

# GOOD NEWS

ABOUT RCA RADIOTRONS



## Our Aim Is To Serve

Think about it: we were good who at a time when people liked to do business with us. We had the fruits of never thought about it.

We think that there are many occasions among them today.

**Quality, service, and price.** You will find here a selection of unusually known products—backed by the guarantee of language, and a user.

**Price of service.** You'll find our prices extremely attractive. Most of them pocket-hand.

**Customer service.** When you give us business, our method of serving our application is to ensure efficient and efficient service.

**Reputation.** We have a reputation of standing high in the industry for all. The customer must be satisfied.

If we have provided the pleasure of serving you, may we look forward to the opportunity of doing so?



RCA RADIOTRON •  
RADIO LOG

RUNDLE  
31

# Are your worn-out radio tubes losing his "microphone magic"?



Rudy Vallee's million-dollar voice has microphone magic . . . it "gets over" marvelously. Don't let your worn-out radio tubes disturb its delicate balance. Replace them with new RCA Radiotrons!

WORN-OUT TUBE

RADIOTRON  
UX 280

Insist on RCA Radiotrons, the tubes recommended for years by leading radio manufacturers.

THE voice of any great radio star is only as good as your radio tubes. You can't get full enjoyment from broadcasting unless your tubes are in excellent condition. Your tubes wear out so gradually you are likely not to notice how poor they have really become. Get a new set of RCA Radiotrons, and see what a big difference they make. RCA Radiotrons have been recommended for years by leading radio manufacturers . . . they are used by 200 big broadcasting stations. When you buy one of the splendid new sets now on sale, look inside the cabinet and make sure every tube is an RCA Radiotron. When you buy new tubes, look for the RCA trademark and the red and black carton! Remember, RCA Radiotrons are *guaranteed* by RCA! Prices have been substantially reduced.

*Beware of worn-out tubes!* Even a single worn-out tube can spoil your reception. Remember—the eye can't tell the difference between a good tube and a worn-out tube. So today . . . have your radio dealer test your old tubes. New RCA Radiotrons will put new life in your radio.

RCA RADIOTRON COMPANY, INC.  
HARRISON, NEW JERSEY  
*A Radio Corporation of America subsidiary*



## RCA RADIOTRONS

*The heart of your radio*

Appearance dates of this advertisement: Collier's, September 12; Literary Digest, September 26; Saturday Evening Post, October 31

# GOOD NEWS

About RCA Radiotrons

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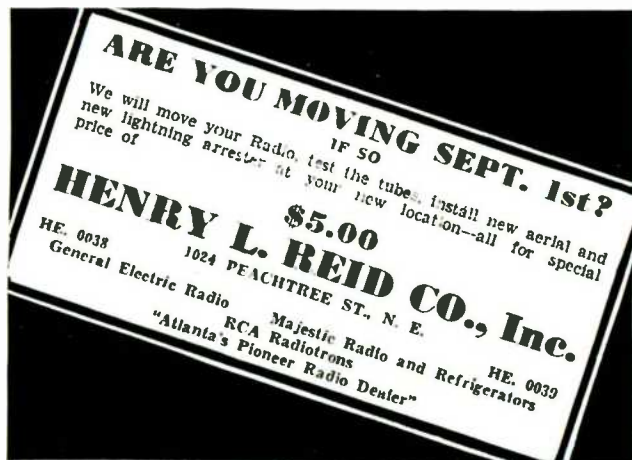
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## IDEAS

IN a two-page section of Good News each month we try to pass on to our readers the best of the locally instituted ideas and plans for selling Radiotrons that are called to our attention.

We cite here, as an example of the merchandising originality displayed by Radiotron dealers in general, an idea that seems to us to have exceptional merit. While we have not as yet been informed of the results, we will wager that this ad of the Henry L. Reid Company in an Atlanta newspaper bore fine fruit.

Try this and other ideas reported each month in Good News. You will be surprised at their ability to make new Radiotron sales for you.



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A magazine of radio merchandising counsel to help distributors and dealers of RCA Radiotrons make more profit.

Published Monthly by RCA Radiotron Company, Inc., Harrison, New Jersey

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John J. McGraw, Manager of the New York Giants

THE greatest baseball player I ever knew was Hans Wagner. The "Flying Dutchman" had everything, could do everything there is to do on a ball field—and do it better than anyone else. But the thing that lifted him head and shoulders above other star players, that made him so outstandingly proficient in all departments of play, was his passionate love of the game. Why, I've seen "Honus" stop on his way out of the ball park after a hard game and join a bunch of kids playing scrub on a sand lot. He could never get enough baseball!

If I am to draw a parallel between success in baseball and success in business that is a point I'd like to make. You have to like whatever you are doing. If you do like it, it becomes a game to you, and you can go out and work your head off and still think you're having fun.

Natural physical qualifications for the game are important, but even those can be developed if the player has a real love for baseball and the heart, or will, to make himself into a star. It all comes down more or less to mental training. The player without mental training tries to hide his faults; the player with it looks for his faults and sets about correcting them.

A few years ago we had on the Giants an outfielder who had the

# Don't Try to Hide

*The Man Who Succeeds is the Man Who Locates His Faults and Corrects Them as Quickly as Possible*

By John J. McGraw,  
Manager, New York Giants

makings of a real star. In fact, he was a star—for a very brief period. But he thought he knew everything about baseball there was to learn. He was blind to his faults. He dropped out of big league baseball as quickly as he had come.

If this player had come up from a college diamond instead of a sand lot the chances are he would still be going great today. I've said before and I'd like to repeat here that the college bred player has a two-year start on the average rookie from the sand lots. Because of his mental training the college man usually arrives quicker and lasts longer. Those who succeed without college training do so because they have brains enough to see their handicap, and persistence and determination enough to overcome it.

## "Rube" Masters a Weakness

Examples of the power of practice and training to master a weakness are numerous in baseball. When Rube Marquard was a rookie he had the habit of putting a lot of balls squarely across the plate with nothing on them. We all knew he had plenty of stuff and wondered why. The trouble was that he had so much stuff that he was afraid to use it. Wilbert Robinson, then coach for the Giants, took him in hand and worked long hours with the patient Rube, teaching him control. After that Marquard went out and won nineteen straight games. If the Rube had been the kind to get a swelled head he never could have been a successful big league pitcher.

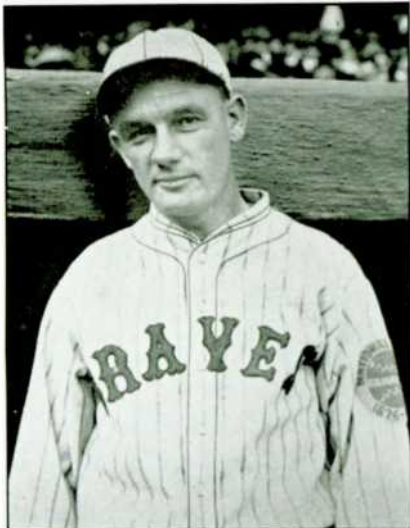
Matthewson became one of the greatest pitchers of all time through conscientious application and long hours of practice. Naturally endowed with an excellent build and tremendous speed, Matty's ideal physical equipment was more or less going to waste at first base when I took charge of the Giants in 1902. He was just a gangling kid then. I put him back in the box and gave him a few simple rules about studying the batter. He never forgot. Nor, with all his marvelous memory, did he ever forget what he learned about each batter thereafter.



Hans Wagner, the "Flying Dutchman," whom McGraw brands "the greatest baseball player I ever knew"

# Your Weak Spots

The mental training Matty received at Bucknell stood him in excellent stead. He was eager to learn and he didn't care how long he had to wait on the bench as long as he was improving



Rube Marquard, one of the "grand old men" of baseball, whose patience and will to learn made him a truly great pitcher

himself. He used to watch the great McGinnity like a hawk. Then he'd practice what he had learned. His famous fadeaway curve ball was not a gift from nature but the result of keen observation, experiment, long study and practice.

## Consolation for "Bench Warmers"

Managers are sometimes criticized for keeping high-salaried young players on the bench. It looks to the average person like a waste of money and talent, whereas in reality it's the best kind of training for an intelligent young player. I never mind paying the salary as long as my man is making the best use of his powers of observation. It isn't so much learning *how* to do it, as *what* to do and *when*.

After all, good judgment in baseball, as in everything else, is a far rarer asset than mechanical proficiency. I never censure my men for mechanical errors as long as they are carrying out my precepts. Fred Snodgrass dropped a famous ball in Boston that

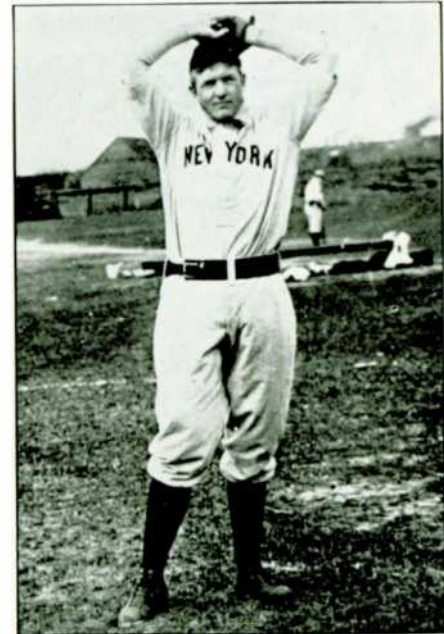
cost us the series, but I didn't criticize him for it. In fact, I raised his salary \$1,000 the next season. He seldom made an error of judgment.

On the other hand I once, back in 1905, fined a player \$25 for hitting a home run with two on bases. That sock won the game but it was in disregard of my orders.

## Let's Fight!

After my men have been sufficiently seasoned, I expect them not only to play intelligent baseball, but aggressive baseball. Personally, I never could see the idea of taking a defeat philosophically. I hate to lose and I never feel myself beaten until the last man is out. I am certain the fans, also, feel much the same way about it. All my life I have heard them say, "I don't care particularly which club wins as long as it is a good game"—and I never knew of one who I believe really meant it.

One other thing, teamwork. Or, in business, you might call it co-operation. Anyone who has followed the Giants during the past 30 years knows that I insist on unity of purpose and action. I have found that it wins ball games. As an aggregation of individual stars the Yankees of 1922 were supposed to be superior to the Giants. I don't know anything about that, but I do know that we beat them easily in the World Series because our team played as a unit. The old Baltimore Orioles were a great



Christy Matthewson, one of baseball's greatest and most spectacular figures

team, and they reached the heights of baseball fame largely because of their undying spirit of co-operation.

Baseball is a strenuous game. It requires physical stamina as well as a certain natural aptitude. Outside of these requirements, I can't see where success in baseball is very different from success in business. Love of your work, a willingness to expose your weak spots in order that they may be corrected, training, planning, hard work, judgment, a spirit of co-operation, and fight—undoubtedly these are as productive in commercial life as they are in baseball. I can't imagine how anyone blessed with such a combination could fail to succeed, no matter what he did.

Look at the successful radio dealer. Thinking, planning, hard work and a willingness to learn have got him where he is. And he will go

farthest if he fights hard for business, but fights fairly, and is willing to cooperate for the good of the industry.



John J. McGraw, earlier in his career. When this photo was taken he was a member of the famous Baltimore Orioles

# We Have Tripled Our Tube

## *By Concentrating Exclusively on the Outstanding Brand of Tubes — RCA Radiotrons*

By Morton A. Barker, President and General Manager,  
Morgan & Sons, Inc., Springfield, Illinois

As told to S. E. Jones, RCA Radiotron Central District Representative



Morton A. Barker, who reveals in this article some of the reasons for the remarkable increase in Morgan & Sons' tube volume

I MIGHT sum up the results of our recent decision to concentrate exclusively on RCA Radiotrons by telling you that we have been making twice as much net profit on tubes, with half the previous investment. That's really the whole story, but in case any other dealer is interested in the details, here they are:

Previous to January 1, 1931, we handled, with indifferent success, four brands of tubes in addition to Radiotrons. We didn't push any of the tubes. Our radio department was supposed to rely for its expected volume on radio sets.

Sometime during January, our competent radio

department manager, Mr. Roy Berney, came to me with the RCA Radiotron Company's Headliner proposal. Its advantages had been explained to him by a representative of that company. I was impressed with the offer to assist us concretely in making a real business of tube sales, but both Mr. Berney and I were a little skeptical as to the size of the promised rewards.

Among other things, however, the Radiotron representative had suggested that it would pay us to concentrate on one brand of tubes, regardless of whether that brand was Radiotrons. I turned that thought over in my mind, together with the features of the Headliner Plan, and the more I thought about it, the more reasonable it seemed to me to be. Mr. Berney and I got together and decided to give the plan a try. We went further and eliminated from our stock all tubes but RCA Radiotrons.

Once we decided to try the plan, I made certain that our end of the bargain would be upheld. It is a policy of Morgan & Sons to do nothing halfheartedly. We were going out after the tube renewal business with everything we had to work with.

### Some Valuable Ideas

I should state that Morgan & Sons is primarily a furniture house. But we consider radio sets as important articles of living room furniture, and the radio department is, therefore, located on the first floor, in an easily accessible and prominent section of the store. Our first move was to give over to RCA Radiotron advertising material a large part of the display space of this department. We ordered Selling Fools and Modernistic Displays, and with these, in addition to free Headliner material, we managed to arrange an exceptionally attractive department. While

the tube display is permanent, we often shift the material around to relieve the monotony and give the Radiotron story a fresh presentation.

Next, the windows. We have always considered our windows an extremely valuable part of our store, especially in comparison with the amount of



The radio department, showing some of the extensive advertising material that is kept constantly in view. Standing—Roy A. Berney, Department Manager

# Sales Since January . . . .

space they require. I made a point of giving good window space to RCA Radiotrons, not just occasionally, but constantly. Of course, the displays are changed often and Radiotrons are presented in various ways. But the fact remains that the people who pass on the sidewalk are not given the chance to forget a need for Radiotrons. "All of the window part of the time, and part of the window all of the time" is a good slogan.

## Read This List!

I said above that, when we go out for something, we push it in every way we know how. I mean that. Radiotrons were advertised (and *are* advertised) through as many mediums as I could think of. We tied-in with each RCA Radiotron advertisement. We ran, once a week, a large ad of our own, featuring special 50-cent service calls, and followed this up with daily "Tubes Tested Free" notices in the classified columns. We broadcast a Radiotron program from a local station. We used direct mail material, both post cards and folders, and sent out salesmen to do house-to-house canvassing. We put on premium contests. We

handed out free Broadcast Station Directories, put Radiotron banners on our trucks, and asked people to buy in

**Your Radio Inspected  
And Your Tubes Tested For Only**

**50¢**

**We Use R. C. A. Radiotrons Exclusively**

Just Phone Main 9—  
Our Expert Servicemen  
Will Call and Make a  
Complete Inspection  
Without Any Extra Cost

This Special  
Offer is  
Good for a  
Limited Time  
Only

So many times it is found that faulty reception such as fading, distortion, loss of volume, etc., is caused by tubes that are not operating efficiently. Be certain of tonight's programs. Don't let anything mar your pleasure when listening to your favorite artists. You'll get the finest sensitivity, selectivity and tone quality from your radio set when you use R. C. A. Radiotrons. Start today to enjoy your radio as you really should.

Radio Service Laboratory, Main 9

**MORGAN & SONS**  
SEVENTH at WASHINGTON

Telephone Main 9 for Rush Service

*One of the weekly ads featuring 50-cent service calls that met with unusual response*

the store. I had "Man Made Miracles" and "Earth's Four Corners" exhibited in a leading local theatre.

## Radiotron Volume \$25,000

With a well known, quality product to work with and all this publicity, we ought to have gotten results. We did. Since January, we have tripled our unit sales volume, and we expect to go higher. RCA Radiotrons now account for \$25,000 of our \$100,000

yearly radio business. Moreover, it costs us considerably less to handle one brand of tubes than it did to handle five brands. With half the previous investment, we have more than doubled our net profits on renewal sales.

Thus, the Headliner convinced us of three things—that tube sales can be made into a real business, that it pays to concentrate on one brand, and that RCA Radiotrons are the tube to handle. As evidence of my conversion to the first point, we intend during the coming year to make a Radiotron sales call on every customer who has ever purchased a radio set from us.

Our tube business is divided about 50-50 between over-the-counter sales and sales by service men. In either case, we find that we can sell RCA Radiotrons to anyone who is in the market for a radio tube. By handling only RCA Radiotrons, we keep our inventory down and eliminate any confusion in the minds of our salesmen and sales clerks as to which is the brand of tubes to recommend.

Finally, net profit is the gauge of our success, and we handle no line that gives us more gratifying results in that respect than RCA Radiotrons.



*RCA Radiotrons are constantly displayed in the main show window, either alone or in conjunction with sets. A typical display*

# The Next Four Months

*Some Observations as to the Possibilities for Tube Renewal Sales That Lie Ahead of the RCA Radiotron Dealer*

By W. H. Thompson

In Charge of Sales Operations, RCA Radiotron Company, Inc.

IN GOOD NEWS, and elsewhere, we have often pointed out the similarity, from a merchandising point of view, between radio tubes and automobile tires. Both are renewal items. If one of two products so closely related as to selling characteristics—automobile tires—is experiencing a rejuvenated consumer demand, it is not unnatural to

inquire whether a similar increase in demand for the other—radio tubes—is not also to be expected. The answer is that, as far as radio tube sales for this Fall are concerned, such facts as are available point to that conclusion.

## Basis of Observations

It might be well here to insert a few words of caution as to the basis for these remarks. Those who are familiar with the history of the radio business know that anyone who ventures a positive prediction as to the future course of the industry invites disaster. An industry so young, and one which has grown to maturity so swiftly, is less to be relied upon to hew to a given line of development, especially in these precarious times, than an older, more settled one. However, the



practice of withholding observations, merely because certain observations have proved unreliable in the past, has little to recommend it. Encouraging symptoms are always encouraging symptoms. And while the facts at hand doubtless are capable of other interpretation, we believe that our estimate (and it is an estimate, solely) has at least the virtue of logic.

## 50 Per Cent of Tube Business in Next Four Months

To return to automobile tires: just as, in the automobile field, many who have old cars and who are not in a position, this year, to buy new ones, are renewing their tires—so, many who have old radio sets and who are not in a position to buy new ones, will, this Fall, turn to a new set of Radio-

trons as the logical solution.

The proportion of the year's tube volume normally attained by a dealer in September, October, November, and December is sufficient to endow this season with an unusual degree of importance. That proportion is approximately 50 per cent. This year should prove no exception. The least any dealer can expect for the

four months that lie ahead is a duplication of his tube business for the entire eight months preceding.

Consider, now, the theoretical possibilities for renewals at this stage of the industry's development. Estimates of the number of radio sets in operation in this country range from 10 to 15 million. Our own belief is that 13 million is a fair figure. That would give us between 85 and 95 million tubes in use—obviously a potential renewal market of tremendous proportions. If, as we have said, the average dealer may expect a volume of business during the four coming months equal to that of the rest of the year, the progressive dealer surely is in a position to greatly increase that volume by proper merchandising. We know that many set owners who should renew their tubes



regularly, are not yet in the habit of doing so. To be sure, persistent educational advertising as to the benefits of renewing tubes regularly has done much during the past year and a half to change this state of affairs; dealers everywhere are enjoying increased Radiotron Sales as a result of the stepped-up rate of renewal. But the progressive dealer continues to enlarge his claim in this rich, perpetual market by supplementing the RCA Radiotron campaign—"Renew Your Tubes at Least Once a Year"—with energetic efforts, ideas, and sales plans of his own.

### The 1930 "Back-Up"

So far, we have considered only such business as might be anticipated in the Fall of a normal year, following other normal years. 1931 is not, however, a normal year, nor was its predecessor—1930.

Early in 1930, the prediction was made that at least 50 million tubes would be sold for renewal purposes alone, based on the fact that the sale of more than 3 million sets in 1928 had added 25 million new sockets, while an even greater number of new sockets had been added in 1929. Unfortunately for dealers and manufacturers, the expected volume failed to materialize. Whether this was due to poor business conditions or because set owners generally were not yet educated to the desirability of changing tubes regularly, or because of other reasons, it is impossible to say.

Assuming, however, that many people still continue to use their tubes as long as they will light, that is, long after they are sufficiently worn-out to render reception poor, there comes a point when, because of burn-outs or extremely unsatisfactory operation,

they are forced either to buy new tubes or stop using the set. The latter course is scarcely plausible, since it is a fact that the public continues to spend money for entertainment regardless of economic conditions, and radio is far and away the cheapest form of high grade entertainment. The conclusion is almost inescapable, therefore, that many of those who should have renewed their tubes in 1930, but didn't, will be forced to renew them this Fall.

Furthermore, since the Fall of 1929, more than 50 million new sockets have been added through the sale of new sets. A large proportion of this abnormally large volume of tubes have by now reached the stage in their operation where renewal is advisable, or will reach that stage before the end of this year.

As we approach the Fall of 1931,

encouraging. It may even be so encouraging as to make us consider ourselves fortunate to be selling radio tubes in the Fall of 1931.

### What's to Be Done?

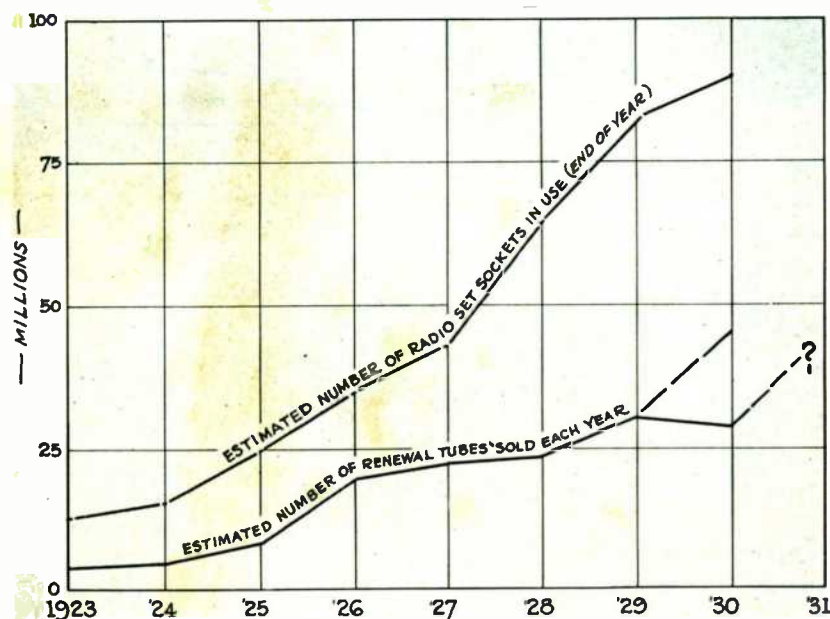
What, under the circumstances, is a dealer desirous of increasing his Radiotron business to do about it? It strikes us that he would select this particular season, above all others, to impress upon as large a number of set owners as possible his name and the fact that his name stands for the best in radio tube service and equipment. Productive as such a reputation always is, it can scarcely fail, this Fall, to stand him in particularly good stead. The mere fact that his store is familiar to a large number of set owners should bring him a nice share of the expected "back-up" from previous years. Many who need new tubes are going to need

them in a hurry, and, in cases of this sort, the dealer first thought of is the dealer who gets the business.

Quick delivery would seem to be an excellent point to feature this Fall, always, of course, against a background of reliable dealing and quality merchandise. We have seen repeated instances of success along this line, both when the dealer himself delivers the tubes or when he arranges with another agency, such

as a telegraph company, to deliver them. Such a service ought to be more popular than ever this Fall.

Obviously, there is also a great opportunity for systematized tube testing, whether it is carried on in the store or in the home; that dealer who anticipates the later and urgent need of new tubes by supplying them in advance is going to get a lot of business that otherwise (especially if there is a hurry call) might go elsewhere.



This chart shows graphically how tube renewal sales have varied in accordance with the number of new sockets added each year, up to 1930. It is expected that some of the renewal sales that failed to materialize last year will be added to regular sales this Fall

then, we are faced with the fact, first, that a normal Fall season (in which 50 per cent of the year's business is realized) lies ahead, plus the fact that an unusually large number of tubes was sold during and after the Fall of 1929 and that many of these should be renewed this Fall, plus the fact that the great "hidden market" which failed to come out of obscurity in 1930 cannot much longer remain hidden.

All of which, to say the least, is

# International Broadcasting

*A Discussion of Its Development to Date, with a Look into the Future*

By C. W. Horn, General Engineer,  
National Broadcasting Company

THE international exchange of programs is a natural outcome of radio broadcasting. With the development and the improvement of local broadcasting, it was quite evident that the program people would desire to exchange with localities at a distance. Thus was born the need for wire line

connections, and we obtained what is known as "Network Broadcasting." However, wire lines cannot be erected across the oceans, so that we had to turn to a new field in radio which very providentially appeared at this time. By this, I mean that short-wave transmissions and receptions were proving themselves capable of spanning great distances with reasonable amounts of power.

## Experience Best Teacher

The early experiments in short wave transmissions were not very successful, and it seemed like a hopeless expectation to consider the jumbled and rapidly fading signals as having any possibilities. While great distances were being covered with reasonable amounts of power, the behavior of the waves was such as to make the service very unreliable. However, as is usually the case, by constant and tedious experimental work, these difficulties were one by one overcome, until today we are beginning to depend on this service, and are planning programs weeks in advance with a reasonable assurance of success.



C. W. Horn, General Engineer, NBC

liarities of its own. Only by very careful day by day experimental work and a constant plotting and recording of results, has all this data been compiled, so that we now know what wavelength to use, and the best time for the transmissions. The engineers engaged in this work have kept a very careful record of weather and atmospheric conditions, as well as variations in the earth's magnetic field. The influence of these different factors on the wave has been very carefully noted, so that apparatus can be designed which will minimize the effect of these disturbances.

## "Diversity Antenna" for Fading

As a very fine example, I might mention the unusually erratic fading which takes place on these short waves. It was found that the signal did not fade simultaneously at different localities. A system of antenna design was produced, which is called the "Diversity Antenna" and which makes use of three or more aërials located at reasonable distances apart, with transmission

We have found from experience that certain wavelengths or frequencies are best suited for certain hours of the day, and that other frequencies will do better at other times. A very marked difference between daylight and dark is noticed; also, the particular circuit over which the wave must travel has pecu-

lines to receiving sets all located in one room. The signals are brought into the receiving sets, and by means of automatic selectors, only the antenna having the best and steadiest signal is connected through. If the signal fades on this antenna, and another antenna holds up, the circuit is automatically switched to that antenna. This change is made practically without any noise, and without clicks, so that the listener does not know what is going on. By this, and other means, the signal level is maintained at a fairly constant level, and a great deal of distortion is avoided. Of course, directional transmitting and receiving antennae are used together with considerable power. The stations in the United States transmitting to other countries are located in Pittsburgh and Schenectady, and use in the neighborhood of twenty and sometimes forty kilowatts.

In addition to these stations just mentioned, we have also used the



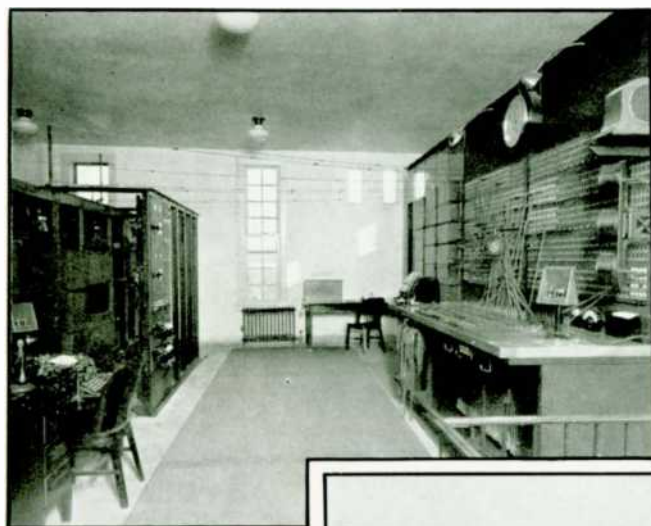
This photo, rushed to London and radioed from there to New York, shows President Niceto Alcalá Zamora (right) of Spain, standing in front of the microphone, delivering his inaugural message. It was heard in the United States over an NBC network

RCA Communications station in California, which has established contact across the Pacific to Japan, Philippines, and Hawaii. Many of the foreign countries, realizing the importance of the international exchange of programs, have built, or are building, equipment suitable for this purpose.

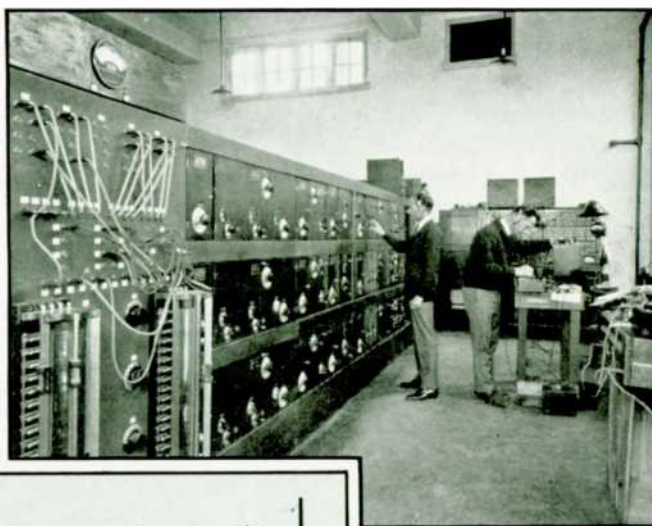
optimistic enough to believe that the future will see television and other forms of communication developed on a world-wide basis. When this time comes, we will not only hear, but see, and we will be able to view people and scenes in even the most remote corners of the globe. The effect of such a service on the mental and cultural

languages and customs. When we are all alike in habits, there will be little pride in having traveled extensively. By that time, of course, travel will have been made easier, and more rapid, probably through the development of the airplane, and distances will be merely nominal.

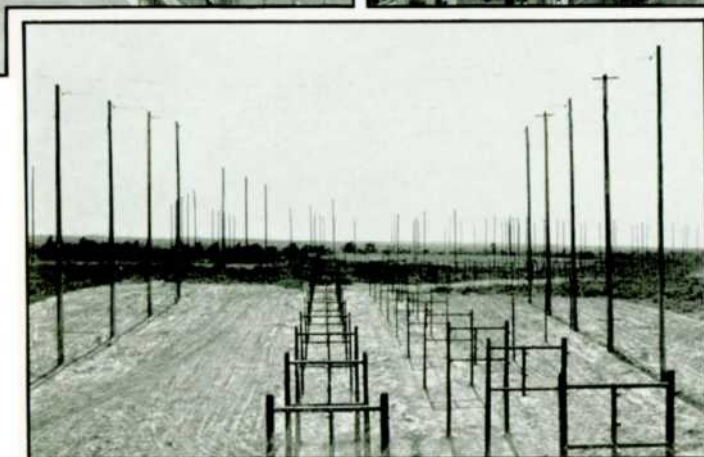
The human being is different from



Line terminal board for short-wave telegraph circuits at RCA-Riverhead, L. I.



Operators at work before receiving panels at Riverhead receiving station



Short-wave antennae and transmission lines at RCA-Riverhead, similar to those used for reception of transatlantic programs

### Effect of Circuits Far-Reaching

The establishment of circuits between nations has a far greater value than just the mere transmission of sound as represented in speech and music. While this is, of course, of great value in cementing the friendships of nations, and making it possible for people of different countries to exchange thought and culture, the matter must be considered from a more fundamental or basic point of view. A radio circuit is, in effect, a connecting link over which more than just one type of signal can be transmitted. A radio circuit, therefore, becomes something like a wire connection, with the exception that we have not progressed to the point where we can handle as many forms of energy over the radio circuit as we can over wire. However, I am

habits of the people is obvious. I will leave it to the reader to use his own imagination to conjure up in his mind some of the possibilities when this day arrives.

It is very important to again refer back to the fundamental and basic factors which underlie such developments. It is quite possible that the various races and nationalities will have a tendency to standardize their customs and habits, as well as their languages, so that some day perhaps this world will be one community. The traveler of the future will not experience the thrill of visiting foreign places and hearing and seeing foreign

other animals that inhabit this world, in that he has a fairly well developed brain. His greatest difference is his ability to dream and imagine things. It is the human being's power

of imagination that is making all these things possible. He has a desire or hunger for certain things, such as rapid transportation or the ability to hear and see over great distances, with the result that the minds of a great number of people are turned in that direction. and gradually devise ways and means to accomplish and make real their dreams. Therefore, it is a true saying that "what the mind of man can dream, the mind of man can conceive and create." For this reason, there is nothing that is really impossible. and it is but a question of finding ways and means of using Nature's own laws to gain our ends.

# It's Worth About a Dollar

*But We Wouldn't Sell It for a Million*

By J. W. McIver, Manager

Sales Promotion Department, RCA Radiotron Company, Inc.

**T**WELVE of the most capable advertising men and women in the country, from our advertising agency, were listening to an RCA Radiotron engineer as he told

them about some of the points of importance in the quality of an RCA Radiotron. He was showing the exacting tests, the rigid inspections, the careful checks which we make to assure ourselves that every Radiotron leaving the factory is up to specifications. He showed them why the Radiotron Company sold no "seconds." He told them that

every tube which did not come up to standard, for any reason, was destroyed. He told of the value of such care and such standards. "Our good name and reputation," he said, "is too valuable to risk sending out even one bad tube."

A young lady of this group, which sought to put into simple, effective language for us, all of the many quality points of RCA Radiotrons, said, as she gave us the much vaunted woman's viewpoint, "That tube is worth about a dollar—but you wouldn't sell it for a million because your engineers say it is not quite up to standard."

For we have no "seconds." We do not sell tubes which our tests show to be below our standards, which, if sold, would endanger the good name of our distributors, our dealers and ourselves. It is better to do as we do—destroy them.

Of course, we have a million tubes which are worth about a dollar and which we would gladly sell for that amount. So, how to do it.

Through our experience and obser-

in the market for tubes. There is, really, no particular season. Therefore we must not let up in our constant reminding and in our keeping our name and the need for new tubes before these customers.

Our prospective sales come from two groups. First, there are the emergency purchases. Here the good old tube serves its useful life, and as all good tubes must, it burns out. The customer may put radio out of his life, or he may spend a week or two trying to remember to buy, or he may start out for an immediate replacement.

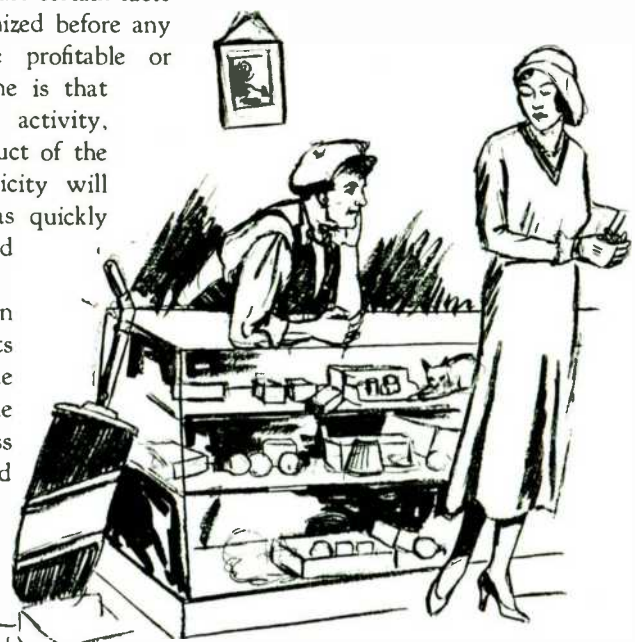
The second group is composed of those customers who come to the conclusion, either as a result of common sense or



PHOTO COURTESY "RADIO RETAILING"  
Remember this early type of radio store with dials, horns, coils and gewgaws rampant? Such a store would inspire few with the confidence necessary today

vation we know there are certain facts which must be recognized before any tube selling can be profitable or effective. The first one is that with any intensive activity, there must be a product of the highest quality. Publicity will kill a poor product as quickly as it will build a good one.

In any organization which depends for its success on full value and square dealing the technique of success must be built around certain fundamentals. For instance, radio tubes are infrequent purchases. We never know when a customer is



It takes a lot of talking by this type of dealer to sell anything

because of a good advertising or selling job, that it is wise to renew their tubes at least once a year. However, the need for reminding remains the same. The need for keeping the name before the customer is even greater.

The habits of customers with many products serves to keep the name of the product before them. The man who buys a pack of Camels every day, is sure of a daily reminder. The lady who buys a loaf of Bond Bread every day, has a daily reminder. But with tubes, except by misuse, failure or unusual use, our theoretical complete replacement is once a year. All the more is the constant advertising of radio tubes and of radio entertainment of greatest importance.

The radio tube is a "reminder" product. There is nothing in the experience of the normal individual, as he walks down a business street during

the daytime, to make him think or remember that he needs tubes. Tubes must be displayed to be sold. To be effectively displayed, people must be made to look at them.

anyone to whom he gives part of that money. He doubts that he is getting the quality he should. Value for his money is what he is after, but true value seems scarce. If he only knew some "Tiffanys" among the merchants with whom he deals.

These potential spenders are eagerly searching for dealers in radio in whom they can have full confidence. Radio is almost as much a mystery, to most of us, as the merchandising principles and methods of many dealers. People are suspicious of things they do not understand and with which they have had sad experiences.

Who of us can tell anything about a radio tube by looking at it, anyhow? It might be beautiful

and a dud. Neither can you judge of its quality by feeling, or tasting, or smelling—unlike most of the things that enter into our daily way of living. We have to learn to substitute a name for the ordinary standards by which we judge the product. Therefore, the product whose name both quickly and convincingly suggests quality wins the favor of our purchase.

With people looking for value, dealers and distributors and manufacturers who are to succeed must be willing to supply it. With people searching for other people in whom to repose confidence, the trade must learn to assume that responsibility. With customers for radio tubes depending on names to guide them, dealers must find out what those names are. In all these things the dealer who places one of the Radiotron Merchandisers in a prominent position in his store is securing for himself an advantageous position. The Merchandisers have a solidity and authority that bespeak quality and invite confidence. They carry with them a name that gives prestige. They suggest value. They attract, remind. They are, distinctly, a product of the times.

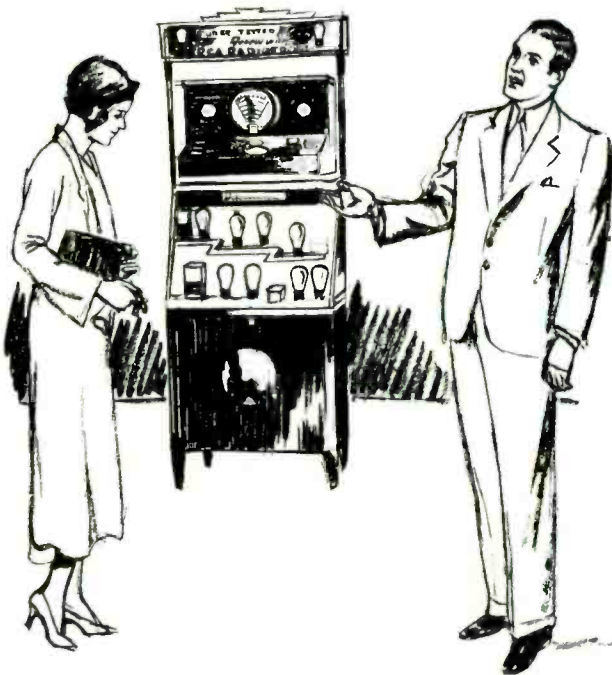


The Radiotron Merchandisers suggest value, quality, prestige, in addition to performing numerous practical services in connection with the selling of Radiotrons



A lot of money has been spent in educating people to the need for renewing tubes regularly, if they are to get the maximum of enjoyment from their radio sets, and a lot more will have to be spent before the great mass of set owners do so as a matter of course. Nobody wants to buy a radio tube if he doesn't have to. It isn't something that one covets or cherishes. Not until he—the average set owner—learns to think of tubes not as tubes but as high class entertainment will renewal selling be regarded as a cinch. And even then he will have to be constantly reminded to buy.

Confidence is not a drug on the market today. The man with money to spend tends to mistrust



When you have the customer's confidence, a sincere recommendation is all you need

# Take a Tip From These

## You Can Multiply Your Own Radiotron Sales

### Congratulations, Alhambra!



Here's a real, live-wire radio tube retailer—Alhambra Radio Company, Tulsa, Oklahoma.

They're trying something that, as far as we know, hasn't been thought of before. Not only putting the names and pictures of their house-to-house Radiotron salesmen on postcards, but broadcasting the news that one of their young men will call on you and you and you—soon, for the purpose of testing your tubes and giving you a Radio Log absolutely free.

A great idea! When we heard about it the announcement was running daily in the morning over the local station KVOO. Think of the hundreds of housewives who heard that announcement. Not only did it create in them a desire for the Log, but it paved the way perfectly for each salesman. He was identified—(Why, yes I heard about you over the radio)—he was welcomed. Again, we say, congratulations, Alhambra!

\*\*\*

### Surprised Himself

WHEN the owner of Frost Radio Service, Port Washington, N.Y., signed as a Headliner Dealer, he expressed doubt as to his ability to dispose of 50 RCA Radiotrons in two months. However, he thought it was only fair to himself and the store to exert some real effort in trying to sell them. He put on a mail campaign in which he offered RCA Radiotron Radio Logs free. In the specified time—two months—he sold 300 RCA Radiotrons. This store is now featuring Radiotrons in its window three times a week and continues to use the Radio Log to contact customers.

### Advertisement Clicks—and How!

MR. Zellers, manager of the Radio Clinic of South Bend, Ind., was drawn to the Quaker Products Company advertisement reproduced in March Good News. This advertisement featured a special inspection service for 50 cents. Mr. Zellers adapted from it a similar insert for his newspaper, intending to run two insertions, about three days apart. He couldn't. The response to the initial insertion was so great that the second

**A NEW  
RADIO INSPECTION  
SERVICE**

ONE WEEK ONLY! Ending April 30, you will call on your home and on all your radio tubes, vacuum and make a general inspection of your entire radio and aerial system for—

**50c**

SOUTH BEND'S special INCLUSIVE RADIO SERVICE makes this offer this week only on radio of all makes and types. No double as you sit and listen 48 your radio, you have given wonderful service to all you had a week before so it seemed that this time you're quite what it used to be. It's worth 50 cents to know. A lot of our service, expert knowledge of radio circuits and the most modern testing equipment make it possible for us to service your entire radio system quickly.

PHONE US NOW

Get your call in immediately. Enjoy the satisfaction of dealing with a person that really knows tubes, operations in it and has modern equipment. Remember a phone call brings an expert.

RADIO CLINIC

Phone 8-1161 200 West Jefferson Blvd.

R. W. ZELLERS, Mgr. This advertisement will be presented to the dealer nearest you in your town. Valid only April 20, 1931

This highly successful ad was inspired by the one shown on opposite page

had to be postponed in order to allow the service man to make all the calls. Eighty-seven responses were received from the advertisement and the resultant calls kept the service man busy all week.

Another example of how it pays to take advantage of proven sales helps, instead of going after an idea haphazardly. Read these pages!

\*\*\*

### They're Good Actors

THE Independent Radio Company of Broadway, New York, is taking full advantage of the capabilities of the Super Selling Fool. A few weeks ago this store had, as a window display, a miniature stage depicting a scene entitled "The Drama of the Radio

Tube." One Super Selling Fool, adorned in the flowing raiment of the hero, played the part of "Radiotrons". Another, garbed in the black cloak of the villain, played the part of "Jingo tubes," while a third, thoroughly crippled and extensively bandaged, represented the "Radio Set". The latter, who had been practically put out of commission by "Jingo Tubes," was being rescued by "Radiotrons". Beside each character was a placard, with two verses, telling the drama in brief. The window, of course, had a tremendous appeal to passers-by.

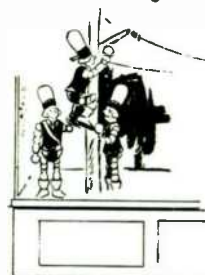
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### Real Advertising

THE Uncle Sam Store in Canton, Ohio, one of a chain of twelve exclusive radio tube shops, had been pushing a brand of tube other than Radiotrons, and the sale of Radiotrons was very small, due probably to the fact that no one knew that Radiotrons were sold there. One morning, not long ago, the manager had a Radiotron window installed. That day he sold \$45 worth of Radiotrons, more than had been sold in any previous week in the history of the store.

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### Making the Fools Work



THE Lakewood Radio Service, Inc., of Cleveland, is taking advantage of the possibilities of the Super Selling Fool as an attractive window display piece.

One week this dealer had a window showing Super Selling Fools dismantling an old radio set with pliers, screw drivers, etc. The following week brought a Fool atop a pole attaching an aerial, with two other Fools on the ground assisting him. Similar windows are used to stress their service work.

# Progressive Merchants

*by Adapting Their Ideas to Local Requirements*

## Buy Tubes—No Service Charge

A LONG ISLAND dealer is having much success with a plan whereby he charges \$1.50 for a complete service inspection, with the understanding that he will deduct the service charge if it is found necessary to install a complete new set of RCA Radiotrons. Many of the service calls are for worn-out tubes. The dealer finds that the average customer is glad to pay for the new tubes as long as there is no service charge and he is assured that he will have no trouble with his tubes for a year to come.

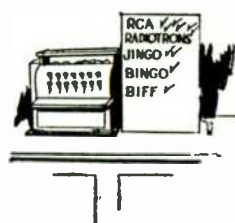
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## Progressive Merchandising

THE Detroit Radio-Electric Company never did any over-the-counter business in radio tubes until last November. Now the sales average about \$350 a month and all because they've worked to get it. They built a tube tester into a counter, arranged an attractive display of Radiotrons on the shelves, featured window displays on Radiotrons, and direct-mailed their old customers every few weeks. They're going to keep up the activity for greater sales each month.

\*\*\*

## Out the Window They Must Go



MR. Duffin, owner of Hopp's Woodward Avenue Hardware Store in Detroit, conducted a test recently to discover which of the four brands of tubes he carried was the best seller. In the test, he placed a card by his tube counter, with the names of the four brands listed. Every time one of the brands was asked for, he'd credit one mark to that brand. When a customer merely asked for a "tube," the credit was given to a brand which he was pushing at the time. The outcome

of the test was that 70 per cent of the people asked for RCA Radiotrons, 21 per cent for the brand he had been pushing, and 9 per cent for the other two brands. He is now concentrating on Radiotrons.

\*\*\*

## Yes, Airplanes Have Radios

EVER alert to new opportunities for selling RCA Radiotrons, which they handle exclusively, the Pontiac Tire and Accessories Company, Detroit, recently lined up the Thompson

## Something to Look at

THE owner of the Conway Electric Company in Conway, Ark., wasn't satisfied with the size of the RCA Radiotron decalomania, so he hired a sign painter who painted on his door an exact duplication of our decalomania, three feet high and two feet broad. A customer naturally cannot help seeing Radiotrons now.



\*\*\*

## They Stay Sold

THE manager of the James Gribben, Inc., store in Thomasville, Ga., had been reading Good News every month and has especially noted the articles on tube renewals. However, as he said himself, he "didn't think much of the idea." A short time ago, however, when business was slack, he decided to try out the possibilities of tube renewals. He personally went on free testing calls, installed complete sets of Radiotrons in the sets which he inspected, and told each customer that if, in two days, he was not satisfied that his radio was working as well as the first day he bought it, he would take the tubes back. Twenty-two complete renewals were sold in a short time in this manner, and none of the customers requested the removal of their tubes.

\*\*\*

## Take a Tip

FOLLOWING the lead of an automotive supply dealer who advertises in newspapers the price of a complete set of new spark plugs for various popular makes of cars, several dealers in the South are advertising prices on complete renewals of Radiotrons for popular makes of radio sets.

A NEW  
**Radio Inspection Service**

AGAIN THIS WEEK we will call at your home and test all your radio tubes, voltages and make a general inspection of your entire radio and aerial system for—

**50c**

GALESBURG'S OLDEST RADIOLA DEALER

offers you this service for a limited time only on radios of all makes and types. No doubt, as you sit and listen to your radio, you have often wondered whether or not you had a weak tube or if somehow that the tone wasn't quite what it used to be. It's worth 50 cents to know. Years of experience, expert knowledge of radio circuits, and up to date equipment make it possible for us to analyze your entire radio system quickly.

PHONE US NOW

Get your call in immediately. Enjoy the satisfaction of dealing with a person that really knows radio, specializes in it and has modern equipment. Remember a phone call brings an expert.

**QUAKER PRODUCTS CO.**

GEO. C. LINDSTROM  
Phone 5320 Main 220 E. Main

Air Lines as a customer, helping the aviation people to change their radio sets so as to use RCA-230's, RCA-231's and RCA-232's. The Pontiac Company makes use of practically all forms of RCA Radiotron sales promotion material and has increased its tube sales steadily from the beginning.

\*\*\*

## A Magnet

The proprietor of Radio Hospital, Bay City, Michigan, was curious to test the attractive power of the RCA Radiotron neon-effect sign. He waited late one night and noted with satisfaction that pedestrians on the other side of the street crossed to his window to see what the sign said.

# It's Easy to Sell with the



1. Customer enters store with old Radiotrons, to be tested, in Tube Carrying Carton. Greet her courteously and pleasantly



2. Before you test any tubes, explain the workings of your meter. Make sure the customer understands what you are doing



3. Let the customer test her tubes. This is the best time to explain to you and in the



6. Label and mark in front of the customer all tubes that test "satisfactory," and put them back in the Tube Carrying Carton



7. Give the customer a report on the condition of her tubes—so many "satisfactory," so many "unsatisfactory"



8. When you recommend a complete renewal, point out the symbols of the worn-out tube and the new Radiotron on your Merchandiser Sign



12. Put a Tube Test Sticker on each new Radiotron and write in the date sold. Also, write on the Sticker the socket identification number of the tube it is to replace



13. Break tubes which tested "unsatisfactory" in presence of customer. Point out that no one can tell a good tube from a bad tube merely by looking at it



14. Get the customer's name and address on Prospect Card. Also, give a vacuum tube



# Radiotron Merchandiser



her own tubes by pressing is gives her confidence in e products you sell



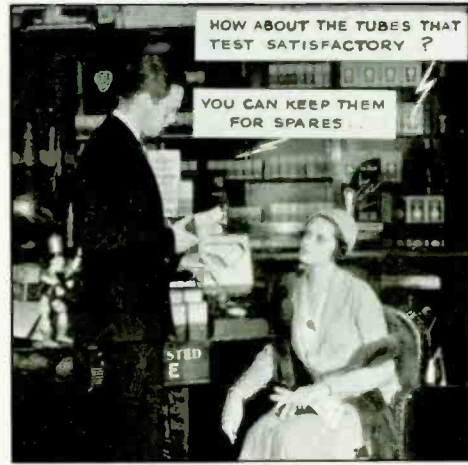
**4.** Using a Tube Test Sticker, mark the bad tubes as soon as they have been tested. Let the customer see you mark them



**5.** If a tube tests "satisfactory," say so. Be honest with your customer. She will repay you with her continued patronage



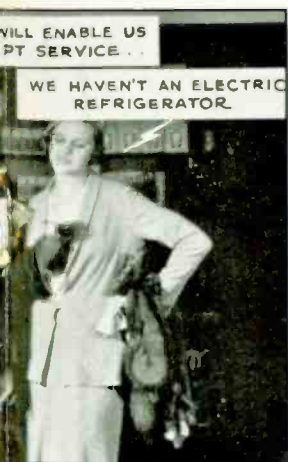
**9.** Illustrate your sales argument by switching on your midget radio. Explain that it is equipped with new Radiotrons



**10.** Suggest to the customer that she keep as spares the old tubes that test "satisfactory." As you do so, insert a new Radiotron into the tester



**11.** Test all new Radiotrons in front of the customer. Let her be convinced that they are better than her old tubes



mer's name and address for your l. Ask her if she has a refrigera-cleaner, a washing machine, etc.



**15.** Suggest to the customer that she bring the tubes back for testing in three months. Use the argument of unbroken radio enjoyment



**16.** As the customer is about to leave, give her an RCA Radiotron Radio Log. Bid her good-bye courteously and cheerfully

# TUNING IN

With J. W. McIver  
Manager, Sales Promotion Department

THE first time I ever tried to play golf, I bet a friend of mine that I could shoot eighteen holes in eighty strokes. I feared I might appear a little over-confident, so I didn't make the bet on par.

Why shouldn't I think I could do it? I had purchased a pair of Plus Fours, stockings exactly like those the professionals wore, spiked shoes, of the same style, and even size, as the club champ, a sweater like Walter Hagen's, a set of matched clubs that were guaranteed to take twenty strokes off my game and a ball that was of the same brand that Bobby Jones was using.

Then too, I had read published statements that these golf balls I had purchased, would add fifty yards to my drive. I nicknamed the ball "Ignatz," because it scampered, in my dreams, like a mouse into a hole. (That was before Mickey was the most publicized of all the mice.) I was sure the ball would do the right things. I had personally checked over innumerable photographs and in every one of them I saw that it went straight down the fairway and always dropped into the cup.

I didn't trouble about learning how to use these things. Golf was 90 per cent mental. No one told me that it was what I did that counted and not what I purchased to do it with. I never knew that I had to do a number of things correctly in order to get results. I looked like a golfer, I owned the equipment of a golfer, I wanted to be a golfer, therefore I was a golfer.



Thus, began years of slavery which we can call the Dark Ages and try to forget.

\*\*\*

THE RCA Radiotron Company has been spending thousands of dollars and months of effort in learning what should be the equipment of a successful tube merchant and, most important, how to use it. Our conclusions we have put into two plans which have as their heart—the Radiotron Merchandisers. These plans are yours. They are practical, they are flexible, they are modern, they are progressive, and they will enable every dealer to build on a solid foundation for sensible and profitable merchandising in the future.

Owning a fancy tube checker in a fine location, with well advertised merchandise, with the secrets of great merchandising plans, will not, alone, make anyone a great tube merchant. Possession is not nine points of the law of success. The Bible is still the best seller, but crime waves wave on. Shakespeare had about the same alphabet that I have, but I can't make it work for me as it did for him.

\*\*\*

TO BE continuously successful we cannot adopt the methods or the attitude of the roadside joints which advertise "Tourists Taken In," and who chuckle because the simple transients will not interpret the sign to be literally true.

Our success must come from those who gladly come back, who believe in us and

believe us. We must put on our sign—"Business going on as usual—and from now on!" and nail it up permanently.

Times are hard. We still hear about the Yells of 1930. At the same time we also know that our competitors—yes our competitors—induced the public to spend twelve times as much money in 1930 for soda water as the public spent for radio tubes. Soda water is not the staff of life. These same hard-up people spent three times as much for hosiery. A pair of silk hose may bring entertainment to more than one, but only one person can wear them. But with radio tubes—!

To all of this you may say, "Nuts."

I hope you do, because it will remind me to tell you that in 1930 there was almost as much money spent for nuts as for radio tubes.

We are doing a friendly act when we induce people to put new life in their sets, to get their share of the \$200,000 worth of entertainment that is on the air every day. The first step is making them realize that their tubes should be tested, and that they can have confidence in your reports after testing their tubes, as much as they have in the family doctor.

To quote a bright mind in our advertising agency, Lord & Thomas and Logan, "Tubes are sold on impression and replaced under pressure." Owning a tube checker does not make one a good merchant. There are hundreds who own putters who can't putt.



# Counsel from an Authority



Radio Commissioner  
Harold A. Lafount

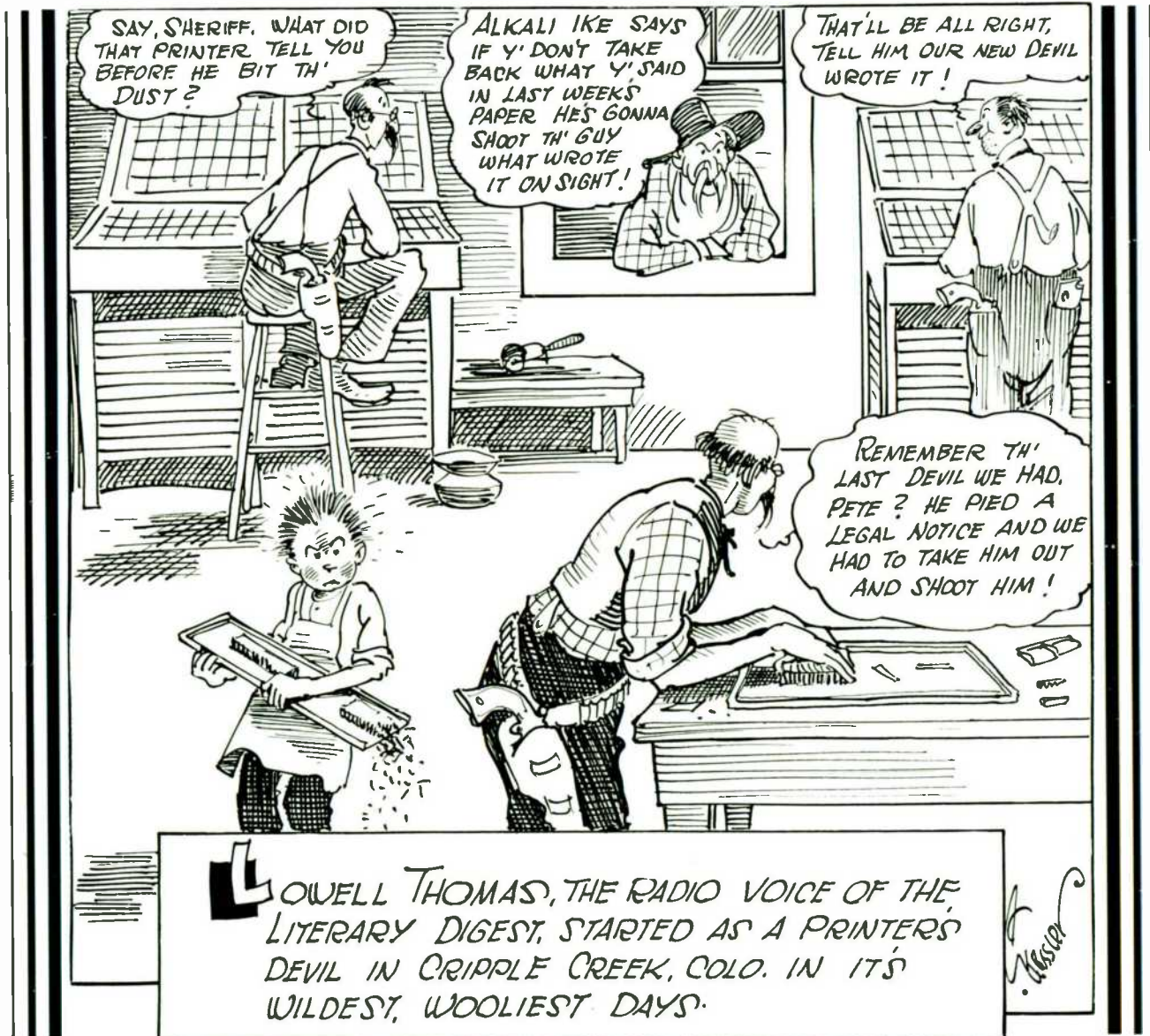
WHILE talking to a group of radio listeners recently, Radio Commissioner Harold A. Lafount said:  
"Many set owners pay too little

attention to the hearts of receivers. The tubes do the real work, but like most mechanical devices, they will wear out. An automobile, no matter how perfectly constructed, would not travel a great distance without oil. Manufacturers tell us to change the oil every five hundred miles; not because it has disappeared, but because it has lost its efficiency. Many of its virtues and characteristics have disappeared, although the fluid itself still exists. This to a great extent is true with the tubes in your radio set. People often complain that reception is not satisfactory, when perhaps they are using tubes

from one to three years old. For efficiency, you should replace all your radio tubes once a year.

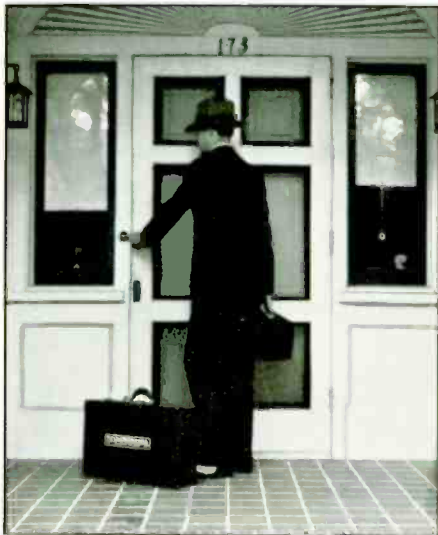
"Unsatisfactory reception is also often produced by replacing a burned-out tube. The new tube is so much more efficient than those remaining in the set that it causes distortion. I may compare this with the placing of a new string in your piano, and then failing to tune it, or blend all of the strings.

"If you expect the reproduction of all sounds and the harmony which is transmitted, it is wise to replace all the tubes, even though they have not completely burned out."



# A Wise Man Said

*Whether you're playing the stock market  
ing a kite or running a business, success  
the game — here are the rules of suc-*



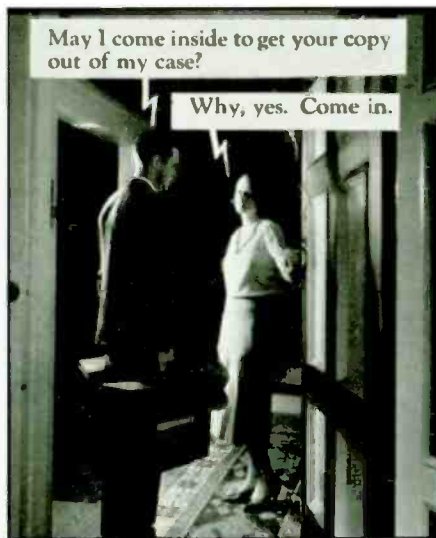
1. Clean and neatly dressed, you should ring the bell confidently, but not so long as to be annoying



Good morning, Mrs. Brown. I'm Mr. Smith of the Local Radio Shop. If I may have the card, etc.

Oh, yes. I have the card upstairs.

2. When door opens take a step backward to show you are not forcing your way in. Address house-wife by name



May I come inside to get your copy out of my case?

Why, yes. Come in.

3. If she does not invite you in, step forward confidently and politely inquire if you may enter



Now, Mrs. Brown, here's a real radio log. It contains the biographies of all the leading broadcast stars.

That's very interesting.

4. If possible, locate radio set in house-wife's absence. Then, in her presence, remove Radiotron Cartons to get Log



One of the main features of the Log is the kilocycle index. Let me show you how to use it.

5. Point out the value of the Kilocycle Index in order that you may have an opportunity to try the set



You see, it's easy to locate an unknown station.

I never knew how to do that before.

6. Conversation is turned to the operation of the set through a demonstration of the use of the Log.



Mrs. Brown, have you had your tubes tested lately?

No, we have never had them tested.

7. Set operation naturally opens the way for a discussion of radio tubes. Inquire when tubes were tested

# "Follow the Rules"

*or swimming the English Channel, fly-only comes when you know how to play successful house-to-house salesmanship*



**8.** An offer to test them free is now in order. Any radio set owner will appreciate this mark of courtesy.



**9.** Report the condition of the tubes. Then, tactfully suggest a comparison with new Radiotrons in the sockets



**10.** If the old tubes were badly worn, new Radiotrons will make a very noticeable difference. Stress the improvement



**11.** In giving the price of the new Radiotrons, emphasize the fact that the tubes are of the highest quality



**12.** The customer will naturally offer objections, in self defense. Point out the low cost in terms of hourly enjoyment



**13.** The amount of money spent to give the public high class radio entertainment is the basis of an impressive argument



**14.** Encourage the customer in her decision to buy the new Radiotrons. This leaves the customer in a grateful state of mind

# And They Call It the

*Eight Times as Many Radiotron Sales  
Similar Season is the Record*

By J. R. Slocomb,  
RCA Radiotron

**D**EAL in the best, push your line and be sure your customer is satisfied." That brief sentence contains the secret of the unusual success of one of Texas' most progressive dealers, Bob Abey, of Fort Worth. Bob Abey sells Radiotrons, lots of them, probably because he and his organization know what they are selling, and why their customers need the particular brand of merchandise they carry.

The simple sales policy stated above enabled Abey to sell, during the "dull" summer months of this year, eight times as many Radiotrons as he had sold in any similar period in the past. The constant work of selling Radiotrons left Abey and his force no time to "sell the depression" to themselves or anyone else. There was no depression for them, rather a summer of intensive activity that brought its own reward.

How did he apply the rules? Well, let's start at the beginning. Bob Abey is one of those dealers who entered the radio field because he grew up with radio and always had a leaning toward it. His interest is spontaneous and natural, which probably accounts for the fact that he is interested in seeing other radio enthusiasts get the best in radio equipment. In 1909, 1910 and 1911 he pioneered with "wireless" as a hobby when the commercial aspect of radio had not yet been recognized. A technical course in radio while at school gained him a position as master signal electrician in the World War. Later, as radio developed, he saw its future in the home entertainment field

and started out in business as a radio repair man.

The fact that he is one of the leading radio dealers in the state of Texas today he attributes to his conscientious



Bob Abey, the enterprising Fort Worth, Texas, Radiotron dealer, whose remarkable summer sales record is the subject of this article

following of his original slogan, "We work on the radio, not on the customer."

### Began with Different Idea

When Abey first went into business he had the same idea about profits as a good many dealers still hold. He thought that there was an opportunity to sell "just as good" tubes as Radiotrons and at the same time get a longer discount. It took only six months to convince Abey that his ideas were erroneous. While he was selling various brands of tubes to new customers, his repeat orders were coming from customers

who had bought Radiotrons. Bob developed into a Radiotron supporter and when the Headliner Plan came along, he accepted it with enthusiasm. The entire personnel of his store was acquainted with every detail of the plan. Bob supplemented the national Radiotron advertising in his area with extensive newspaper advertising of his own, began to work on the Radiotron market through the media of the telephone, direct mail and radio broadcasting. All his service men were given technical talks on the servicing of radio tubes and his salesmen practical information on Radiotrons.

### Enthusiasm is Contagious

As Bob himself says, "The whole resulted in a rapid increase in new sales and an invigorated friendship with old customers. Our selling was done with the enthusiasm of one who is thoroughly confident of the quality of his own product."

Bob then began a policy of service to his customers that he thinks has perhaps done more to build up his business rapidly than anything else. He began to familiarize his customers with the advantages of making a periodical check on their tubes. With every sale of Radiotrons he made certain to advise the customer that radio tubes cannot be expected to last a lifetime, that the operating efficiency of a tube must decrease, although imperceptibly, that frequent checking of tubes is the surest way to obtain the maximum of reception from one's radio. While continuing this policy he enlarged his activities by having his service man call on

# Dull Summer Season!

*in the Summer of 1931 as in Any Previous  
of Bob Abey of Fort Worth*

Southwestern District Rep.,  
Company, Inc.

radio set owners with an offer to check their tubes. As a smart sales psychologist, Bob knows that people, when not contacted, are usually negligent about bringing their tubes in for testing, even when they realize the benefits resulting from such a practice. That's why we find him going out after the business that doesn't come into his store—refusing to let volume and profit that he knows are his for the taking, slip through his hands. Bob has literally made his own breaks, forced the business to come his way, built a reputation for service and courtesy and climaxed the whole by piling up a volume of summer Radiotron sales that makes you dizzy just looking at it.

## Success Begins at Home

One of Abey's comments on his unusual success is, "We became 'tube conscious' ourselves and soon we had our customers 'tube conscious' also. When we had accomplished that the hardest part of our sales campaign was over with." Customer "tube consciousness" was achieved both by the use of complete checking equipment and by educational work among his customers as to the necessity of renewing tubes and the advisability of complete renewals. Abey has always been very particular about tube checking. It is

also a policy with him always to emphasize to customers that the original clarity and beauty of tone cannot be brought back to a set by replacing one "dead" tube if the others are badly worn.

## What Customer Confidence Means

As Abey himself says, "We feel that the entire structure of our business is based on customer confidence. Without that, we could do nothing.

great deal by securing the cooperation of the local power and light company. All of which naturally adds to his list of satisfied and trusting customers.

With the end in view of rendering the customer the ultimate in satisfaction, Abey is continually hammering away on the idea, "Renew all your tubes at once." Naturally, by making frequent sales of complete renewals where only one tube or two tubes might once have been sold, his Radiotron volume has taken a substantial increase. And yet the amount of extra time and effort necessary to bring this about has been really negligible, according to Abey. It merely requires a few statements of fact by one who has so established his reputation with his customers that his word is taken as authority.

A real success story, that's Bob Abey's record of Radiotron sales during the past summer. Abey has built his business on



A view of the Radiotron counter in Bob Abey's store. This dealer knows the value of reminding his customers to buy

When a customer's confidence has been established, he will naturally accept your statements as to what is wrong with his set or his tubes." Bob Abey believes that the best way to sell Radiotrons is to satisfy the desire of the customer for maximum efficiency of reception, for perfect tone, greater distance and a minimum of interference. Along the line of the last named subject, Abey has done a

a sound foundation, a foundation that any of his contemporaries would find it advantageous to duplicate. Starting with a quality product, pushing the sale of that product consistently, rendering every service possible to customers in order to give satisfaction and build up confidence in his ability, Bob Abey has seen his ideas go over with a bang. They couldn't very well do otherwise.

# RADIO TONICS

By G. Gerard Clark and T. A. Jolloff  
Sales Promotion Dept., RCA Radiotron Co., Inc.

**A**CCESSORIES to the Store Merchandising Plan make good, live material for window displays. The appealing Radio Log and the smart-looking Tube Carrying Carton draw attention and excite curiosity. The two Store Plan Window Cards tell the tube test story briefly and effectively. In addition, there is the striking RCA Radiotron Fall Display, a credit to any window.

There is almost no limit to the number of ways in which these materials may be effectively combined to bring people into your store. You can mass the items, chain store fashion; you can use a few of each in a simple arrangement; you can supplement a set window; you can feature one of the items, or you can give over an entire window

to it, showing in detail the various selling points. In fact, there is little you cannot do with the aid of this material, a few RCA Radiotrons and cartons and a set of Super Selling Fools.

It seems superfluous to point out that those dealers who will enjoy the greatest success with the Store Merchandising Plan are the ones who are making and who will make the best use of their windows. One of the major purposes of the Store Merchandising Plan is to get people into the store. It is inconceivable to try to get people into the store without making use of the greatest immediate drawing card—your store window.

Four suggested windows for reaching the customer with the free tube

test and Radio Log offer are shown on these pages. In all of them we have tried to keep foremost the offer itself, with variations as to the arrangement and presentation of material. No constructional difficulties whatsoever should be encountered. In Window No. 3, the Radio Logs are suspended in the rear on parallel strings, the Logs being fastened to the strings by means of stickers. In Window No. 4, the Carrying Carton above the center card is suspended by a fine wire from the top of the window.

We are particularly proud of the Carrying Carton and would strongly recommend giving one window, similar to that shown, over to explaining its exclusive features. This carton is the last word in safety and convenience and is a container that no one would be ashamed to carry on the street. Do not fail to give it a prominent place in your window; you will find it pays.

Super Selling Fools are especially adept at explaining things, as you can see from these sample windows. Use them to focus attention on the Carrying Carton and the high spots of the now justly famous RCA Radiotron Radio Log.



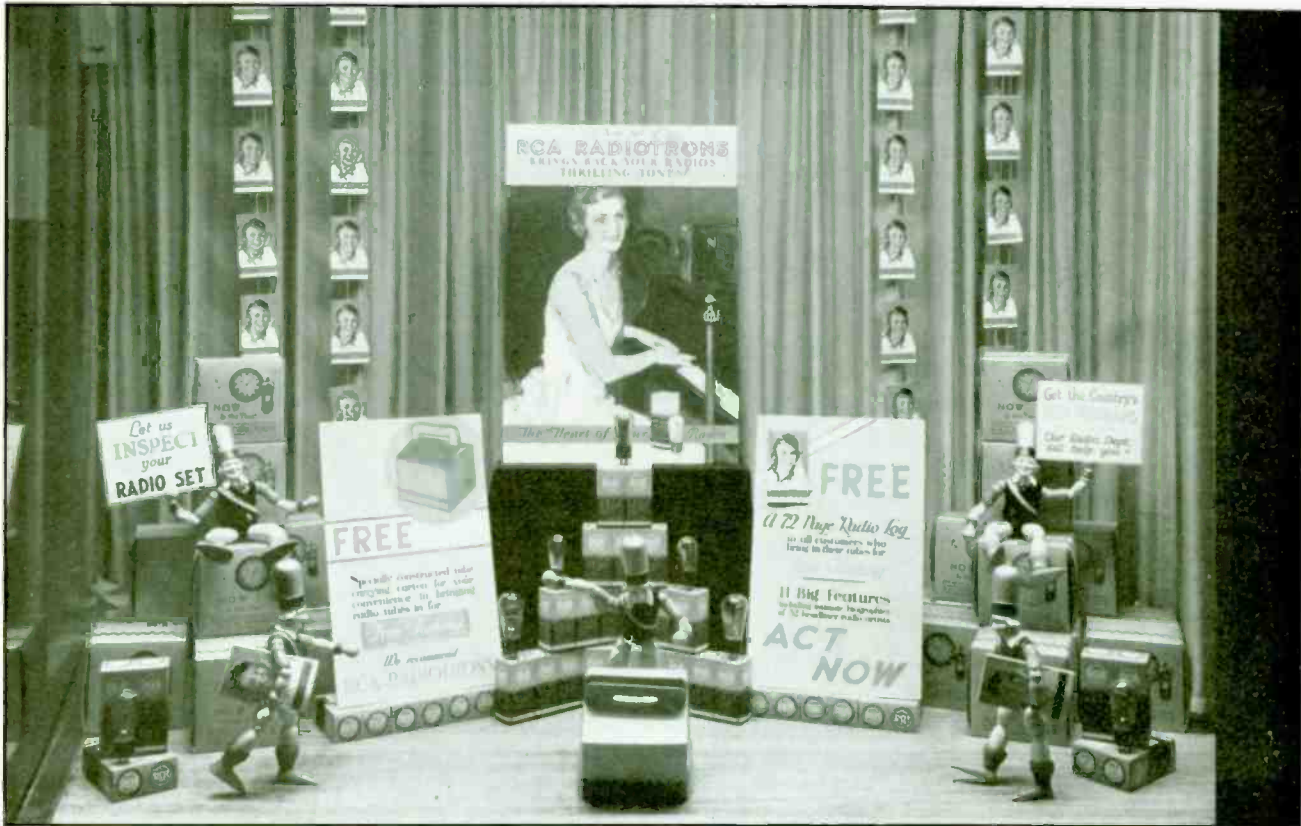
1. Featuring the Fall Display and Tube Carrying Cartons



2. A combination window using assorted material and a radio set







3. This window places strong emphasis on the Radio Logs and Tube Carrying Cartons



4. A display pointing out the many features of the Carrying Carton will help your Radiotron sales

# What Causes Service Calls?

*Analysis of Complaints Shows Way to Reduced Service Department Costs*

By E. C. Hughes, Jr.

Sales Promotion Department, RCA Radiotron Company, Inc.

**B**EFORE you go any further with this article, I want to explain that it is written in the first person because all the facts and figures are based on personal experience. Too many surveys and investigations are conducted by the simple but dangerous method of asking questions and setting down the answers as positive facts. I do not mean to infer that the person interviewed necessarily intends to make a misstatement; he simply does not always know accurately the figures which he gives.

To avoid this difficulty, I actually went out and worked as a service man with a number of prominent radio dealers in various parts of the country. The results were tabulated as found. I believe they give a true picture of service conditions today.

For purposes of analysis, I have divided the causes of service calls into six main divisions: (1) set faults, (2) tube faults, (3) set installations, (4) foolish troubles, (5) noise and interference and (6) battery trouble. The percentage of service calls due to each is as follows:

	Per Cent
Set Faults . . . . .	34.2
Tube Faults . . . . .	21.5
Set Installations . . . . .	14.4
Foolish Troubles . . . . .	12.8
Noise . . . . .	12.8
Batteries . . . . .	4.3

If our purpose in examining these causes is to eliminate or reduce calls which are unnecessary, or which might be avoided, we must exempt at the start calls made for the purpose



*A large number of service calls may be anticipated and their causes removed by carefully going over the operation of the set with the customer when it is installed*

of installing new sets. The aim of every dealer is, of course, to sell radio sets, and it is good business to see that these sets are intelligently installed. This 14.4 per cent of service calls may, therefore, be set aside as necessary and unavoidable. The remainder will bear looking into.

### Set Faults

The largest group, 34.2 per cent, consists of calls that were due to troubles in the radio set itself. These troubles ranged all the way from burnt-out pilot lights and broken dial cables to more serious troubles, such as burnt-out power transformers and the like. Some of these calls can be charged to defective apparatus, others to normal wear, and the remainder to mishandling by the owners.

An obvious piece of advice to dealers who are bothered by a large number of calls due to the first class of set ailments—defective apparatus—is: Make sure you are handling quality merchandise. Of course, such troubles are possible in any make of set, but the

chances of defects in high grade lines are comparatively remote.

In selecting a line of sets to handle, the dealer should be guided by the quality of materials, workmanship, design, and public acceptance. Granted that these points are sometimes difficult to determine, one can at least pick out a set that carries quality tubes. Good sets come equipped with good tubes.

Set troubles resulting from normal wear often are more inexcusable than they appear to be on the surface. I found on numerous occasions that a service man had been in the home only a month or so previous to my call. But because he failed to observe the worn dial-cable or frayed insulation on the power leads (or, observing, had neglected to repair them), these minor troubles had developed to the point where another service call was necessary. Ten minutes' time would have saved the store the vastly larger cost of making the second call, billing, handling, etc. It would also have saved the customer a lot of bother and inconvenience.

Similarly, precaution and foresight will reduce mishandling of apparatus. If the service man is careful to go over all the points of operation with the customer at the time of installation, far fewer cases of mishandling should result.

### Tube Faults

The percentage of service calls due solely to worn-out, burnt-out, or noisy tubes was 21.5 per cent. This figure is surprisingly low in the face of

frequently-heard claims that tubes are at fault in anywhere from 50 per cent to 80 per cent of the cases. The probable reason for this exaggeration is that from 50 per cent to 80 per cent



of the people who call for service do blame the tubes for the trouble. Tubes are an obvious target of abuse; people would rather blame them than admit they haven't the faintest idea what is the matter.

#### Causes of Tube Trouble

There are numerous causes of tube trouble. For instance, the tubes may be mishandled while being transported from the store to the home or while they are being installed. My advice to dealers who experience trouble of this nature is to warn people about carrying the tubes carefully, and, in cases where the set is known to be an old model, suggest that it might be better to let a service man install the tubes. He can at the same time get the necessary information for making out a prospect card for a new set. The dealer who offers free tube-testing service should provide his customers with a substantial tube-carrying carton with interior partitions.

Some tubes go bad, of course, because they are defective. As in the case of defective sets, there is only one answer to this: Handle only the best quality tubes.

All tubes eventually wear out with normal usage. This really should not be classed as a "trouble," since it is

natural and is to be expected. If the service man is called in to "doctor" a set whose tubes have died a natural death, he should certainly grasp the opportunity to stress the periodical renewal idea. This is also the logical time to bear down on the advisability of keeping spare tubes on hand.

I have designated as "tube trouble" calls only those on which I found tubes inoperative or so noisy as to make satisfactory reception impossible. I always tested the tubes, however, no matter what the trouble was, and in practically every case a new set of RCA Radiotrons made a vast improvement in the quality of reception. This, of course, was of great help to me in selling renewal tubes.

The 21.5 per cent, again, represents only those customers who called up for service. There are thousands of sets in use today which can be greatly improved by installing new Radiotrons. Owners of these sets can only be reached by a periodical inspection service.

The old Chinese doctors used to be paid to keep their patients well, not to cure them. Enterprising dealers of today are offering periodical inspection service to keep sets working properly,



while the customer pays accordingly for good reception, and not for repairs.

#### Foolish Troubles

"Foolish troubles" come next in the list of causes, representing 12.8 per cent of the total number of calls. Practically without exception these might have

been avoided had the set owner been properly instructed in the care and use of his receiver. They consisted of plugs left out of floor sockets, d-c. sets with polarity reversed, antenna and ground disconnected, or radio-phonograph switches in the wrong position. The customer often fails to understand why he should receive a bill for the remedy of a "foolish trouble." Would it not be a whole lot better to instruct the customer properly at the time of the sale, and thus avoid such a misunderstanding?

#### Noise

Complaints of noise were traced to any number of the common causes of radio interference. Generally speaking, these troubles should have been located and removed at the time of the installation and not left to be a source of continual irritation to the customer. Local public utility officials usually are glad to cooperate in removing the causes of such interference.

#### Battery Trouble

It may surprise many to learn that even so small a proportion as 4.3 per cent of all service calls were, at this late date, to replace dead batteries.

An attempt to eliminate this class of service call should be made in the form of a sales talk on a new line-operated set. The fact that a customer (in a wired home, of course) still has a battery set is an automatic signal to the dealer that he is a prospect for a new set. He should be followed up.

This analysis should indicate to the dealer how to go about eliminating many superfluous service calls. Let us assume that we can successfully do away with all foolish troubles by proper instruction, about half of the set and tube troubles by using good merchandise and by maintaining a regular inspection service, and all of the battery calls by selling new sets. We then will have about cut our service calls in half, and the half which we have eliminated are the source of dissatisfaction to the customer and the ones which don't pay the dealer.

# The Ins and Outs of the RCA-235

By L. G. Lessig

Commercial Engineering Department, RCA Radiotron Company, Inc.

THE "riding through" of one station on the carrier wave of another is known as cross-talk and cross modulation. Both effects have been bogies to radio reception for years. Lack of sensitivity is not necessarily the cause. It will be noticed that when receivers troubled with such interference are "detuned" just a little, the undesirable signal, as well as the desirable one, disappears.



Figure 1  
RCA-235

Such action is due to the fact that the radio frequency amplifiers in the receiver act as detectors and modulators rather than amplifiers alone, as desired.

Since the difference in required grid bias voltage between the detection and amplification methods is relatively small, a slight change in bias voltage can easily convert a tube from an amplifier to a detector or vice versa. (The theory of detection and amplification will be discussed later in the article.) The guilty tube is, in most cases, the first radio frequency amplifier, although other stages may contribute to the trouble.

## An Old Problem Returns

Sharper tuning and greater selectivity ahead of the first frequency stage alleviated the condition until screen-grid tubes made their appearance, and then the problem started all over again. Such tubes, with their increased sensi-

tivity, are not only more efficient amplifiers, but also better detectors. Because of this fact and the introduction of modern high powered transmitters, with their high percentage modulation, increased selectivity could no longer sufficiently eliminate many cases of modulation distortion and cross-talk.

Radiotron RCA-235 has been designed effectively to reduce cross-modulation and modulation distortion over the entire range of received signals. It is an indirectly-heated cathode, screen-grid tube recommended for use primarily as a radio-frequency and intermediate-frequency amplifier. Its characteristics are such as to enable the tube to handle both large and small input voltages over the entire range of received signals. Its action may be said briefly to depend on a variation in amplification factor for a change in grid voltage. A close-up of the construction is shown in Figure 2. The inner and outer sections of the screen are of the normal type of construction. The control grid is somewhat changed. The pitch of the grid wire is rather fine at both ends, and coarse in the middle. On weak signals and low negative grid bias voltages, the effect of non-uniform turn spacing on cathode emission and tube characteristics may be assumed to be similar to that obtained with a uniform grid structure, such as that employed in the RCA-232 or UY-224. As the grid bias voltage is made more negative, however, the electron flow from those areas of the cathode covered by the closely wound grid turns is gradually cut off. During this increase of negative grid voltage, the plate current and mutual conductance vary so that the factors responsible for cross modulation and modulation distortion are minimized. The curve in

Figure 3 shows the effect. We will refer to this figure again later. The shape of the curve is an indication of the unusual performance of the tube. Note the difference between this curve and that of a typical UY-224 grid voltage plate current curve.

## Detection and Amplification

In order to understand the merit of the RCA-235, let us review the fundamental principle governing the operation of a vacuum tube detector and amplifier. In general, detector operation is determined by the location of the working point at or near the bend of the grid-voltage-plate current curve, where the plate current is greatly increased by a positive grid change and slightly decreased by a negative grid change. Consider the curve in Figure 4.

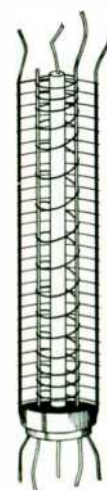


Figure 2

A is the incoming signal impressed on the grid of the tube. The signal varies the grid voltage according to its strength. Observe in the figure how the plate current increases from P (no signal) to BC. We notice that the plate current cannot vary below the point P for a negative increase in grid voltage as much as it can rise in value above P for an equally less negative grid swing. This non-uniform change is generally

known as rectification and is the principle of detector action.

The fundamental principle of amplifier action, on the other hand, is not the shape of the output current changes but, simply speaking, that an amplified reproduction of the input signal is

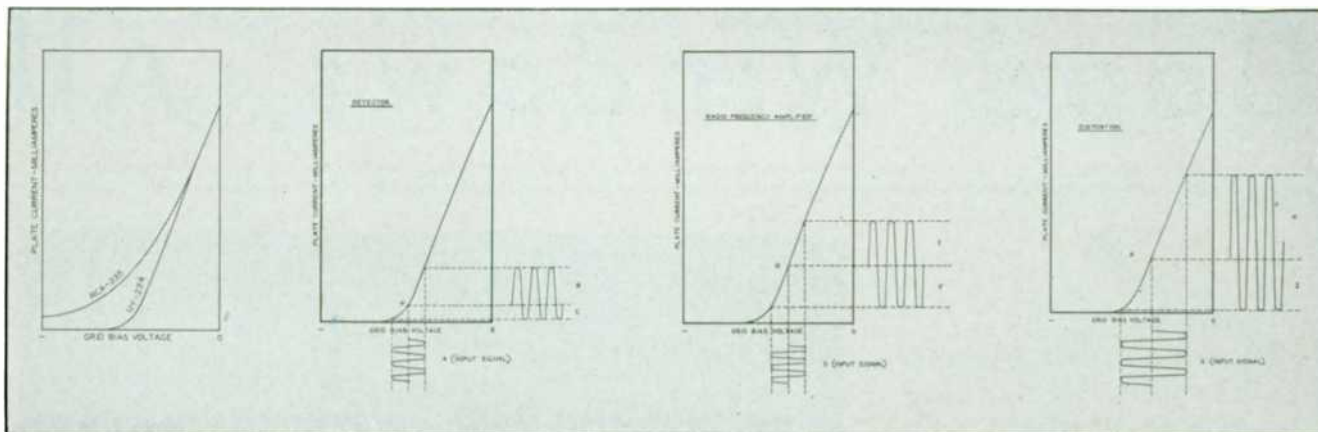


Figure 3

Figure 4

Figure 5

Figure 6

obtained from the tube. This is by reason of the fact that, under amplifier conditions, the working point of the tube is located on the steep, straight portion of the curve rather than on the bend. This is shown in Figure 5. Q is the operating point of the amplifier. The lower wave form D is drawn to represent the grid voltage variations. The plate current EF varies constantly and in synchronism with the grid potentials. The plate current wave form is essentially the same as the impressed grid voltage. The only difference between the two is that the plate current wave forms are of much greater amplitude. *This is amplification.*

### Modulation Distortion

If, now, a strong local signal is impressed upon the grid of the amplifier, the grid voltage swings over a greater range (Fig. 6). With ordinary tubes, the plate current grid voltage curve usually bends sharply in the region of high grid bias, so that the plate current affected by this signal will increase more when the operating point swings to the right than it decreases when the operating point swings to the left. That is, H is larger than I, so that rectification takes place and the amplifier tends to become a detector. This, of course, results in undesirable distortion, known as modulation distortion.

Due to the unusual performance of the RCA-235, as previously discussed, the grid-voltage-plate current curve of this tube differs considerably from the same curve for the corresponding type, the UY-224. Figure 3 shows the curves

of the two tubes under the same screen and plate voltage conditions. It will be noticed that at low grid bias voltages both curves are practically alike. For higher grid bias voltages the characteristics of the two diverge greatly. The UY-224 curve drops quickly to zero plate current (cut off), whereas the curve for the RCA-235 approaches zero more slowly, indicating that the amplification factor has changed to a lower value. This shows that the tube

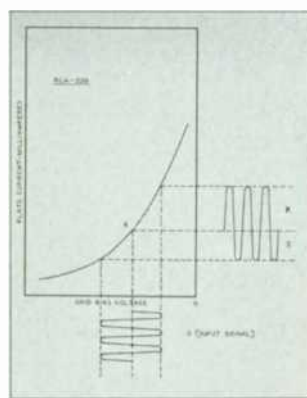


Figure 7

will stand greater grid bias voltage without distortion, Figure 7. J is a large input signal equal to G in Figure 6. K and L represent the practically symmetrical swings of plate current.

### Cross-talk

The term cross-talk is employed here to refer to that type of interference which originates in radio-frequency amplifier tubes from two or more signals. Briefly, the characteristics of the RCA-235 have been found favorable in effectively reducing the trouble.

### Volume Control

In circuits employing screen-grid tubes it has been customary to control the volume by varying the grid bias voltage. Because the screen-grid tube is capable of changing from a good amplifier to a poor detector by merely varying its bias voltage, such a volume control method is ineffective against extremely strong signals. This fact led to the introduction of a potentiometer in the antenna circuit to take care of a large range of received signal strengths. The system was still susceptible to cross modulation or cross-talk on intense local signals, however, for such signals were often strong enough to leak through the potentiometer.

A practical and simple solution was a tube with an amplification factor that varied with the grid bias. In effect, such a tube would automatically change its character from one of very low amplification when the signal was strong to one of high amplification when the signal was weak. It would obviate the necessity of using a local-distant switch and, to a large extent, the necessity of sharply tuned circuits ahead of the first radio-frequency amplifier. The RCA-235 is such a tube. Its design is such that, when operated in circuits especially designed for it, it permits easy control of a large range of signal voltages without the use of antenna potentiometers or local-distant switches.

*RCA-235 is not interchangeable with any other RCA Radiotron and must be used in circuits especially designed to take advantage of its characteristics.*

# Good Windows, All

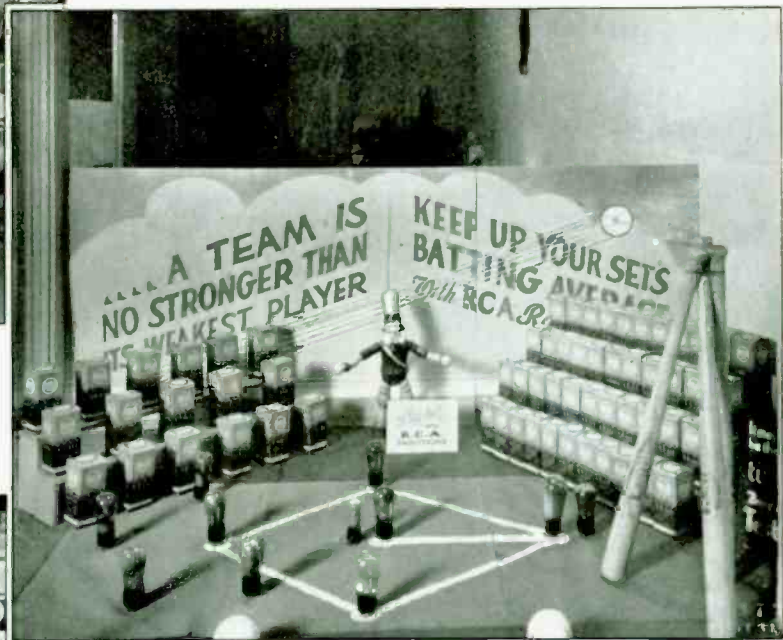
HERE are four more excellent RCA Radiotron windows that give evidence of originality and forethought. We congratulate those responsible for these sales pullers on their initiative and good taste.



A simple but powerful window in the store of Ray B. Mow, Richmond, Ind. This display depends for its attractiveness on good arrangement



Allen Electric Company, Danville, Ill., makes an effective Radiotron tie-in with a popular sport broadcast



Another strong sport tie-in by Richardson's Radio Shop, Los Angeles, Calif. Good message cards feature this window



Florida Power and Light, Miami, Fla., gives us a splendid adaptation of the "fort" idea which appeared in March "Good News." "Fortify Your Set against Distortion"





# Built From The Blue Prints of Results

350 Merchandising Experts have contributed to the development and design of the Radiotron Merchandisers.



**H**ERE THEY ARE—The first real radio tube merchandisers. There are others. Some of them—most of them—are mere adaptations of merchandisers of other lines of goods. A merchandiser should be designed to sell one product and only one product. It must be a highly specialized instrument, designed and constructed to provide for every conceivable merchandising peculiarity of the one article to be sold. The Radiotron Merchandisers have been in the process of development for over a year. They are made to sell RCA Radiotrons and to sell them as no other device possibly could.

They are offered to you as the selling machinery of the new Radiotron Store Merchandising Plan. A plan that brings people into your store—sells them while they are in the store—and builds for you a live prospect list. Here at last is a plan inexpensive in its operation and outstanding and complete in its results.

For further information regarding the two new Radiotron Merchandisers and the Store Merchandising Plan write to the RCA Radiotron Company, Inc., Sales Promotion Dept., Harrison, N. J.



RCA RADIOTRON CO., INC. ~ HARRISON, N. J.

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# RCA Radiotrons

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