Practical data is given on radio equipment such as antenna systems, battery eliminators, loud speakers, chargers, vacuum tubes, etc., etc.

A section is devoted to the identi-fication of common faults in re-ceivers and methods of making workmanlike repairs.

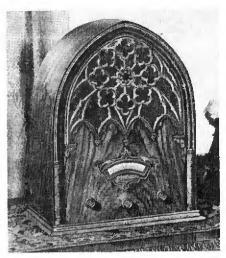
The three books are profusely illustrated with understandable diagrams of hookups, connections, loud speaker units, installation work and antenna crection—as well as numerous photographs, tables and charts which clarify the text.

See this Library for 10 Days Free No Money Down-Small Monthly Payments

It is your privilege to examine this Library for 10 days without cost. If the books prove satisfactory, send an initial payment of only \$1.50 and \$2.00 a month until \$7.50 has been paid. Otherwise return the books.

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"Model 60" Superheterodyne -Seven tubes, 1-224, 1-227, 3-225, 1-247, 1-280 including Pen-tode and three Variable MU, Jensen Dynamic Speaker, Full Vision Dial, Tone Control, Phonograph Jacks, Walnut Cabinet-6 inches deep. \$53.75 complete.

Model 80, is an 8-tube Superheterodyne, using screen grid, variable MU and Pentode tubes. The circuit consists of a pre-selector; one stage of high gain R.F. amplification using a type 235 tube; one stage of I.F. amplification working at 175 K.C., and using a type 235 tube; a second detector using a type 247 Lentode tubes in a resist-ance coupled push pull circuit; an oscillator using a type 227 tube and a power supply using a type 280 tube. \$69.50 complete.



Echophone makes you prepared for **Better Business**



Model 90. is an 8-tube Superheterodyne. em-ploying variable MU and Pentode Tubes. The circuit consists of a pre-selector; one stage of high gain R.F. amplification using a type 235 tube; a first detector using a type 235 tube; one stage of intermediate frequency amplification using a type 235 tube; a second detector using a type 235 tube; a single audio stage using two type 247 Pen-tode tubes in a resistance coupled push-pull circuit; an oscillator using a type 227 tube, and a power sup-ply system using a type 280 tube. \$89.50 complete.

with its new line

Preparation is vital now—on it depends the extent of your radio business. These new Echophone receivers come at a most opportune time-Now, when you are looking for radio that sells and customers are demanding radio that is not too costly yet that has appearance, tone, and performance. Echophone has built quality receivers since 1921. Dealers have made money with Echophone season after season — this new line represents the best we have yet produced. Here is everything desirable in radio — here is your answer for better business. Prepare for profitable radio business by featuring Echophone.

Get in touch with our nearest distributor or write us direct for complete details. We supply customer literature and store displays. We give you full cooperation.

[ECHOPHONE RADIO MFG. CO., LTD. Executive Offices and Factory 62 WAUKEGAN, ILLINOIS Export Division-Echophone Export Co., 44 Whitehall St., New York City

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For each one of these many lines will be given the model, size, style, power, manufacturer's name and address, price and special features. Nothing else published gives you similar information in such complete or compact form.

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The Directory answers such questions as; Who makes a Colonial Clock Model Set? Where was that new company located? Does Bosch make an eight tube midget? What price low-boy does Atwater-Kent make? Who makes a television re-What price low-boy does ceiver? Every day such questions come up. All you have to do is refer to the Directory and there are all the facts to answer them in detail.

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The Directory is published, completely in the October issue of Radio Retailing which will be ready for distribution about October 5th. All regular subscribers will receive their copy as part of our regular service. The Directory will not be reprinted, You can get your copy by becoming a regular subscriber to Radio Retailing at the special rate now available. (See coupon attached.)

RR9-31

The regular price of Radio Retailing is \$2 a year. You can, however, secure a year's service at just half that price or \$1 by sending \$1 in check or currency, with the coupon below. This special rate will entitle you to the October Directory Number of Radio Retailing with your year's subscription. Why Wait? Simply fill in the following blank and mail it NOW, with \$1, sending the money AT OUR RISK.

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Check here if you are already a subscriber and want your subscription extended at special \$1 price.
Name
Address
City State
Company Position
Nature of Business

Price outside U.S. and Canada \$3 a year. Price in Canada \$2.50 a year, payment with order only.



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Proposals. 40 cents a line an insertion.

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RADIO department manager, now employed, de-sires to make change. Capable taking charge
 (a)ee, service and repairs. Excellent references.
 PW-146, Radio Retailing, Bell Telephone Bldg.,
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WANTED

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Searchlight Department

Tenth Ave. at 36th St., N. Y.

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Box Numbers in care of any of our offices count 10 words additional in undisplayed ads.

Discourt of 10% if one payment is made in advance for four consecutive inser-tions of undisplayed ads (not including proposals).

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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 pub-lishers to prevent the use of advertising in the Searchlight Section to encourage price cutting on current models of merch-andise or equipment. Nor will advertising which invites violation of the dealer's con-tract with the manufacturer be acceptable.

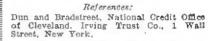
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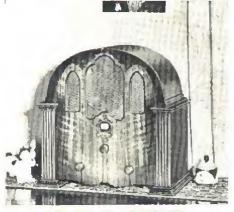
Long life, true tone, and freedom from record scratch or wear, has proven the PERMO POINT phono needle to be an ECONOMIC NECESSITY for any phonograph, especially so for automatic recordchanging phonographs.

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> Permo Products Corporation 3623 Montrose Ave., Chicago, Ill.

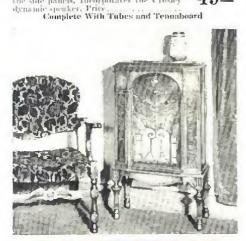
ON THE REAL OF THE

CROSLEY announces SERIES 124 **Tube Push-Pull Pentode Output Exponential or Variable Mu.** . Superheterodyne Radio Receivers



The Crosley PLAYBOY

A labbe model of superior design and construction. The targored Oriental wood in the front panel is in two-tone effect and high-tighted. The arch top finished in wahant is solidly auchared into the side panels. Incorporates the Crosby dynamic spender. Price.



The Crosley MERRY MAKER

The top and sides of this caloret use of American black walkut veneer. The arch over the slump salnut veneer panelis of feantfully fin-ided Oriental veneer, beorporates the new \$7500 e-4 Auditarium size dynamic superker. Price Complete With Tubes and Tennahuard

THE NEW Crosley 123 Series & take Push-Pull Pentode, Exponential or Variable MU, Superheterodyne —is an entirely new line of radio receivers — is all engineered and designed — the talk of the radio inductry. In addition to the Crossey Push-Pull Pentode Output Superheterodyne circuit and the new Unskey tail floating maving coll dynamic speakers, these receivers incorporate many other recent developments: Exponential or variable MU tubes — con-tinuous tsteples) static control – illuminated hairline shadow dial with vernier

The Crosley PLAYTIME

A Grandfather clochic slock model, incorporating the 124 classis plas the Crasley Auditorian size dynamic speaker. Contains the first synchronic clock movement. The cabinet is first ideal in genuine malograp and walnut where, Price Complete With Tubes and Tennaboard

The Croslev CHEERIO

An attractive console model finished in American black walnut and imported Ociental wood. The flated piletors are finished in two tom effect, with overlay of imported Oriental model fucation the falset Crosby dynamic spectre. Frice Complete With Tubes and Teanabaard



The Crosley ANNOUNCER

The top and sides of this exputsive model are of American black walnut. The doors of nontched strong walnut teners of nontched strong walnut teners of nontched strong walnut wood arched with an overlap of \$8500 dired serve maple. The Auditorian size dynamic speaker is incorporatively. Price Complete With Tabes and Tennahoard

drive — continuous (stepless) variable tone control — combined volume control and on off switch — Crosky Tennabard (patent pending) — perfect tone and powerful undistorted output – a-tonishingly low prices with exquisitely designed enbiaets, complete with three. The Crosky 124 Series is the outstanding hill at this radio swaren, Sor – dimb about the Trocky band wagan. See your Crosky Distributor but demonstration, If you don't know the Crosky Distributor in your territory, write, wire or phone the factory.

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For further information regarding the two new Radiotron Merchandisers and the Store Merchandising Plan write to the RCA Radiotron Company, Inc., Sales Promotion Dept., Harrison, N. J.

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