

WESTERN Music and Radio Trades JOURNAL

Two Real Salesmen—! Messrs QUALITY and PRICE

• •

Since 1920 radio merchandise by Patterson has been giving outstanding performance, satisfying customers—and always selling at a popular price. . . . Today, with no other salesmen than Quality and Price, the Patterson factory is running at normal capacity—and Patterson retailers, numbered amongst the West's most prominent and largest "key accounts" are doing "business as usual." You should meet Messrs: Quality and Price.

• •

Patterson Radio Company

1320 SOUTH LOS ANGELES STREET

LOS ANGELES

JULY, 1931

SOLD!!!



Hundreds of dealers and distributors at the R M A Show were sold on the Ken-Rad Acrometer plan—convinced that it is the biggest sales developer that has come into the radio business.

These keen merchandising men were quick to see the unusual opportunity that this plan offered them—to greatly increase their tube business at a profit—to sell more radio sets—to reduce service costs—and to bring more people into their stores for other merchandise.

When they saw how this complete plan works, one right after another said, SOLD!!! No wonder Ken-Rad created so much comment at the Show. Full information will convince you. Mail coupon below now.

There is only one Acrometer . . . and only Ken-Rad can give you this complete and fully protected merchandising plan that has proved to be such a big success

Ken-Rad *Fine Radio Tubes*

THE KEN-RAD CORPORATION, Incorporated, OWENSBORO, KENTUCKY
Please send us full information on the Ken-Rad Acrometer Plan.

Name.....

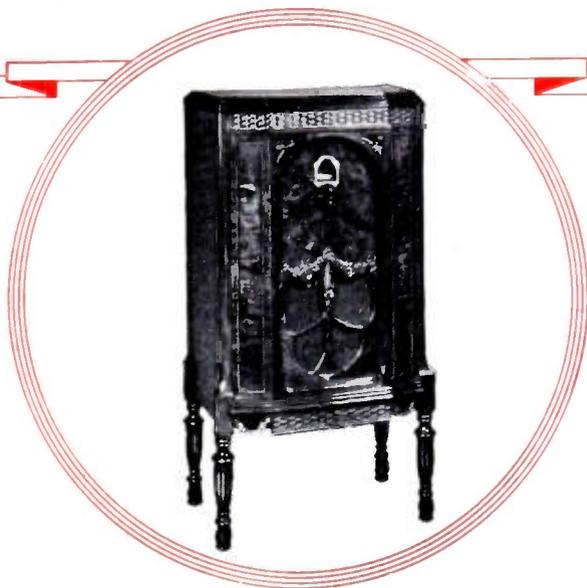
Address.....



A MODEL FOR EVERY CUSTOMER

A complete price range . . . plus a retail sales plan that works

TUBES—The Brunswick 1932 models use Pentode, Variable-Mu, and Screen Grid Tubes. Subsequent advertisements and literature will define their number and adaptation. **COLOR TONE CONTROL**—The Brunswick Color Tone Control visualizes musical tone in actual color on the tuning scale . . . Gold is the normal setting. To accentuate the treble, turn to blue . . . bass, turn to red . . . You can SEE as well as HEAR these tone variations.



MODEL 17—Lowboy walnut console of distinctive design. Superheterodyne, 9 tubes. Color tone control, Brunswick Uni-Selector, automatic volume control, dynatron oscillator, turret type tuning condenser, 12" super-dynamic speaker, two pentode tubes in output stage and power detector. Dimensions 41 1/4" high, 21 1/4" wide, and 13 1/4" deep. List price, complete with Brunswick tubes . . . \$149.50

Brunswick instruments have ALWAYS been famous for high quality, mechanical excellence and exquisite cabinets . . . as near perfection as human skill in design and craftsmanship can attain.

AND NOW . . . Brunswick offers you for the 1931-1932 season the most complete line of instruments in its history. . . list prices \$79.50 to \$265.00, complete with Brunswick tubes . . . plus a RETAIL SALES PLAN that will help you move these

instruments off your floors and into the homes of satisfied customers . . . at a profit!

There IS a difference in the musical quality of radio. Brunswick will prove it to your satisfaction, and you can easily prove it to your customer's satisfaction through the new Brunswick "Step-Ladder Sales Plan". Ask us about it. Its simplicity will surprise you . . . Its results will amaze you!

MODEL 12—A sensationally new idea in radio cabinetry. Miniature high-boy console. Recessed panel of rare crocheted walnut veneer, giving beautiful two-tone effect. Hand-carved grille. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 9" dynamic speaker and power detector. Dimensions 43" x 17 1/4" x 10 1/4". List price, complete with Brunswick tubes . . . \$99.50

MODEL 16—Lowboy console, finished in American Walnut. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 12" dynamic speaker and power detector. Dimensions 38 1/2" x 19 1/4" x 14 1/4". List price, complete with Brunswick tubes . . . \$119.50

MODEL 42—Automatic Panatropes-with-Radio. Plays 20 ten-inch records without attention. Also plays twelve-inch records manually. List price, complete with Brunswick tubes and 20 records . . . \$265.00



MODEL 11—Table model or midget type, walnut cabinet, carved grille. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 9" dynamic speaker, power detector. Dimensions 22 1/2" x 17 1/4" x 10 1/4". List price, complete with Brunswick tubes . . . \$79.50

MODEL 24—Graceful six-legged highboy cabinet with arched French doors, in matched ribbon walnut and high-lighted matched burled walnut, hand carved and fluted legs. Superheterodyne 9 tubes. Color tone control, Brunswick Uni-Selector, automatic volume control, dynatron oscillator, turret type tuning condenser, 12" super-dynamic speaker, two pentode tubes in output stage, power detector. Dimensions 45 1/2" x 22 1/4" x 16 1/4". List price, complete with Brunswick tubes . . . \$169.50

MODEL 33—Lowboy combination Radio-with-Panatropes, finished in American walnut. Cabinet lid with balanced stay arm. Panels of matched ribbon walnut, turned and fluted legs. Superheterodyne 7 tubes. Color tone control, Brunswick Uni-Selector, full range volume control, dynatron oscillator, turret type tuning condenser, 12" dynamic speaker and power detector. 39 1/4" x 19 1/4" x 14 1/4". List price, complete with Brunswick tubes . . . \$169.50

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

BRUNSWICK RADIO

Entered as Second Class Matter January 24, 1928, at the Postoffice at Los Angeles, California, under Act of March 3, 1879. \$2.00 a year. Western Music & Radio Trades Journal, Vol. XII, No. 7. Published monthly at 1220 Maple Avenue, Los Angeles, California.



GENERAL MOTORS RADIO CORPORATION

*takes pleasure in announcing the appointment
of the following distributors**

EASTERN REGION

L. W. Cleveland Co. Portland, Maine
Linscott Supply Co. Boston, Mass.
Tarbell-Watters Co. Springfield, Mass.
Geo. H. Wahn Co. Boston, Mass.
Post & Lester Co. Providence, R. I.
Post & Lester Co. Bridgeport, Conn.
The Hartford Elec. Supply Hartford, Conn.
Elliott-Lewis Electric Co. Philadelphia, Pa.
Shapiro Sporting Goods Co. Newburgh, N. Y.
E. S. & E. Co. Albany, N. Y.
Jos. M. Zamoiski Baltimore, Md.
Jos. M. Zamoiski Harrisburg, Pa.
Esenbe Co. Pittsburgh, Pa.
Electric Supply Co. Tampa, Fla.
General Motors Radio Corp. New York, N. Y.
Glasgow-Stewart Co. Charlotte, N. C.
N. H. Bragg & Son Bangor, Maine
Benjamin T. Crump Co. Richmond, Va.
A. S. Hatcher Co. Macon, Ga.
Buffalo Talking Machine Co. Buffalo, N. Y.
Branch at Rochester, N. Y.

CENTRAL REGION

Midland Radio Corp. Cleveland, Ohio
J. H. & F. A. Sells Co. Columbus, Ohio
The Commercial Elec. Co. Toledo, Ohio
General Motors Radio Corp. Detroit, Michigan
Morley Brothers Grand Rapids, Mich.
Morley Brothers Saginaw, Mich.
Shadbolt & Boyd Co. Milwaukee, Wisc.
Kelley-How-Thomson Co. Duluth, Minn.
Janney-Semple-Hill Co. Minneapolis, Minn.
Brown-Camp Hardware Co. Des Moines, Iowa
Harbison Manufacturing Co. Kansas City, Mo.
Beck-Corbitt Co. St. Louis, Mo.
Isaac Walker Hardware Co. Peoria, Ill.

CENTRAL REGION *continued*

Hudson-Ross, Inc. Chicago, Ill.
The Gibson Co. Indianapolis, Ind.
The Gibson Co. South Bend, Ind.
Mossman-Yarnelle Co. Ft. Wayne, Ind.
General Motors Radio Corp. Dayton, Ohio
C. & D. Auto Supply & Radio Co., Cincinnati, Ohio
Bluefield Furniture Co. Bluefield, W. Va.
R. T. Clapp Co. Knoxville, Tenn.
Orgill Brothers Memphis, Tenn.
Orgill Brothers Jackson, Miss.
Interstate Elec. Co. New Orleans, La.
Johnson Tire & Supply Co. Montgomery, Ala.
Claude P. Street Piano Co. Nashville, Tenn.
Stratton-Terstegge Co. Louisville, Ky.
Swift Lumber & Fuel Co. Lincoln, Nebr.
Monroe Auto & Supply Co. Monroe, La.
Brandon Stove Co. Little Rock, Ark.
A. E. Supply Co. Parkersburg, W. Va.
Edwards Piano Co. Jacksonville, Fla.
The Frank Corp. Savannah, Ga.

WESTERN REGION

American Electric Co. Wichita, Kans.
Straus-Bodenheimer Co. Houston, Texas
Straus-Bodenheimer Co. San Antonio, Texas
Casner Brothers El Paso, Texas
B. K. Sweeney Co. Denver, Colo.
Geo. A. Lowe Co. Ogden, Utah
Geo. A. Lowe Co. Salt Lake City, Utah
Schwabacher Hardware Co. Seattle, Wash.
Stubbs Electric Co. Portland, Ore.
W. H. Collins Corp. Ltd. Los Angeles, Calif.
H. R. Curtis Co. San Francisco, Calif.
Nunn Electric Co. Amarillo, Texas
The Schoellkopf Co. Dallas, Texas
Jensen-Byrd Co. Spokane, Wash.

General Motors Radio offers the Improved Super-Heterodyne—in a complete line of seven standard receivers and eight fine custom-built models in handsome period furniture cabinets—a radio for every purse and preference. We invite dealers to write the nearest distributor for full information on the new series General Motors Radio franchise.

GENERAL MOTORS RADIO CORPORATION, DAYTON, OHIO

*DISTRIBUTOR APPOINTMENTS UP TO AND INCLUDING JULY 8TH

WESTERN MUSIC and RADIO TRADES JOURNAL

"Published in the West for the West"

●

CONTENTS

Editorial of the Month (<i>H. Curtiss Abbott</i>)	9
Television Versus Radio? (What the Authorities Say)	10
The Backbone of His Business (A Service Department That Means All-Year Profits)	12
Getting the Most Out of Auto Sets (<i>Frank Hermsey</i>)	14
Wise and Otherwise (<i>Shirley Walker</i>)	16
Looking Ahead (<i>K. G. Ormiston</i>)	18
Western Viewpoint	20
Doings in the Industry	24
California News	26
People Who Do Things	28
New Merchandise From the Factory	34

JULY, 1931



BYAM PUBLISHING COMPANY

Publishers of the Radio Dealers' Blue Book

WALLACE M. BYAM

DON McDOWELL, Managing Editor

MARION E. BYAM

1220 MAPLE AVE., LOS ANGELES, CALIFORNIA Phone WEStmore 1972

New York: C. A. Larson, 254 W. 31st St

Editorial Offices Maintained in San Francisco, Portland, Seattle, Salt Lake, Denver.

Announcing the NEW SPARTONS



"Radio's Richest Voice"

Model 30

Sparton's newest automatic radio-phonograph. A new principle insures absolutely constant motor speed, giving exact reproduction of records as recorded. The radio employs the new Super-sonne application with Superheterodyne.

Model 5

A dependable general utility Sparton with the true Sparton tone for use in office, bedroom or study.

Model 10

The new Sparton Superheterodyne using Exponential and Pentode tubes—an original chassis design with hairline selectivity.

Model 15

A Sparton Superheterodyne console. Butt walnut veneers with carved solid panels make this model at home among the finest surroundings.

IN ADDITION to the remarkable and entirely new Super-sonne circuit application with Superheterodyne, Sparton presents in these new instruments a number of noteworthy new features. Among them are full vision dial and Pentode and Exponential tubes made easily usable by Tone Control of Radio's Richest Voice. These new Spartons, with other models to meet every desire or condition, represent the greatest values by far that we have ever offered.

(645)

dwarf
RADIO

**AUTOMOBILE
RADIO**

\$ 59⁵⁰
Complete

SOMETHING NEW!!

**PERFECTED
AUTOMOBILE RADIO
AT A POPULAR PRICE**

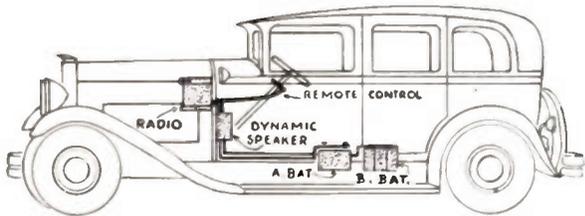
—with all the modern features equal in every respect to a fine home set.

STONE

VOLUME

DEPENDABILITY

ECONOMY



SPECIFICATIONS

- Six tubes.
- Four screen grids.
- Two stage audio.
- Pentode output.
- Ball-bearing condenser.
- Illuminated remote control.
- Full dynamic speaker.
- Low B-battery drain.
- No engine noise.
- Completely shielded from moisture and dust.

Automobile radio is in big demand everywhere, the hottest line in radio.

Now Dwarf makes it possible to sell hundreds of your customers automobile sets who could not afford them at the higher prices. At \$59.50 Dwarf Automobile Radio is selling like the midgets did a year ago.

You can easily install the Dwarf in any car. Chassis and speaker go under the cowl or under the hood. The remote control mounts on the steering column with only the dial and lock in evidence. No installation troubles. A real engineered set.

With Dwarf Automobile Radio you can open up new sales and new profits. Right now is the big automobile radio season. Get your share of the profits. Sell the popular priced Dwarf. Order a sample set. Put it in your car. Start demonstrating. **DON'T DELAY.** Usual liberal dealer discounts.

DWARF RADIO MANUFACTURING CO.

6725 Santa Monica Blvd., Los Angeles

Phone Hillside 4105



NICE FRESH PENTODES
— MIGHTY MU'S
— GORGEOUS GADGETS

Sure! . . . Brunswick has 'em all . . . and many of 'em exclusively . . . But that isn't the *only* reason why Brunswick Radio and Panatropewith-Radio are the world's finest instruments for the reproduction of music. New devices and technical refinements mean very little in themselves . . . It's the way those refinements and devices are *used* that *counts*!

Of course, you'll always find in Brunswick instruments *all* the latest improvements and refinements in tube and circuit design. With the enormous combined resources of Brunswick and Warner Bros. Pictures, and the highly specialized radio and acoustical technique that forms the background of these two great organizations, you can be sure that

no *proven* development will be neglected in building Brunswick instruments to a standard of musical performance.

Brunswick gives you and *your customers* far more than "gadgets". To *you*, Brunswick offers an established dealer policy . . . sales to authorized dealers only . . . price protection . . . stability and strength . . . and the opportunity to concentrate on Brunswick with complete confidence in your future. To *your customers*, Brunswick offers enduring satisfaction with a musical instrument they will be proud to own through the years.

And remember that the Brunswick "Step-Ladder Sales Plan" will step-up your profits!

Brunswick Radio Corporation

MANUFACTURERS OF RADIO, PANATROPE AND THE WORLD-FAMOUS BRUNSWICK RECORDS
 NEW YORK—CHICAGO—TORONTO *Subsidiary of* WARNER BROS. PICTURES, INC.

BRUNSWICK RADIO

BE SURE TO SEE THE NEW BRUNSWICK INSTRUMENTS DESCRIBED ON PAGE 3.



By
H. CURTISS ABBOTT

Pacific Coast Manager
All-American Mohawk
Corporation

IT'S UP TO THE DEALER

MUCH HAS BEEN SAID ABOUT THE phenomenal growth of the radio industry. Figures have been quoted which total hundreds of millions of dollars. Statistics are compiled to show that 14,000,000 radio receivers are in use in the United States. Some statisticians claim 54 per cent of all the wired homes are users of radio receivers. All of which has taken but six years to accomplish; six hundred different manufacturers distributing their products through thirty-five thousands dealers. Truly a grand time has been enjoyed by all. A great Roman holiday.

Then came the morning after. Bankruptcy; over-production, a good product thrown on the market, distressed. Lower prices; jobbers' confidence shaken, dealers' loyalty broken. And throughout all of this there was always the hope of a come-back. But it never came. The changes were too fast. There were too many imitators to all survive. Six hundred manufacturers shrunk to seventy-five; 35,000 retailers shrunk to one-half and the cry goes up in 1931—there is no more radio business.

To the contrary, there is a large potential market for radio receivers to come any place near equalling the saturation point where every electrically wired home enjoys the entertainment from a radio receiver. However, the period of the last eighteen months has taught many interesting lessons to the thousands of radio retailers in the United States. Manufacturers, jobbers, and retailers today are spending many hours in seeking to find a way to carry on to the point of reaching 100 per cent saturation by plans of operation which would be as easy selling as they enjoyed prior to what economists term "The Depression."

Offering radio receivers at ridiculously low list prices in an effort to influence dealers and the public to buy is fundamentally wrong. The complaint constantly heard in the industry from the standpoint of radio retailers has been one which manufacturers and distributors must listen to, and that is, no profits for the retailer, and as prices range today, it is obvious that the industry unless methods of merchandising its products are radically changed, will find its products in the hands of but a few large retailers serving

them on a direct basis with distributors eliminated. It appears that those successful manufacturers who are showing a monthly profit are operating on this plan. It would appear from this statement that if this is a successful plan where does the small retailer have an opportunity? This is the question which we are most vitally interested in.

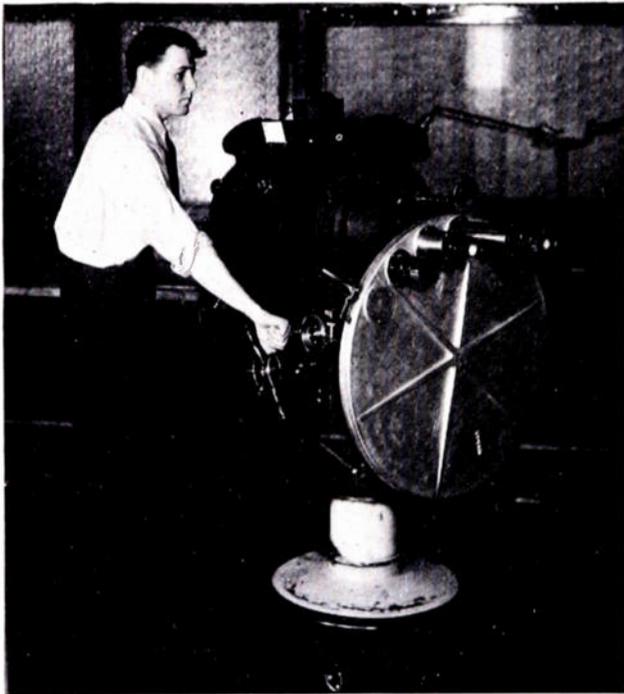
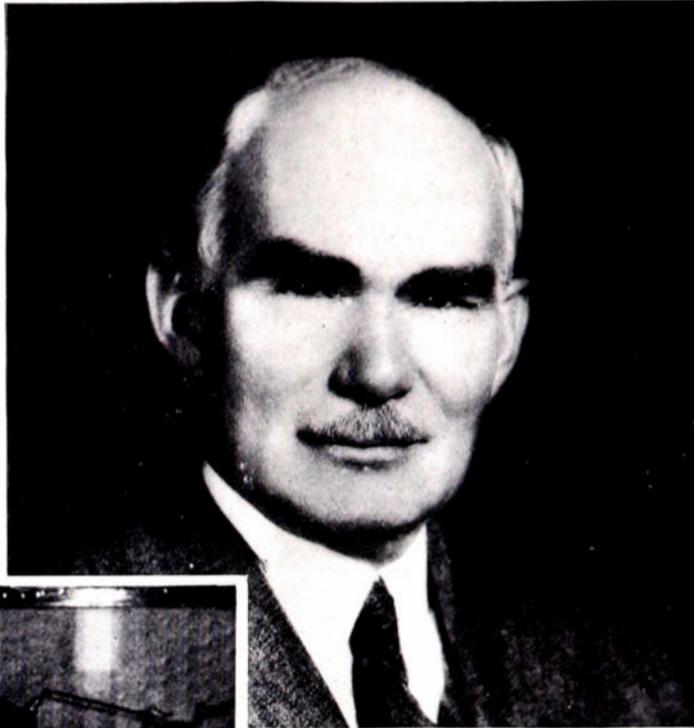
If the large key account can continue to sell radio merchandise, and they are in large quantities even at this writing (as an example, one of the large Broadway stores in Los Angeles is averaging between 350 and 400 radio receivers each month during the months of May, June and July) it is obvious that there is radio business and if the small retailer is not getting any, it is because he is not exercising the same degree of intelligence in the conduct of his business. In other words, he buys merchandise from his distributor and makes no effort to sell.

Salesmanship today requires a broad general knowledge that comes from experience and which yields judgment. Successful dealers are no longer regarded as those who sit at their desks. The wise dealer goes to his customers as often as time permits. Well-paid salesmen and fewer of them if necessary are preferable to inexperienced and undereducated salesmen in greater quantity.

When radio retailers analyze carefully why they are in business and plan constructively a procedure for continuing, in these times, when it is not so much competition, which has lessened the sales profits on radio for the small retailer—as it has been his lethargy, personal opinions as to how it should be done, rather than carefully listening to those persons from whom he purchases his merchandise, who in turn have a well defined plan for him to follow. Those dealers then who serious minded investigate their own local market and cease to wait for a chance visitor to their store; and keep building up a stronger resistance to what has gotten to be a popular word with most of us in the radio business "depression," will by his application of effort remove from the spelling of the word depression the "de" and the "i" and have a good slogan, "press on" for a continuation to a profitable year.

Right: Dr. Lee De Forest, radio and television pioneer.

Below: Picking up an image with the flying spot. At present, experiments with the cathode tube may render this method obsolete.



ARTHUR FREED, Freed Television Radio Corporation, N. Y. C.: "Let me definitely state that television will not render useless present-day home radio equipment. In fact, for several years to come, the sound broadcast accompanying televised programs will be synchronized on regular broadcast channels and the fan who desires to both listen and look in will require both a long-wave receiver and a modern short-wave receiver and a telescanner.

"Television has not come to replace radio, but rather to supplement it, and the aggressive radio dealer and jobber should understand this. Instead of television being an entirely new form of home entertainment, it is really a supplementary one. One which will make the radio receiver of today of more value than it has ever been before.

"Despite all the evasion being practiced by the important interests among radio manufacturers, television is HERE and while visual programs may not be considered perfect entertainment, neither were sound broadcasts of a decade ago.

"Television will grow just as rapidly as televising stations are permitted to go on the air, and there will be just as many people in the United States interested in the looking in as have been listening in, before you can say 'Jack Robinson'!"

DON LEE, Don Lee Broadcasting System (recently granted a television broadcasting permit): "We regard our work, although promising, as purely experimental—the category in which all television broadcasting is placed by the Federal Radio Commission, at present. It is planned to have our television supplement our broadcasting service, and not supplant it.

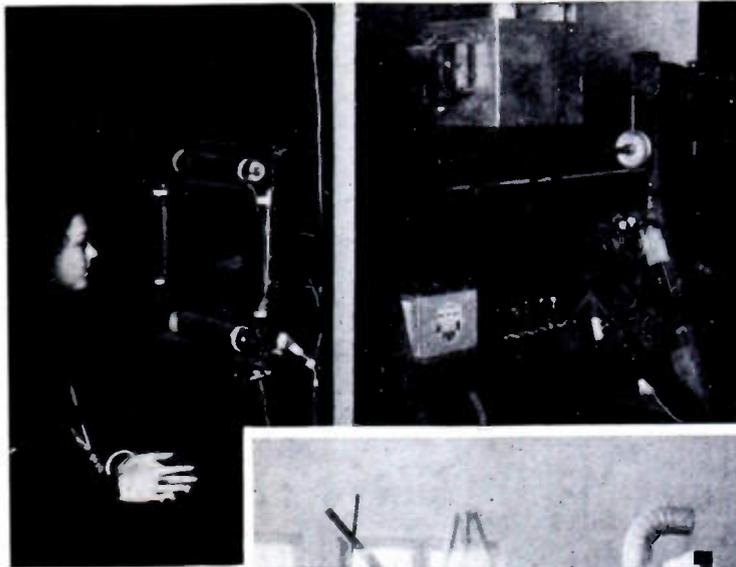
"The granting of this permit should not be construed as an announcement that television will be broadcast from any of our stations in the immediate future. This will come as future developments are perfected, and an announcement will be made to this effect in due time.

"Many people believe that when television is available, their radios will become obsolete and, as a consequence, are not buying new receivers. This condition is unfortunate and is based upon incorrect assumptions. The sound accompaniment for our television will come via our established broadcasting stations, according to our present plans. The sound radios that today receive our programs will receive the voice and music accompanying our television programs in the future. Combination receivers, supplying both sight and sound, will become available, but, according to Harry R. Lubeke, director of our television broadcasting activities, the combination of these receivers in a single cabinet will be no more necessary than is the combination of a phonograph and a radio in a single cabinet today."

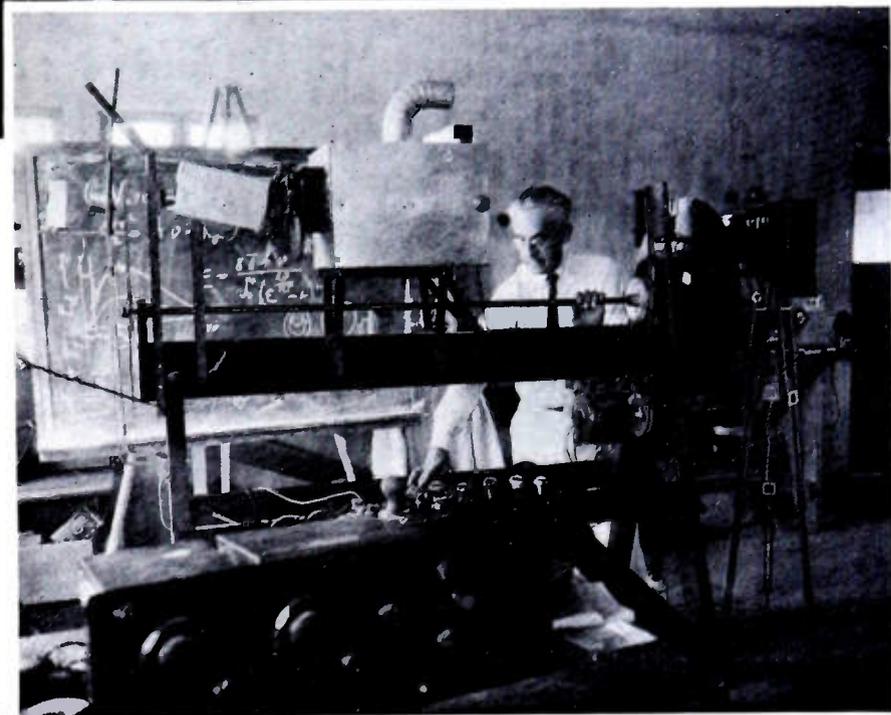
HOLLIS BAIRD, Chief Engineer, Shortwave and Television Corporation, Boston: "Television is ultimately going to prove the biggest blessing radio has ever had. When the talkies came, they didn't change the motion picture projector. They merely added sound to it, sound requiring totally different apparatus in every way.

TELEV
VER
RAD

VISION US O ?



Television experiments being carried on in the Hollywood laboratory of the California Television Society, the only amateur group of television experimenters of its kind in the West. Below, Dr. Gilbert Lee.



What Five Authorities Have to Say About the Effect Television Will Have on Radio

"Looking at radio and television, we reverse the order, for the sound came first; the pictures afterward. Now just as in motion pictures, the sight and sound apparatus are totally different, merely being operated side by side. Your present day radio will still act in its present capacity as a reproducer of the sounds from radio studios.

"As to combining the present type of radio set in the same cabinet with a television set, this is certainly not desirable for some years, as sound radio has been pretty well perfected, while television will probably undergo some marked changes and if it was built into a cabinet with the sound set, the sound set would have to be discarded when the television set was changed.

"Thus, any person who hesitates about purchasing a new radio set because of television is distinctly misinformed, for even if the best in television were here, the owner would be able to buy it much cheaper if he already had a good sound set available for use with his picture machine. Buy the best in sound radio now, and add the picture part later when it is ready, meanwhile enjoying all the best sound programs."

D. E. REPROGLE, Jenkins Television Corporation, Passaic, N. J.: "Whatever antagonism to television may yet exist in some radio quarters is based on a gross misunderstanding of the application of the new art to home entertainment. It is easy to understand

why the radio industry should look with disfavor upon any revolutionary idea which might cause public confusion and hesitancy to buy.

"Television, as it is now being developed, can in no wise be considered a competitor of sound broadcasting. Rather it is a very definite accessory or supplement which enhances the value and attractiveness of sound broadcasting many fold.

"No longer does the average family hesitate to buy a radio set because of some misunderstanding with regard to the early appearance of a radio set including the television feature. Television, for a long time to come, must be considered as a distinct and separate equipment. Only when television technique approximates in pictorial perfection the wonderful acoustic performance of the modern radio receiver, will the combination sight-and-sound receiver become commonplace."

W. J. BARKLEY, Vice-President, DeForest Radio Company, Passaic, N. J.: "The opinions of other leaders of the radio industry to the contrary notwithstanding, television as a means of home entertainment is here *now!* When we can broadcast clear pictures of the artists heard by the public over their regular radio sets, with sufficient detail and action to hold their attention by the hour, we believe we have practicable television."

THE BACKBONE OF BUSINESS

That's what a Service Department means to Harry Carlson who finds year-round regular profit in Service.

A SMALL "neighborhood" radio store in Los Angeles is proof and then some that a well-handled service department can not only bring in extra profits, but can even be the backbone of the business the year 'round.

Despite depression and hard times, the Sunset Electric Company, owned by Harry Carlson, is carrying on in great shape. Harry is happy and the employees busy, all due to the little old work bench in the rear of the store.

Carlson's business hasn't been built up overnight. There has been nothing spectacular, nothing flashy, in the manner in which he annexed a steady flow of customers into his store. He seldom advertises in a newspaper, doesn't distribute hand-bills or own a public address truck. No telephone soliciting, no direct mail, no special offers. Instead, Harry's trade has grown gradually. Old customers brought new ones, they all stayed by him, and now he's established.

"Strictly Cash"

"Our terms are strictly cash," said W. R. Wallick, Carlson's technician, "except in very few instances, when we are absolutely sure of the customer. We found out long ago that credit is bad stuff, and there is just as much business to be had without it.

"There are many little sales angles to this service game," Wallick continued, "that we take advantage of. For instance, when we go out on a service call, we bring

the set back to the shop to do the repairing, unless it is absolutely impossible to do so. We've found that if you bring out some insignificant looking replacement part such as a condenser, for example, the customer can't see why he should have to pay so much for an article that looks like it shouldn't cost over ten cents. If it is replaced back at the shop, and you tell him you had to put in a new condenser, he is perfectly satisfied.

"Then again, no woman likes to have her nice table littered with a bunch of tools and parts. If it is necessary at all to do anything on the set, it pays to be as neat as possible. Women notice little things like that, and we've found it pays.

Watch For Tube Sale

"Another thing: We never play a set in front of the customer while trying it out, without first removing the old tubes and putting in new ones. It's a funny thing, but often it means the sale of a new set of tubes. With the new tubes in to begin with, the customer immediately notices a difference. If the set had been played with the old tubes, the chances are he would decide the old tubes worked pretty well, he'd better get all there is out of them." One of Wallick's reasons for taking out the old tubes first of all is that by looking at the accumulation of dust on them, he is enabled, in most cases, to estimate their age approximately without directly asking the customer.

"We're always on the lookout for

Interesting Facts About Carlson's Service Business:

No flashy promotion schemes.

Terms strictly cash.

Averages six calls per day the year 'round.

Each call averages about \$6.00.

Only one technician.

Imagination Plus Skill.

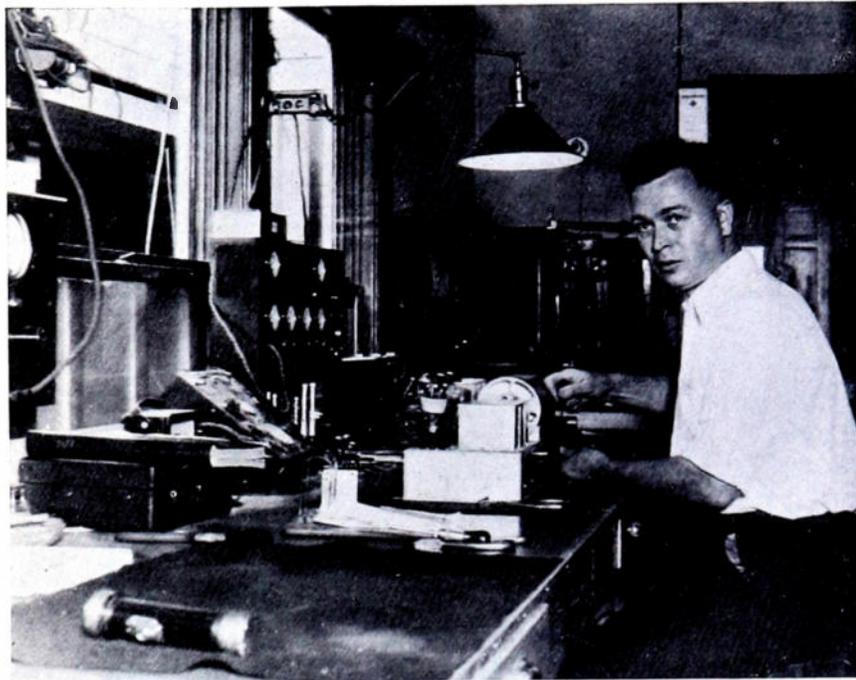
tube replacements. Since the drop in tube prices, it is much easier to sell a whole new set. The best way is to tell the customer that every time he calls a service man to put in a single tube, he pays \$1.50. Why not get a whole new set for \$10.85, for only the cost of one service call?

"Either in tube sales or repair charges, we figure our average service call brings in about six dollars. Our rates are \$1.50 for the call, and \$1.50 per hour for repair, in addition to parts. We give a 90-day guarantee on all of our work, and give the customer as close an estimate as possible before taking his set away."

When asked if the store made any attempt at follow-up calls, phone contacts and "is-everything satisfactory?" calls, Wallick was emphatic. "Nothing doing!" he declared. "It has been our experi-

HIS

By
MERLE DAVIS



J. R. Wallick at the bench in Harry Carlson's service department

ence that the more you give 'em, the more they want, free. Not long ago a man came in with an old battery model, wanted it fixed, but couldn't afford to pay very much for repairs. To help him out, we gave him a slightly used tube, fixed the set, and he went away. A short time after that he was back for more 'free service.' He's still bothering us.

"Another time, we sold a new tube to a woman for her to put in herself, and told her if everything wasn't all right, to call us and we'd make it right. Something happened to the tube, she called us up, and it ended by our making seven trips to her house, without charging her a cent."

Often Sells Sets

Time and again, according to Wallick, a service call has meant the sale of a new radio. When a customer's set has reached the point where continual servicing is required, this argument is used to induce them to buy a new one. He is told that it is the best time to unload the old set and get a new one, unless he wants to be constantly paying for servicing and repairs. The last time this was tried, the customer came right down to the store and bought nothing less than a \$166 radio!

Imagination plays a large part in Sunset servicing. On one occasion recently, Wallick was working on a repair job for a wealthy lady. Her home was a large one, and she mentioned that it would be nice to

have some means of having a speaker in her roof garden, so that she could control and shut off the set without coming all the way downstairs. Wallick had an inspiration, went back to the shop and returned a few days later with a combination three-way electric switch and a volume control, combined on a panel for mounting. The affair is portable and can be operated anywhere in the house. His business from this woman alone has since more than repaid him for the extra imaginative effort.

But most important of all is the fact that Carlson's service department is the greatest factor in maintaining an even income the year 'round. He finds that the seasons and the weather have very little effect on his service business. When radio sales are slack the service shop still manages to keep operating at regular capacity.

Six Calls A Day

Wallick figures that an average of about six service calls per day are made the year 'round. Each call, it is estimated, returns an average of between six and nine dollars, either for tubes or repair. And all this is in addition to the regular over-the-counter sales made in the store. No wonder Carlson believes in an efficient service department.

Using an old portable battery set carrying case, which he has partitioned off, Wallick carries a Weston 547 analyzer whenever he goes out on a call. In the shop are modern testers and equipment for every

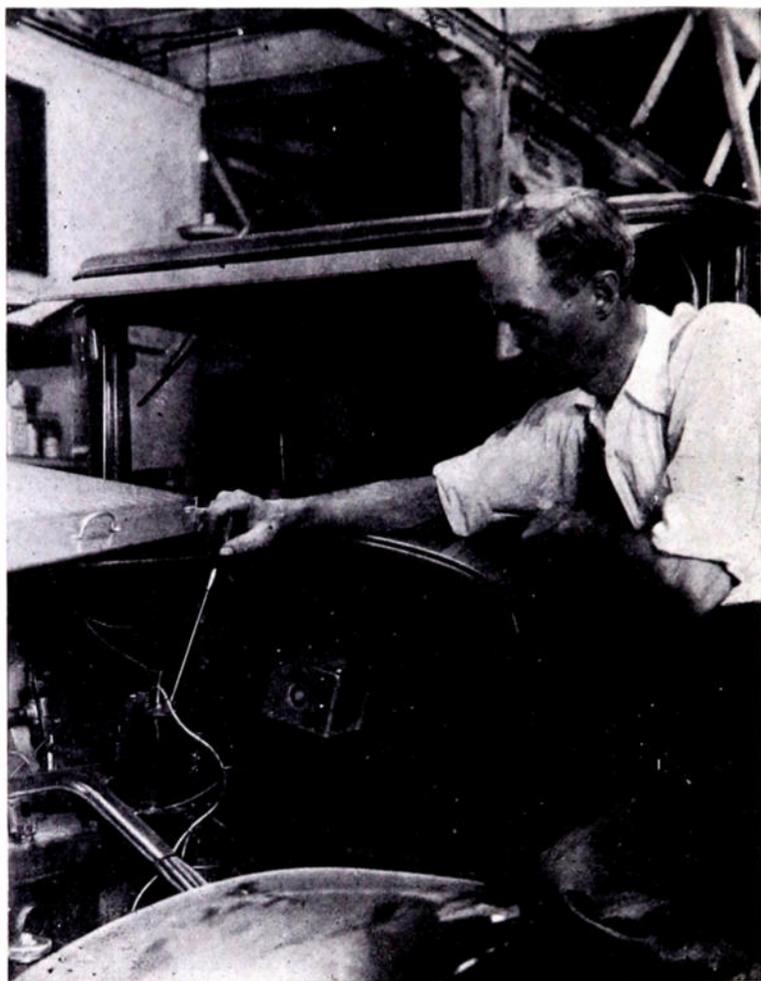
purpose. Every bit of repair work, even to power pack work, is done in the shop. None is ever sent out by reason of lack of proper equipment. That is another reason why Carlson's service department prospers.

Keep Things Neat

As was mentioned before, there is nothing flashy about his methods. The store isn't particularly attractive, but everything is as neat and orderly as a hospital. In the service shop, every spare part is kept in a classified container. Small articles, nuts, screws, fuses, etc., are arranged in neatly labelled glass jars on shelves. The equipment isn't allowed to get grimy and battered. The service bench is kept clean between jobs.

In the front part of the store, an exceptionally complete line of parts, accessories, and electrical appliances line the walls and shelves. A large table displaying assortments of electrical supplies is conspicuously in the center of the room. Prices are plainly marked on every compartment. An attractively furnished demonstration room completes Carlson's layout.

Primarily, however, the fact remains that the Sunset Electric Company is proof beyond a doubt that the service man is an extremely important part of the radio dealer's business. Consistent, year 'round revenue from this service department keeps the cash register busy where radio sales alone perhaps would fail.



One of Hermsey's installations, showing the coil, which has been separated from the switch-lock and mounted on special brackets on the engine, to eliminate interference

THERE is really no excuse for an improperly installed automobile radio. A little care and common sense is all that is needed. No matter how good a set is, or how much it cost, carelessness on the part of the man who installs it can make a jolly out of it.

While there are many obstacles in the successful installation of an auto set that are not encountered in the home receiver, I've found that it isn't any more difficult, if you go about it in the right way. And after installing more than 300 sets, I've found out a few things that might or might not be of value.

The Aerial

In the first place, I've found that the antenna can probably cause more grief than any other unit in the system. You have to have a good aerial, and a tin can or a few turns of copper wire won't do the business. Many makes of cars have a so-called aerial already installed at the factory, but they aren't so

good. Most of them consist of four or five strands of copper wire stretched parallel across the top. Result? They are directional and lack the proper capacity. Every time the car turns a corner you have to yank at the volume control.

Many cars have a chicken-wire reinforcement in the top, that can be used very nicely for an aerial, provided it isn't more than a one-inch mesh wire. To use the chicken-wire, head-lining must be dropped. All of this sort of work should be done by a regular top man, who knows how to take one apart and get it back together again. After the top is opened up, I cut the chicken wire away from its fastenings, leaving at least a three-inch space around the edge. Then I tie it back into place with strong cord about every five inches. If there is a dome light in the top, it is best to leave a three-inch space in the chicken-wire around the light also. The dome light wire ought to be run along the top of the bows, and the chicken

Get the Most AUTO By Proper

By FRED HERMSEY,

wire tacked across the bottom of the bows, to keep them apart as much as possible.

It is better to use copper screen in the top instead of chicken wire. Never use both. Where copper screen is used, it can be tacked on the cross-bows that are present when chicken wire is not used. The sides must be cleared three inches, however. I've found the handiest location for the aerial lead-in to be down the right corner post of the car, along behind the wash to the set, if that's where the set is to be. Ordinary wrapped wire is all right for the lead-in. It is best not to use shielded lead-in wire, except from the set to the corner post. Never run shielding down the post. The shielding from the set must be grounded at both ends to the frame of the car by soldering.

Locating the Units

After the aerial is installed, the first thing I do is plan the layout of the various units. There is no fixed position for them, their location depending entirely on the space afforded them in the particular car you're working on. I always try to place the set proper at the right, under the dash where it is out of the way. Keeping it concealed is a big item. In Fords, a good place is under the hood in the motor compartment at the left, just above the steering column.

Batteries can usually be placed under the floor boards. Our method is to cut a hole in the boards and fit a metal box down into the hole, fastening it in place either by brackets or a flange around the edge to

Out of SETS Installation

& H Magneto Shop

keep it from slipping through. We have a lid to fit back over the box so the surface of the floor is level. In some cars, such as Cadillacs, a good place for the batteries is in a similar box under the front seat. However, it can be placed anywhere, wherever there is the most room.

About the best location for the speaker is under the cowl, just over the base of the steering column, mounted on the fire wall. On several makes of cars where space is limited, it is better to cut a hole in the fire wall, and mount the speaker from the motor side, padding it well against the wall with heavy felt or fibre board. The pad prevents vibration.

There are various places for the remote control unit, depending on the type of set you have to work with. On cars where the dash contains very few instruments, the flat panel type may be installed on the dash, preferably at the right hand side. The steering column type may be mounted anywhere on the column, to suit the taste of the owner.

Motor Interference

Now just about here is where the difference shows up between the good thorough job of installation and the hang-up job. A man can complete the work in four or five hours, but to my mind, his job is only half done. It should take two men not less than eight hours to completely install an auto set—and do a good job. The difference is taken up with several little details that are of tremendous importance.

Nine times out of ten motor noises and electrical disturbances

will make a lot of trouble if they are not prevented beforehand. A few simple changes in the wiring system of the car will do the trick.

Place a suppressor on each spark plug, and one on the distributor head. By all means, do not put a suppressor on the coil. This raises Cain with the ignition system. There should also be a condenser on the generator, and one on the *live* side of the ignition coil. All metallic cables, oil and gas lines, that pass through the dash, must be grounded directly to the dash. Ground each one individually with flexible leads, and solder.

When all this has been done, the job is practically finished, on most cars. However, I've seen several cases where the interference still continued in spite of these precautions. Most of the noises can be roughly described under four classes: Sput-Sput, Steady Buzz, Steady Clicking, and Intermittent Clicking. Sometimes a noise is unrecognizable and all the sources of the trouble have to be checked, but

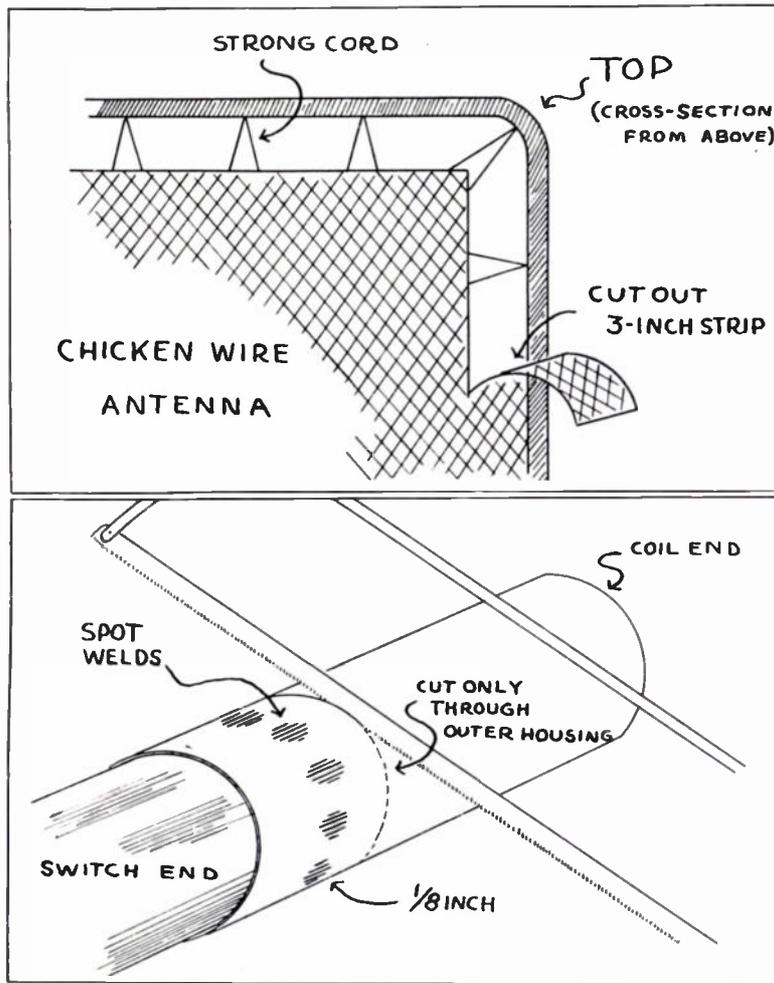
usually each can be corrected in its own way.

SPUT-SPUT NOISE—For instance, the Sput-Sput type is usually caused by one or several spark plug gaps being too far apart. Shorting the plug with a screw-driver will locate the plug or plugs that cause the sputtering. When you have found the plug, pull it out and close up the points to twenty thousandths for best results (after the suppressors are on).

STEADY BUZZ—The first place I look for the cause of this noise is in the distributor. Putting a new rotor in will ordinarily stop it. If it doesn't eliminate all of it, try "peening" or stretching the tip of the distributor rotor to shorten the gap between it and the pin so you have about 5/1000 clearance.

STEADY CLICKING—If there is a steady, regular clicking noise, it is probably in the ignition switch-lock and coil combination unit, common to most of the modern cars. This is rather a hard nut to crack.

(Continued on Page 22)



Hermsey's methods of installing an auto aerial and separating the coil from the switch. When copper screen is used, the cord moorings are unnecessary



WISE and OTHERWISE



IN THE Saturday Evening Post of July 4th is an article by Garet Garrett entitled "Uncle Sam Learning the Lender's Lesson." Read it. It does not mention the word "moratorium," but it clearly explains the economic condition of the world leading up to President Hoover's war debt moratorium—and it analyzes the fundamental responsibility of the United States from now on. Read it—it will help you to understand the history which is now in the making, and the part you will play in it.

* * *

Prospect Interested in Himself

The most important thing to the prospect is himself—his unsatisfied wants, his hopes and fears, not yours. Tell him how you can save money for him, how to make money for him, how to build his business, how to write, draw, sing, dance, or play the "sax," how to get a better job, how to be the life of the party, how he can be made happier—these are more important to the prospect than the size of your factory or the age of your firm.

* * *

The great mortality of American business concerns is not due to the lack of something to sell, but to their inability to adjust themselves to changing methods of merchandising.

* * *

When efficiency experts are called in to find what ails a business, they are generally silent—if they told the truth they would be dismissed.

* * *

Bridging the Depression

Why didn't music stores add a bridge department? There has been no depression in card playing. More cards have been sold in the last eleven months than ever before. During the past year cards have taken the minds of many people off their troubles. Card manufacturers sensed an increased market and encouraged bridge teachers to "spread the gospel." And, of course, you read the row over bid values between two "schools" of bridge—a nice piece of publicity promoted by the playing card interests. There is money in cards—that is, of course, selling them. Music stores could have added this profitable line with very little investment. It is not too late now.



By SHIRLEY WALKER
Associate Editor

Broadcasters—Watch Your Step!

The newspapers have awakened too late to the entrenched position of sponsored radio and the inroads it has made on their advertising revenues. They are taking steps to rectify the situation. But if those responsible for the present broadcast programs (there are some notable exceptions) don't evolve a new type of program which is less nauseating to the public, radio as an advertising medium will lose its effectiveness and even have a detrimental effect on the sales of the sponsoring merchandise.

* * *

Sales-mindedness hit on these ideas:

That more golf balls could be sold in packages of three than singly; that small items selling from 2 to 10 cents will move faster in packages of 10 to 25 (and be used up faster); that kitchen utensils which can be purchased separately at \$1.50 will sell, packaged in a unit, for \$1.75 each.

There are similar merchandising ideas in your business if you will search them out—better turn the job over to a bright young fellow in the marketing end of the business.

* * *

No Place to Sit

Henry Ford says that he threw most of the desks out of his plants because every desk made him hire a man to sit at it. Every desk is a man trap. The man who has no desk, has no chair to sit on, has no office to sit in—so he stays out selling.

* * *

Sponsored movies have been withdrawn. Not because the public did not like them—in fact, the audiences who saw them expressed approval. They were good entertainment—there were stars; there was plot. The advertising feature was minimized. Cautious producers so far had maintained audience good-will. The newspapers—not the public—forced the producers to abandon the plan.

The newspapers realized the advantage of guaranteed circulation which the theatres offered the advertiser. They bargained with the movie interests. They pointed out the columns of publicity they were giving the movies and could continue to give. If theatrical interests were going to cut in on the newspaper advertising field, the publishers would be forced to cut out the movie chatter from their columns. There was no argument—sponsored movies have been withdrawn.



HOW TO GET INTO THE BIG MONEY IN THE RECORD BUSINESS

Sell Columbia Masterworks: For the many radio broadcasts of symphonic music, plus the greater number of concerts now given, are constantly making more lovers of classical orchestral music. This means more and more potential buyers for Masterworks recordings. Many newspapers and magazines have sensed this trend—that's why they now carry regular record reviewing departments.

Remember—Masterworks prospects are just as easy for you to sell as popular record prospects. And they spend from five to thirty times as much money with you at a clip!

What's more, your Masterworks fans are incurable repeat-buyers. They *never* stop adding to their record libraries. So, when you build up a Masterworks clientele, you get a customer list which spends highly profit-

able sums in your store with the regularity that spells *big money* for you!

Columbia Masterworks include the finest representative compositions of Music's greatest geniuses—recorded by the most skilled artists of our times. Here are listed a few of the most popular of the 110-odd Masterworks sets. Pick the ones *you* want—order them now—and send for our *complete* list. *The Columbia Phonograph Co., Inc., 55 Fifth Ave., New York City.*

COLUMBIA MASTERWORKS

"A Record Library of the World's Great Music"

BRAHMS: Symphony No. 1, in C Minor. Felix Weingartner and Royal Philharmonic Orchestra—10 parts. **Set No. 103 \$10.00.**

BACH: Suite No. 3, in D Major. Désiré Defauw and Orchestra of the Brussels Royal Conservatory—5 parts. **Set No. 135 \$4.50.**

MOZART: Symphony No. 41, in C Major. ("Jupiter") Op. 551. Sir Godfrey and Symphony Orchestra—6 parts. **Set No. 72 \$6.00.**

TSCHAIKOWSKY: Symphony No. 6 (Pathétique). Oscar Fried and Royal Philharmonic Orchestra—10 parts. **Set No. 119 \$7.50.**

BEETHOVEN: Symphony No. 9 (Choral). Felix Weingartner, Vocal Soloists, Chorus, London Symphony Orchestra—16 parts. **Set No. 39 \$16.00.**

BEETHOVEN: Symphony No. 5, in C Minor. Op. 67. Felix Weingartner and Royal Philharmonic Orchestra—8 parts. **Set No. 48 \$8.00.**

DEBUSSY: Iberia: Images pour orchestre, No. 2. Paul Klenau and Royal Philharmonic Orchestra—5 parts. **Set No. 67 \$4.50.**

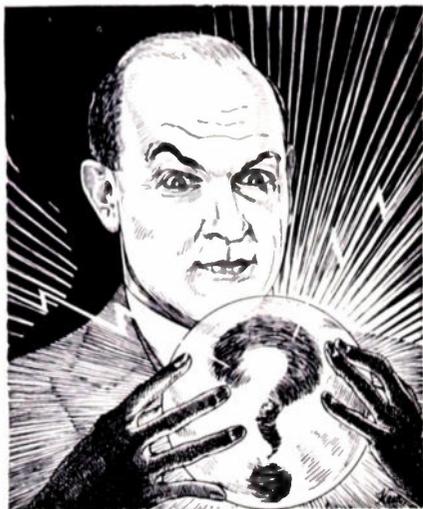
STRAVINSKY: Le Sacre du Printemps. Igor Stravinsky and Symphony Orchestra—10 parts. **Set No. 129 \$10.00.**

WAGNER: Tristan und Isolde. Bayreuth Festival, 1928. Bayreuth Festival Soloists, Chorus and Orchestra, conducted by Karl Elmendorff—38 parts. **Set No. 101 \$38.00.**

CESAR FRANCK: Symphony in D Minor. Philippe Gaubert and Paris Conservatory Orchestra—11 parts. **Set No. 121 \$9.00.**

SCHUBERT: Symphony No. 8, in B Minor (Unfinished). Dr. Franz Schalk and Symphony Orchestra—6 parts. **Set No. 122 \$4.50.**

SIBELIUS: Symphony No. 2, in D, Op. 43. Robert Kajanus and Symphony Orchestra—9 parts. **Set No. 149 \$7.50.**



Cartoon by Kem

IN LINE with our prediction of last month, the Los Angeles City Council is discussing the problem of preventing the radio public from listening to the police broadcasts. The public's interest in the radio activities of the police defeats the purpose of the whole scheme.

The obvious thing to do is to equip the police transmitter and the receivers with "scrambling" devices such as were used on the Long Beach-Catalina radiophone in the days before the phone company put down a cable across the channel.

In this arrangement the high frequencies are transmitted as low frequencies and the low frequencies are transmitted as high frequencies, and the result is wholly unintelligible. The receiver automatically reverses the scrambling and the normal voice frequencies are restored. It would be difficult for the layman to then listen in on a service which is not meant for him, unless he had a special receiver built at considerable expense. This would indicate a strong motive for eavesdropping, and would bear investigation.

IT IS an obvious fact that the service area of a broadcast station is limited by the natural phenomena of fading. Hence, the service to the public would be enhanced by the use of means which would maintain a constant field of strength at any definite distance from a station. Much propaganda has been turned loose lately before the Institute of Radio Engineers and in radio periodicals relative to the plan of erecting a number of high powered long-wave stations strategically located so that their service area would encompass the entire country.

The long waves not only do not fade, but after the rapid attenuation of the first hundred miles or so persist at a fairly uniform level for great distances. Higher power is required in the transmitter than on shorter waves, but it is believed that a 100-kilowatt transmitter on a non-fading long-wave channel would have a far greater service area than the present 50-kilowatt station in the broadcast band.

It is calculated that seven such stations, properly located, would serve the

LOOKING AHEAD

with K. G. Ormiston

entire country. It is a fact that the present 600 stations do not adequately serve all parts of the country, because of the duplication of facilities in the metropolitan areas, at the expense of some of the rural districts.

With seven stations operating on long waves, selectivity in a receiver would be an unimportant consideration, thereby enhancing the tonal qualities of the set and considerably reducing its cost.

TELEPHONY plays a tremendously vital part in our existing radio set-up. In fact, it is more important than the radio transmission as the programs could reach your home just as well without radio, but without the use of telephony radio would drop back to its status of 1923. When you listen to a program originating in New York City and coming through your local station, two thousand miles of transmission has been over the lines and through the amplifiers of the telephone company, and the last few miles separating your home from the local radio station has been by radio. But remember, the telephone company also has lines connecting your home with that local radio station, and the program might as well reach you by that means, eliminating radio entirely.

But take telephony away from radio and you eliminate the chains, all remote controls, and reduce the power of all stations to 1000 watts and locate them with transmitter and studios adjoining. In other words, back to where radio stood in 1923, before the first remote control was attempted.

On Sunday morning, July 26, more than 300 radio stations were tied together in one colossal chain for a broadcast from Columbus, Ohio. We call it radio, and yet no matter where you live, when you listened to this broadcast the telephone lines played a greater part in bringing the program to you than did the radio. Telephony is eliminated only when a studio program is presented by a station which has its transmitter and studios located at the same place. And this condition seems to be gradually disappearing.

NOW that the Federal Radio Commission has cancelled the construction permit for the mythical radio station KPWF at Westminster, Orange County, California, the state is slightly under quota on its radio facilities. This proposed station held on to a 50,000 watt construction permit

for a couple of years, together with a permit to build a short wave relay broadcast station at the same site. It has been listed in call books for a long time, and probably the postmaster at the little town of Westminster has accumulated a mass of mail for a radio station that never existed. Through many renewals and hearings the promoters have maintained their construction permit, but finally through financial inability to proceed with the construction, the Commission cancelled it. And now California, instead of being over quota because of this mythical station, is under quota and a certain small additional radio facility is available for the state. We hope that the Commission will not use this available facility to increase the power of any of the metropolitan stations, where the public already has too much radio, but will use it to permit radio broadcasting where it will do the most good. For example, Bakersfield has been striving for a license for some time past, but has been blocked by the "over-quota" standing of California. Here's hoping Bakersfield gets its station.

FROM the inception of radio, transmission has kept ahead of reception in the degree of perfection attained. Whenever receivers are designed and produced which approximate the frequency characteristics of the modern transmitters, the necessary changes are made in the transmission to again surpass the receivers. Lately receivers have been greatly improved in their ability to faithfully amplify and reproduce a wide tone range. For some time past, radio transmitters and the telephone lines used in connection therewith have been considered as satisfactory when the frequency range extended from 100 to 5000 cycles, with no greater variation than 2 DB. Now, lines with excellent frequency characteristics from 40 to 6000 and even 8000 cycles are in use, and some transmitters have an equally wide and flat range. The new KFI has such a characteristic, for example, and transmits notes and overtones which do not get through even the best of the modern radio receivers. Many stations are making the necessary equipment changes which will make it possible for them to take advantage of the new grade of telephone lines available for transmitting radio programs. The designers of radio receivers must make the next move!

A Personal Greeting



• from **L. P. NAYLOR** •

NOW IN CHARGE OF WESTERN ACTIVITIES FOR

ARCTURUS

"ARCTURUS is winning the World of Radio with its demonstrable superiority! You can actually show your customers its performing ability . . . its Quick Action, Clear Tone and Long Life!

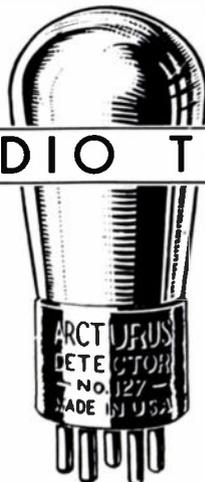
"I have been placed in charge of Western activities for the Company for the purpose of personally bringing these facts to your attention, and rendering the type of personal, intimate service that every business man demands and expects.

"My time is yours to command in all matters of service . . . as well as in acquainting you with the facts of Arcturus superiority. I hope you will call on me often."

Yours sincerely,

ARCTURUS RADIO TUBE COMPANY

The performance features of Arcturus Blue Tubes have cash value for dealers. Write us for all the facts.



*Western Division
1855 Industrial Street
Los Angeles, Calif.*

THE WESTERN

Television—Now You Guess

THIRTY "BIG SHOTS" OF THE RADIO business in a big Western city recently sat around a luncheon table discussing television. The company was about equally divided between those who thought television would not arrive for several years and those who claimed it was here now. Here are some of the main lines of conversation. Draw your own conclusions:

"Television will be a big item in the radio business by November. At least four prominent radio manufacturers will have Television sets on the market by that time."

"Television is a profitable seller in the East right now. Several Television concerns manufacturing receiving units have sold many thousands and are now having difficulty in keeping up with the demand."

"The best way to convince the public just how far off Television is, is to get a Television set operating in your store. When they realize how poor reproduction is, and how small it is, and the fact that only one person can look at it at the time, nobody will want one."

"Television is as good today as a crystal set and head phones were in the early days of radio sound reception."

"Regardless of what Television does or does not do, it will not obsolete the present radio receivers. Television will most likely come in on a short wave, while sound will continue on the present band. Present sets will continue to receive voice and sound, and another set will receive the pictures."

"When Television comes in every set that is now in use will be obsolete. Just as in the days of phonographs. When radios came in phonographs went out. The only kind of phonographs that were sold were in combination with radio sets. When Television comes the only kind of radio set that will be sold will be sold in combination with Television. This will mean that all the sets now in use will be replaced by combination sound sight Television sets and will mean a gold mine for the radio retailer and everybody connected with the radio business."

"I saw Television on a four foot square screen that was good, and very good."

"The Television that I saw claimed to be a broadcast of President Hoover. It looked to me like a silhouette of Tom Mahoney's cat."

"We all went East to the Chicago Show thinking there would be a lot of interesting displays of Television apparatus. There were only two displays and I couldn't see that they were any better than those displays three years ago."

"Two Western stations have licenses to go on the air with Television and I understand will be on the air within the next thirty or sixty days."

"I understand that some Western stations have Tele-

vision licenses, but they have told me themselves personally that they have no idea when they will go on the air."

"The only people that you can sell Television outfits and kits too are experimenters and kids. I have had five Television kits in my store for four months and haven't even had a call for them."

"The Columbia Broadcasting System is going on the air regularly with Television Broadcasts, the public hear it, they are already asking about Television. I am convinced that thousands and thousands of prospective radio buyers are withholding buying a radio now as they are waiting for Television."

"Every set exhibited at the Chicago Show next year will be incorporated with Television."

"The biggest authority on Television that this country has state that Television is still in its experimental state and will not be ready for general public acceptance for three years."

"Television will hit like a load of dynamite this Fall and will bring the radio business back to the palmist of its boom days."

There is the dope on Television. What is your guess?

Let's get a Western station on the air and see what happens.

* * *

What's New

ONE OF THE WEST'S MOST SUCCESSFUL and prominent manufacturer's agents is authority for the statement that within a year from now no radio will use a variable condenser tuning. He refuses to go into further details.

Another manufacturer's representative states that tube manufacturers will shortly bring out a set of two tubes that will convert 6 volts direct current battery juice to 110 volts 60 cycle A. C. in sufficient quantities to operate any set on automobile radios.

* * *

He Would Be a Radio Dealer

BEN PLATT PROBABLY HAS MADE MORE money out of selling radios than any other man in the West. A commercial banker recently asked what he could do if he were starting his business again as a young man with \$1000 capital, and knowing what his business experience has taught him about merchandising and business in general.

Platt's reply can be chronicled as pretty much of a boost to the radio industry and an inspiration to small radio dealers:

"I would go into the radio business. I would buy out or start a store in a good working man or middle class neighborhood. I would learn to do my own service work. I would operate the store entirely myself. I would get acquainted with as many people as I could in the neighborhood. I would manage somehow or

VIEWPOINT . . .

other to sell a couple of sets a week. I would have no salaries to pay, very little overhead other than my rent. I would make a good living and save a little. As times got better I would enlarge my store, but always keep close personal contacts with it. As times got considerably better I would branch out."

That is just about the formula that Ben Platt used in building his present business. Twenty years ago he was selling sewing machines from house to house in Los Angeles. Today he owns nineteen stores in Los Angeles, Hollywood, Long Beach, Glendale, San Francisco, and Oakland, and is without doubt the largest individual radio retailer in the West.

* * *

Small Dealer Ace High

SMALL DEALERS ARE IN THE "KEY" position of the radio industry today. Jobbers tell us that the majority of their business is coming from small dealers, in the suburbs and small towns. Financial houses state that the best paper they are buying is coming from small one and two-men stores, selling from one to a half a dozen sets a week.

These smaller retailers are paying their bills, making a few sales, and making a little profit. They are a part of the community in which they operate. They seldom have sales of cut-price merchandise. Yet, Mrs. Jones and Mrs. Brown have come to know that the Smith Radio Company around the corner will sell her a good radio, and that Smith will always be just around the corner to guarantee that the radio she buys from him will give her real radio satisfaction. After having been bitten once by some cut price inferior merchandise, Mrs. Brown realizes "That is sumpin'."

It is the small radio store that is getting practically all of the service work, and getting it at a profit. Moreover, they are selling practically all of the replacement tubes, and there is one of the biggest profits in radio. Service calls provide a wonderful opening for the sale of new sets.

So if you are a small dealer with low overhead and a good service department, just lean back and thank your lucky stars. You are sitting in the Ace position of the radio business today.

* * *

Auto Sets at Top Speed

THE HOT THING NOW IS AUTOMOBILE sets. It took them a long time to catch on, but they have finally caught on and are selling better today than they have ever sold before. Obviously they are selling to people with fairly good cars who are good credit risks. If an automobile radio is put in a car that is owned by a finance company as a legal owner, the radio dealer must get a release from the finance company before installing the set. Otherwise, the set becomes a legal part of the car and if the finance company repossesses the automobile the set goes with it.

Every radio dealer should have an automobile radio in his car whether he intends to sell them or not. It brands him as a real 100 per cent radio man, and is oftentimes the means of installing the necessary radio enthusiasm to a reluctant prospect for a home set. Put a good automobile set in your car right now. If you haven't been sold an automobile set you soon will be.

* * *

Service a Big Item

THE DEALER WHO HASN'T A GOOD SERVICE department is missing one of the most profitable bets in radio today. Only a few years ago a service department was one of those necessary evils that always operated at a loss. That was in the days when most homes did not have radios.

But today, when approximately 82 per cent of the homes in the West do have radios, and in California where there is more than one radio to every family, there being exactly one radio to every 3.9 inhabitants, to keep these radios in operation is a big and profitable job. The best of them are bound to go haywire occasionally, and all of them need or can use new tubes. Moreover, when they do go bad the average home mechanic or tinkerer cannot fix them and the radio repair man must be called in. The average service call means the cash register will ring from \$6.00 to \$10.00 for sales of labor, parts, or tubes. Too big an item for any retailer to miss.

* * *

The Stenode

JUST WHEN WE HAD DECIDED THAT Radio was just about as perfect as it would ever become, and wondering what could possibly be done to improve it, along comes reports of something that is claimed to practically revolutionize radio all over again—the Stenode.

Its designers maintain that the new circuit, based on a crystal input bridge, will bring about a new order of selectivity, heterodyne elimination, hiss-less automatic volume, static reduction, perfect reproduction, perfect tone without tone control, taking complete advantage of the rising frequency characteristics of the pentode, without power and output waste.

Classed fundamentally as a superheterodyne, the Stenode is supposed to have the following capabilities: the standard practice in superhet design may be adapted to include Stenode principles; efficient superhets of the conventional type may be readily re-designed into Stenodes; the apparatus can be constructed so that it is as simple to control as any other super; that better fidelity can be obtained; and that it is less costly to manufacture than existing receivers with the same number of tubes.

It is further rumored that six leading manufacturers have set models in radio clinics undergoing alterations to include the new Stenode features.

JULY RECORD HITS

COLUMBIA

- 2488D—"Little Girl." *Joe Venuti's Rhythm Boys*. Here is a peach band.
of a dance number, with an ideal tune and rhythm. And this quartette of musicians really play it, with hot choruses, Eddie Lang on the guitar, and unusually good rhythm worthy of a much bigger bigger band.
"Tempo Di Modernage." Has a peculiar rhythm and harmony, played in hot fox-trot style.
- 2485D—"When the Moon Comes Over the Mountain." *The Radiolites*. A beautiful, haunting waltz, written by Kate Smith, of radio fame. Proving very popular. "Nevertheless." A sweet unusual arrangement of a tune fast becoming one of the hits of the year.
- 2489D—"I'm Keeping Company." *Sunshine Boys*. Arranged by themselves, this one is a duet, with intricate vocal parts and rhythm licks that can't be beat and ought to prove a hard nut to crack for imitators. Novelty piano accompaniment. A fox trot.
"Take It From Me." *Sunshine Boys*.
- 2486D—"Many Happy Returns of the Day." *Ipana Troubadours*. A smart lyric, a simple catchy melody, written by the writers of "Painting the Clouds With Sunshine," "Tip-toe Through the Tulips," and "Dancing With Tears in My Eyes."
"On the Beach With You."

BRUNSWICK

- 6140—"I Found a Million Dollar Baby." *Bing Crosby*. Bing ought to bring a lot of male customers to Woolworths after this one. Novelty vocal chorus. Orchestra accompaniment.
"I'm Through With Love." *Crosby*.
- 6137—"When Yuba Plays the Rumba on the Tuba." Novelty number, played by *Harry Reser*, the famous banjoist, and his Six Jumping Jacks.
"If You Can't Sing, Whistle." Another novelty tune, with clever tenor chorus and whistling effects by the boys in the band. Tune is catchy.
- 6133—"You Rascal, You." *Red Nichols and His Five Pennies*. A fast fox-trot, with the good old Nichols pep. A lowdown vocal chorus, hot instrumental parts, individual breaks and choruses, make this number a knockout.
"Just a Crazy Song." *Nichols*. Not so crazy. An exceptionally clever arrangement. Various instruments echo each other's breaks and fill-ins. An ideal dance tune.
- 6145—"At Your Command." *Bing Crosby*. Bing's latest—and some say, his best. He is accompanied on the piano by none other than Harry Barris, backbone of the Rhythm Boys, who contributes much to the success of the record.

It is a beautiful melody, and Bing puts a lot into the words. Harry takes a piano solo.

- "Many Happy Returns of the Day." *Crosby*. A sentimental ballad.
- 6132—"Rockin' Chair." *Lee Sims*. An all piano number, played partly in concert arrangement and partly in dance rhythm. Both are equally good.
"Stardust." Another beautiful number, played by Lee Sims on the piano.
- 6129—"Dallas Blues." *Audie Kirk*. From first to last this is a good old red-hot darktown blues—hot trumpet, novelty vocal parts, and all that goes with it. A one-legged man could foxtrot to this one.
"The Basement Blues." *Noble Sissle*. Another lowdown blues number.
- 6131—"On a Certain Sunday." *Ozzie Nelson*. A number growing in radio popularity that is sure to be a hit on the record counter. Tenor vocal chorus with piano.
"On the Beach With You."

VICTOR

- 22742—"When Yuba Plays the Rumba on the Tuba." *Rudy Vallee and His Connecticut Yankees*. A novelty rumba foxtrot, with humorous words and a snappy rhythm for dancing. Rudy sings this popular radio number, with the orchestra accompanying.
"I'm Keepin' Company." *Rudy Vallee*.
- 22707—"I Found a Million Dollar Baby In a Five and Ten Cent Store." *Waring's Pennsylvanians*. From "Crazy Quilt." Here's a tune that is laying 'em cold over the radio. There is plenty of hot, rolling rhythm, and the words are clever. Song choruses by the Waring Girls and Claire Hanlon.
"Sing a Little Jingle." An optimistic little ditty, dandy for dancing.
- 22724—"Just a Blue-eyed Blonde, Who Happens to Be Fond of Me." *The High Hatters*. You hear this one whistled everywhere lately. It has a good old original jazz swing, with modern variations. Tenor song refrain.
"If I Were Only Sure of You." *High Hatters*.
- 22723—"There Ought to Be a Moonlight Saving Time." *Maurice Chevalier*. It's a treat to hear this popular French artist sing this typically American dance number.
"Right Now." *Chevalier*. Maurice gets impatient about his sweeties attentions in this love ballad. A fox-trot.
- 22745—"Puzzle Record, Part I." *Novelty Orchestra*. Now here's something! On this side of the record are three complete numbers, each recorded separately in different grooves. Every time you start the record it is a different tune that you hear. Could well be called the "Mystery Record."

22758—"At Your Command." *Donald Novis*. Accompanied by Gus Arnheim, Novis sings this Bing Crosby and Harry Tobias number in his own perfect fashion. The melody is beautiful and the words are well written.

"One More Chance." Everyone knows this one by now, but every one hasn't heard the Novis interpretation of it, which is entirely different from the others.

Installing Auto Sets

(Continued from Page 15)

as it requires considerable care and skill, or the job will be botched and the unit damaged.

Dismantle the unit from the dash. Take a hacksaw and cut through the outer housing *only*, between the spot welds and the mounting bracket, about one-eighth inch from the spots. Be careful not to cut through too deeply and injure the inner housing. After the housing is cut through, separate the coil from the switch-lock. Seal the coil end with sealing compound, re-attach the switching disc, and mount the switch back in its place on the dash. Then make an iron bracket and bracket the coil on the engine block as close to the distributor as possible. Now connect up the switch to the coil with insulated wires. It's quite a job, but "good medicine" for the clicks.

INTERMITTENT CLICKING
—This can be cured on most jobs by making sure the "A" lead is shielded. This should always be done, click or no click. Ground all shielding as often as possible, but *always* at both ends. Keep the primary and secondary wire shielding apart; don't try to shield them both together. It is always a good plan to check all of the car's wiring. Rewire if necessary, but if it is in pretty good shape, let it go. You may have to touch up a few bad spots here and there, unless the car is new or has been re-wired recently.

All of these measures are not guaranteed to be infallible, and even when all of the foregoing precautions are followed, sometimes a "bad" car will come in that has as many noises as a dog has fleas. Every once in awhile I get hold of one of these, and no matter how hard I try, there will be a little noise left in that can't be accounted for.

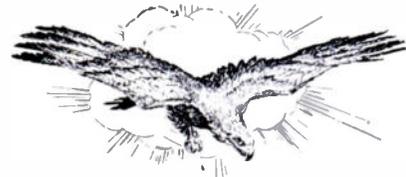
There is about only one thing to do in a case like this, and that is to sit down on the running-board and cuss.

Still "The Newest Thing in Radio"

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

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

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



**MIGHTY MONARCH
OF THE AIR**

●
**EVEN
NEWER**

Model 121
Battery Powered
Superheterodyne console model powered from new Air Cell "A" battery and "B" batteries. 6 tubes including pentode. List price with tubes, less batteries, \$99.50.*

●
**NEWER
YET**

Model 110
Motor Majestic
Seven tube pentode tube set with dynamic speaker. Mounts below floor boards and tunes from steering column. List, complete with tubes, batteries and installation, \$87.50.*

●
*Slightly higher in the West and Canada.



Licensed under patent applications of Boonton Research Corporation.

GRIGSBY-GRUNOW COMPANY, CHICAGO, ILLINOIS

Majestic

RADIO

DOINGS IN THE INDUSTRY

Langmuir Case Appealed

Protesting that the United States Supreme Court departed from the settled patent laws in deciding that the Langmuir tube patent was invalid and not infringed by the DeForest Radio Company, the General Electric Company attorneys have petitioned the Supreme Court for a re-hearing.

Grounds for reopening the case were that "vitally important findings of fact, on which the decision is based, though justified by defendant's brief and arguments, are contradicted by the record and are incorrect."

Four points were brought out in attempting to show why the case should be reopened: that the alleged prior use was prior to August, 1912, the date of Langmuir's invention; that the tubes which the court accepted as proof of prior use embodied the invention; that Lilienfeld disclosed the structure and method of the Langmuir patent; and that the relationship of the degree of vacuum to the stability and effectiveness of the discharge, passing from cathode to anode, was known to the art when Langmuir made his invention.

Bosch Adds Territory

Recent allocation of the territories of the San Francisco and Chicago branches of the United American Bosch Corporation has brought a considerable new area under the jurisdiction of the Pacific Coast Division of that company, with headquarters in San Francisco in charge of G. W. Stackman.

The additional territory acquired consists of the eastern half of Montana, the states of Wyoming, Colorado and New Mexico, making the total area nearly one-third of the United States, Alaska and the Hawaiian Islands also being served from the West Coast division.

New Arcturus Plan

After diligent tests among radio dealers, the Arcturus Radio Tube Company, Newark, N. J., has evolved a new business-building merchandising idea for its dealers.

The plan is based on the new Arcturus Tube Tester, its visibility and display value. According to Jack Geartner, advertising manager, many Arcturus jobbers are also presenting a plan whereby the dealer may earn the tester through his tube purchases. A follow-up system is also provided, he said.

Tip-less Tube Patented

United States Patent Office has just granted to J. S. Van Horne, of the Van Horne Tube Company, a patent covering a tip-less method of evacuating radio tubes and incandescent lamps.

This patent, No. 1808729, covers the original Van Horne method of making a tip-less lamp, and is said to be the only other method of accomplishing this outside of that used by RCA. The Van Horne company is negotiating licenses under the patent.

Kennedy Plan Underway

H. C. Shultz, new general sales manager for the Colin B. Kennedy Corporation, South Bend, Ind., is building a strong national selling organization, under the new Kennedy sales plans. Like many other manufacturers, Kennedy has decided not to distribute exclusively through jobbers in all territories.

Along with other changes in the organization, Henry E. Gardiner has been appointed western sales manager, having charge of all sales in the western territory including the Hawaiian Islands. The following zone managers have also been appointed: Wylie M. Doran, San Francisco; C. W. Towns, Los Angeles, and G. B. Flood, Seattle. The Thompson-Diggs Company, Sacramento, are distributors for the Sacramento-San Joaquin Valleys, as formerly.

A temporary coast office is now located at 2041 Union Street, San Francisco.



Henry Gardiner

Radio Week Date Set

September 21 to 27 is the week selected by the National Federation of Radio Associations for National Radio Week. This date coincides with that of the Radio World's Fair in New York City.

H. G. Ergstrom, executive vice-president, in commenting on the event, said: "During National Radio Week in 1930, there were 33 chain programs dedicated to Radio. Over 200 broadcasting stations carried frequent announcements during the week. Thirty-five metropolitan areas held gala demonstrations celebrating Radio's tenth birthday, and nearly a hundred newspapers ran special radio supplements.

"This year we have laid more auspicious plans for the observance of Radio's eleventh birthday than ever before. We intend to make the public more radio-conscious and to realize the vast influence radio has on our nation's public life."

Sparton Acquires Visionola

Immediate quantity production of a combined talking-picture projector, radio set and phonograph for home use was recently announced by the Sparks-Wilmington Company of Jackson, Mich., makers of Sparton Radio. The new product is known as the Sparton Visionola.

For ordinary use the Visionola projects a picture 18 inches by 24 inches on a screen that is formed by the under side of the hinged top. The pictures, however, are sufficiently brilliant to be thrown on a screen six by eight feet if desired. Standard sixteen millimeter film is used, such as is used in the popular-priced home movie cameras.

Voices and sound effects are recorded on 16-inch discs which are synchronized with the films. Film and record come as a unit on a rental basis through a number of film libraries.

Films taken by the owner with home movie cameras but without sound effects can be projected alone. The radio can also be used alone, as can the phonograph with ordinary records.

In announcing the Visionola, Capt. William Sparks, president of the Sparton organization, stated that it had been under development for three and a half years, and that approximately \$700,000 had been expended on it prior to its announcement.

"Vis-O-Meter" Wins Prize

"Vis-O-Meter" is the prize winning name selected for the new Sylvania tube tester, from the hundreds of suggestions received by the Sylvania Products Company during the R. M. A. show at Chicago.

The prize of fifty dollars offered for the best name was divided between P. J. Graham, Columbus, Ohio, and J. M. Garvey, Baltimore, Md. The name "Vis-O-Meter" is a slight variant of the suggestions made by the two winners.

The new Vis-O-Meter was on display in the Sylvania booth at the show, and aroused much interest. The visual feature appealed particularly, the tubes being tested under actual operating conditions, and the customer can read for himself the results on the lighted panels. The name was selected because it stresses this point.

Mallory-Aerovox Suit

The Elkon Division of P. R. Mallory & Company, Indianapolis, Ind., recently announced that a suit has been filed against the Aerovox Wireless Corporation, Brooklyn, N. Y., for infringement of U. S. Letters Patent No. 1710073 and No. 1714191, controlled by the Mallory company.

Suit was also entered against the Insuline Corporation of America, New York, who have been purchasers of Aerovox condensers. The suit is based upon patent numbers listed above. These patent numbers cover the basic dry electrolyte condensers patents which have been issued since 1925 and under which the Elkon Division is manufacturing its condenser.

Electric Refrigeration's Greatest Advance is Here!

10°
Freezes
ICE AND DESSERTS
TWO ZONES OF COLD
PROTECTS YOUR FOOD
PRESERVES ITS
FLAVOR
40°



A complete line of cabinet sizes — all incorporating the Duozone Unit.

6 Models \$174 to \$495

With 3-Year Factory Guarantee

New, Exclusive Mohawk Feature
"Two Controlled Zones of Cold"
Offers Tremendous Sales Opportunities

Here is the greatest Sales Feature developed in any electric refrigerator—the DUOZONE Unit—destined to revolutionize home refrigerators

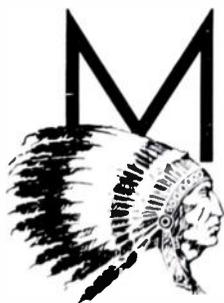
Two thermostatically controlled zones of cold are provided: one for freezing ice and desserts, another for food. Never need the storage zone reach a temperature that freezes food and destroys its flavor. No need for a special container to keep vegetables moist and fresh. DUOZONE converts the entire storage chamber into one great hydrator!

In addition to DUOZONE, the Mohawk line has every modern, improved refrigeration feature that will make Mohawk one of the outstanding sales leaders in 1931.

Write, wire or 'phone at once for complete details and liberal dealer proposition. Immediate delivery on all models.

COMPARE					
SIX OF THE LEADING MAKES OF REFRIGERATORS					
Make	Size (Cu Ft)	Shelf Sq. Ft.	Ice Cubes	Guarantee	
A	4	7.3	48	3 Yrs.	\$225.00
B	5	9.3	63	2 Yrs.	\$215.00
C	4	8	42	2 Yrs.	\$210.00
D	4	8.25	30	3 Yrs.	\$200.00
E	4	6.5	36	3 Yrs.	\$225.00
Mohawk	5	8.5	56	3 Yrs.	\$198.50

IMMEDIATE DELIVERY



MOHAWK
REFRIGERATOR
WITH THE DUOZONE UNIT
ELECTRIC CORPORATION

Los Angeles

San Francisco

Oakland

CALIFORNIA NEWS

. New Golf Sensation .

The Pacific Coast again demonstrated some of its vaunted athletic prestige before an eastern audience when Ray Thomas, Atwater Kent distributor for Southern California, achieved the distinction of making a hole-in-one on a Detroit golf course.

The Los Angeles golfer, president of the Bel-Air Country Club, accomplished his sensational performance on the 160-yard eighth hole of the Red Run Country Club in Detroit last month. At the time he was playing a threesome with Dave W. Burke, Atwater Kent distributor there, and R. H. Flues.

The feat of Thomas, heralded in the Detroit and Los Angeles press, has apparently created a bearish trend to his handicap, now that he is back on his home greens, according to a loud plaint from Thomas. As a consequence, his winnings are said to be more or less negligible nowadays, all of which is doing little to overcome the alleged depression.

When asked how he succeeded in making the spectacular 160-yard shot, Thomas said:

"Hard work, persistency and long hours at the office made it possible!"



"When I stepped up to the ball, they laughed," said Ray Thomas. But after making a hole-in-one, Ray gets the last laugh. Left, Dave Burke, Detroit; right, Ray Thomas.

Waltham Makes Utility Set

A new all-purpose radio receiver has just been announced by H. E. Howard, president of the Waltham Radio Corporation, Ltd., pioneer Pacific Coast radio manufacturers, Los Angeles.

"The new Waltham Utility is designed for use on AC current or DC battery current, enabling the set to be used in the home, car, mountain cabin and other places where electrical current is not available," Howard stated. When used in the automobile the storage battery is used as "A" battery.

The unit is approximately five inches square and five inches in depth, and weighs 19 pounds, and is contained in a portable cast aluminum case designed to stand rough use.

Curtiss New G-M Jobber

Announcement was recently made that the H. R. Curtiss Company has been appointed Northern California distributor for General Motors radios. Extensive distribution has already been secured through a series of dealer meetings in important centers, and a full range of the new models is being displayed.

J. W. Thompson, former Curtiss manager in Northern California, has been assigned to similar duties with the Philco Products Company, Los Angeles, a Curtiss company subsidiary which will distribute the Philco radio line in Southern California. The H. R. Curtiss Company has relinquished its former Los Angeles headquarters at 1145 Wall Street to the Philco Products Company, and has moved its offices to 727 Venice Boulevard, Los Angeles. Stanley Curtiss is in charge of this office.

Other lines distributed by the H. R. Curtiss Company are Servel electric refrigerators, Trayway Washers, and Jackson Bell radios.

L. A. Show Postponed

The ninth Los Angeles Radio and Electric Show, scheduled to be held early in August, will take place either in October or early November, according to A. G. Farquharson, secretary of the Music and Radio Trades Association of Southern California. Exact dates will be announced later.

In a letter to exhibitors, Farquharson stated, "At a meeting of the Radio and Electric Show committees, and after full discussion and consideration had been given to the requests for this change of dates, a motion was made and unanimously passed recommending the change.

"It was the consensus of opinion of the Show Committee that there were a number of definite advantages to this later date for the Show that will result in greater interest and enthusiasm upon the part of the public. Each exhibitor will be fully protected in respect to the space selected and contracted for."

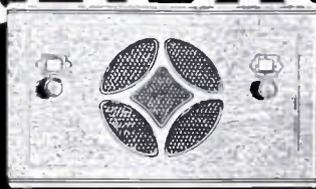
Harry Brown on Coast

Harry Boyd Brown, national retail sales manager for the Philco radio organization, recently made an extensive visit in the West, meeting with Philco jobbers and dealers, and discussing the 1931-1932 Philco season. Brown was formerly advertising manager for Philco.

AMERICAN BOSCH RADIO



Model 5C — High-quality at low price. 5 tubes, 1 Pentode, 2 Variable Mu, 1-224 detector and 1-280. Cabinet 36 3/4 in. by 21 in. Complete with tubes \$71.50.



Model 5A — New in circuit and mechanical design. 5 tubes, 1 Pentode, 3 screen-grid and 1-280. Great amplification and undistorted volume. Solid mahogany case 14 1/4 inches long and 8 3/4 inches high. Complete with tubes . . . \$44.50.



Model 20J — Super-heterodyne, 8 tubes, 2 Pentodes 247, 3 Variable Mu 551, 2-227, 1-280 rectifier. Great selectivity, sensitivity and volume. Cabinet of walnut veneer and Zebra wood, 38 3/4 by 24 inches. Complete with tubes . . . \$89.50.



Model 20L — 8 tube Super-heterodyne is everything you desire in a modern radio. Lifelike reception, selective, sensitive. Beautiful cabinet 44 1/4 by 25 1/4 inches, walnut veneers, rich carvings, sliding doors. Complete with tubes . \$142.50.



Model 5B — Consolette 32 1/4 inches high, beautiful walnut and patterned veneers, new circuit and design. 5 tubes, 1 Pentode, 3 screen-grid and 1-280. Undistorted volume and great amplification. Complete with tubes \$54.50.



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



THE features offered in American Bosch Radio this year are worth thinking about — worth knowing about — and worth writing-in about. Six models range in price from \$44.50 to \$142.50 including tubes — with engineering features that incorporate every worthwhile improvement in radio. And with a selling name that is a buying guide everywhere — American Bosch Radio

gives you, under one name, a profitable line of merchandise that will appeal to the broadest market in your territory.

Until you have had the whole story on American Bosch Radio for this year, you won't be able to really appreciate its full selling and profit-making possibilities. Write for this information to the nearest branch today.

UNITED AMERICAN BOSCH CORPORATION

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

American Bosch Radio is licensed under patents and applications of R. C. A.

PEOPLE WHO DO THINGS

Elected to Club Board

Walter M. Fagan, president of Pacific Wholesale, Ltd., at 433 East Twelfth Street, Los Angeles, was recently elected a director of the All-Year Club, Southern California's national tourist advertising organization, for the ensuing year.

Fagan was unanimously elected to this influential body as the result of many years of untiring civic work embracing activities not only in Los Angeles but throughout the 10 southern counties. He will fill his chair on the board under Sylvester L. Weaver, recently elected president of the All-Year Club.

He is one of the largest wholesale distributors of radios in Southern California with prominent connections in financial circles. He is a Shriner and a member of the Los Angeles Athletic Club, the Uplifters, Breakfast Club and Casa del Mar.



Walter Fagan

His hobby is riding and exhibiting prize-winning show horses and serves as vice-president of the Los Angeles National Horse Show Association.

Pacific Wholesale, Ltd., distributes Sparton radios, Conlon washers and ironers, Cinderella washers and Holbrook refrigerators.

W. H. Cooke, manufacturers' representative, has announced that he has become California manager for Polymet, in addition to the other lines he represents, which are Sylvania Tubes, National Company, and Jackson Research Laboratories. John Shaw, of Universal Agencies, will represent Cooke in Northern California. W. B. Harmon, Box 1074, Salt Lake City, is representing him in the mountain states, while Earl Scott, well known in Southern California, is assisting him also.

William Dubilier, after an absence of several years from the organization that he created and developed, has resumed the presidency of the Dubilier Condenser Corporation, N. Y. C., in response to an invitation by the board of directors.

Joseph M. Spain, former vice-president and general manager of the California Victor Distributing Company's Los Angeles office, has joined the staff of Pacific Wholesale, Ltd., Sparton distributors, 433 East Twelfth, Los Angeles. His position is that of executive vice-president.

Ralph F. Kent has been placed in charge of the testing and inspection department of the Pilot Radio and Tube Corporation, Lawrence, Mass. Kent was process engineer for Stromberg-Carlson for four years, and methods engineer for the Hood Rubber Company, Watertown, Mass.

"Ted" Silver is the new manager of the radio department at Dinwoodies' Furniture Company in Salt Lake City. Silver, though young, has had much experience, having been several years with Consolidated Music and later with the John Elliott Clark Company of Salt Lake.

B. D. Elliott is now a member of the sales staff of the Young Music Company, San Jose, Calif., distributor for Sherman, Clay and Company. Elliott will work with the San Jose store until the Watsonville branch is opened, which he will manage.

Art Holmboe, Jr., has joined the store force of the Wolf Auto Supply Company, Vancouver, Wash., as manager of the radio service department. Holmboe was formerly a co-partner in the Star Electric Company, Portland, and has been interested in the radio business for 11 years. He is now acting president of the Radio Trades Association of Oregon. At one time he spent six years with Koster.

E. S. Goodsell is now manager of the music department of the May Company, Los Angeles department store. He is well known, having spent the past 15 years at the head of his own company, which operated stores in Beaumont and Houston, Texas.

W. G. Peirce, former president of Peirce-Phelps, Inc., Philadelphia Majestic distributors, has joined the Grigsby-Grunow Company in the capacity of assistant to Don M. Compton, vice-president and general manager. He is 29 year old, and a graduate of Massachusetts Institute of Technology.

R. I. Petrie has been made sales manager of the Leonard Refrigerator Company, succeeding A. H. Jaeger, who has resigned. During the past year Petrie has been Kelyinator regional sales manager in the East. He was formerly New Business Manager of Refrigeration Discount Corporation for two years, and branch manager for Kelyinator in Cleveland and Washington, D. C.

Managers Shifted

H. R. Curtiss has shifted his managers sending Claude Foote from Los Angeles to San Francisco and sending J. W. "Tommy" Thompson from San Fran-



J. W. Thompson

cisco to Los Angeles. "Tommy" says that Foote will have to step around with gusto to sell as many General Motors sets in San Francisco as Tommy expects to sell Philcos in Los Angeles.

Both men as managers are staging aggressive sales campaigns in their respective territories, recognizing no summer slump and as Tommy says, "Getting the train as far down the track as possible by the time the radio season opens in the fall."

Both Thompson and Foote have been connected with the H. R. Curtiss Company for many years and are well known to the radio industry of the West.



Claude Foote

HERE IT IS—!

The LOW PRICED Radio Sensation

One Pentode

• • •

Three Screen Grids

• • •

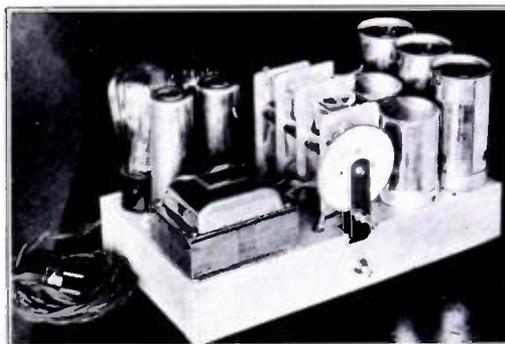
Five Tubes

• • •

Dynamic Speaker

• • •

Neat Sturdy Construction



TONE QUALITY
At An Astonishingly
LOW PRICE



Our price on this high quality Custom Built Receiver enables you to profitably merchandise it at a retail price comparable with ordinary four tube jobs.

It is quality merchandise that you can sell to your customers with absolute assurance of sustained satisfaction.

Write or Wire and our nearest representative will immediately get in touch with you.

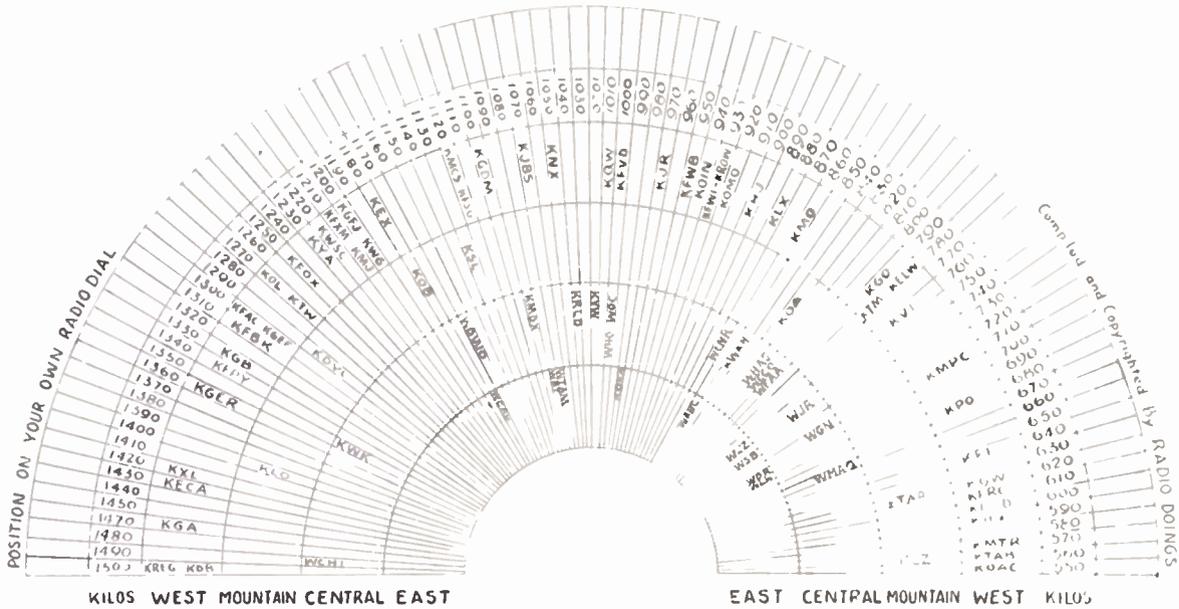
Some desirable territory still open for a live representative.

Custom Built Radio Company

4267 SOUTH VERMONT AVENUE
LOS ANGELES, CALIF.

Your Customers and Prospects Will Want This Popular Radio Log — With Your Imprint on It!

HERE ARE THE STATIONS AS THEY APPEAR ON THE DIAL. BY LOCATING A FEW STATIONS ON YOUR RADIO YOU CAN EASILY FIND THE OTHERS.



YOUR IMPRINT HERE

The simplest log ever made. Instantly shows anyone where to find the most popular stations on their radio, both local and distant. Drawn accurately to air-channel scale. Works perfectly with any radio. Exact size as shown.

The Most Popular Stations Heard by Western Listeners

Locations and Telephone Numbers:

WESTERN

- KDB—Santa Barbara Calif SB 5214
- †KECA—Los Angeles Westmore 0337
- KELW—Burbank Calif CL 2110
- KEX—Portland Ore ATwater 3111
- KFAC—Los Angeles EM 1171
- ‡KFBK—Sacramento Calif MAIn 8700
- †KFI—Los Angeles Westmore 0337
- KFOX—Long Beach Calif 672-81
- ‡KFPY—Spokane Wash MAIn 1219
- ‡KFRC—San Francisco Prospect 0100
- †KFSD—San Diego Calif Franklin 6353
- KFSG—Los Angeles Exposition 1141
- KFVD—Culver City Calif Empire 1171
- KFWB—Hollywood Hollywood 0315
- KFWI—San Francisco Franklin 0200
- KFXM—San Bernardino Calif 4761
- KGA—Spokane Wash Franklin 6151
- KGB—San Diego Calif Franklin 6151-2-3
- KGDM—Stockton Calif
- KGEF—Los Angeles Westmore 88-7
- KGER—Long Beach Calif 632-75
- KGFJ—Los Angeles Westmore 7788
- †KGO—San Francisco Sutter 1920
- †KCW—Portland Ore ATwater 2121
- ‡KHJ—Los Angeles Vandike 7111
- †KHQ—Spokane Wash MAIn 5383

†NBC Network
‡CBC Network

- KJBS—San Francisco ORdway 4148
- KJR—Seattle Wash Seneca 1515
- KLX—Oakland Calif Lakeside 6000
- ‡KLZ—Denver Colo
- KMCS—Inglewood Calif Vandike 7643
- KMJ—Fresno Calif 3-5221
- KMO—Tacoma Wash MAIn 4144
- KMPC—Beverly Hills Calif CR-3101
- KMTR—Hollywood Calif HO-3026
- KNX—Hollywood Calif HEMPstead 4101
- KOAC—Corvallis Ore Corvallis 526
- ‡KOIN—Portland Ore ATwater 4151
- ‡KOL—Seattle Wash MAIn 2312
- †KOMO—Seattle Wash Elliott 5809
- †KPO—San Francisco Kearney 0704
- KQW—San Jose Calif Columbia 232
- KREG—Santa Ana Calif 4900
- KROW—Oakland Calif Glencourt 6774
- KTAB—San Francisco Garfield 4700
- KTM—Los Angeles Exposition 1341
- KTW—Seattle Wash
- ‡KVI—Tacoma Wash Broadway 4211
- KWC—Stockton
- KWSC—Pullman Wash
- KXL—Portland Ore ATwater 5124
- KYA—San Francisco Prospect 3456

MOUNTAIN

- ‡KDYL—Salt Lake City WASatch 7180
- KLO—Ogden Utah Bigelow 81
- †KOA—Denver Colo York 4634-R

- KOB—St. Louis College N M
 - †KSL—Salt Lake City WASatch 3901
 - †KTAR—Phoenix Ariz 36631
- ### CENTRAL
- †KMOX—St. Louis Mo Central 8240
 - KRLD—Dallas Texas 2-6811
 - †KWK—St. Louis Mo Delmar 3210
 - KWKH—Shreveport La 6739
 - †KYW—Chicago WABash 4040
 - ‡WCCO—Minneapolis Minn Geneva 9101
 - ‡WCHI—Chicago State 2200
 - †WENR—Chicago Franklin 5000
 - †WFAA—Dallas Texas 2 9216
 - †WGN—Chicago Superior 0100
 - †WHAS—Louisville Ky Louisville Cit. 370
 - †WHO—Des Moines Ia
 - †WJR—Detroit Mich Madison 4440
 - ‡WMAQ—Chicago Dearborn 1111
 - †WOC—Davenport Ia
 - ‡WOWO—Ft Wayne Ind Anthony 2136

EASTERN

- †KDKA—Pittsburgh Pa Atlantic 4854
- ‡WABC—New York Cit.
- ‡WBT—Charlotte N C 3-7107
- ‡WCAU—Philadelphia Pa Rtnhse 6417
- †WJZ—New York Cit.
- †WLW—Cincinnati O Kirby 4800
- ‡WOR—Newark N J
- †WSB—Atlanta Ga Hemlock 1045
- †WTAM—Cleveland O Cherry 0942

PRICES
Including your imprint and advertising copy: In lots of 100, 3½c each; in lots of 1000, 3c each

Byam Publishing Company
1220 Maple Ave. Los Angeles, California

NEW WESTERN DEALERS

Home Appliance Shop, carrying a line of vacuum cleaners, sewing machines, Majestic radios, and accessories, has been opened at St. Helen's, Ore. It is owned by C. W. Stagg of Portland and Peter Hald, radio expert of St. Helen's.

C. L. Saeger and Dewey Arney, radio technicians, have opened their new radio and electric repair shop and radio sales agency, at 151 West Main Street, Mesa, Ariz. American Bosch and Apex lines are handled.

R. W. Russell has established a radio laboratory and repair shop at 115 South Fifth Street, Rawlins, Wyo. Russell has been employed until recently at the Bell Telephone plant, Kearny, N. J., by the Western Electric Company. Before that, he was with the radio research laboratory of Dr. Miller Rees Hutchinson, former Edison chief engineer. At his new shop he will have, in addition to repair service, experimental television apparatus, and long and short wave equipment for experimenting.

Majestic Cleaning & Radio Shop is the unusual name of a store opened in Preston, Ida., by Herbert Van Noy. Cleaning and pressing is done in addition to carrying on radio business. Noy is in charge of both.

Sampson Music Company of Boise, Mont., has established a new store at Nyssa, Ore. R. F. White has been placed in charge of the store, which has been named the Sampson-White Music Company. Ted Lewis, general manager of the Sampson Company, went to Nyssa to supervise the reorganization.

Jack Woodburn has established his new store at 2721 Colby Avenue, Everett, Wash. Woodburn is one of Everett's pioneer music dealers, having been associated with the business since 1908. At one time he was manager of the Sherman-Clay store, before it was removed from the city. Pianos, instruments, and sheet music are featured.

Walter Kraft, of East Pasadena, has opened a radio and electrical repair department in the Lamanda Park, Calif., Hardware store, 2532 East Colorado Boulevard. He specializes in radio and electrical appliance work. Kraft was formerly with the radio department of the F. C. Nash company, and also Pacific Wholesale, Ltd., Sparton distributors in Los Angeles.

Servicemen's Replacement Company is a new store at 1231 West Ninth Street, Los Angeles, with a branch at 1016 Hyde Park, Inglewood, Calif.

Musicland, marked by a huge radio tower, has been reopened by E. Z. Smith in Kirkland, Wash. Smith handles stringed instruments, RCA Victor radios, and sheet music. A complete radio service shop is maintained by Smith, who is an expert of 22 years' experience.

Allen E. Young music store held a grand opening recently at San Jose, Calif. The radio department of the store is operated by Dickerson Brothers, the sheet music shop by Edward Burnett, and the piano department by Allen Young. Large crowds attended the musical programs given in the evening.

G-G Sales Show Gain

Net sales of the Grigsby-Grunow Company through May amounted to \$2,609,806 as compared with sales of \$558,778 for the corresponding month in 1930. The increase at this time is principally due to the new business in Majestic refrigerators, according to Don Compton, general manager of the company.

New Hickock Agent

In order to establish additional sales coverage in California, the Pacific Sales Corporation, San Francisco, has appointed W. O. Pepper, 2963 San Marino Street, Los Angeles, as resident agent for Hickock electrical products, including set testers, meters, and tubes testers.

Dealers Bring Suit

Despite alleged recent efforts for a compromise, the retail radio dealers' lawsuit against the city of San Bernardino may be heard in court.

The ordinance resulting in the lawsuit provides for a payment of \$50 tax by each dealer. It is claimed by the dealers that this tax will reduce their income to such an extent that several may be forced out of business. Two new developments may bring court action in spite of the fact that the city council has started plans for modifying the ordinance. The attorney representing the dealers has filed and amended complaint in superior court substituting the name of the new chief of police instead of the former one. The mayor has asked the city attorney to oppose the suit when it appears in court.

Magnavox Sells P. A.

The Magnavox Company, 155 East Ohio Street, Chicago, has recently taken over the Electric Acoustic Products Company, Chicago, builders of public address systems and equipment. Some of the contracts include the New York Central, all Ford branches, and in the West, one installation in the Los Angeles Plaza church.

Plans are now under way to operate a Pacific Coast branch, which will supervise installations on the coast. C. E. Flynn, western manager of the Magnavox Company, will be in charge of the Pacific Coast branch.

Nick Lucas Revises Book

Nicomede Music Company, music publishers of Altoona, Pa., have advised that Nick Lucas, recording and movie artist, has revised for that company the Morris Modern Method for tenor banjo in two volumes. An extensive advertising campaign for the new instruction book is now underway, according to J. W. Nicomede, head of the company.

Bowley Branches Out

In order to take care of increasing radio and electrical appliance repair business, Ray Bowley, San Anselmo, has established headquarters also at the San Anselmo Hardware Company, and with Eklund's Electrical Works, San Rafael.

His shop maintains service on radios and all types of electrical appliances.

RCA Lists Patents

As a result of inquiries received concerning the present patent situation in the radio tube field, the Radio Corporation of America has made available to its tube licensees a list of radio tube patents which are in process of adjudication at the present time, and a supplemental list of additional tube patents included in its licenses.

Patents upon which suits for infringements have been brought cover contributions that have been made by Arnold, Nicolson, Schottky, Langmuir, Seibt, Dushman, Wilson, Vander Bijl, and Mitchell.

Included in the supplemental list are a number of other patents. RCA has recently added to its rights in the radio tube field of a group of circuit and tube patents and applications formerly held by the Radio Frequency Laboratories, Inc. Rights under these patents and applications are automatically extended to RCA's licensees by the terms of their present licenses.

The tube patents now in process of adjudication are those involved in the patent infringement suits brought by RCA against Gold Seal Electrical Company, Inc., Dale Company (Areturus Distributor), and the Duovac Radio Tube Corporation.

Add Majestic Line

Majestic electric refrigerators have been added to the regular lines of the University Music Store, Seattle. James E. Sipprell is proprietor of the store.

Kelvinator Quarter Good

Showing better profits in 1931 over the same period in 1930, the Kelvinator Corporation, Detroit, closed the June quarter with profits amounting to \$1,700,000 before federal taxes. Inventory June 1 totalled approximately \$3,600,000 as compared with \$5,000,000 a year ago. Cumulative unit shipments to June 22 this year were 89,853 against 79,978 in 1930.

London Firm Utah Jobber

Utah Products Company, Chicago, has concluded an agreement with A. C. Cossor, Ltd., London, England, to manufacture and distribute Utah speakers and other Utah items in European countries, according to H. C. Forster, vice-president of the Chicago firm.

"We are sending a shipment of tools, dyes and jigs to the Cossor plants," said Forster. "With the new arrangement, we will be enabled to service as well as supply the European market direct."

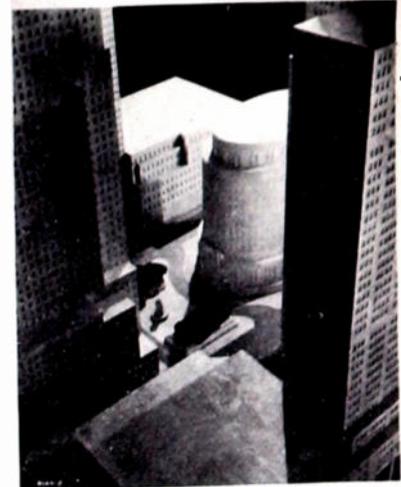


Left: Broadcasting a television beauty talk over WGBS. Programs such as these are being successfully put on the air in the East, with reception reported as far as a thousand miles.



Right: Natalie Towers, first television network girl and champion swimmer among the girls at the Columbia Broadcasting System.

Below: One of the interesting exhibits of the NELA meeting in Atlantic City was the cut-away model electric refrigerator shown by the Grigsby Grunow Company. The working parts and construction are plainly visible through the glass walls.



Above: A view of the complete model of "Radio City," the \$250,000,000 amusement center to occupy three square blocks of New York. It is expected to be completed in 1934.



Right: Tom Savage, Denver Majestic distributor, recently took 40 dealers to a private fish pond where they pulled out 41 3/4 pounds of trout for breakfast. If all the big ones that got away were laid end to end, it would be the biggest lie in the world.



Below: This young lady is enjoying her Waltham Utility set, that can be used either in a car or the home.



Below: Radio in airplanes is the latest wrinkle on the Northwest Airlines. Each of the mammoth planes is equipped with a Philco Transitone auto set. Reception is reported good up to two miles.



Above: Sylvania booth at the Chicago Show.

Right: Grace Shondorf, hostess at the R. M. A. Show, inspects one of the new 4-foot Model 4 Mohawk refrigerators, demonstrated by the All-American Mohawk Corporation and distributed in California by the Electric Corporation.



Left: J. Clarke Coit, president of U. S. Radio & Television Corp., is shown tuning in with one of the Metropolitan midgets he presented to sick children in a Chicago sanitarium.

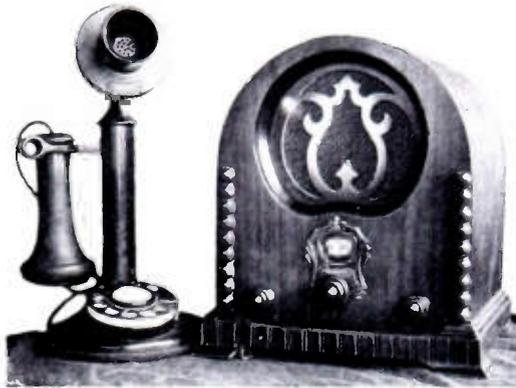


There is No Business Depression For Dealers Handling the PARAMOUNT Line

Sold Direct to Dealers at a Net Price of

17⁹⁵

Complete with Arcturus Tubes
\$16.95 in quantities of 6



This is positively the fastest selling set we have ever manufactured. IT SELLS ON SIGHT. Dealers everywhere report they sell them faster than we can supply them. The tone quality is excellent. Get in on the PARAMOUNT LINE immediately.

The Smallest Radio Made

1932 Features Sell on Sight

(Inside Measurements)
Size 9³/₈" High, 7¹/₂" Wide

1 Pentode Tubes

Equal to 2-245 plus 1-227. This radio, smallest in size, incorporates the new pentode tube

2 Full Dynamic Speaker

Perfect tone quality

3 Screen Grid Circuit

Using 2 screen grid tubes to their utmost efficiency.

4 Tone Control

The sales talking point of 1931. We use the new full range control.

5 Selectivity Plus Distance

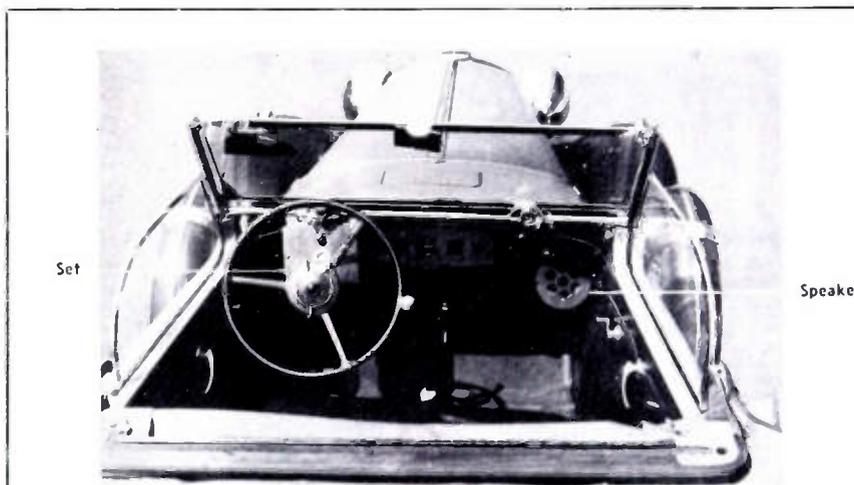
We have reports of distance of 1500 miles.

6 Illuminated Dial

Easy to see.

7 Quality all Through

Indestructible steel chassis, cadmium plated, oversized power transformers (shielded), heavy service Durham resistors, electrolytic, self-healing filter condenser, 16 mfd. no hum, Cornell oversized bypass condenser and many features found only in high priced sets.



Set

Speaker

Auto Radio \$49⁹⁵

RETAIL PRICE COMPLETE

The mighty midget of automobile radios. Mounts compactly on the steering post just under the wheel, (or under the dash with remote control if you prefer). Compact, full dynamic speaker. Sensitive, full tone circuit using pentode and three screen grids. The quickest and easiest to install of any auto radio. Positively amazing performance. Excellent distance, wonderful tone, selective. 40% dealer discount. Complete with batteries and suppressors.

Member of
Los Angeles
Chamber of Commerce

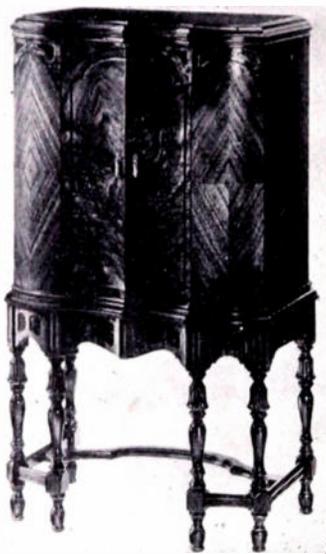
LOS ANGELES RADIO MFG. CO.
3681 So. San Pedro Street
Los Angeles, Calif.

Manufacturers of
Quality Radios
Since 1925

NEW MERCHANDISE FROM THE FACTORY

Brunswick Model 25

A new short and long wave receiver recently introduced by Brunswick Radio Corporation. It is capable of receiving both foreign and domestic stations on both types of waves. The high boy cabinet of butt walnut is artistically designed. The set contains a superheterodyne circuit equipped with variable mu and pentode tubes, together with the Brunswick Uni Selector, color tone control, turret type condenser, power detector, automatic volume control and De Luxe 12 inch dynamic speaker. Dimensions, 45 1/2 inches high, 25 inches wide, and 15 inches deep. List price, \$225.00, complete with Brunswick tubes.



Short-Long Wave Set

Auto Suppressors

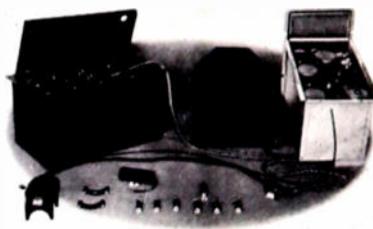
Designed to eliminate interference in auto receivers arising from spark coils, plugs, and distributors, a new line of suppressors are made by the International Resistance Company, Philadelphia, Pa. The new resistance units are designed to be applied at the potential sources of trouble. One unit connects to its respective spark plugs, being inserted in circuit with the lead from the distributor. Another unit is inserted in the distributor caps so as to come between the distributor contact and the spark plug lead. All units contain the new Type K metallized filament for the resistance element, fully protected by a heavy ceramic tubing, as well as cast metal ends with proper fittings for the connections required.

All-Purpose Set

The new Waltham Utility model, manufactured by the Waltham Radio Corporation, Ltd., 4228 South Vermont, Los Angeles, is designed for use on AC current as well as DC battery current, enabling the set to be used in the home, automobile, mountain cabin, wherever current is available. When used in the car, the storage battery is used as the "A" battery. The unit is five inches square and five inches in depth. It weighs 19 pounds and is contained in a portable cast aluminum case designed for rough use.

Mixmaster

A new improved household mixer is now being made by the Chicago Flexible Shaft Company, Chicago, under the trade name "Sunbeam Mixmaster." The beaters on the new mixer operate individually and may be removed separately. Has two self-revolving bowls on ball-bearing disc, and a fruit juice extracting attachment whose adjustable spout may be turned so that the juice will fall either into the mixing bowl or into any other bowl. The juicer bowl is also equipped with a mayonnaise-making device with an oil dripper operating at any desired speed. Price, complete, \$24.75.



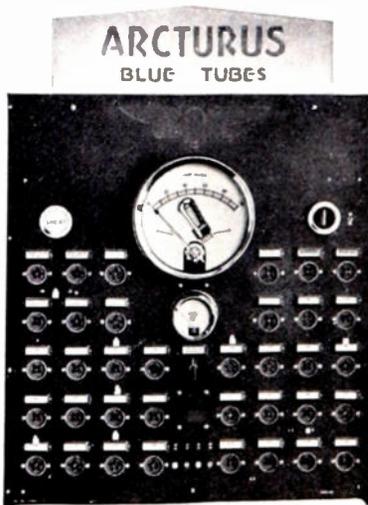
Motor Majestic

Majestic Auto Set

Motor Majestic is the name of the new automobile receiver designed by the Grigsby Grunow Company, Chicago. It is designed so that the set proper is mounted under the seat or the floor boards, away from the motor. Tuning is done on a small control clamped on the steering column just below the wheel, with a flexible shaft running down the column to the water and dust-proof receiver case. Has dynamic speaker. Tubes are lighted from the storage battery, while four large "B" batteries are fastened in another place beneath the floor boards. Speaker can be mounted in back of the dash, on the back of the front seat, or elsewhere. Tubes include three 36, two 37 and two 38 Pentodes. List price, \$59.50, complete with tubes.

Fox Speaker Unit

An electrodynamic unit of new type has been designed by the Fox Engineering Company, Toledo, Ohio. It is adapted for use in theatres, P. A. systems, and all radio purposes. Tolerances are as fine as .001 inch, maintained by use of precision gauges by inspectors. A minimum number of parts are used. It can be taken apart by means of one large master screw, and an interchangeable voice coil cartridge may be easily substituted without exchanging the entire unit. The outer bowl of the unit is stamped from one piece of heavy special alloy. In this bowl rests the field coil. Exciting magnetic energy can be supplied with an ordinary six volt storage battery or a special designed dry cell rectifier supplied by the company.



Arcturus Tube Tester

Arcturus Tester

Accompanying a new business building merchandising plan of the Arcturus Radio Tube Company, Newark, N. J., this new tube tester has been designed to test every common type of tube including pentode and variable-mu's. The large meter on the board gives two readings; the usual plate current measurement, and the essential electron emission indication. Because of the display value of the tester, the dealer can test tubes before the customer's eyes, and point out the difference between good and bad tubes.

A-K Model 85

This is a lowboy superheterodyne, employing two 24, two 35, one 27, one 47, and one 280. Automatic volume control is provided, equalizing volume and eliminating blasting. One knob controls volume and switch. Has three position tube control. The cabinet is walnut. List price, \$99.00. Made by Atwater Kent Manufacturing Company, Philadelphia, Pa.

Majestic Battery Set

This new receiver, made by Grigsby Grunow Company, Chicago, Ill., is designed for the 2-volt tubes now on the market as a result of the development of the Air Cell "A" battery. Model 121 uses four type G 32 tubes, one G 30 and one G 33. The walnut console is 37 1/2 inches high, 24 1/2 inches wide, and 16 1/4 inches deep. Ample space for 2-volt Air Cell battery, three heavy duty 45-volt "B" batteries and a 22.2-volt "C". Single dial control, with on-off knob and volume control. List price, \$99.50. Batteries not included.



Majestic Battery Model

Lyric Radio-Piano

This Lyric innovation is designed to meet requirements of small homes and apartments where space is limited. The piano is a small petite Student model, obtainable in red cases with red keys, green cases and green keys, blue cases and blue keys, black and gold cases with amber keys, done in shaded inlite panel effect. The piano is 41 inches high, 40 1/4 inches long, and 21 1/4 inches deep. The Lyric radio chassis is mounted in the lower right side of the bottom panel, speaker at left.

New Tube Line

A new line of high voltage, oil impregnated, oil filled, tank constructed condensers are manufactured by the Tube Deutchmann Corporation, Canton, Mass. They are designed for severe operating conditions, for laboratory, broadcasting and amateur use. The line includes condensers to operate at voltages from 3,500 to 15,000 volts, continuously.

Stenode Crystal Tube

A standard crystal tube has been designed for Stenode receivers by the Stenode Corporation of America, New York. The new tube has practically the same overall dimension as the 45 power tube, and is mounted on a standard UX base. The quartz crystal is mounted in a medium vacuum, and is electrically terminated at the tube cap and the plate prong in the base. The vacuum is employed primarily for temperature insulation.

Krich Movie Maker

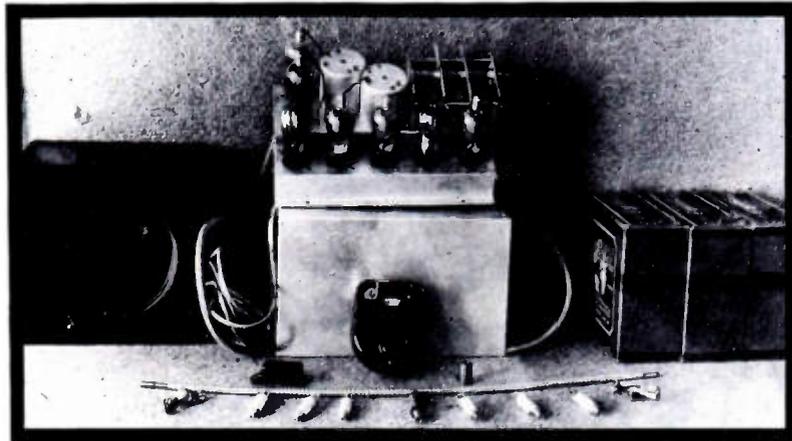
The Krich Distributing Company, electrical distributors, Newark, N. J., have added the new "Movie Maker," motion picture camera and projector, to the regular lines. The camera uses standard 16 mm. film, has an all-metal case, with crackle finish in four pastel shades. Leather carrying strap. List price, \$10.00.

(Continued on Page 37)

Positively The Greatest Automobile Radio Built
BILKIE Superheterodyne **RADIO**
 Auto

\$64⁵⁰

Complete



WANTED

Agents for Nebraska, Missouri, Mississippi, Colorado, Dakotas, Illinois and Eastern States.

SPECIFICATIONS

CHASSIS—Heavy Pressed Steel—Chromium Plated—with dust-proof case.

TUBES—Sylvania—Auto—Tubes—Pentode in Push-Pull—3 236; 2 237; 2 238.

SPEAKER—8-In. Full Dynamic—With Case.

BATTERIES—General, with Steel Case. This Radio gives the lowest drain of any Auto Radio manufactured.

SUPPRESSORS—Continental-Carbon Co.—Six Spark Plugs, Coil, Generator. (8-cylinder cars extra cost)

REMOTE CONTROL—Attached to Steering Post—Lock, Key, Volume Control, Illuminated Dial.

Set completely hidden under dash—no mutilation of instrument board.

Selective—Tone Quality—Volume—Clear Reception

WALTER BILKIE COMPANY

EDDIE BARNES, Sales Manager

Manufacturers

BETTER RADIO PRODUCTS

1250 So. New Hampshire
 LOS ANGELES, CAL.

Representatives

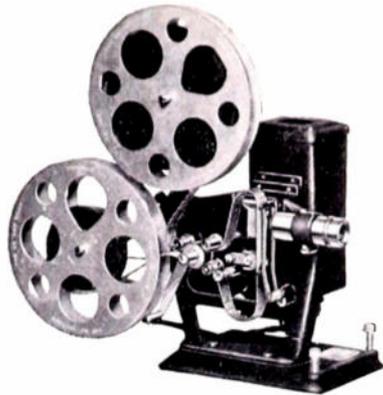
A. RAY DUNDEY
 227 W. Liberty St.
 Reno, Nevada

J. S. PAYNE
 149 New Montgomery
 San Francisco

JAMES J. BORKUS
 109 Bell St.
 Seattle, Wash.

W. J. WEBB
 103 S. Grave St.
 Flagstaff, Ariz.
 (Arizona & N. Mex.)

J. F. TAYLOR
 24 E. 25th St. No.
 Salt Lake City



MODEL B
Projector with Motor and
Carrying Case



DEVRY MODEL 57
F3.5 Camera with Carrying
Case

Special Dealer's Introductory Offer De Vry Home Movie Outfit

Effective Until September 1, 1931

\$65⁰⁰



Framed Glass Beaded Screen

	<i>List</i>
1 DeVry No. 57 camera F3.5	\$57.50
1 DeVry No. 57 Carrying case	\$ 5.00
1 Model B projector with motor	\$48.00
1 DeVry Model B carrying case	\$ 5.00
1 DeVry framed glass beaded screen	\$12.50
1 Agfa 50 ft. 16 mm. Pan- chromatic film	\$ 3.25
Total retail price of com- plete DeVry outfit \$131.25	
Sold to dealers as a complete unit only at a net price of \$65 F.O.B. San Francisco	

This offer will immediately place you in the home movie business on a nominal investment. Mail the coupon below.

Think of it—over 50% discount. This offer places you in the home movie business at a very economical investment. Home movies are big sellers right now—better this summer than ever before. Many radio and music dealers are carrying home movies as a profitable side line. Get your share of the profits.

Phil Lasher, Ltd.

300 Seventh Street San Francisco

Phone Hemlock 0954

MAIL THIS COUPON NOW

the Q.R.S. DeVry Home Movie outfit

at the special price of \$65.00 net, F.O.B. San Francisco.

Compliments: _____
 Please ship via _____
 at the special price of \$65.00 net, F.O.B. San Francisco.
 Name _____
 Address _____
 References _____

More New Merchandise — (Continued from Page 34)



Samson 880

Samson Mike Stands

Four new microphone stands have been perfected by the Samson Electric Company, Canton, Mass., finished in an attractive shade of light brown electroplated bronze. These stands all follow the same general style and design. Stand Number 880, shown here, is for use on tables, desks, and in general where the announcer or speaker is seated. Stand Number 881 is an adjustable table stand whose height may be regulated to suit the taste of the individual. Stand 882 is full length and may be used for speakers, orchestras, etc. Number 883 is also full length, with two microphones for better coverage.

Pilot Battery Set

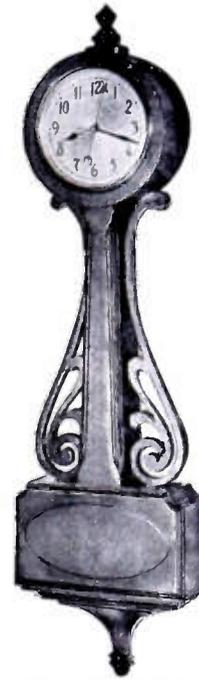
A midget set, with superheterodyne chassis, and speaker encased in a Gothic style cabinet. Stands 18½ inches high, 16½ inches wide and 9¼ inches deep. Has illuminated dial, tone control, and phonograph connection. Seven tubes are employed: Three 36, two 37 and two 38 pentodes. Circuit comprises one r.f. stage local oscillator, i.f. stage, second detector, and push-pull pentode output stage. Set requires a six-volt storage "A" battery, three 45-volt "B's", and a small 2½-volt "C". List price, complete with tubes, but not batteries, \$65.00. Catalog number S-150. Pilot Radio and Tube Corporation, Lawrence, Mass.

Radiovisor Bridge

Known as the Burgess Radiovisor Bridge, a new light-sensitive cell originally developed in England and Germany, is now sold by the Burgess Battery Company, 295 Madison Ave., N. Y. C. The new cell or bridge consists of a tall glass tube with three-prong base. The plate is of glass, upon the front side of which are two interlocking gold electrodes. These are selenium-like enamel, the conductivity varying with the light striking it. This cell makes possible the use of simple, inexpensive circuits. The life of the bridge is almost unlimited, its designers claim. It has been applied to burglar alarms, fire alarms, fog detectors, color matching, etc.

Capehart Series

Known as the 400 Series, the new line consists of the 400 Chippendale, the 401 Chinese Chippendale, and the 402 Adams. The record changer will play from three to 24 records of intermixed sizes, playing both sides of each record before changing to the next. By means of adjusting levers, all records may be played on one side, then all on the other side. Any record can be repeated as long as desired. Radio and amplifier consist of a six tube superhet radio tuner and a seven-tube amplifier with pentode and variable-mu tubes. Pick-up is of the flat inertia type, with free-moving armature reducing scratch and wear on records. Has wattage output of 8 watts, making possible the use of six additional speakers with one watt input. Tubes used are: three 27, two 80, four 55L, and four 247 pentodes. Manufactured by the Capehart Corporation, Fort Wayne, Ind.



Sunbeam Clock

Sunbeam Electric Clock

A line of banjo clocks has been added to the Sunbeam Eternating line of electric clocks, made by the Chicago Flexible Shaft Company, Chicago. They carry out the Colonial style of cabinet-making, and are fashioned of genuine mahogany combined with solid black walnut. The panel overlays are of Oriental walnut and aspen and the lyre-shaped grille is of black walnut. Made in two sizes: The Mount Vernon, 29 inches high and eight inches wide, with five-inch silvered dial, listing at \$35.00; and the Monticello, 20½ inches high and six inches wide, with 3½-inch dial finished in silver. List price, \$27.50.

Abandon Meetings

Regular monthly luncheons and meetings of the Mountain States Music and Radio Association have been discontinued during the summer months, but will renew activities in the fall. During the vacation, however, President H. M. McDonald and Secretary Richard Folland are still on the job, appointing sub-committees and arranging plans for another big season beginning in a few weeks.

Amateur Club Active

Regular fortnightly meetings of the Utah Amateur Radio Club are being continued, with increasing interest among the members apparent. At each meeting papers on special subjects are given. The subjects discussed at the last meeting were "The Practical Use of the Pentode Tube for Amateurs," delivered by Yeates, and "Modulation," by Carmen and Morgan.

At present the club has a membership of 90, which shows a constant increase.

Police Radio in Salt Lake

The Salt Lake City police department is planning to equip every car in the squadron with radio sets. The department is continuing its regular broadcasting hours over Salt Lake stations. Sheriff Grant Young has petitioned the county commissioners to grant funds to have a broadcasting station of their own, for police use exclusively.

Bilkie Factory Busy

Proof that a superheterodyne can be made to work satisfactorily in an automobile is being shown daily at the Bilkie Radio Factory in Los Angeles which is now working double shift, 16 hours a day, to keep up with current orders. The Bilkie chassis was one of the first to incorporate the superheterodyne principle to an automobile radio. They have succeeded in retaining the sensitivity and selectivity of the superheterodyne and in shielding the noises of the car from getting into the set.

The Bilkie chassis uses Pentode tubes in push-pull amplification which gives remarkably clear tone in ample volume. Automobile type tubes are used throughout, the seven tubes of the chassis actually draining less on the battery than the side parking lights of the car. A magnavox dynamic speaker is used, and a remote control is attached inconspicuously to the steering column. On most cars the radio and speaker go under the cowl though on some it goes under the hood over the engine. The Bilkie factory is located at 1250 S. New Hampshire, Los Angeles. "Little" Eddie Barnes, sales manager, was formerly an executive of the Master Radio Corporation.

Hann Co. Handle A-K

The Hann Transfer and Coal Company, Silver City, N. M., has been designated agent for Atwater Kent radios, replacing C. A. Bennett, who has moved to Tucson.

New Denver Bosch Jobber

The Whitney Sporting Goods Company, Denver, Colo., has been appointed distributor for American Bosch radio in the Denver trading area, according to G. W. Stackman, Pacific Coast manager of the United American Bosch Corporation, San Francisco.

Their territory comprises all but a few counties of the states of Wyoming and Colorado, with portions of Nebraska and New Mexico. R. E. Gentry, president of the Whitney Sporting Goods Company, has taken personal charge of radio sales and sales promotion. Augmentations of the sales and service staffs were necessary to meet the increased demands made on these departments that the appointment requires.

Gentry was formerly general manager in charge of radio sales for the former Bosch distributor in the Denver territory.

Offices and warehouse of the company are located at 1640 California Street, Denver, where in addition to the Bosch household line, the American Bosch Motor Car Radio is handled also.

Wedel New Pilot Jobber

The Wedel Company, Inc., Seattle, has been appointed exclusive distributor for the entire line of Pilot radio sets, kits, and parts. The territory covered by the Wedel Company includes the states of Washington and Oregon, according to Leon Brin, general sales manager of the Pilot Radio and Tube Corporation, Lawrence, Mass.

Music and Radio

Headquarters at

SAN FRANCISCO'S

(New Half Million Dollar Hostelry)



HOTEL ROOSEVELT

JONES at EDDY

Every Room with Bath and Shower

Single - - - - -	\$2.00 & \$2.50
Double - - - - -	\$3.00 & \$3.50
SUITES AND SPECIAL ACCOMMODATIONS FOR FAMILIES	
Convenient to Theatres and Shops <i>Radio Connections in Rooms</i> Spacious Lobby and Mezzanine	

Garage Under Same Roof

Indorsed by the

NATIONAL AUTOMOBILE ASSOCIATION

Write for Illustrated Folder

Management of RENE A. VAYSSIE

Radio Store For Sale

FOR SALE—Radio and electric store, ideally located. Established eight years. Standard lines carried. Must sell on account of death in family. Will sacrifice. ADDRESS Box 109 Western Music & Radio Trades Journal, 1220 Maple Ave., Los Angeles.

Buz-z-z-z-z! Gr-r-r-ow! Put! Put!

Don't Lose the Sale — because there is interference in the neighborhood. Don't blame it on the transformer on the pole and give up in disgust.

You Can Stop 90% of the Interference Yourself

"Radio Interference"

It's Cause and Cure

By GEORGE R. WALTERS
Interference Engineer

As Radio Interference Engineer for the Southern California Radio and Music Trades Association and President of the California Interference Association, George Walters has delved deeply into the causes of interference and how to remedy them.

In his book he tells specifically how to locate trouble, how to diagnose it, and how to stop it. With illustrations and detailed descriptions he tells how to install chokes, shielded antennas and grounds to stop the noise. It is technical but written so any service man can understand and apply it. It contains practically all the known knowledge of interference, its cause and cure.

50c *Hundreds of dealers are using this book and data with excellent results. Money back if not satisfied.*

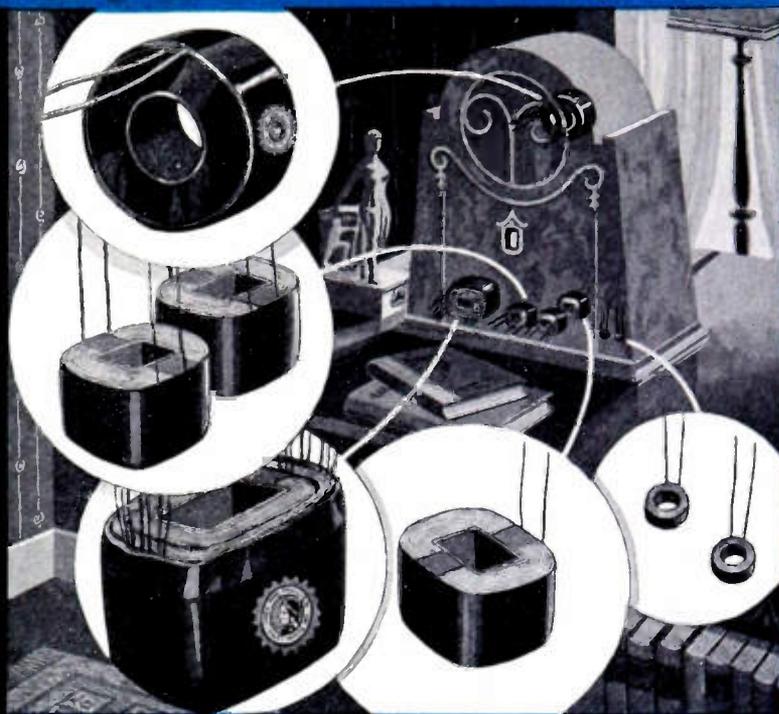
WALLACE M. BYAM,
1220 Maple Ave., Los Angeles.

Enclosed is 50c (in stamps, check or coin). Please send me "Radio Interference."

Name

Address

The Incas were born musicians, their favorite instrument being the quena or Inca flute. Inca music still exists, having been handed down from generation to generation by their descendants, who play these curious instruments entirely by ear.



COMPACTNESS

★ THE KEYNOTE OF RADIO THIS YEAR

Economy . . . Of course, but compactness means economy when it comes to radio. More and more exacting every day are the requirements of the radio engineer. But Inca is ready. Inca engineers have anticipated these changing coil demands . . . and stand ready to meet the most rigid specifications for compactness, performance, economy, and delivery.

Inca enameled magnet wire makes well designed coils still better . . . because no coil can be better than the wire in its windings.

INCA

MANUFACTURING DIVISION



Symbol of the best in copper wire products.

Central Office and Factory:
Fort Wayne, Indiana.

Eastern Office: 233 Broadway,
New York, N. Y.

of NATIONAL ELECTRIC
PRODUCTS CORPORATION



1547 Venice Blvd., Los Angeles

GIVE THE PUBLIC WHAT THEY WANT!

*The Public will want
this **DOUBLE-USE** Radio!*

It Operates
In the HOME or in the AUTO!



Gets the
Police
Broadcasts

It's Two
Radios
In One

IT GOES WHERE YOU GO

*Cash in on the Popularity
of this Fast Seller!*

NATURALLY this 2 in 1 radio is going over big. In the home . . . the car . . . anywhere . . . this radio gets everything, including Police broadcasts.

The first A. C. set that operates on a D. C. Battery line. A simple plug in attachment fits it in any auto.

It's compact . . . yet attractive. Easy to carry, and sturdily built to stand rough use. A 7 TUBE set . . . 4 of them SCREEN GRID.

Here indeed is an ALL-PURPOSE radio. The cast aluminum case (5 inches in depth—12 inches square) is attractively finished. Order a sample set today.

Weight, 19 Pounds

\$

59⁵⁰
*Complete
with Tubes*

Size: 12" Square, 5" Wide

WALTHAM RADIO CORP., LTD.

4228 South Vermont Ave., Los Angeles, California

Phone VERmont 2809

FOR THE HOME - THE CAR - EVERYWHERE!