

WESTERN Music and Radio Trades JOURNAL

It's Here!



SIZE—10 in. Wide, 11 in. High, 8 in. Deep

1931's BIGGEST Sensation!

The Mission Converter is to the radio market today, just exactly what the midget was two years ago! The demand is DISTANCE and "air-novelty"! Every radio owner is a hot prospect and every progressive dealer will want one to serve him . . . A brand new field of enthusiasm and profit-making merchandise . . . Send for your sample, hook it up to any radio in your store, twist the dial and FEEL THE THRILL! Every converter that leaves the factory is thoroughly tested on two stations 3000 miles distant . . . Jobbers and Dealers, wire for yours today.

America's
newest converter

SHORT WAVE

\$49⁵⁰

Complete
with tubes

Nothing else
to buy

Not an Adapter!

Converts any radio to superhet short wave.

PLUG IN—TUNE IN! . . . A short wave converter brought up to the high standards of performance of the present day long wave receivers. A converter attachable to ANY RADIO (A. C. or D. C.) that adds short wave meters below the present 200 meter standard . . . **SIMPLICITY IN ITSELF!** . . . Two wires connecting the converter to your present radio, and your short wave is ready! . . . Always keep it connected . . . The MISSION CONVERTER is the first on the American market to introduce short wave to the ordinary radio fan in a simplified manner for everyone to operate clearly and distinctly . . . !

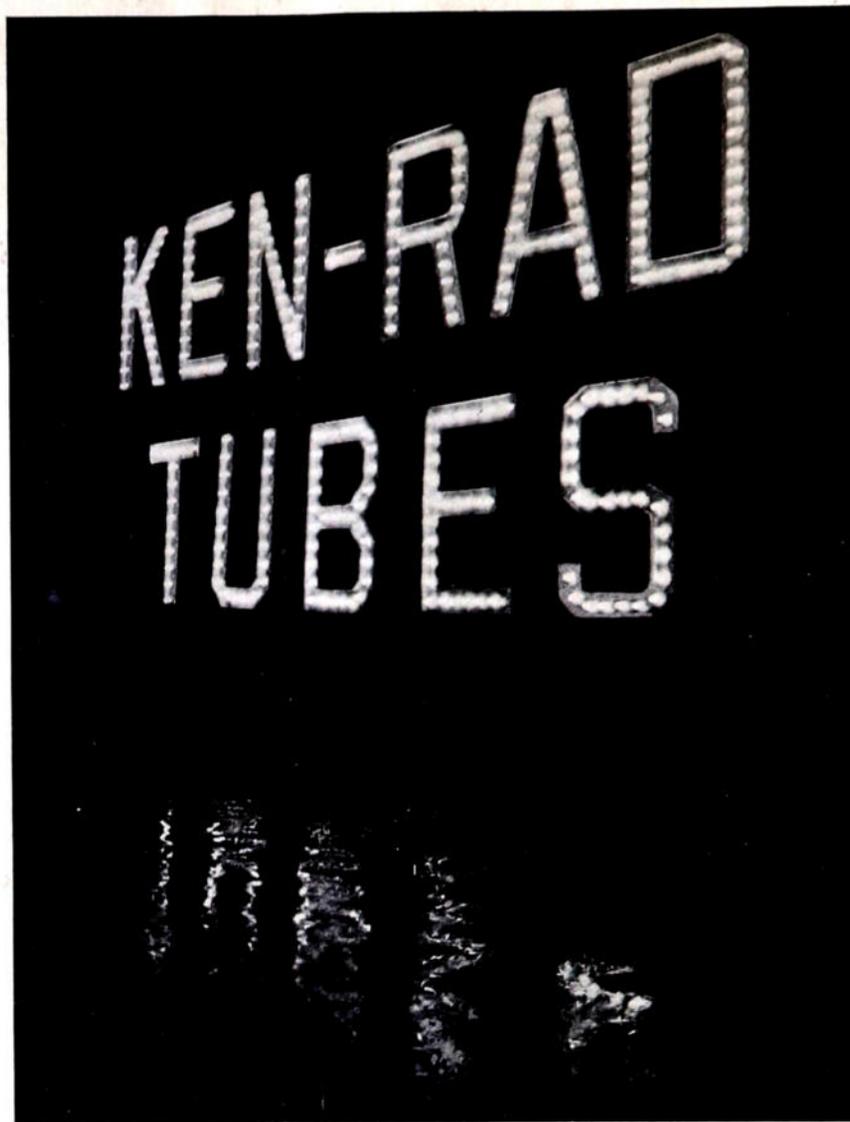
PLUG IN—TUNE IN!

CONSOLIDATED RADIO MFG. CO.

1455 Venice Blvd.

Los Angeles, Calif.

MAY, 1931



AN actual photograph of the mysterious Ken-Rad illumination on the ocean at last year's Atlantic City trade show—where Ken-Rad set sail with new and more profitable sales policies for distributors and dealers.

★ AT THE SHOW THIS YEAR KEN-RAD WILL PRESENT:

The First Really Complete Plan

FOR DISTRIBUTORS AND DEALERS
TO GET THE REPLACEMENT TUBE BUSINESS

KEN-RAD is soon to announce the most effective radio tube merchandising plan that has ever been offered—a plan that completely solves the problem of how to get the replacement tube business. Without the slightest question this Ken-Rad plan will bring about a big increase in tube



*At the R. M. A.
Trade Show in Chicago
June 8-12, Hotel Stevens*

sales for every dealer and distributor who is fortunate enough to obtain it.

Announcement will be made at the Show next month. But in the meantime, if you will write us, we will place your name on the list to receive full details before the general trade announcement is made.

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

Licensed Radio Tubes and Incandescent Lamps



The lookout calls from the mast-head.

Perched far above the deck of the ship, the lookout man is in a position to sweep the farthest horizon. In industry, business leaders and the men at the top can see farther ahead than the rest of us.

The call from the mast-head now tells definitely of clearer horizons and fairer weather

ahead. Far-sighted dealers are preparing themselves now for this future business with fewer lines and merchandise of unquestioned quality and established reputation.

Brunswick Radio Corporation
 MANUFACTURERS OF RADIO, PANATROPE AND
 THE WORLD-FAMOUS BRUNSWICK RECORDS
 NEW YORK—CHICAGO—TORONTO
 SUBSIDIARY OF WARNER BROS. PICTURES, INC.



BRUNSWICK LOWBOY
 MODEL 15

Armored chassis with 4 screen-grid tubes and two 45's in parallel Uni-Selector and Illuminated Horizontal Tuning Scale. Tone Control. Cabinet of seasoned and selected hickory with carved front panels. **\$139.50**
 Other models \$170 up (less tubes)

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. 5. Published monthly at 1220 Maple Avenue, Los Angeles, California.

The Speaker--!

The Voice of All Radios



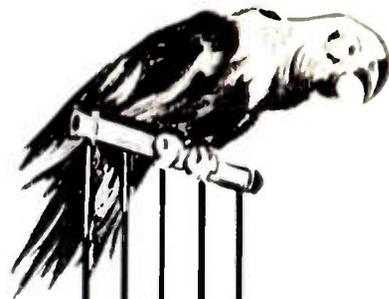
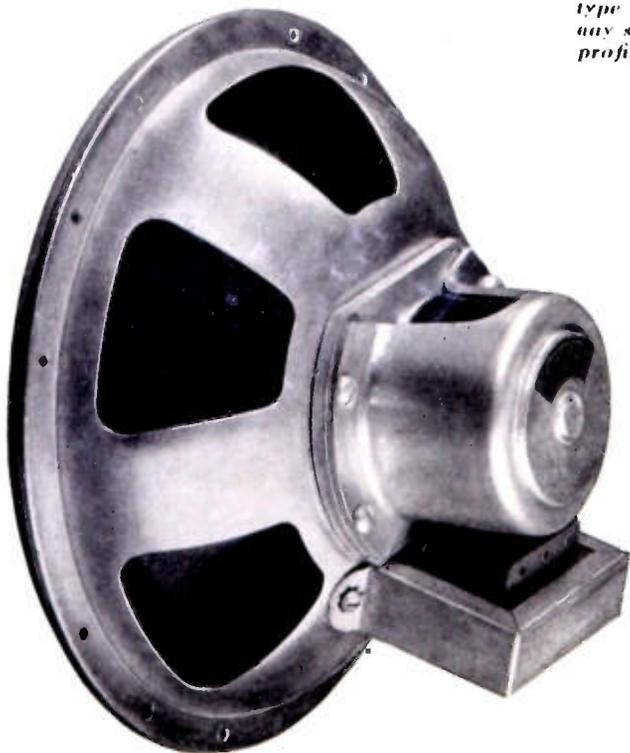
Simple enough . . . "The voice of any and all radios" . . .
The modern speaker is built to give the effect of the thousands
of dollars spent to deliver perfect tone.

The public, not knowing the technical side of a radio chassis,
will always buy one with the most natural tone!

LANSING . . . a pioneer in the electric-dynamic speaker
business has always enjoyed the reputation of creating natural
tone . . . The latest type speaker has proved to be a sensation
among acoustic experts. It is built neatly, sturdily, and power-
fully! Built to meet the requirements of any radio. Be sure the
radio you are demonstrating contains the internationally known
Lansing electro-dynamic!

KEY ACCOUNTS:

*When assembling your own
make radio, hear the latest
type Lansing. It will improve
any set and give you a longer
profit!*



LANSING MFG. CO.

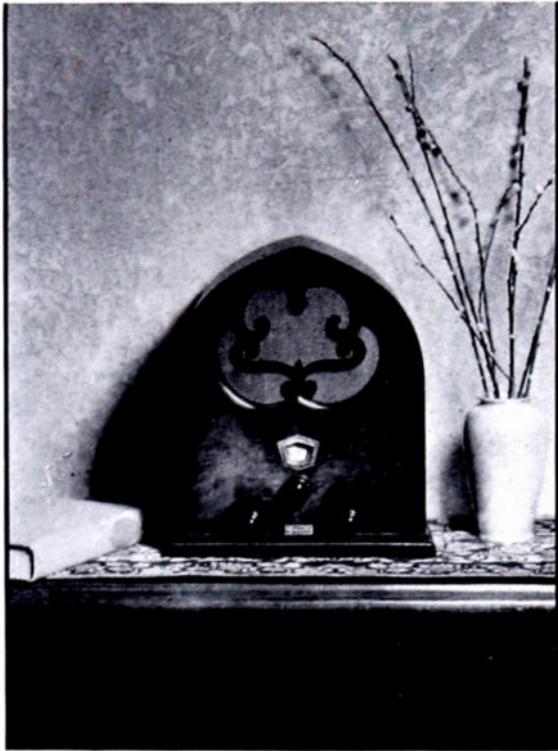
6920 McKinley Ave.

Los Angeles

California



and **NOW dwarf...**



goes
PENTODE
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TONE BEAUTY
VOLUME
that Challenges
any Test!

As Compact as a Lady's Watch

SPECIFICATIONS:

- 5-Tube all electric
- Pentode tube
- 3 screen grid tubes
- Tuned radio frequency circuit
- Tone control
- Illuminated dial
- Goetz Super Speaker
- Phonograph jack
- Table space 11"x7"
- Height 12 1/2"
- Weight 16 1/4 pounds
- Matched Walnut Cabinet

*Complete line of Hand Decorated Cabinets
 at slight additional cost*

Powerful—more powerful than ever with Goetz Super Speaker to handle the tremendous output of the new Pentode tube.

1/2 THE SIZE—1/2 THE WEIGHT
of the Average "Midget"

DWARF is a real miniature . . . 1/2 the size, 1/2 the weight of the average "midget." Carry it as conveniently to your favorite listening spot as you would carry a book to your favorite reading spot. Any table corner, pedestal, or mantle space is ample to contain it. A real radio in miniature . . . does everything a big radio does, in less space than any real radio ever has required before. Occupies a table space only 7" by 11" . . . jewel-like in size, in exquisite beauty of tone, in excellence of design, in quality of workmanship.

\$49.50
COMPLETE

Every progressive dealer will hear the new Dwarf. The only radio of its kind today! Discounts that will make you enthusiastic. At least write for our details . . . they will amaze!

DWARF RADIO MFG. CO., Ltd.

6725 Santa Monica Blvd., Phone Hillside 4105., Los Angeles, Calif.



DON'T TIE YOURS

THE moment any dealer in any line permits his business to rest on the unsound foundation of unsound merchandise, he automatically ties his own hands. Sooner or later the pendulum swings back to quality products. It always has and always will. Foreseeing this swing, Sparton has kept its name clean and its merchandise the gold standard of radio value. With this as a background, we have made ambitious plans for the year to come, and we promise developments of unusual interest. If you are the kind of dealer who foresees the change that is bound to come, now is none too early to consider a Sparton franchise.

THE SPARKS-WITHINGTON COMPANY
JACKSON, MICH., U. S. A.

{Established 1909}

Pioneers of Electric Radio without batteries of any kind



*The New
SPARTON ENSEMBLE
Model 235*

A 12-record, fully automatic, combination radio-phonograph, Sparton-built throughout, for . . . \$280 less tubes

Only SPARTON has the MUSICAL BEAUTY of
SPARTON RADIO

"Radio's Richest Voice"

Western and Canadian prices slightly higher

WESTERN MUSIC and RADIO TRADES JOURNAL

"Published in the West for the West"

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Next month is the big month in the radio industry. New models and new plans—a big general house-cleaning. Manufacturers have been working for months on new policies and constructive ideas to give the whole industry a big boost.

On all sides distributors, dealers and factory representatives are getting ready for the "big push" after the Show, and there is a distinct feeling of expectancy among the trade.

The one thought Western Music & Radio Trades Journal wants to get across at a time like this is "Whatever it is, if it is for the good of the industry, GET BEHIND IT."

The publishers pledge their wholehearted support to any and all measures that will assist in the stabilization of the radio industry, and the solution of the many problems with which it is confronted.

THE PUBLISHERS.

MAY, 1931



BYAM PUBLISHING COMPANY

Publishers of the Radio Dealers' Blue Book

WALLACE M. BYAM

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.

- 6055 WOULD YOU LIKE TO TAKE A WALK Fox Trot
 (Sump'n Good'll Come from That)
 From the Musical Comedy "Sweet and Low"
 HAL KEMP AND HIS ORCHESTRA—With Vocal Trio

- BY SPECIAL PERMISSION Fox Trot
 (Of the Copyright Owners, I Love You)
 From the Musical Comedy "The Gang's All Here"
 HAL KEMP AND HIS ORCHESTRA—With Vocal Chorus

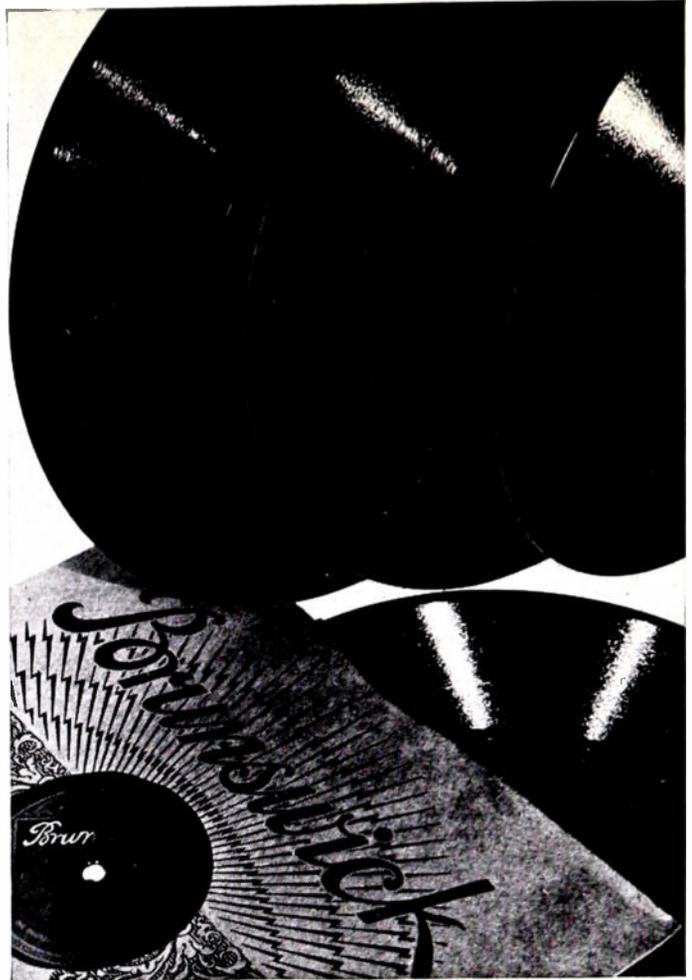
- 6062 ONE LITTLE RAINDROP Fox Trot
 NINETY-NINE OUT OF A HUNDRED WANNA BE LOVED
 Fox Trot
 BEN BERNIE AND HIS ORCHESTRA—With Vocal Chorus

- 6045 YOU DIDN'T HAVE TO TELL ME Fox Trot
 (I Knew it all the Time)

- WHEN YOU WERE THE BLOSSOM OF BUTTERCUP LANE
 AND I WAS YOUR LITTLE BOY BLUE Fox Trot
 NICK LUCAS AND HIS CROONING TROUBADOURS
 Vocal Refrain by NICK LUCAS

- 6048 WALKIN' MY BABY BACK HOME Fox Trot
 FALLING IN LOVE AGAIN Waltz
 From the UFA Production "The Blue Angel"
 NICK LUCAS AND HIS CROONING TROUBADOURS
 Vocal Refrain by NICK LUCAS

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 OVERNIGHT — From the Musical Comedy "Sweet and Low"
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 WHEN YOUR LOVER HAS GONE
 Comedion with Orchestra, HARRY RICHMAN

- 6049 HELLO! BEAUTIFUL! Fox Trot
 RUNNING BETWEEN THE RAIN-DROPS Fox Trot
 NICK LUCAS AND HIS CROONING TROUBADOURS
 Vocal Refrain by NICK LUCAS

- 6056 THINK A LITTLE KINDLY OF ME Fox Trot
 I WANT YOU FOR MYSELF Fox Trot
 HAL KEMP AND HIS ORCHESTRA—With Vocal Chorus

- 6057 MAYBE I'M IN LOVE WITH A DREAM Fox Trot
 I'M HAPPY WHEN YOU'RE HAPPY Fox Trot
 TOM GERUN AND HIS ORCHESTRA—With Vocal Chorus

- 6063 WHEN YOUR LOVER HAS GONE Fox Trot
 ONE MORE TIME Fox Trot
 BEN BERNIE AND HIS ORCHESTRA—With Vocal Chorus

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Brunswick Records

The Radio INDUSTRY Will Be RE-BORN!



By **LEIGH C. BORDEN**

Western Manager, Sparks-Withington Company

Editorial of the Month

ANY industry that has reached the gigantic proportions of the radio industry, and then in a very short time has been exploited and ethical trade practices thrown to the winds until it is hardly more than a racket, must be re-born.

And because there are enough real business men in the radio business who have intestinal fortitude enough to re-build it on a sound foundation, then it will be re-born!

It is almost unbelievable that trade practices now prevalent could have arisen. Who is at fault? Every one of us. Who in the industry has been Simon-pure? To be sure, we all want to be, but due to competitive trade practices, none of us have been powerful enough to swing it alone.

Therefore, in order to sell merchandise we have had to accept conditions as they existed and work out a competitive program as best we might. As a result, for example, the distributor has often found himself confronted with a stock of merchandise which he has bought and paid for. His larger franchised dealers feature bargains, private brands and distressed merchandise. His other dealers cannot, or will not, buy this merchandise at any sane figure. What is the distributor to do? He would like to have a fire, in all probability. He has to dispose of the merchandise; he can't eat it.

Cooperate—Don't Criticize

What has been done in the industry can't be rectified by criticism, but can be by cooperation. If every one of us supports constructive programs, works out his own problems and adopts policies in business that we know to be sane and profitable, this business will do an about-face.

The radio industry is made up of individuals and the

solution of each individual problem will of necessity be the solution for the national situation.

Now is the time for every dealer and distributor to get his house in order. Next month at the National Trade Show in Chicago, manufacturers who have been the shining lights of the industry are going to announce new models, backed up by straight, across-the-board merchandising programs, that will make money for all of us. They are asking, and merit, the cooperation of everyone in the trade, because it is the one way of putting the industry back on its feet.

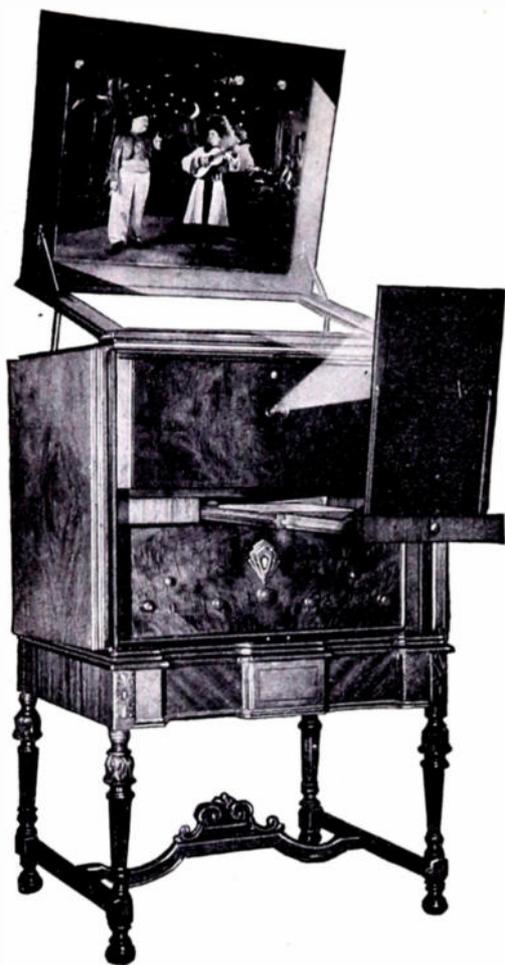
Be Patient

To be sure, we must be patient a little longer, for the consumer has been so steeped in "price merchandise and "price" advertising that he will not immediately react to quality and value-giving merchandise. But consumer buying is always greater on a rising market than on a falling market.

It is obvious that everyone is not interested in price merchandise, that the quality and most profitable market is here and has been neglected, and that it will take some time to bring it back. When one sees an advertisement for a two-pants suit for \$15.95, he doesn't rush out and buy one.

By the same token, isn't it foolish to suppose that the same person is going to buy a fine large radio for \$49.50 or \$59.50 and place it in his home, amid other furnishings that he bought for quality, to be proud of?

The time for action is opportune. Why not adopt policies in our business that we know to be sensible and sound, that are based on ethical merchandising standards. Let's not criticize the other fellow, but cooperate. This movement is already on foot among retail organizations in most of our cities, and when it is accomplished, the radio industry will be re-born.



ONE of the greatest objections to the merchandising of home talkie apparatus has been the difficulty in procuring film libraries. At present, however, this is rapidly being taken care of, and several Eastern and Hollywood film companies are reprinting their films in the 16 mm. home size, one reel in length, accompanied by 16-inch synchronized records, selling around \$20.00.

Very few dealers at present can afford to buy a large enough stock of films and records to supply a considerable number of purchasers. Consequently, several plans are offered to help the dealer finance a film library. One film company plans to furnish the dealer with a library, giving him 40 per cent of the customer rental.

Radio distributors are another means of distribution of film subjects, either leasing or selling the films to their dealers. The dealer in turn may rent to his customers, the popular rate being about \$1.50 a reel for short subjects.

One home talkie manufacturer supervises the management of a retail film library, from which either the dealer may order films for the customer, or the individual may buy direct. Officials of the company report that the stock of film subjects is "unlimited."

In practically all cases, general servicing of the instruments is handled by the service department of the radio store. Manufacturers state that there is very little about the instruments that the radio technician does not already understand. Any problems that arise

HOME They're What Do They OFFER

may be referred to the engineering department of the distributor, which is at the dealers' disposal.

Dealers who are making a success of home talkies are catering to the wealthy trade, contracting schools and other institutions, and are using aggressive outside methods. So far, it has been found that much of the business is cash.

One retailer uses a coupon book plan. Customers may purchase books containing five coupons for \$12.50, and for each \$2.50 coupon obtain a two-reel film for one evening. Single prices are \$1.25 for one reel for the same period.

It is estimated that for the first six months the dealer cannot expect to realize a great deal of profit from the renting or sale of films and records. If the dealer handles the films himself, it requires approximately this long to build up a sizeable trade, and get the swing of the film business. More and more dealers are giving up the idea of attempting to acquire a local library, finding it more satisfactory to let independent libraries, manufacturers, film producers or radio distributors handle this end of it.

Instruments For All Purposes

While self-contained instruments are generally confined to the wealthy trade, dealers are finding other means of selling home talkies to customers of more moderate means. For as low as \$125, units may be obtained that hook up directly to a radio receiver. They consist of an inexpensive projector, synchronized to a turntable, compact and portable. Self-contained units range up to \$700.

At the present time there are eight manufacturers of self-contained home talkie instruments and portable units. Four other companies are manufacturing portable units alone.

Film producers making 16 mm. film and synchronized records are: Columbia Pictures Corporation, Fitzpatrick Pictures, Inc., Hollywood Film Enterprises,

TALKIES— Here!

the Radio Dealers?

Inc., Home Film Libraries, Pathe, U. F. A. Films, Inc. (Educational), Burton Holmes (Travel), and Show-at-Home (Universal).

Radio Corporation of America, in its annual report to stockholders, announced that it was ready to begin production of home talking motion picture apparatus as quickly as the necessary associated services are sufficiently developed.

One manufacturers of home talkie equipment is stressing in its advertising the industrial field for home talking pictures. It is suggested that sales managers use them to address conferences and groups of salesmen in widely separated localities. Another use suggested is for actual selling and demonstration, with the portable unit.

Public Interested in Them

Firms which are already displaying home talkie instruments on their floors report a great deal of public interest in them. Groups of store customers gather curiously about the instruments watching them operate.

One important fact pointed out is that there already exist thousands of owners of silent film machines. Not wishing to part with their instruments they can now purchase portable talkie units to attach to them in conjunction with their radio. Willoughby's in New York cater almost exclusively to this class, and report a great amount of success.

For years there have been independent agencies for silent home films, and with the advent of home talkies have added these films and records to their libraries. One of these agencies has adopted a rental system similar to that of theatre owners. A set of seven five-reel programs is rented to the dealer for about \$200. He is allowed to

PLENTY OF FILMS AND RECORDS

The Following Companies are Producing 16 mm. Films and Records:

Columbia Pictures Corporation
729 Seventh Ave., New York, N. Y.

Fitzpatrick Pictures, Inc.
729 Seventh Ave., New York, N. Y.

Hollywood Film Enterprises, Inc.
6060 Sunset Blvd., Hollywood, Calif.

Home Film Libraries, Inc.
Grand Central Terminal, New York, N. Y.

Pathe, Inc.
35 West Forty-fifth St., New York, N. Y.

U. F. A. Films, Inc.
1540 Broadway, New York, N. Y.

Burton Holmes
7150 Ashland Ave., Chicago, Ill.

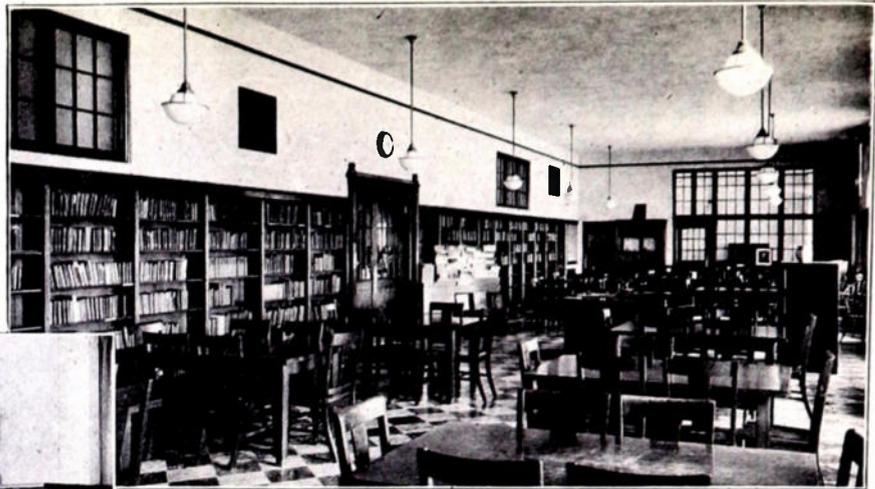
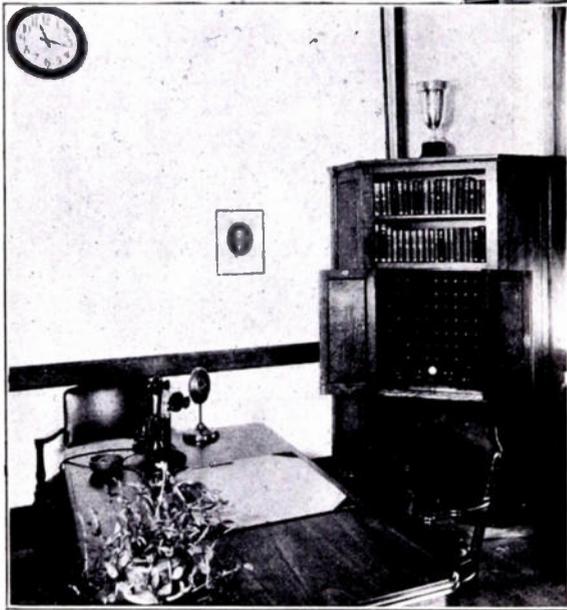
Show-At-Home
730 Fifth Ave., New York, N. Y.

keep it for two weeks, and then it is sent to another dealer, and so on, in rotation.

So far, the sound-on-film method of talking pictures, used in the movies, has not proved practical for the 16 mm. film. Successful synchronization, however, has been achieved with the film and record system, and and very little trouble is experienced in the small-size film for home talking purposes getting out of synchronization.



Below, control cabinet and panel in high school principal's office. From here every room in the school can be communicated with, by radio, microphone, or phonograph. Right, Speaker installed in school library.



Know The Facts— The Rest

THERE is money being made from the sale of public address systems, and according to dealers who sell them—it isn't pin money either.

A Western dealer recently had a wealthy caller in his store who told him he wanted to have some sort of a sound projection apparatus installed at his luxurious mountain lodge, seventeen miles out of town. In the lodge he had a pipe organ, and he planned to install a sound system so that the music could be enjoyed in a little natural theater he had erected 2000 feet down the mountain.

Mr. Dealer knew nothing about address systems, and frantically wired a factory representative from the city. The situation was investigated, and the system installed. The total amount of the sale came to \$2200, out of which the dealer received \$900 for his efforts. He is now a strong advocate of P. A. systems, even though he realizes that this first sale was unusual.

Secure in the belief that there is a large and lucrative field in this merchandise, several manufacturers have already expended

around \$10,000,000 in their production.

The greatest danger in going into the retail P. A. business is the lack of sufficient knowledge about them before attempting to sell, according to jobbers.

"Not that there is anything difficult about them," stated one Western wholesaler, for from a technical standpoint, they are similar to radio. But the dealer must be informed as to the operating possibilities, in order to be able to sell intelligently, and make profitable estimates.

Sell the Idea First

"The main thing he has to sell is the IDEA, and the rest will take care of itself. Once the idea is sold to a responsible prospect, the rest is easy, and the dealer's worries are over."

Upon going into the P. A. business, the dealer can obtain nearly all of the information he needs from the manufacturer, representative or jobber. Technicalities, and selling points are carefully explained. Representatives and jobbers assist personally in getting the dealer started.

In most cases, salesmen are em-

ployed to concentrate on the sale of P. A. systems exclusively, and handle no other merchandise, except incidentally, or to send in leads.

Demonstrations Impractical

Demonstrations, except in a small way, are considered impractical. Each installment is usually different from the one before, made in different situations and conditions. The dealer estimates the material for each job, computes the price, orders and installs. Most systems are guaranteed by the manufacturer for one year, leaving it up to the dealer to see that the correct installation is made to insure satisfaction.

In a small town in California, recently, three dealers handling competitive lines, demonstrated their systems at a large dance auditorium. Each set up his apparatus, and tried it out on the dance crowd one evening.

Two of the dealers, unfamiliar with their instruments, so arrange them that a certain amount of "feed-back" was caused. The other set his up correctly, had no feed-back, and in addition used a little psychology. Instead of putting on the first record he came to, he picked out the snappiest dance record he could find.



Double-speaker installation in auditorium. The two speakers at each side of the stage permit balanced reproduction throughout the room. Can be used with microphone placed on the stage, or for radio and phonograph reproduction. Both this system and the one on the opposite page were sold by radio dealers.

Sell The Idea.... Is Easy!

He was given the order. The dancers themselves had been made judges, and the majority of them chose his system in preference to the others.

Discount and Price Range

Discounts on P. A. systems range from 40 per cent on the small, "bread-board" types, to 15 or 25 per cent on the big single and double channel and multiple installation units. List prices are from about \$50 up to several thousand, depending on the power and number of speakers.

"When I came to the West," said a factory representative the other day, "I expected to see much more being done with sound projection than there is. There is a great open field for P. A. systems, and very few of the dealers are doing anything with them, although the ones who are handling them make good money from them. Somebody is going to sell them, and the radio dealer is the most logical outlet. There isn't much investment; all he has to have is a lot of ideas, and a thorough knowledge of what he's selling, how to sell it, and what can be done with it."

Every day someone thinks of

a new use for the public address systems. They are used in auditoriums, ball parks, dance halls, lodges, schools and prisons. Churches are installing them, also business houses and factories.

A test was recently made to see if a P. A. system would work in a factory better than the automatic bell call-system then in use. It was found that it took from one to two minutes for a workman to answer the bell system, and it only took 54 seconds to get results from verbal orders issued into the workroom through a speaker, and time was saved for mistakes in answering bell signals.

Variety of Uses

Some of the uses being made of these systems are: on ships and yachts, in offices for communication service, multiple installation in large homes, hospitals and schools, parks and many others.

In this connection it is pointed out that there are many educational programs broadcast during school hours, and that there is a fertile field in these institutions for centralized control systems, with loud speakers in classrooms. In addition, it furnishes a means of communication between the

principal's office and class rooms, for announcements and orders.

A high school in Washington recently was sold on the idea of having a centralized address system installed, thereby saving the cost of building an auditorium, and providing educational facilities for the pupils. The dealer who got the contract writes as follows:

"This is a new field for the small music dealer. Although the margin of profit is not large, turnover is quick. The above installation will have 20 loudspeakers, with connections to all rooms, giving them phonograph records, radio reception and microphone addresses." This installation is the largest and most complete equipment of its kind in the public schools of the state.

Dealer Can Rent Them

In addition to selling systems outright, many dealers are renting them for special occasions, operating them themselves, and charging a flat rate. The dealer, or one of his men, usually operates the instrument, and stays at the microphone to manage the speakers and performers. Rates are optional, usually being from \$50 up.



Compare the Leading Lines Under One Roof!

By E. PALMER TUCKER

President, Wiley B. Allen Company

IT IS high time for music dealers to get behind an "honest-to-goodness" refrigeration department. It is generally conceded that the refrigerator is a logical, reciprocal companion line for the radio department, so this need not be reviewed.

The argument, however, in favor of handling several agencies instead of only one is not so threadbare. The sooner music and radio dealers let the manufacturers know they intend to get behind electrical refrigerators, the better.

More Than One Line

The very first thing a dealer will want, in addition to training, upon going into the refrigeration business is—more than one line. The experienced salesman cannot afford to do the work necessary to get a prospective customer into the store if he has only one line to exhibit. He knows the electric refrigerator is a shopping article and that the prospect will shop around before making a decision.

An advertisement that reads "Make a comparison of leading lines of electric refrigerators under one roof" is a lot more powerful than a single agency advertisement.

For more than 100 years piano dealers have "sold" pianos. They were not "bought" as radios have been until recently, so the dealer already has the machinery for selling refrigerators. We would all rather take orders than get them, but we won't go out of business just because we must once more go out and get it.

Then there is the important "margin" question. The multiple agency idea will bring about a better co-operative spirit between dealer and jobber, and also between dealer and dealer.

The refrigerator business, for several fundamental reasons, is more likely to follow the example of the phonograph than the radio. If it does, there should be more uniformity in the dealer's net operating margin and less work for the repossession department.

A CANVASS OF A WESTERN CITY REVEALS THAT:

- 50 per cent of home owners have ice boxes.
- 15 per cent own electric refrigerators.
- 13 per cent of prospects can be sold within 60 days.
- 20 per cent of prospects can be sold after 60 days.
- 2 per cent are prospects for ice boxes.

In securing the above-mentioned information, for every house where an interview was possible, two more calls were made where no one answered the bell or would not be interviewed. The canvass was a house-to-house canvass, and not a selective one.

The musical instrument dealer sells a radio on the argument that it furnishes entertainment for the home. He sells a piano with the argument that every refined home must have one; that well-educated children should study the piano on the premise that it encourages self-expression.

Sold on "Economy"

A refrigerator, on the other hand, will be sold on the argument—and, what is more important, the proof—that it is true economy to have

sales come more easily.

one; also that the price of the electric refrigerator can be saved during the term of the installment contract covering its purchase.

After the dealer has obtained more than one line of refrigerators, the next thing is to train his sales force as he wants them. Salesmen shouldn't be simply turned loose and allowed to roam around independently.

Efficient Sales Supervision

A sales crew needs someone to instruct and encourage them, and if the dealer doesn't know how to manage them, he should hire someone who does, for efficient supervision is half the battle.

There is a simple formula for salesmen to follow that is bound to work if followed religiously. Each salesman has a quota of at least ten calls a day on new prospects. Even if it requires working after hours, he should complete his quota before going home. He should be required to visit at least three old customers a day, or as often as he can, asking them about their refrigerators, solicit complaints, and in general build good will.

Work All the Time

If a salesman will work a minimum of a certain number of hours a day, and keep working every minute, on the basis of averages alone he will make good. In picking men for the sales crew, natural salesmanship is not the big essential to look for. It is much more important that the man is capable of being trained as the dealer wants him. If a man can manage to get along for the first two or three months until he works up some business, he usually makes good. Those first few months are the big test.

With the multiple agency idea, the salesman has a distinct advantage in meeting competition, and sales come more easily.



WISE and OTHERWISE



By **SHIRLEY WALKER**
Associate Editor

THREE years ago it was the "go-getter" type of salesman that we sought for our sales force. Today the successful salesman is the "go-giver" type. He must give his dealers ideas on how to sell—how to improve their business in other departments as well as in selling. And if the salesman is selling to the consumer, the salesman must be able to give information to help the consumer.

For instance, in selling a furnace today the salesman does not rely on getting across all the details of his furnace—he studies the prospect's heating problem with the idea of helping to make that home a warmer and better home.

* * *

The loomless plastic carpet is here! This new method of making carpets in which the centuries-old loom plays no part, which cuts production costs to a tenth, and is said to result in a floor covering equal in appearance and wearing qualities to high grade velvets or Wiltons—is startling the textile industry.

It is just another illustration of what engineers and chemists working together can accomplish. The textile industry will no doubt continue as a permanent industry, but there is no guarantee that the industry, as we know it today, will be permanent.

* * *

New Appeal in Specialties

Soap feels the growing need for improved merchandising methods. Soap in cake form, as an everyday staple is rapidly losing its importance. Soap specialties are taking its place, and with specialty sales methods applied, soap consumption is being increased tremendously. The new specialties have taken the form of "kakees," "beads" and "snow." The ingredients are the same, but the form is different. The appearance is different—not only in package, in form, in method of laundering, and there is a strong time-saving appeal. This is a good example of how old staples need new appeals, in order to keep up the sales volume.

* * *

Installment selling is spreading to everything for which money is expended. Now it's locomotives. The records show that 35 per cent of the 60,000 steam locomotives in everyday use on American railroads are more than 20 years old. But in spite of the higher maintenance costs, in spite of the efficiency of new models, railroads have had to put up with their old engines. But along comes the Baldwin Locomotive Com-

pany plan. As now constituted the plan provides for the leasing of new locomotives to the railroads for a term of fifteen years, payment to be made in half-yearly installments.

* * *

Advertising to the Rescue

Advertising has been called upon to help out over-production—and is doing a splendid job. When you look over your favorite periodical, if it happens to be one of these, think over these figures. The advertising rates for full pages in black and white (not color) in the periodicals of largest circulation are as follows: Ladies' Home Journal, \$9,500; Woman's Home Companion, \$9,400; Delineator, \$9,200; Pictorial Review, \$8,800; McCall's \$8,800; Saturday evening Post, \$8,000; Collier's, \$5,500; True Story, \$4,500; Liberty, \$4,250.

* * *

When you went to the Circus, do you remember the Band? It wasn't very large but it was good—seemed to know its business. Do you remember how it played fast and slow—always seemed to have the right tempo? Did you know that the performing horses and elephants didn't keep time to the Band—it was the Band which had to keep time with them?

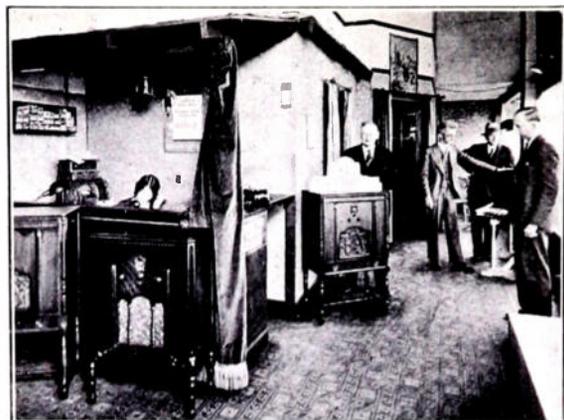
The same is true in selling. The customers don't keep time to the stores and the dealers—the stores and dealers must keep time to the customers. And if they get out of step with what the customers and dealers want—well, it will be just too bad.

* * *

Television? Not Yet!

Television is still a long way off—commercially. The present interest is keen, but it is confined to the experimenter. It works, but the quality of images received is very disappointing. The present method of broadcasting and receiving images was invented in 1885, but the industry is still waiting for a fundamentally new one.

One authority goes so far as to doubt whether, under the present methods, television reception will ever attain the stage which radio reception has reached today, as far as quality is concerned. Radio authorities agree that some new development must come and quickly, to strengthen the industry, but they are equally agree that it probably will not be television. The yare inclined to place more hope in "home talkies" or in the "reading machine."



Interior of the Reliance Radio Shop, where Howell conceives and puts into practice his unique business ideas. Howell is at the extreme right.

It's Never Been Done--- LET'S DO IT!

This Creed Built Howell's Business

By HAROLD J. ASHE

JUST because a thing has never been done a new way is no reason why a new way might not be a better and more profitable way, is the business creed of Roger A. Howell, owner and manager of the Reliable Radio Shop.

Has he obtained results? Six years ago the business was organized. Since then there has not been a year but has shown a substantial gain in volume and in profit, save 1930, which was equal to 1929.

In this matter of being different, his service department is a good example. It is not regarded as a necessary evil, but rather a department with great profit possibilities. Three trucks and four service men, including the service manager, are kept busy. Service men work on a percentage basis, similar to that prevailing in the automotive business. Thirty-five per cent goes to the service men and sixty-five per cent to the shop.

"The service men are turning out more work and making more money, both for themselves and for the firm, than they previously did on a straight wage," explained Harry Shafer, speaking for Howell. "Having an incentive to hustle, they make more calls and cover more territory. The shop furnishes everything excepting testing sets. Trucks are maintained by the shop.

Service Men Are Salesmen

"In addition to doing service work, the service men are encouraged to do selling and get 10 per cent commission on all sales, including sets. They have direct access to the customers and are able to make many set sales; in fact, they have 'pet' customers who give them their exclusive patronage.

"After a service man has faithfully served a customer for a long time, that customer has implicit faith in the service man's word, particularly regarding the performance of a new set. Incidentally, the service man is in the best position to know the logical time to start talking about a new set purchase."

The Reliable Radio Shop's service customers in a large percentage of instances call for particular service men and, insofar as possible, their preferences are respected. In this way each service man virtually has his own following and his own business within his limitations to take care of that business.

In connection with the service department there is a shop form that is rather unusual. This form, each individual card of which is serial numbered, gives a complete history of each repair job. In addition to

the name and other details concerning the customer, a record is kept of the items charged against the job. This is listed in the left-hand columns. To the right is space for figuring up the cost price of these various items. In this way the management actually knows without any guess-work what gross profit is being made on each job, and it furnishes data for cost and profit study.

Only one copy of this shop order is made and it is kept in the office. The customer is given a receipt for his set when it is picked up.

Where faulty workmanship is performed the service man performing the work is required to do it over again on his own time. This rule acts as a check against any tendency to hurry work in order to unduly increase earnings on the percentage basis.

Makes Sidelines Pay

Howell finds profits in sidelines that have been considered barren of profits by many others. This is notably true of public address systems. Several years ago he dabbled with public address systems because he thought they would be good publicity for the store. Since then the renting and selling of public address systems has become an increasingly lucrative branch of his business, and in 1930 was largely accountable for the firm's volume remaining at its 1929 high peak in the face of less set sales.

Two of the service men are kept busy most of the time on the public address system work. One service man is constantly traveling, installing such equipment.

"Public address systems have a much wider use," explained Shafer, "than might seem likely to the casual observer. They are adaptable to churches, schools, industrial plants, public markets, garages, dance halls, roller skating rinks and innumerable other places, both indoors and outdoors. All public events that have large attendance are potential users of such equipment.

"Because we specialize in this type of equipment we do not need to exert any sales effort in selling or renting the equipment. It gravitates to us, and during the last year we did more business in this sideline than ever before—in the face of the depression. About fifty per cent is rental and fifty per cent outright sale.

Multiple Installations

"Another profitable sideline is our multiple radio installation business. We have equipped several apartment houses with such equipment and have experi-

(Continued on Page 34)

Here's one machine that never heard of "SUMMER SLUMP"



The owners of twenty-three million autos in the United States are now hitting the roads. Camps, bungalows, boats, country week-ends are calling the public. Think how many people are now in the market for the greater fun they'll get when they pack along a *portable*! And think what business you can do now with this No. 163 Columbia Portable!

It sells for only \$50. It has the brilliant tone and volume of an expensive cabinet instrument—quality that's *startling* in a portable! Handsomely bound and fitted,

it's right at home in the most luxurious surroundings.

You can reach the slimmer purses, too—with a great Columbia Portable that sells for only \$17.50, and others that sell for \$25.00 and \$35.00. There is also the deluxe electrically operated portable at \$60.00. Those price tags will certainly make these models move!

To get your share of the increased portable business, stock this group of knockout machines—you'll find Columbia Portables are lightweight champions with heavyweight punch!

Columbia  Portables

MAY RECORD HITS

Columbia

- 2444D—"Whistling in the Dark." *Guy Lombardo*. Here is a simple, catchy melody, played in easy-going, swinging dance rhythm. A tenor song chorus is accompanied by harmony whistling by the band boys, who later take part of a chorus of their own.
"Building a Home for You." *Lombardo*. Clever little love song.
- 2434D—"Adios." *Enrique Madriguera*. Another Rumba, this time closely resembling the "Peanut Vendor" in spots. The words are sung in English.
"Siboney."
- 2436D—"The Tune That Never Grows Old." *Lee Morse*. Lee is all lonesome and remorseful in this sad, sentimental waltz.
"By My Side." *Morse*. A rolling, smooth fox trot, in which she varies from straight ballad style to her own style of novelty singing.
- 2439D—"Minnie the Moocher." *King Carter*. The big punch in this number is the words and unusual chorus singing. It is on the order of that old minor tune "Willie the Weeper," with banjo and orchestra.
"I'm Left With the Blues in My Heart." *Carter*.
- 2452D—"Ho, Hum!" *Ted Lewis*. A lazy fox trot, just right for spring. There are clever yawning effects, and Ted sings between yawns.
"One More Time." On the other side of the coupling Ted forgets about spring fever and is as full of vim as ever. A hot fox trot with plenty of instrumental solos and clever arrangements. Lewis makes the most of the words for his interpretations.
- 2441D—"Mary Jane." *Ted Wallace*. A good sweet dance number, with vocal chorus by male trio. Piano parts are clever and modern.
"By a Lazy Country Lane." *Wallace*. An excellent mate for the "Mary Jane" number, of much the same type, with trio and piano parts. A "tired-of-the-city-long-for-the-country" tune.
- 2440D—"Please Don't Talk About Me When I'm Gone." *Ted Raph*. This newcomer to Columbia has turned out a nice arrangement in this number. Hot piano is generously introduced throughout.
"When I Take My Sugar to Tea." *Raph*.
- 2437D—"If You Should Ever Need Me." *Melodiers*. A sentimental, sweet fox trot, with an abundance of harmony and nice arrangements.
"That Little Boy of Mine." *Melodiers*.

- 2454D—"Say a Little Prayer for Me." *Ruth Etting*. This number was imported from England, and is sung in the characteristic style of the "Sweetheart of Columbia Records."
"Out of Nowhere." *Etting*.
- 41492—"Just a Crazy Song." (Hi-Hi-Hi) *David Edwards*. As the name indicates, the number is a crazy one, with no rhyme or reason to the words, all of which are set to a good lowdown tune and rhythm.
"Casa Loma Stomp." *Casa Loma Orchestra*.

Brunswick

- 6093—"Creole Rhapsody" (Part 1). *The Jungle Band*. A blue jazz number, with weird piano choruses. Part of the arrangement is concert type; the rest fox trot. The harmony is unusual with a droning tom-tom bass rhythm throughout.
"Creole Rhapsody." (Part 2).
- 6101—"She Went Havana." *Earl Burtnett*. This one is a comedy number, with humorous words set to a clever melody and "Cuban" Rumba tempo. The usual sound effects are used.
"Sing Another Chorus, Please." *Burtnett*. Good snappy fox trot.
- 6092—"I'm Crazy About My Baby." *Casa Loma Orchestra*. Here's a toe-tickling dance tune with a tune you won't forget. The words are bright and clever, sung in smooth negro style, with plenty of rolling fox trot rhythm.
"White Jazz." Fast-moving and hot, this dance tune has lots of good instrumental work and slick arrangements, played at top speed.
- 6095—"Oh How I Miss You." *Abe Lyman*. Abe plays this tune in straight sweet style, with lots of harmony. There is a nice tenor song chorus.
"To Whisper Dear I Love You." *Lyman*. This is a beautiful number, and Abe makes the most of it in its arrangement. A sweet sentimental fox trot, with a grand tune.
- 6071—"Little Joe." *Hal Kemp*. Sort of a colored version of "Sonny Boy," though the two are nothing alike. It is a striking number, with a haunting melody and sensible, well-written words. It is a fox trot, with tenor song chorus.
"I Got a Sweet Somebody To Love Me." *Kemp*.
- 6088—"Say a Little Prayer for Me." *Jack Denny*. An exceptionally sweet dance tune, with soft, plain instrumental parts, and a slow, smooth rhythm.
"Out of Nowhere." *Denny*.

- 41237—"Nidito de Amor." (Little Love Nest). This is a very popular Spanish waltz number, sung by *Luis M. Bannulos*. It was written in California, and won a Mexican composition contest. Although sung in Spanish, it is popular with others as well.
"Yo Con Tu Amore." (If I Had Your Love.)
- 6094—"What Have We Got To Do Tonight But Dance?" *Abe Lyman*. Clever little love song with bright, swinging rhythm. A tenor song chorus is accompanied by intricate piano arrangement.

Victor

- 22691—"Ho-Hum-" *Gus Arnheim*. Unusual arrangement with accordian, vocal duet by *Loyce Whiteman* and *Bing Crosby*, with slap bass and piano accompaniment. Words are clever.
"I'm Gonna Get You." *Arnheim*. Plenty of deep, warm rhythm in this one. Bing sings it as if he means it. There are clever arrangements and hot piano. The ending is a surprise.
- 22668—"Out of Nowhere." *Leo Reisman*. A popular number played in straight arrangement. Violins are used prominently, with a tenor refrain by *Frank Munn*.
"Yours is My Heart Alone." *Reisman*.
- 22662—"I'm Crazy About My Baby." *Snook's Memphis Stompers*. The harmony and melody in this number are outstanding. It has a deep swaying fox trot rhythm, and good individual solos by the boys in the band.
"Smile Darnya Smile." *Snooks*.
- 22661—"Sugar Blues." *Blanche Calloway*. One of those good old lowdown blues, with plenty of "wa-wa" and negro blues singing. It is full of solos and breaks, with a vocal refrain by *William Massey* with *Clarence Smith* furnishing the hot muted trumpet licks.
"Just a Crazy Song." *Calloway*. Blanche and the boys get steamed up over this one, and sing it really lowdown. Clever song and trumpet answer effects.
- 22655—"Elizabeth." *Waring's Pennsylvanians*. Fred and his band made an unusual job of this number. It is played in a snappy one-step tempo. The Three Waring Girls add their harmony to that of the male chorus, headed by *Clare Hanlon*.
"Oh Donna Clara." *Waring*. A tango fox trot from the Continental novelty. "The Wonder Bar."
- 22660—"New Kinda Blues." *Paul Howard*. Here is a sweet, easy-going blues, with more weird piano parts and minor vocal trio refrains. Played in a lazy, lowdown rhythm which switches into double-time and back again.
"As Long as I Love You." *Benjie Moten*.

ARCTURUS

MOVED

A portion of the Executive Offices of the Arcturus Radio Tube Company—

from NEWARK, N. J., to the WEST

ANNOUNCING the opening of a direct factory branch of the Arcturus Radio Tube Company in Los Angeles . . . with warehouse stocks and direct factory representatives in San Francisco, Portland and Seattle.

. . . Western Division activities are under the personal direction of L. P. Naylor, formerly general sales manager of Arcturus.

. . . According the Western trade direct speedy factory service on deliveries, credit, adjustments and price.

ARCTURUS

ARCTURUS RADIO TUBE COMPANY

SEATTLE
W. J. Calsam, 2014 Terry Ave.

LOS ANGELES
1855 Industrial Street

SAN FRANCISCO
M. M. Kenney, 2380 Washington

THE WESTERN

Television

ONE OF THE NATION'S LARGEST AND most prominent manufacturers outside of the RCA group have exercised their option and purchased the patents and rights of the Farnsworth television system owned by the Crocker Laboratories of San Francisco. This is the system that uses a flat-faced tube for reproduction and does not have a scanning disk, nor any difficulties of synchronization. As the purchaser will neither admit or deny the acquisition, their name cannot be published. However, they are so large and prominent in the industry, and possess such a reputation for aggressiveness, that one may be led to expect that they will take steps to put television on the market before many months.

On the other hand, Don Gilman, Chief Executive for the Western Division of the National Broadcasting Company, recently returned from New York, states that television can only be considered as in its experimental days. It is his belief that it will be at least three years before television will be ready for general public enjoyment. Strictly as an experimental proposition, he states that it is not unlikely that the National Broadcasting Company will install a television station in the West in the near future. He emphasizes that it will be for experimental purposes only.

Several stations in the East and Middle West are broadcasting television daily. It is estimated that there are between three and four thousand television receiving sets in use. The reception of course is decidedly interesting from a scientific angle, but it is generally agreed that it is not of sufficient quality to consistently please the general public. The reproduction is small and ordinarily not more than two or three people can view it at the same time. The most successful broadcasts are line drawings of animated cartoons, broadcast through motion picture film.

It is well to bear a few facts in mind concerning television as it is today. Images cannot be consistently broadcast more than one hundred or two hundred miles. So far, it has not been practical to broadcast television by wire over a network system. It is difficult for a television camera to pick up anything more than eight feet from its lens, and even such subjects must have a tremendous amount of illumination. It is not yet possible to pick up football games or similar events.

What the West needs to start the television ball rolling is three or four television broadcasting stations. With television on the air there will certainly be hundreds of amateur experimenters and radio enthusiasts who will purchase parts or complete television receivers. They will probably not mean a great deal of business for radio dealers, but will at least go a long way towards clearing up the public's mind on television. Those who like television as it is will have television apparatus, and those who do not like it as it is, will be convinced that it will not interfere in any way with their radio receivers, and that they can purchase new receivers with assurance that television will not make them obsolete in the near future.

Several television sets will be exhibited at the Chicago Trade Show.

* * *

You Guess!

BILL GRUNOW HAS BEEN SPENDING considerable time in the West the last several months, at his ranch in Phoenix, and in the Coast cities. What his purposes are have not been disclosed, but it is known that he has taken options on several Western manufacturing plants, and it is definitely known that he is building a strong organization of Western men.

He has been in conference with many of the most prominent men in the Western radio industry, and it is understood that several have signed contracts with him. Is it radio manufacturing? Distribution? Refrigerators? Television? or a combination of radio and television? Many believe the latter hits the nail on the head.

It is further rumored that the cat will be out of the bag by the middle of July or by the first of August. Judging from the Western leaders who are asserted to be associated in the venture, it will be a big piece of news.

* * *

Trade Reports

JUDGING FROM TRADE REPORTS OF THE past month, San Francisco is far in the lead in radio sales in the West. Seattle is running second; Portland, third; Spokane, fourth; Salt Lake, fifth; and Los Angeles bringing up the rear guard. These positions are based on average sales in relation to popula-

VIEWPOINT

tion. Los Angeles was one of the last to feel the depression, and is just now beginning to feel the upswing of sales. Business reports indicate that sales are greatly improving in the South in the last three weeks.

Only one radio show will be held in the West this year, that being in Los Angeles, opening the first week in August. Electrical appliances and refrigerators will be exhibited in addition to radio. Reservations indicate that exhibition space is going faster than in the last previous years, and it is conservatively estimated that considerably more exhibitors will be showing this year than last. Coming in August this year instead of September of previous years, it is believed it will advance the radio buying season at least 30 days, and eliminate to some extent the usual dull summer months.

* * *

Refrigeration

THIS TIME OF THE YEAR REFRIGERATORS are reported to be moving excellently all over the West. Several of the more popular makes are several weeks behind on orders. Radio dealers have at last caught on to the refrigerator game with a first-class showing of sales and profit. A few difficulties are being reported in servicing, but these are being steadily overcome. Refrigeration has become definitely allied with the radio industry, and radio dealers have become most successful refrigerator outlets.

* * *

"The Movie Magazine of the Air"

AND PARDONING A "PLUG" FOR OURSELVES, the first one in seven years of publishing, may we herein put in a good word for our new magazine, RADIO DOINGS, "The Movie Magazine of the Air." For seven years we have been preaching that the best way to sell radios was to sell the programs on the air. Now, practicing what we have been preaching, RADIO DOINGS, in selling the programs on the air, dramatizing the artists and human interest behind the microphone, has hit the public's fancy squarely between the eyes.

The phenomenal success of the first two issues of this magazine has proven that radio fans are fully as interested in their stars and heroes of the air as movie

fans are in the stars of the screen. Whether it is magazines we are selling, or radios the dealer is selling, by far the strongest selling factors is to feature the programs and entertainments of the air made possible through the radio. It is a fact; try it!

* * *

Automobile Radio

AUTOMOBILE RADIO IS ONE OF THE "hot" items right now. Dealers state they are unable to get them fast enough to supply their orders. Western manufacturers who are making automobile radio can't keep up with the demand. Automobile radio was slow to take, but it is certainly catching on with "wim, wigor, and witality."

Prices of many of the standard brands have been considerably reduced and Western manufacturers are swinging into production on models that will list at \$59.50 and \$69.50.

One thing is certain, to be a successful dealer in automobile radio, it is essential that we become closely allied with the automobile business. Automobile radio may be considered an automobile accessory, and is sold as an automobile accessory. Installation is a big and most important item. The gratifying part of it is that when properly installed, the automobile radio stays sold. Once properly installed, the owner will usually never part with it. It has been found, furthermore, that automobile radio greatly increases the value of a used car, over the value of the radio itself.

The best way to sell them and to convince the most skeptical of the value of automobile radio is to give the prospect a ride of from fifteen minutes to a half hour in an automobile radio equipped car. Radio dealers as a whole have not realized the profit possibilities of automobile radio. It will become a far greater factor of their business in the future, particularly in the summer months.

* * *

Midgets in Autos

ONE OF THE LATEST DEVELOPMENTS is a device that changes ordinary six-volt direct current from the storage battery to 60 cycle, 116 volt alternating current. It is small, fool proof, and produces enough current to play any radio. Midgets will be most popularly used with it.

* * *

WESTERN TRADE NEWS

• Around Seattle •

Copeland Official Speaks

Over two hundred Copeland refrigerator representatives convened at the Los Angeles Elks' Club May 14 and 15 to discuss the future locally of electrical refrigeration and to hear W. D. McElhinny, vice-president in charge of sales of the Copeland Company. A high note of optimism prevailed throughout the meeting and new sales records for this year were predicted.

McElhinny was the featured speaker of the two-day conference. He gave an absorbing talk on national and local conditions pertaining to the refrigeration industry. It was revealed that electric refrigeration was one of the few industries to show a gain in 1930 over 1929. The Copeland Company has gained more than 50 per cent this year over the business of the preceding year, a mark far in advance of the industry in general, he said.

Evan O. Thomas, president of the Thor Pacific Company, was official host of the convention and E. R. Swensen presided as toastmaster.



Evan O. Thomas, president of Thor Pacific Company, Copeland distributors, greets W. D. McElhinny, vice-president of Copeland Company.

Fulton Company Moves

Fulton-Majestic Utilities Electric Equipment Company has moved its offices from West Fourth South, Salt Lake City, to 704½ South State. Majestic radios and electric refrigerators are handled in the new and larger display rooms and offices.

Western Industries Fails

Western Industries, of Salt Lake City, manufacturers of Minnet and Peter Pan radios, recently went into the hands of the receivers and their entire stock was placed under restriction.

New KenRad Representatives

In order to give better co-operation with Western distributors, KenRad Corporation, manufacturers of KenRad tubes, Owensboro, Ky., have assigned two new factory representatives, to assist H. G. Blakeslee, Western manager, Los Angeles, on the Pacific Coast.

J. E. Coman has been appointed representative in Oregon, with headquarters at the Sunset Electric Company, Portland. J. T. Lane represents KenRad in San Francisco.



H. E. Gardiner

AC Sets in Autos

A device which makes it possible to use AC radios in automobiles has been patented by H. E. Gardiner, 2041 Union Street, San Francisco.

This new patent, according to its inventor, makes it possible to use an AC set, midget or console on yachts for example, at a retail cost of \$35.00. The device is small and compact, being about one-third the size of a standard wet A battery. Juice is drawn from the automobile or boat battery without excessive drain or damage to the battery, and the simple installation of an aerial and ground to the frame or boat ground is all that is necessary.

According to Gardiner, the device can be used to advantage in recording laboratories, movie theaters, farms and hotels. The inventor is F. Hutchinson, a young engineer associated with Gardiner.



Sam Kohan, Arizona dealer, and Charles O. Weisser, new Western manager for Atwater Kent.

By LEO GREEN

Speaking of Prices

Plain talk about price levels that should cause every radio dealer to pause and do some serious thinking came in an address made a few weeks ago before a clothiers' convention held in Detroit. John Mmch, merchandising expert of New York, was the speaker.

Although his talk was concerned with the selling of other merchandise, he inadvertently hit more directly at radio than at any other product. Following are a few extracts of his speech:

"No effort is being made to sell anything but the lowest priced goods," he continued. "A survey of advertising during 1930 from a representative group of the larger cities of the country proves this.

"During the past 18 months retailers have betrayed their trust by advertising low price goods," he declared. "They have not served the public sincerely in attributing qualities to low priced merchandising which belong to the higher grade goods alone.

"But here is a warning," he continued. "You probably will return to your stores to run 'ads' on your higher-priced goods. Then you will sit in your offices and wait for these advertisements to 'pull' trade. Then if you do not feel an immediate response you'll complain. It is going to take time to educate them to the higher-priced merchandise they formerly bought."

Times Have Changed

That there is more of a spirit of common interest among dealers selling the same make of radio was convincingly proved recently when August Lutz, manager of General Electric Supply, Seattle, called his dealers together to discuss a series of advertisements on the new General Electric radio planned to be released at intervals in all newspapers.

From past experiences little hope was held that an agreement could be reached with all dealers to participate. Dealers, however, not only readily agreed but were enthusiastic to get it started as quickly as possible. Memory does not have to go so far back to recall what a scrap jobber and newspaper would have had trying to satisfy any group of dealers on a plan of group advertising. Yes, brother, times have changed.

Police Radio System

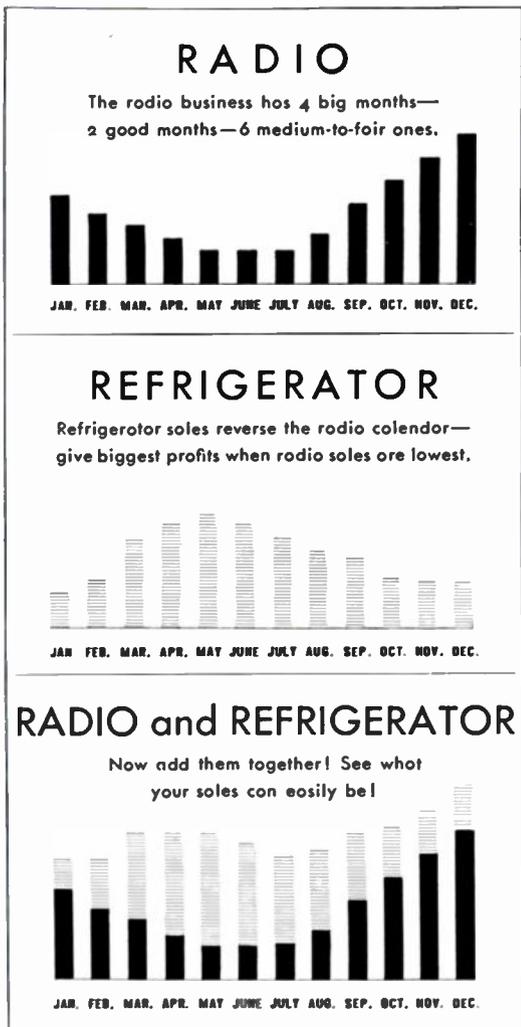
The announcement several months ago that the Seattle Police Department was to install radio broadcast for the purpose of police work is now a reality and having a very telling effect upon the curtailment of crime in Seattle and the Northwest, according to police officials.

Sparton equipment is used, consisting of a 250-watt high frequency crystal-controlled transmitter, operating on a low wave length. Prowler cars are equipped with specially designed battery receivers tuned to this transmitter. Outlying bridge approaches and stations are equipped with AC receivers, giving a network of coverage throughout the city.



Mighty Monarch
of the Air

There is no seasonal problem for MAJESTIC Dealers



Just as the "natural" radio months end, refrigerator sales begin. During those months when radio prospects are hard to find and difficult to sell, refrigerator sales are at their peak. In the Fall, when the public loses some of its interest in the cooling of food, radio comes back into its own. Majestic Dealers have only to follow this cycle for year 'round profits.

Two and one-half million Majestic Radio owners are "leads" for the sale of Majestic Refrigerators. The public knows that Majestic builds a quality product and, by highly developed manufacturing methods, can set prices that mean Value. Majestic discounts are so arranged that a dealer can make a worth-while profit on his investment and his work. Majestic Distributors are experienced merchandisers and work *with* their dealers.

If you do not hold a Majestic franchise, call, write or wire the Majestic Distributor at once.



MIGHTY MONARCH
OF THE ARCTIC

GRIGSBY-GRUNOW COMPANY
CHICAGO, ILL.

Makers of

Majestic

RADIO and REFRIGERATOR

UNDER THE GAVEL

— Association News —

No Vancouver Convention

It has been definitely decided that the Western Music & Radio Trades Association convention, scheduled to be held in Vancouver, B. C., will not be held.

Following is a letter sent by J. W. Kelly, president of the association, to all directors of Western Music & Radio Trades Association:

"On March 12 I wrote to all the directors of the Western Music & Radio Trades Association explaining that we were unable to hold the convention this year in Vancouver and asking for an opinion as to what we should do.

"I received many different suggestions, but the prevailing idea among those interested in the convention was that, instead of definitely postponing the convention until next year, we should issue an invitation to Seattle to take it over for their city. If Seattle declined, it was suggested that the convention should then be offered in rotation to the Los Angeles association, then to San Francisco and finally to the Pacific Radio Trades Association. However, all of these associations felt that they were not in a position to handle the convention this year.

"We believe, therefore, that the only thing left for your Vancouver officers to do is to advise you that there will be no convention in 1931. We regret this deeply, but hope that 1932 will see a bigger and better convention.

"Yours truly,

"J. W. KELLY."

"Keys of Happiness" for West

Arrangements to have the "Keys of Happiness" programs, which have been broadcast so successfully in the East, brought to the West by the National Broadcasting Company network, are now underway.

"Keys to Happiness" are a series of half-hour programs broadcast for the purpose of demonstrating to the public the ease with which the fundamentals of piano-playing can be mastered.

Largely through the efforts of Beeman P. Sibley, treasurer of the Music Trades Association of Northern California, a quota of \$6,000 to defray the expenses of the broadcast, and to pay the expenses of C. E. Mills, originator of the idea, on a trip to Los Angeles, has been partly raised.

Mills, through his influence as president of the Radio Music Company of New York, a subsidiary of NBC, obtains time on the air free. The only expenses are the cost of obtaining prominent music teachers and famous personalities, and the provision of charts, postage, and clerical services for handling the proposition. Under the plan, Mills will meet the officials in Los Angeles at the Biltmore Hotel, 10:00 a.m., Tuesday, June 2, where more definite arrangements will be made.

C. E. Mills and vice-president Gilmore of NBC, will fly from San Francisco to the meeting. All Southern California piano dealers are urged to attend this convention.

The expense quota for the Western States is as follows: Southern California, \$1400; Northern California, \$1400; Oregon, \$700; Western Washington and British Columbia, \$700; Eastern Washington, \$360; Idaho and Montana, \$360; Utah, \$360; San Diego territory, \$360, and Arizona \$360. One-sixth of the quota is immediate, the balance to be at the June meeting. In case the plan falls through, the money will be refunded.

"The Keys to Happiness" has met with great success in the East, it is reported. One piano manufacturer found that on the first day the programs were announced many orders were received to have pianos tuned and re-pitched.

R. M. T. A. to Hold Show

"Radio and Electric Show" is the name of the annual exposition sponsored by the Radio and Music Trades Association of Southern California, Ltd., which will take place during the week of August 2 to 8, inclusive, at the Ambassador Auditorium, Los Angeles.

The name "Electric," which has been added, permits the exhibition and display of electric products—especially refrigerators—according to A. G. Farquharson, secretary. The date was fixed primarily by the members of the trade by means of a postcard questionnaire.

"The August date silences the complaint of some dealers that the September date slows up business," Farquharson declared in a letter to dealers. "It also follows the R. M. A. show fairly closely and will benefit by the announcements which will be broadcast at that time in reference to new radios. Again, it is a favorable time for the exhibition of electrical refrigerators.

"In all probability this will be the only radio show held in the West, and every member of the Allied Trades; Music, Radio and Electric, should do everything he can to make this exposition a success."

Waldo T. Tupper has been appointed managing director of the Show Beautiful.

Asks Careful Installation

At a monthly meeting of the Mountain States Music & Radio Association May 8, a review of the interference situation was taken up by William M. Scott, head of the interference committee, and technical engineer for the Utah Power and Light Company.

Scott laid much of the interference blame on faulty installation, and asked dealers to make a more careful check-up of sets and installation before blaming the power company for the trouble. He distributed complaint cards to be filled out by set owners, and sent to dealers or the association.

Untruthful advertising was discussed by J. C. Dwyer, vice-president of the association, who urged that dealers stop unscrupulous methods of making false promises which were never kept. He called attention to recent ads where sets listed were not even on the dealers' floors, and the cut prices and trade-in values did not apply to the sets listed. Dwyer called attention to the agreement of the dealers against free home demonstrations. The meeting was one of the largest and successful held for several months.

Change Convention Plans

As a result of committee meetings held in Chicago, and later in New York, it has been decided to make a change in the plan originally announced by the National Association of Music Merchants as to the date and hotel for the Thirtieth Annual Convention.

Arrangements are being made to hold the convention, which will include not only the merchants group but also the various other associations affiliated with the Music Industries Chamber of Commerce, at the Palmer House in Chicago, Monday, Tuesday and Wednesday, June 8, 9 and 10.

The reason for this change was because it was believed that a considerable number of merchants might desire to be in Chicago at the time of the annual radio trade show and convention, which will take place during the week beginning June 8, with headquarters at the Hotel Stevens, Chicago. The Radio Manufacturers' Association will also have the complete accommodations available at the Blackstone, Congress and Auditorium hotels. The Palmer House is advantageously located, only a short distance from these hotels, and is one of the largest hotels in the middle west, admirably equipped to handle the Music Industries Convention.

One of the most important features of the coming convention will be in connection with the extraordinary promotional activity represented by the "Keys to Happiness" broadcast programs. A representative of the National Broadcasting Company will be present at one of the merchants' meetings to discuss plans for carrying on these programs and to work out details of even closer cooperation with music merchants throughout the United States and Canada. In fact, the "Keys to Happiness" programs will constitute essentially the "keynote" of the convention.

Technician's Auxiliary Underway

A Servicemen's and Technicians' Auxiliary, established by the Radio & Music Trades Association of Southern California, is well under way in organization and activities.

Members who are eligible are those servicemen who have received certificates for proficiency in an examination on radio technique being given by the association. Dues are \$1.00 a year for each member.

Speeches at recent meetings have included talks by prominent engineers, on subjects of vital importance to servicemen and technicians. At the last meeting about 80 attended.



SHADOWS OF COMING EVENTS

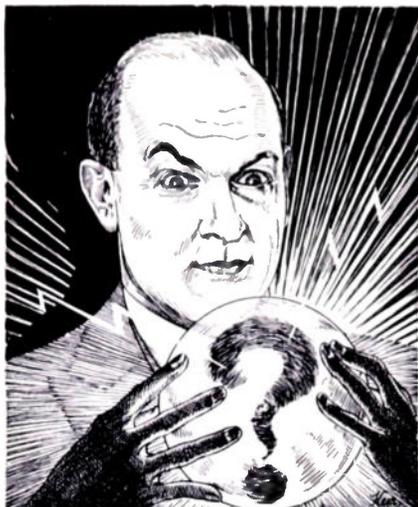
that will concern every radio dealer



Naturally radio dealers everywhere are looking forward with great interest to the annual R. M. A. Convention at Chicago in June, when the future course of radio sales effort will be definitely indicated. We at Dayton expect to offer significant contributions in line with our policy of "building for the future by building right." Several new developments of our laboratories will, we believe, attract wide attention when presented in June. The precise nature of these developments—technical and artistic—cannot be disclosed at present, but forward-looking dealers need only this assurance: Whatever is new in a General Motors Radio product will hold to that standard of quality which has firmly established this radio in public esteem.

GENERAL MOTORS RADIO CORPORATION

DAYTON, OHIO



IN THE beginning, radio broadcast receivers were of the regenerative type. In the tuning process, regeneration was usually carried beyond the point where oscillations were set up in the detector circuits. These oscillations were able to reach the antenna through the various couplings, and radiated nicely with the result that the air was full of chirps and whistles.

Eventually, as the number of receivers in use increased, it was realized that this radiation from an oscillating tube in the receiver was a serious menace to the advancement of the art. Sets of this type became known as "bloopers" and as other types of circuits were developed in which no oscillation occurred, laws were enacted in some parts of the world forbidding the use of the regenerative type of set which could radiate.

WITH the advent of the neutrodyne and other types of tuned radio frequency receivers, the regenerative blooper gradually acquired a certain ill-repute and was generally conceded to be a nuisance in any neighborhood. Gradually, this original type of broadcast receiver with all its disadvantages, chief of which was the radiation evil, has passed from existence, and the air has been comparatively free from the "birdies" which were an indication that the neighbor was home and engaged in certain tuning activities with his radio!

This was accomplished in this country by natural progression, rather than the enactment of laws forbidding the manufacture, sale, and use of "bloopers."

AND now we are right back in the thick of the old, old problem. We have a multitude of unshielded, poorly engineered superheterodyne receivers flooding the market. And in each of them is a vigorous oscillator, a tube which is not thrown into oscillation occasionally in the tuning process, but which oscillates strongly all of the time that the set is in operation. In some sets, these oscillating circuits can couple through to the antenna circuit, and in practically all of them radio frequency energy is fed back into the A.C. supply lines. In both cases the

LOOKING AHEAD

with K. G. Ormiston

receiver becomes a young broadcast station, emitting a carrier which can produce heterodyne whistles and chirps in other sets for blocks.

AS THE number of sets of this type in use increases, we will hear much about the radiation evil and agitation in favor of the enactment of ordinances to regulate such interference. Supers which radiate and which lack shielding have another weakness. They seem to welcome the key clicks and signals of amateurs operating on their own bands and abiding by all of the requirements governing their stations. Suddenly, the broadcast listener complains of "ham" interference, when the said interference is purely a function of the receiver, and the amateur is in no way to blame.

We predict that the present tendency toward the cheapest possible construction of superhet receivers will eventually bring about the enactment of city ordinances, similar to our electrical interference ordinances, making the use of such apparatus unlawful. When the user of a radio receiver is able to impair the radio reception and enjoyment of his neighbors, through the use of a set which radiates strongly, it would appear that there is just as much room for proper regulative control here as in the case of the operation of an electric sign flasher, diathermy or other interference producing apparatus.

Manufacturers have largely overlooked the necessity of guarding against this important disadvantage in the superhet type of receiver. Some, however, are taking all possible steps in design to minimize radiation. The use of a shielded A.C. cord from the set of the wall plug, by-pass condensers connected from the A.C. supply wires to ground, careful grounding of all parts of the oscillator circuits directly to a common ground and not through the chassis itself, shielding of the oscillator elements, etc., are all matters of design which add to the cost of the set, and are not appurtenant to the purchaser, but which go far toward making the superheterodyne receiver the peer of all radios, and not another nuisance!

THERE has been a lot of activity lately with regard to the Southern California broadcast stations. The Federal Radio Commission granted full time to KGER as the result of a recent hearing in Washington on the Long

Beach station's application. This same order provided for the non-renewal of the license of KPSN, the Pasadena station which formerly shared time with KGER.

Then the Auburn-Fuller people bought KTBI, changed the call to KFAC, and made a new time dicker with Bob Shuler on 1300 Kc. Along comes attorney Frank Doherty, owner of KMTR, and buys out Vic Dalton's ownership of KMCS, formerly KMIC. And incidentally, Doherty puts in a new RCA 1000 watt transmitter for KMTR, replacing the old 500 watter, which was the original KPO many years ago. While still licensed to operate 500 watts, KMTR has another 500 watts up the well-known sleeve, should the Commission some day grant a power license.

Then Don Lee, not to be limited in the coverage of his KHJ by his inability to get a 50,000 watt permit, decides that there are other ways of skinning the feline, so he gets himself coverage by enlarging the Don Lee chain. By adding KGB and KDB, he now covers strongly into two parts of the state where KHJ and KFRC weren't so hot.

KMPC, KELW, and KGEF continue to function on temporary permits in lieu of licenses pending the decisions of the Commission on hearings involving said stations. Little KREG in Santa Ana also seems to be in some sort of picklement, working just now under one of these probationary tickets. Certain new general orders of the Commission requiring more than 75 per cent modulation, and new methods of determining the operating power have many of the operators of composite equipment worried.

THE technical standards of broadcast transmitting are apparently about to undergo a step-up, thanks to the activities of the engineering division of the Federal Radio Commission. And it's about time! The whole radio industry hangs on the kind of a job the broadcasters do. When the public gets poor transmission, interference, and a lack of the type of broadcast which really pleases, the sale of sets slows up. The industry can only prosper when the public is constantly enthusiastic about radio broadcasting. So any improvement in that direction, either technically or in the program arrangements, must react to the general benefit of the industry.

Sylvania

REGISTERED U.S. PAT. OFF.

THE SET-TESTED TUBE

It Pays to sell
the "policy" line



NEW LIST PRICES

Tube Type	Was	Now
210	\$ 9.00	\$7.00
224	3.30	2.00
227	2.20	1.25
230	2.20	1.60
231	2.20	1.60
232	3.30	2.30
235	3.50	2.20
245	2.00	1.40
250	11.00	6.00
280	1.90	1.40
281	7.25	5.00
551	3.80	2.20

Licensed under RCA Patents

Despite low list prices—Your
Sylvania Discounts Remain Unchanged!

Sylvania list prices change to meet current selling conditions—*But Still*

THE SAME—generous MARGIN of PROFIT
THE SAME—dependable PRICE PROTECTION
THE SAME—helpful COOPERATION

and

The Sylvania 100% Dealer Plan
(100% for you)

It's new—different—unselfish—productive—profitable—successful

Sells every product you handle with slight effort on your part

MAIL THIS COUPON NOW!

Sylvania Products Company
Emporium, Penna.

Please send me full details on the new Dealer Plan.

Name _____

Address _____

State _____

PEOPLE WHO DO THINGS

R. H. Mason, proprietor of the *Majestic Radio Shop*, Union and Knott Streets, Portland, Ore., was suddenly stricken with heart trouble recently and fell dead while working in his garden. He had been in business only three months.

O. H. Spindler, Seattle manager for Sherman, Clay & Company, has resigned after fourteen years of service with that company. After a short vacation, Spindler intends to again enter business, he said.

Art Reeder, of *B. F. Schlesinger & Sons*, Oakland, Calif., has been promoted to the managership of the radio department.

Ted Helman, former manager of the radio department of *B. F. Schlesinger*, is now associated with the *Wurlitzer Company* as radio department manager.

John R. Bizelle, formerly assistant sales manager of *Pacent Electric Company* and *Pacent Reproducer Corporation*, New York, has been made general sales manager of both organizations. He is at present in Europe on business.

R. A. Mindte, of Anaheim, Calif., has purchased the *Radio Service Shop* at 2209 Coast Blvd., Balboa. Mindte was formerly with the *Mackey Radio Company* of Palo Alto, Calif.

A. Shawron is the new owner of the *National Music Company*, 1466 West Santa Barbara Ave., Los Angeles. He was formerly with the *Young Music Company*.

Joe Young, for 16 years identified with the *Simon Piano Company*, W911 Riverside, Spokane, Wash., has taken over the business founded by Emil Simon 50 years ago. Simon recently retired from the retail business.

Jacques Covo has been appointed head of the piano department of the *Wurlitzer Piano Company*, Oakland, Calif. Covo is a French war veteran, who studied in the conservatories of Paris and Vienna.

William C. Grunow, formerly connected with the *Griegsby-Grunow Company*, has been spending considerable time in the West recently. Interviewed at the *Biltmore Hotel*, Los Angeles, he would not disclose what his plans were, but it is generally known that he has taken action on a number of California manufacturing concerns, and has held interviews with a number of prominent leaders of the radio industry in the West. It is expected that his plans will be disclosed the latter part of the month.

E. M. Sheets, who has been in the radio service business in Oak Grove, Ore., has moved his shop to Oregon City, at 1005 Seventh Street. He carries a complete line of parts and accessories for all models.

L. P. Naylor, former sales manager of the *Arcturus Radio Tube Company*, has assumed the management of *Arcturus* activities on the Pacific Coast, with offices at 1855 Industrial Street, Los Angeles.

A. J. Carlson has been appointed radio sales manager of the radio department of *Waterhouse-Lester-Scovel Company*, San Francisco, American Bosch distributors. Carlson is well known throughout California, and especially experienced in radio merchandising conditions in the northern part of the state.

G. D. Leyda, proprietor of the *Leyda Electric and Radio Company*, Edmonds, Wash., has been elected to membership in the *Institute of Radio Engineers*.

E. A. Nichols has been appointed general sales manager of all sales, except foreign, of the *RCA Victor Company*, Camden, N. J., succeeding *Harry C. Grubbs*, resigned. His appointment is in line with the reorganization of *Victor* and *RCA Radiola* divisions of the *RCA Victor Company*.

J. C. Ellsworth, manager of the *Dinwoody Furniture Company* radio department, Salt Lake City, has left for St. Louis, where he has accepted a position with a cosmetic firm. His successor in the department has not yet been appointed.

Frank Marshall, of the *Dinwoody Furniture Company* radio department, and manager of the electric refrigerator department, has resigned to accept the position of manager of the refrigerator department of the *Z. C. M. I. store*, Salt Lake.

John Elliot Clarke, *Victor* distributor in Salt Lake City, has been appointed *R.C.A. Victor* distributor.

Universal Agencies, factory representatives at 1088 Howard Street, San Francisco, recently were appointed representatives for *Sylvania-Pacific Company* in Northern California and Nevada, according to *John Shaw*, manager. The appointment was made through *W. H. Cooke*, *Sylvania* representative, Los Angeles.

Harry O'Loughlin, manager of *O'Loughlin's Radio Store*, Salt Lake City, has just returned from a visit to the Pacific Coast on business and pleasure.

Leo Brin has been appointed general sales manager of the *Pilot Radio & Tube Corporation*, radio set and tube manufacturers, and will make his headquarters at the company's plant at Lawrence, Mass. Brin was formerly connected with the *RCA-Victor Company* at Camden, N. J.

NEW DISTRIBUTOR AND DEALER APPOINTMENTS

Rhodes Electric Company, 428 Georgia Street, Vallejo, Calif., has been appointed exclusive *Brunswick* agents, it has been announced by *Fred J. Brown*, manager of the *Brunswick Radio Distributing Company*, San Francisco. Brown spent several days with the *Rhodes* sales force, assisting in the demonstration of *Brunswick* radios. *Henry Eaton*, formerly with *Sherman, Clay & Company*, is in charge of sales, and *John A. French* handles the service department.

Cook and Foster, radio dealers in Astoria, Ore., have taken over the distribution of *Atwater Kent* radios for the Astoria territory. They continue to handle *Majestics*.

Felt Radio Company has taken over the Salt Lake City retail selling of *Apex* washing machines, which formerly was handled by *Intermountain Electric*, who are both wholesalers and retailers. *Intermountain* still is distributor but *Felt* becomes an exclusive Salt Lake dealer and *Manager Victor Felt* is lending every effort to promote this new line.

Meyberg Distributes Norge

Norge Corporation, Detroit, a division of *Borg-Warner Corp.*, has announced the appointment of *Leo J. Meyberg Co.*, 70 Tenth Street, San Francisco, as *Norge* distributor for Northern California. This firm is already known as a large radio distributor, through its *RCA-Victor* activities.

Interviewed on his return from the East, where arrangements were concluded with *Norge* officials for an ambitious promotional program to start immediately in this area, *A. H. Meyers*, president, was enthusiastic about 1931 business opportunities. He reports that general business conditions in the East show improvement, and that tradesmen of all types are optimistic.

Harper-McQuae, Seattle, has recently been appointed distributor for the *Servel* electric refrigerator for the Pacific Northwest. This company is also distributor for the newly formed *RCA Radiola-Victor* combination.

NEW **SPEED** TUBES

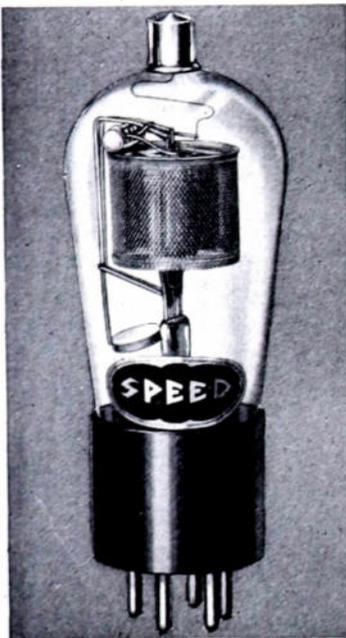
FOR THE NEW RECEIVERS...

VARI-MU and PENTODE

Ever abreast of the radio times, Speed announces regular production on three important new tube types: the Vari-Mu Tubes, Types 235 and 551, and the Pentode, Type 247.

Just as an iceberg shows only a part of itself above the surface, so this announcement does not tell the whole story—by far the most important part harks back to the months of experimentation and laboratory investigation by a trained staff of engineers which preceded this announcement. Their efforts make possible not only three new Speed tubes, but new Speed tubes perfected in construction and performance, ready for incorporation in the improved radio receivers of 1931.

Technical data, price list, etc., on application.



SPEED TYPE 235

These Vari-Mu Tetrodes reduce modulation distortion, cross-talk and associated modulation troubles, in many cases allowing the elimination of one or more preselector stages, with consequent decrease in background noise. A really marked decrease in hum and receiver "hiss" is to be noted.

Distortionless amplification is possible with greatly increased signal input voltages. Smooth and uniform volume control is provided covering the entire range of desired audibility, equally applicable to manual or automatic volume control.



SPEED TYPE 551

SPEED LIGHT CELLS!

Type—Red sensitive—Caesium on Silver Oxide. Highly sensitive—75-100 microamperes per lumen to ordinary Tungsten lamplight; test averages higher.

Five types in production covering all standard equipment. Engineering details and prices on request.



SPEED TYPE 247

SPEED Type 247 is designed to replace the 245 in certain applications, anticipating the early appearance of simplified receivers in which the power tube of several times the usual amplification (of the order of 4 to 1) will serve to reduce the preceding amplification to a minimum, yet with undiminished power output.

CABLE RADIO TUBE CORP.
84-90 NORTH 9TH STREET
BROOKLYN, NEW YORK

SPEED
CABLE RADIO TUBE CORPORATION

NEW TECHNICAL TERMS

—Every Service Man Should Know—

TODAY, technical phrases which express quite definitely the various values in radio performance are juggled about in the open, for the edification of all and sundry. The serviceman and technician should most certainly have a speaking acquaintance with these new names and phrases that mean things in radio. It gives him a standard of comparison between receivers, an understanding of "levels" and the mathematical relation between them, the requirements of modern broadcast transmission and many other factors which are subject to mathematical laws.

In this article we will discuss some of these words and phrases, their meaning, and their application to everyday radio practice. Possibly the most important is the unit which expresses the relationship between any two powers, be they radio signals, audible sounds, voltage values or what not.

The Decibel

This unit, formerly known as the "transmission unit," is now officially called the "Decibel," abbreviated DB. The DB expresses the ratio between any two powers, but when used in the usual sense, gives no indication as to the actual amount of power present. It permits us to express definitely the relationship between any two signal strengths, receiver outputs, input to output power, etc.

The number of DB is not directly proportional to the power involved, as it would be if the measurement was made in watts, but varies in rough proportion to the sensation produced upon the ear when the electrical energy is converted into sound by means of a telephone receiver or loud speaker. One DB is the amount of change in power which can be just detected by the ear when listening to a headphone or speaker.

With this unit we are able to say that one signal is so many DB above or below another signal, definitely establishing the relationship. For example, four times the power represents an increase of 6 DB; eight times the power 9 DB, and one million times is expressed as 60 DB. The unit is particularly useful where great over-all gains or amplification have a power ratio expressed by a very large figure.

The DB, being a logarithmic function of the power ratio, simplifies handling such great ratios. For instance to increase any power by 90 DB, means that we have multiplied the actual power by one thousand million. The DB is defined as 10 times the log. of the power ratio. In the above case, the log. of 1,000,000,000 is 9, and multiplying this by 10, we have the 90 DB. The following table gives the reader an idea of the relationship which exists between decibels and power ratios:

DB	Power Ratio	DB	Power Ratio
1	1.26	10	10
2	1.6	20	100
3	2.	30	1,000
4	2.5	40	10,000
5	3.2	50	100,000
6	4.0	60	1,000,000
7	5.0	70	10,000,000
8	6.3	80	100,000,000
9	8.0	90	1,000,000,000

If we have 2 watts in the output of one amplifier and 4 watts in another, we can say that the latter is 3 DB higher. If an amplifier has an over-all power increase of 1,000, we say that it has a gain of 30 DB. The term is used extensively in telephone work and in broadcasting, to establish the level of a signal. By reference to an arbitrarily chosen value called the normal or zero level, the number of DB above or below this value indicates the actual power value. For instance, if .006 watts was chosen as the zero level, 40 DB would represent 60 watts.

Micro-Volts Per Meter

Another expression which is coming into common use is that which describes the sensitivity of a radio receiver or the field strength of a broadcast station. The strength of the field set up by a broadcast station at any distance is measured by the voltage produced in a receiving aerial one meter high, and is expressed in milli-volts or micro-volts, as the case may be.

For instance, a 1,000 watt station may have a field strength of 10 milli-volts per meter at a distance of 10 miles from the station. A receiving aerial having an effective height of 4 meters will then contain 40 milli-volts for operation of the receiver connected to it.

The distribution pattern of a transmitter is plotted by taking field strength measurements on points on circles having the station as the center. The ideal condition is where the field strength is shown to be the same for all points equi-distant from the station, regardless of the direction.

Measuring Sensitivity

In measuring the sensitivity of a radio receiver, a definite output is established as a standard, and the measurement of the amount of voltage input necessary to produce this standard output can then be considered as an indication of sensitivity. The standard output has been chosen as 50 milli-watts. A highly sensitive receiver will produce this output with an input as small as 1 micro-volt.

While this method of measuring receiver sensitivity is standard practice, it

is not a real sensitivity test, since the audio amplifier is included, and a receiver with an extra audio stage would show a false sensitivity. A real sensitivity measurement should be made at the detector output. Sensitivity is measured with a standard signal generator, which produces a modulated signal of definite frequency and percentage of modulation. It is equipped with a calibrated attenuator, and output meter reading directly in micro-volts.

The same equipment may be used to plot selectivity curves on the receiver, and the performance thus expressed in definite black and white values. A direct comparison may be made between two sets with no room left for argument. The human element is eliminated from the results.

100 Per Cent Modulation

The Federal Radio Commission has issued a general order requiring all stations to modulate the carrier at least 75 per cent. This will result in the abandonment of obsolete and composite equipment and the installation of modern transmitters. Much is heard about 100 per cent modulation, and the serviceman and technician should understand what is meant and how the reception of a station is effected by an increase in the percentage of modulation.

There are two methods of accomplishing 100 per cent modulation, one being known as the "high level" method and the other as the "low level." In both cases the output of a small oscillator tube which includes a quartz crystal in its grid circuit, ground to the operating frequency and maintained at the proper temperature, is amplified through a series of radio frequency amplifiers, the last stage being capable of putting into the antenna circuit sufficient energy to meet the license requirements of the station.

Now, in the modulating process, it is possible to modulate the last RF output stage by using a formidable array of modulator tubes, of such power that the voice and music surges cause the carrier amplitude to drop to zero and rise to twice its normal value. This will constitute 100 per cent modulation of the high level type, since the RF energy is at a high level when modulation takes place. In the low level method, a radio frequency stage in the series preceding the last power stage is modulated, usually a 50 watt tube. Here, the modulator need be only a 250 watt tube to obtain complete modulation. The output of this RF stage will then be a completely modulated carrier, which is implied by the following stages, and the transmitted wave form will be the same as in the high level method. The low level method is the most widely used, because fewer tubes are required.

SET-TESTED

means satisfaction to every tube buyer



Think what it means to make tube-sales quickly, easily—and often! That is what the Sylvania Set-Tested Chart does—and in the simplest possible way.

When a man asks for radio tubes he wants to know what make is right for his set. He knows you can give him tubes that fit the sockets . . . but he is not always sure you can give him the tubes that get the most out of the particular radio he owns.

Sylvania's Certified Test Chart answers this all-important question by telling him that Sylvania Tubes have passed strict tests for tone . . . distance . . . volume . . . sharp tuning . . . in a set just like his. It includes a signed statement from Sylvania's Chief Engineer—the man who directs the modern laboratory where skilled scientists work to create for your customers the utmost in tube quality. And at the same time the Sylvania Chart shows you what type of tube belongs with every make listed in this advertisement.

Clip the coupon below. It brings you a copy of this Sylvania Chart absolutely FREE. It lets you judge for yourself what Set-Tested Tubes can do for your sales.

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

SYLVANIA PRODUCTS CO.

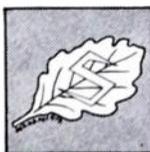
Sylvania Radio Tubes

EMPORIUM, PA.

Sylvania

THE SET-TESTED TUBE

Licensed under R C A Patents



SYLVANIA PRODUCTS CO.
Emporium, Pa.

W-51

Gentlemen: Please send, without obligation, your new Sylvania Set-Tested Chart for easier tube sales.

Your Name.....
Your Address.....
Jobber's Name.....

• DOINGS IN THE INDUSTRY •

Columbia Takes New Offices

Columbia Phonograph Company, Inc., for many years located at 1819 Broadway, New York, is now established in new offices on the tenth and eleventh floors at 55 Fifth Avenue.

Both floors have been arranged so that coordination of the production of records and sound reproducing instruments was greatly increased, with greater efficiency in inter-office communication. Offices of the officials, research laboratories, legal and export departments are housed on the eleventh floor, while recording studios, audition rooms and foreign language divisions are on the tenth.



Columbia's New Home

Cable Replacement Policy

A survey of the past 12 months, conducted by the Cable Radio Tube Corporation, 84 North Ninth Street, Brooklyn, N. Y., disclosed the fact that the number of tubes returned amounted to 5.87 per cent of sales. The salvage of perfect tubes in the returns reduced the net percentage to 4.12 per cent. It was found that there were a number of obsolete tubes, which should not have been subject to replacement.

"In view of our firm belief that 3 per cent will represent the maximum, we are instituting a "no replacement" policy, and in its place we allow, as a safety factor, 6 per cent of the net purchases deducted from the invoice to cover possible defective goods," stated J. J. Steinbatter, president.

It is planned that by having a definite basis to work upon greater caution will be exercised in making replacements.

Magnavox Suit Settled

Settlement of a suit by the Magnavox Company, 155 East Ohio Street, Chicago, against Frederick H. Thompson Company of San Francisco and Grigsby-Grunow Company, has been announced by the former. The settlement made by Grigsby-Grunow involved a substantial down payment and a royalty on each dynamic speaker manufactured.

Supreme Court Refuses To Review RCA Decision

The refusal of the U. S. Supreme Court to review the decision of the Circuit Court of Appeals for the Third Circuit, which held the Radio Corporation of America guilty of violating the Clayton anti-trust law, has stirred up much speculation in governmental and industrial circles as to the future of the Radio Corporation, according to a Washington dispatch.

Suits totalling \$48,350,000 have already been instituted against RCA by seventeen manufacturers of radio apparatus, seeking treble damages as a result of decisions of the lower court in the case brought by DeForest Radio Company. The most serious danger of all that faces RCA, however, is the possible loss of its licenses under the Radio Law.

DeForest Company contended that RCA, through its patent licenses, created "an admitted monopoly of 88.35 per cent of the vacuum tube market." The District Court of Delaware first returned a decision in favor of DeForest, and the Circuit Court of Appeals later affirmed it. The Supreme Court, as is customary, did not state its reasons for refusing the review.

Ken-Rad Announces Acremeter

As a successful method of getting tube replacement business, announcement has been made by R. E. Smiley, general sales manager of the Ken-Rad Corporation, Owensboro, Ky., that the company has secured exclusive national distributing rights for the Acremeter and its copyrighted merchandising plan, from the Acremeter Company, Everett, Wash.

The Acremeter, which is a registered trade-mark meaning "accurate recording meter," is another development coming from the Pacific Coast, having been designed by one of the Northwest's leading music stores, Kenney Brothers & Sipprell.

"While this is the first official announcement we have made in connection with our acquisition of this program," said Smiley, "we have in certain sections of the country been working this new Ken-Rad Acremeter merchandising plan for the past several months. The results to date have been most gratifying notwithstanding the normally dull period of the year."

Arcturus Elects Officers

Election of officers and directors of Arcturus Radio Tube Company for the ensuing year were held recently at the annual stockholders' meeting in Newark, N. J. The following officers were elected: Chester H. Braselton, president; George Lewis, vice-president; Charles E. Stahl, general manager; and Worcester Bouck, treasurer. The same officers constitute the board of directors, with the addition of A. E. MacFarland.



L. P. Naylor

Arcturus Opens Western Office

In line with enlarged sales activities on the Pacific Coast, L. P. Naylor, sales manager of Arcturus Radio Tube Company, Newark, N. J., has been assigned to the management of Arcturus activities on the Coast.

Naylor has opened an Arcturus branch office at 1855 Industrial Street, Los Angeles. Pacific Coast sales of Arcturus Blue Tubes and Photolytic cells are being conducted from this office.

Because of his past experience as a radio dealer himself, then as sales manager for a set manufacturer and finally as sales manager of Arcturus, Naylor possesses a comprehensive merchandising experience in the radio field.

J. Walter Jackson, secretary of the Terminal Warehouse Company, is office manager of the new branch office, while H. L. Ream continues as Arcturus sales representative.

M. M. Kenney, formerly with Atwater Kent, is Arcturus representative in San Francisco, and W. J. Calsam is Northwest representative.

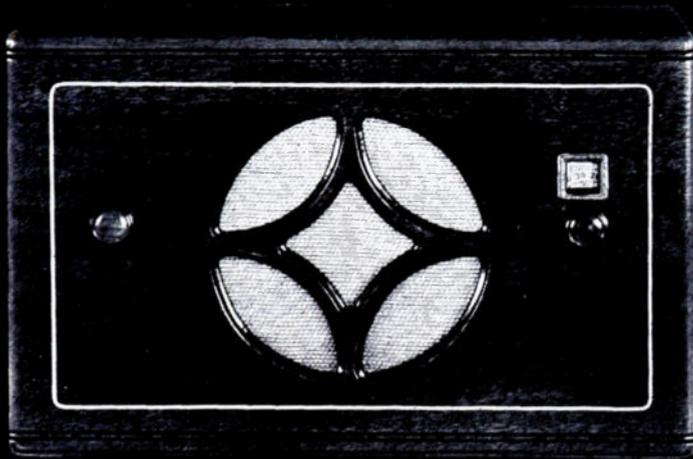
Sylvania 100% Dealer Plan

Sylvania Products Company is offering a new 100% dealer plan, which has already been placed in operation in many sections of the East, and is now being extended to practically every section of the country. Results, according to E. H. McCarthy, Sylvania general sales manager, have been gratifying.

Based on the results of a nationwide survey, which indicates that the average American family spends \$73.90 per year for radio and electrical goods, this plan has been evolved to help the dealer concentrate the purchases of his logical customers in his own store.

"The new plan is by nature very unselfish," says McCarthy, "in that it has an excellent effect on every piece of merchandise in the dealer's stock, as well as radio tubes. It is this feature that insures it an immediate welcome from the dealer."

AMERICAN BOSCH RADIO



\$43⁵⁰

COMPLETE
WITH TUBES

Announcing the personal radio set

THE BEST IN RADIO

American Bosch Radio, always known for its high quality, is now presented in two new Pentode tube models which instantly create a desire to own one or both. The Model 5 chassis is new in circuit and new in mechanical design. There are five tubes—one pentode, three screen-grid and one 280. Advanced engineering provides great amplification, undistorted volume with surprising sensitivity and selectivity. The tonal quality is amazing. The model 5A has a solid mahogany, no veneer, case 14¼" long, 8¾" high and 6¾" deep. The model 5B—all walnut with patterned veneer front panel is 32¼" high, 17¾" wide and 10⅝" deep.

These new models are forerunners of a quick-stepping line of quality radio with such attractiveness that it sells on sight. To save time, get the full story of this most attractive program of one of the most stable manufacturers in the industry, from the American Bosch jobber in your territory or write us if you prefer.

Prices slightly higher west of the Rockies



Model 5B Console — walnut cabinet with patterned veneer front panel. Complete with tubes . . . \$53.50

UNITED AMERICAN BOSCH CORPORATION

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

American Bosch Radio is licensed under patents and applications of R. C. A., R. F. L., and Lektophone.

New Clarion G. M.

Transformer Corporation of America, manufacturers of Clarion Radio, has announced the appointment of Oden F. Jester as general sales manager. Jester comes from the Stewart-Warner Corporation, where he has been director of sales in their radio division. Jester assumes all duties formerly administered by E. J. Dykstra, recently resigned.

In all enterprises, Jester has been associated with products that relate to home entertainment. His first business connection was with the Columbia Phonograph Company, where seventeen years ago he was employed as a salesman in their Philadelphia offices. Subsequently, he became district sales manager for Columbia in Eastern Pennsylvania.

Sherman, Clay Stores Closed

Sherman, Clay & Company is closing out seven of its branch stores in central California. Branch stores in Sacramento, Vallejo, Burlingame, Palo Alto, Stockton, Fresno and San Jose are being discontinued, according to P. T. Clay, president.

The closing of these stores is in line with a Sherman, Clay policy of concentrating its future operations in the San Francisco Bay district and Seattle. Employees of the stores which are being closed, are being absorbed in the rest of the Sherman, Clay chain wherever possible, it was stated.

"To accomplish this end, we are concentrating our entire stock in San

Francisco and Oakland," said Clay. "From these points of distribution we can reach our customers faithfully and economically by reason of larger and more complete stocks, which the wisdom of such a move assures."

The net loss from operations of the company for 1930 was \$408,320, as against a net loss of \$295,203 in 1929. For the period commencing January 1, 1931, and ending March 25, there was reported a net loss of \$107,116, compared with a net loss of \$88,351 for the corresponding months last year.

In a letter to prior preferred stockholders, President Clay stated that steps were being taken to close these stores because they were showing unsatisfactory results and were operating under a handicap of location and other factors.

Sparton Dealers To Meet

Preparations for the entertainment of two thousand dealers at Jackson, Mich., June 3 to 5 are being made by the Sparks-Withington Company. The annual convention of distributors and dealers is to be held the week preceding the R. M. A. Trade Show in Chicago June 8 to 12. Distributors will spend an entire week at the factory, but the stay of the dealers will be shorter.

Most of the distributors and dealers will go from Jackson to Chicago to attend the Show opening.

G-C Not To Exhibit

B. J. Grigsby has announced that Grigsby-Grunow Company will not exhibit at the Radio Manufacturers' Association Show in Chicago June 8 to 12. It will be recalled that the company resigned from the association at the time of the Atlantic City Show last year.

Grigsby now states: "The Grigsby-Grunow Company will not exhibit at the June Show of the R.M.A. We appreciate the great value and need for an active association to protect the interests of its members. We believe at this time there is an even greater need for active co-operation between radio set and tube manufacturers. Certain counter causes of complaint by the R.M.A. have been removed, and while we have been extended a very cordial invitation by the executive officers to join again, we feel the lack of a cohesive and definitely directed effort in the interest of radio set and tube manufacturers.

"The Grigsby-Grunow Company will make no attempt to capitalize on the fact that the convention is being held in Chicago during that week by a

Moves Location

West Coast Radio, formerly located at 518 Fourth Street, Bremerton, Wash., has moved to 306 Pacific Avenue, where the business is being continued as before. The shop specializes in servicing and repairs, as well as sale of radios.

It's Never Been Done—

(Continued from Page 16)

mented with it sufficiently in past years so that we are fully able to make bids on such installations and be sure of coming out on the right side of the ledger. The usual installation is to have two fixed sets and one optional set for stations requested by tenants.

"One of the difficulties we have overcome is the situation where a sudden plugging in by several tenants on one station runs it down or nothing. This is an engineering problem and one that we have satisfactorily worked out. We do not attempt to do the wiring ourselves, but sublet the contract.

"We also see the necessity of taking on other sidelines, such as electrical household equipment. We came to this decision after making a canvass of twenty-five per cent of the town. Our original idea was to uncover prospects for new sets. We discovered, however, that practically ninety per cent of the people so contacted had sets that were suitable equipment.

"However, as the average set is held for four years, it means that we must find some means of keeping in contact with these set owners and customers. Household equipment is the best means for this purpose. It not only means a bigger total of gross sales per store customer over any given period of time, but also means that we are the logical store to sell them a new radio set when they come into the market."

The Reliable Radio Shop has no used-set problem. Obsolete sets are junked and the store finds a bigger demand than supply of used electric sets. The association schedule in trade-in allowances is closely followed and no wild trading is indulged in.

"Our four salesmen are paid a straight commission," explained Shafer, "and each is given enough

floor time to keep him busy with store leads and others furnished by set owners of ours. No cold soliciting is required.

Sales Contests Impractical

"While we have tried sales contests we have found that they were not very satisfactory. In fact, we have found that it detracts the salesmen from their main object: selling radio sets. They get all worked up over the contests, so much so that they forget what the contest is intended for. When we put a special premium on a certain grade of merchandise we find that this merchandise is the last that the salesmen will try to move."

Customers of the firm are encouraged to give leads to the house or salesman. For such leads, customers are paid up to two and one-half per cent commission, this commission being borne equally by the salesman and the firm.

"We do quite a bit of competitive demonstrating," stated Shafer, "though we discourage it in an indirect manner. When we see a customer has a tendency to shop around and try other sets we encourage him to do so and get it all over with at one time. We have found that the more we tell the average prospect to compare sets and encourage him to do so, the more reason he feels that there is no need for such comparing. Frequently this treatment of the situation causes the prospect to cease such shopping around.

"We do not believe in giving group or neighborhood demonstrations. With several people around the set the prospect's attention is divided so that the salesman cannot successfully close the deal and another call back is necessary. This drawback, we feel, more than offsets the additional prospects that might theoretically be developed at such a demonstration."

There is NO BUSINESS DEPRESSION for Dealers handling the



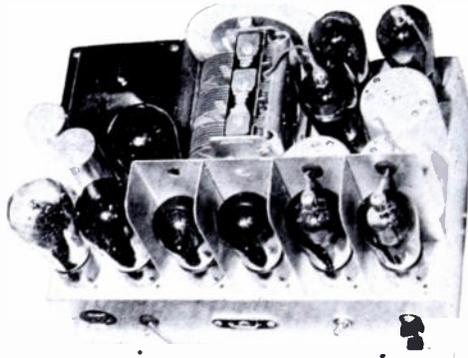
Paramount 10 TUBE Super-Heterodyne

With the Marvelous
PENTODE TUBES IN PUSH-PULL

\$69⁵⁰
List

Complete with Arcturus tubes

This radio is the final achievement developed from our radio laboratories. It was designed and engineered with but one purpose in mind; to create a radio that would outperform other radios for some time to come. The results were truly amazing. A radio that would play stations some 1500 miles distant, in the evenings by merely placing your finger on the antenna post. Over 100 stations tuned in within a single evening. Such results and selectivity are truly amazing and that such a radio could be manufactured to sell at \$69.50 would have been impossible last year. As you will note, we are using the marvelous new Pentode power tubes in Push-Pull—which help to attain the marvelous results and tone in this radio.



— FEATURES —

- Automatic Volume Control
- 10 Tuned Circuits.
- Band-Pass Filter.
- Pre-Selector.
- 4-Gang Condenser.
- Pentode Matched Dynamic Speaker.
- Tone Control—Full Range.
- Electrolytic Self-Healing Condensers.
- All Steel Chassis.
- Laced Cable Wiring.
- Screen-Grid.
- Local-Distance Switch.
- Shielded, etc.

TO LARGE QUANTITY BUYERS

Our proposition is attractive. If desired chassis will be built to your own specifications and may be marketed under your own trade name.

COMING

An Automobile Radio

PARAMOUNT (PEE-WEE)

SMALLEST RADIO MADE
SELLS ON SIGHT

\$17⁹⁵ NET
TO DEALERS

Using the new PENTODE TUBE. Only a 4 tube set, but its performance will surprise you. All big features — Screen-Grid — Dynamic Speaker — Tone Control — Illuminated Dial, etc.

We also manufacture a 6 tube Super Heterodyne Midget at \$49.50 List, using Pentode Tube, regular discount.



Size
11½ in. High—8½ in. Wide

PROFITS, MR. DEALER—Our discounts are large, allowing you a liberal margin of profit on which to advertise. Write us at once for quotations. Beautiful console models at small additional cost.

Members of
Los Angeles
Chamber of Commerce

Los Angeles Radio Mfg. Co.
3683 So. San Pedro St. Los Angeles, Calif.

Manufacturers of Quality
Radios Since
1925.

New Merchandise From The Factory



Majestic Model 140

Majestic Model 140

This new Majestic electric refrigerator has a net food storage space of 4.1 cubic feet, and shelf area of 7 1/4 square feet. The hermetically sealed mechanism is practically identical with that of Models 150 and 170. The machine is only 2 feet wide at the base, and is available with either short or high legs. Manufactured by Majestic Household Utilities, Inc., 5801 Dickens Ave., Chicago, Ill.



Belden Cord Display

Heater Cord Display

Belden Manufacturing Company, 4689 W. Van Buren Street, Chicago, Illinois, announces a new number in its heater cord set line—an assortment of five different colored cords with colored Belden Soft Rubber Plugs to match. The assortment is provided in a neat and attractive counter display carton in three colors.

The new set makes it possible to complete another detail in the color scheme of the modern housewife's home. It combines the cheerfulness of color with the practical advantages of the Soft Rubber Plug.

Cords in this assortment are also equipped with new specially constructed Belden long life heat-resistant heater appliance plugs.

End-Table Attachment

A small, economical record playing instrument that will convert any radio into a phonograph radio combination. It consists of a pick-up device, with a radio-record switch and small control knob for regulating volume. The equipment is housed in a walnut cabinet with a movable lid. Furnished with 20-foot connecting cable. Manufactured by RCA Victor Company, Camden, N. J.

Crosley Pentode Super

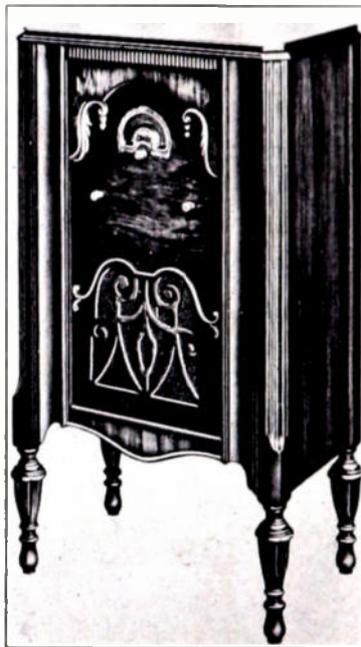
This is a mantel type superheterodyne pentode receiver, called the super "Buddy Boy." The chassis uses seven tubes, six of which are screen grid: one 47 five element Pentode in the output, two 37 exponential or Variable Mus, and a 24 screen grid. The set has an illuminated angular vision dial, stepless static control, variable tone control, combined volume and on-off switch, and the patented Crosley Tennaboard, a device that eliminates the use of an aerial. List price, \$65.00 complete.

Sprague Visivox

Two new types of home talkie equipment are being manufactured by Sprague Specialties Company, Quincy, Mass. The Portable model, for use with radio receivers, includes a phonograph synchronizing apparatus, pickup, projector and screen, and lists at \$119. Model C is a complete unit, containing projector, phonograph apparatus, audio, speaker and screen in a walnut cabinet. List price, \$189.

Jewell Tube Tester

A new counter type Model 219 of full vision tube tester is being made by the Jewell Electrical Instrument Company, 1612 U. Walnut Street, Chicago. Includes a big indicating meter for accurate test reading, pre-heater and short checker, rotary filament voltage switch and means for testing pentodes.



Clarion Model 91

New Clarion Model

Model 91 is an 8 tube Pentode superheterodyne with three Multi Mu Tubes and automatic volume control, and full vision dial with light beam selector. List price \$99.50 complete.

Other new Clarion models include Model 80, a 7 tube Pentode midjet superhet listing at \$67.50 complete, an 8-tube midjet, Pentode superhet at \$79.50, and a 7 tube console at \$79.50. Manufactured by Transformer Corporation of America, Ogden and Keeler Avenue, Chicago.

New Cardinal Super

This new Model 66 is equipped with a six tube superhet chassis, containing Variable Mu and Pentodes. The circuit consists of two 224 one 551, one 227, one 247 and one 280.

This chassis is also contained in Model 72, a combination listing at \$99.50 complete. The cabinet dimensions of Model 66 are: 17" high, 15" wide, and 10 1/2" deep. Magnavox speakers are used, and the set is equipped to operate on either 110 or 220 volts, AC, 50 and 60 cycles. List price, \$59.50 complete. Manufactured by Cardinal Radio Mfg. Co., 2812 South Main, Los Angeles.

Sylvania Pentode

A new two-volt power pentode has been announced by Sylvania Products Company, Emporium, Pa. It is called the SY 233, for use in battery operated receivers. With the use of this tube, performance may be obtained from the battery set comparable to that obtained from the automobile receiver when the SY 238 pentode is employed with the new series of small automobile tubes, or from the AC set, with standard AC tubes and the SY 247.

Arcturus Photolytic Cells

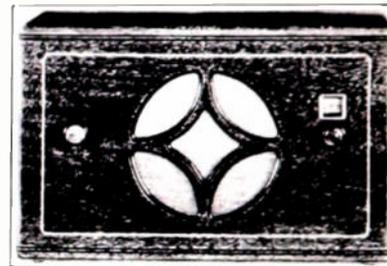
Two new cells of different sizes to be utilized in equipment where space is limited, have been developed by the Arcturus Radio Tube Company, Newark, N. J. The cells are designated as P 23 and P 27. P 23 is a tubular type, 2 3/8" high and 1 5/32" wide. The P 27 measures 1 5/16" high, and 1 1/16" wide.

Portable Sound System

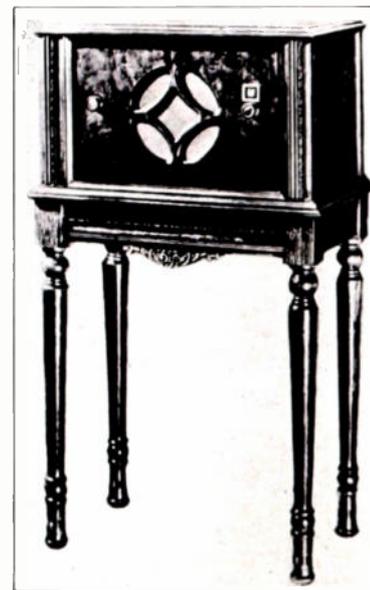
Including a 16 mm. projector capable of throwing a picture measuring 6 1/2 by 8 1/2 feet, the new Patent Portable Sound System is very compact and serviceable. The entire equipment weighs 127 pounds, and is housed in three carrying cases. Manufactured by the Patent Reproducer Corp., subsidiary of the Patent Electric Company, 91 Seventh Ave., New York City. List price, \$595.00, for equipment powerful enough to serve 150 persons. Equipment serving 300 persons lists at \$695.00.

Bosch "Personal"

A new type receiver, Model 5A, is an oblong shaped chest measuring 14 1/4" long by 8 1/4" high by 6 1/4" deep. It is of solid mahogany with a decorative border inlay, and has a simple circular grill opening for the self contained electrodynamic speaker, illuminated tuning dial and volume control.



Bosch Model 5A



Bosch Model 5B

"Compactness" is the outstanding feature of the Personal Radio receiver, which occupies less than half the space heretofore taken up by the average small set.

Another "personal" radio receiver, Model 5B, contains the same compact chassis set offers general utility as end table, smoking stand, or occasional table on which to set a lamp, books or magazines. The top and face of the cabinet are of walnut veneer. All four legs are of solid walnut. The frame and ends are of gum. It measures 32 1/2" high by 17" wide by 10 1/4" deep. The chassis requires only five tubes. Manufactured by United American Bosch Corp., Springfield, Mass.

ECHOPHONE STABILITY

ECHOPHONES ECHOES OF THE WORLD

THE PUBLIC has purchased more Echophones than any other midget.

Today more Echophones are being built and sold than any other midget.. there must be a reason.

Distributed by

ROGERS & GOETZ, Ltd.

21 Laskie Street
SAN FRANCISCO
Phone Market 3124

7626 Santa Monica Blvd.
HOLLYWOOD
Phone GRanite 1194-1195

On to Chicago!

"**B**USINESS WITHOUT BALLYHOO" is the slogan of the coming Seventh Annual R. M. A. Convention and Fifth Annual Trade Show in Chicago June 8 to 12. This year representative organization of the whole industry will convene in Chicago at about the same time, to co-operate in putting over the greatest conclave ever before held.

One hundred and twenty-five manufacturers will exhibit their products at the Show, with the new and

THE PROGRAM IN A NUT SHELL

MONDAY, JUNE 8

10:00 A. M.—Registration, lower lobby, Stevens Hotel.

10:00 A. M.—Committee Meetings.

10:30 A. M.—R. W. A. Board of Directors.

2:00 to 10:00 P. M.—Trade Show Hours and Meetings.

TUESDAY, JUNE 9

10:00 A. M. to 10:00 P. M.—Trade Show Hours.

10:30 A. M.—Joint Meetings, R. M. A. and R. W. A.

2:00 P. M.—N. F. R. A. Committees.

7:00 P. M.—N. A. M. M. Annual Banquet, open to all.

WEDNESDAY, JUNE 10

10:00 A. M.—Closed Membership Meetings, R. M. A., R. W. A.

1:00 to 8:00 P. M.—Trade Show Hours, Demonstrations.

10:00 P. M.—R. M. A. "Stag Party," at 8th St. Theatre.

THURSDAY, JUNE 11

10:00 A. M.—R. M. A. Closed Membership Meeting, Radio Retailers' Meeting, Jas. Aitkin, President N. F. R. A., presiding.

1:00 to 10:00 P. M.—Trade Show Hours, Demonstrations.

FRIDAY, JUNE 12

10:00 A. M. to 10:00 P. M.—Trade Show Hours, Demonstrations.

10:00 A. M.—R. M. S. Board of Directors Meeting.

revolutionary models that the trade has been waiting for on display at the Stevens Hotel.

Special trains have been chartered from both Coasts, and 25,000 visitors are anticipated by Show officials.

In addition to the R. M. A. Show, five other national organizations will hold their meetings in Chicago during Trade Show week, or just prior to it. It is expected that the arrival of the visitors will begin in force on Sunday, June 7, with the arrival of several R. M. A. special trains. The doors of the Stevens Hotel will be opened at 2:00 p. m. Monday, following registrations of the thousands of visitors.

On Wednesday evening will be held a big "radio party," a stag affair with good live entertainment, in the Eighth Street Theater adjacent to the Stevens. According to Leslie F. Muter, chairman of the convention committee, at this stag "an extensive entertainment program has been arranged which will include lacking in all other parts of the convention will prevail."

Pacific Coast organizations are active in preparations for large delegations to attend the Show en masse. Bert Knight, chairman of the transportation committee of the Radio and Music Trades Association of Southern California has engaged two special cars on the Santa Fe "Chief" to take care of the large delegation scheduled to leave from Los Angeles on the evening of June 4, arriving in Chicago on the morning of June 7. San Francisco and organizations in the Northwest and Mountain States are also busy with transportation plans.

SALES-ADVERTISING MANAGER

A Man of proven ability and unusual qualifications. Has 20 years successful record with national sales organizations. Is a salesman with force and personality, and can write effective advertising copy. Is well known on the Pacific Coast and acquainted in California, Colorado, and Washington, D. C. Age, 39 years, married. At present connected, but will be available in two weeks. Business and personal references that are 100 per cent. Can arrange for personal interviews at any point in West. Will let results regulate remuneration, but opportunity must be there. Address this Journal, Box L. C.

KIMBALL PIANO



*Kimball
Chippendale
Grand*

FRANCHISE

EMBRACES — The most salable line in the industry. The only

financing plan under which the dealer secures his full margin of profit.

*Co-operative Sales Helps
offered by our two
West Coast Representatives:*

T. V. Anderson
519 Cooper Bldg.
Los Angeles,
and
250 Chronicle Bldg.
San Francisco
Rep. Southwest

F. W. Grosser
521 Knott St., Portland
Rep. for Oregon, Wash.,
Idaho and Northwest

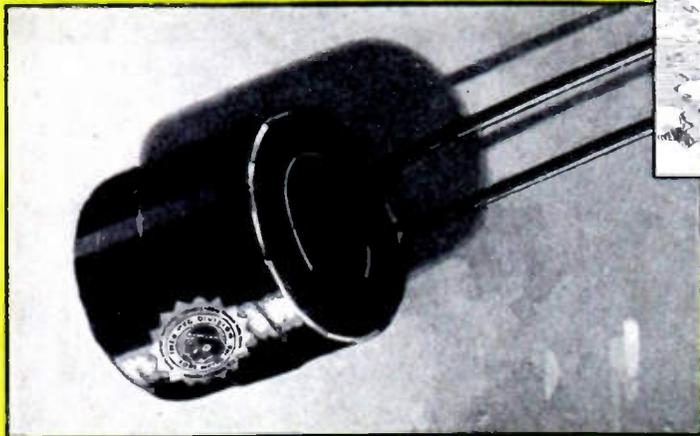
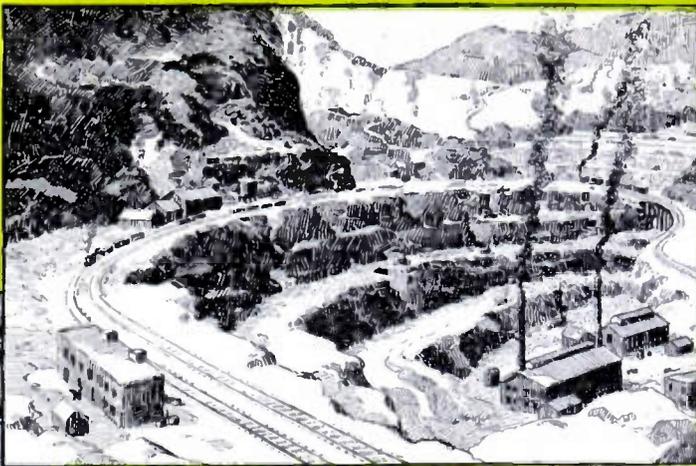
W. W. KIMBALL COMPANY

Established 1857

306 S. Wabash Ave., Kimball Bldg.

Chicago

FROM THE COPPER MINE



◆ ◆ ◆ ◆ TO THE FINISHED COIL

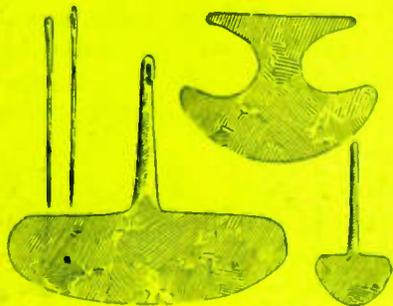
In the broader sense Inca wire is created, not just fabricated. For through National Electric Products and its associated companies . . . there is continuous control over the manufacturing processes from the mining of the ore to the labeling and packing of the finished coils.

The combined facilities thus employed are not merely adequate . . . they are outstanding.

Unusual, too, are the final wire drawing, enameling and coil winding operations at the Inca mills. Here the most modern machinery in the industry plays an important part in upholding Inca standards of accuracy and quality.

These broad facilities embody not only all that is desirable and valuable in the older methods . . . but many new production refinements which have been made possible through extensive research and long practical experience.

Here are definite reasons why the radio industry finds in Inca the characteristics which its exacting requirements demand.



The articles shown above are interesting examples of the Inca's ability to create useful objects from raw copper ore. From left to right they are: two needles, two knives, and a shawl pin. These relics are now displayed in the American Museum of Natural History.

INCA MANUFACTURING DIVISION



Symbolic 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

The New Gilfillan Super-Heterodyne Will Help You Build Business At a Profit



MODEL 110 LOW BOY
8-Tube Super-Heterodyne



ENCASED in a strikingly artistic cabinet, the sensational new Gilfillan 8-tube Super-Heterodyne Radio puts the dealer in a position to attract new business and to do so at a real profit.

As might be expected of a Gilfillan product, it is outstanding in its performance. It is extremely selective — unusually sensitive. The set has wonderful tone. It is easy to tune, unusually smooth and quiet in operation. All these points are important and attractive to the layman.

And here's a further rich source of business—You can sell the new Model 110 Chassis (without cabinet) at an attractive figure. Thus you open up an entirely new market of buyers who have invested considerable money in fine cabinets, which they don't care to throw away. They can now bring their radio sets up to date—can enjoy the latest and best in radio entertainment at the lowest possible cost.

Write or wire us today for our proposition on this sensational new model. Then you can see for yourself what it offers you as a business-builder and profit-maker.

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