

GOOD NEWS

ABOUT RCA RADIOTRONS



MERRY
CHRISTMAS



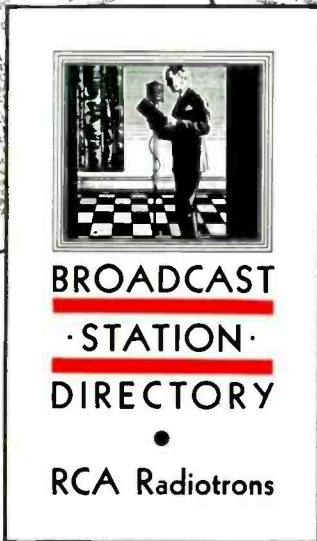
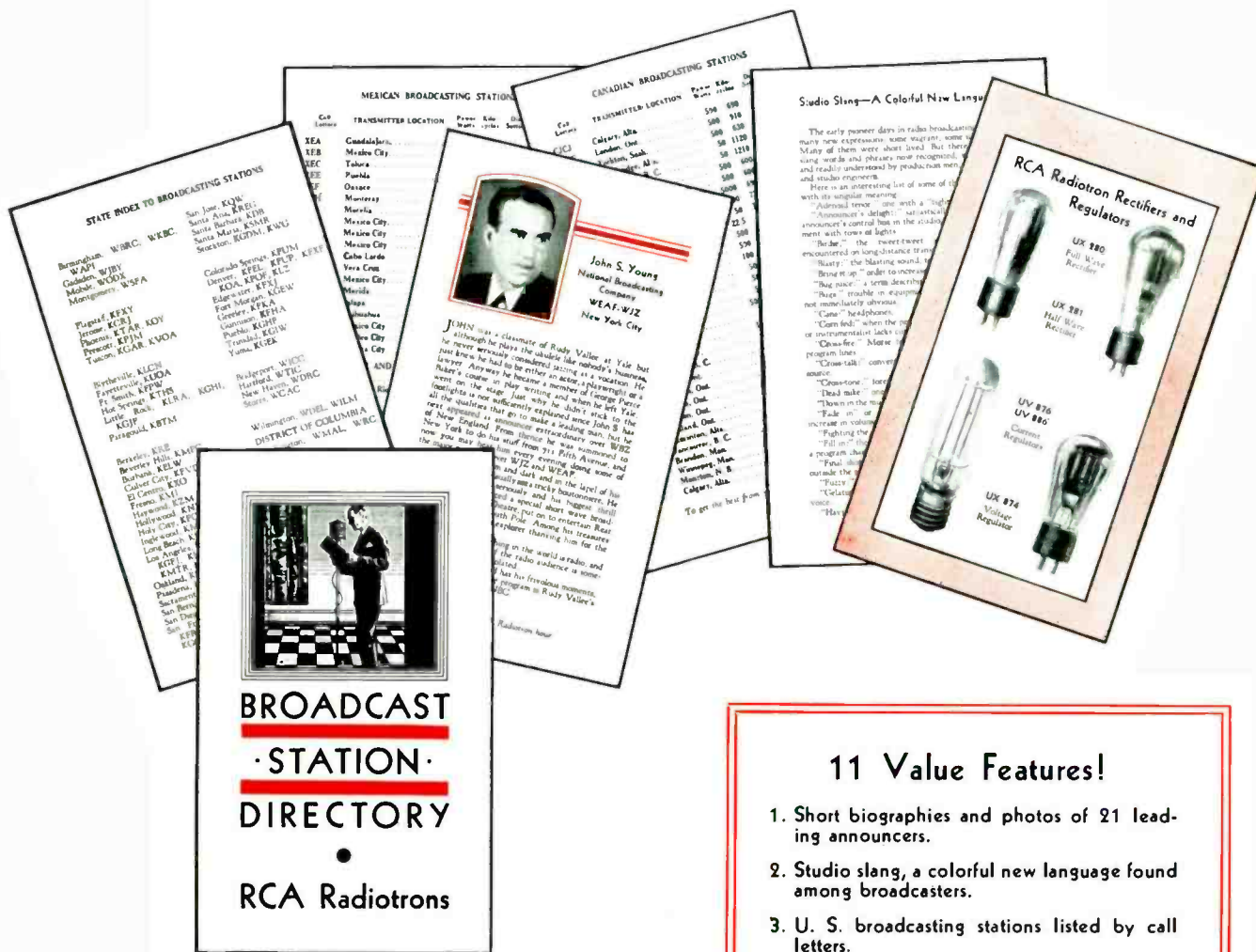
NUMBER 10

DECEMBER

VOLUME I

RVN 6 E - 1930

Bigger and Better



THE recent RCA Radiotron Broadcast Station Directory has proved to be one of the most popular radio logs ever published. That your customers are interested in this new type of Broadcast Station Directory is evidenced by the fact that the first edition is completely exhausted.

Now we are pleased to announce a bigger and better second edition. Here is another unusual opportunity for RCA Radiotron dealers to increase their sales and spread the message of RCA Radiotron quality. Price, \$2.50 per 100; in lots of 1000 \$2.25 per 100; in lots of 2500 or more, \$2 per 100, with or without imprint.

- ### 11 Value Features!
1. Short biographies and photos of 21 leading announcers.
 2. Studio slang, a colorful new language found among broadcasters.
 3. U. S. broadcasting stations listed by call letters.
 4. Canadian stations listed by call letters.
 5. Mexican stations listed by call letters.
 6. List of U. S. Possessions' stations.
 7. Cross index of U. S. stations by kilocycles.
 8. U. S. stations listed by states.
 9. Catalog with photos of RCA Radiotrons.
 10. A pointed message to the customer on the value of equipping every set with RCA Radiotrons.
 11. Personal message from you to your customers on back cover, telling of your ability to serve them. Your imprint at bottom.

RCA RADIOTRON COMPANY, INC. » » » HARRISON, N. J.

RCA Radiotrons

THE HEART OF YOUR RADIO

GOOD NEWS

About RCA Radiotrons

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VOLUME 1

25 Cents a Copy \$2.00 a Year

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THE GREATEST OPPORTUNITY IN 20 YEARS

A RECENT article in "Trends and Indications" revealed the very interesting fact that, in spite of the much talked of depression, more than 632 million dollars will be paid out to Christmas Club members this year. This total disbursement is the greatest made in twenty years; it sets a new high record for Christmas Clubs since their beginning.

A large percentage of this money will be spent on Christmas gifts, and radio is fast becoming one of the most popular of such presents. For the radio dealer, this Christmas season will present the greatest opportunity of stimulating his radio and radio tube sales that he has ever had. Make the most of it!

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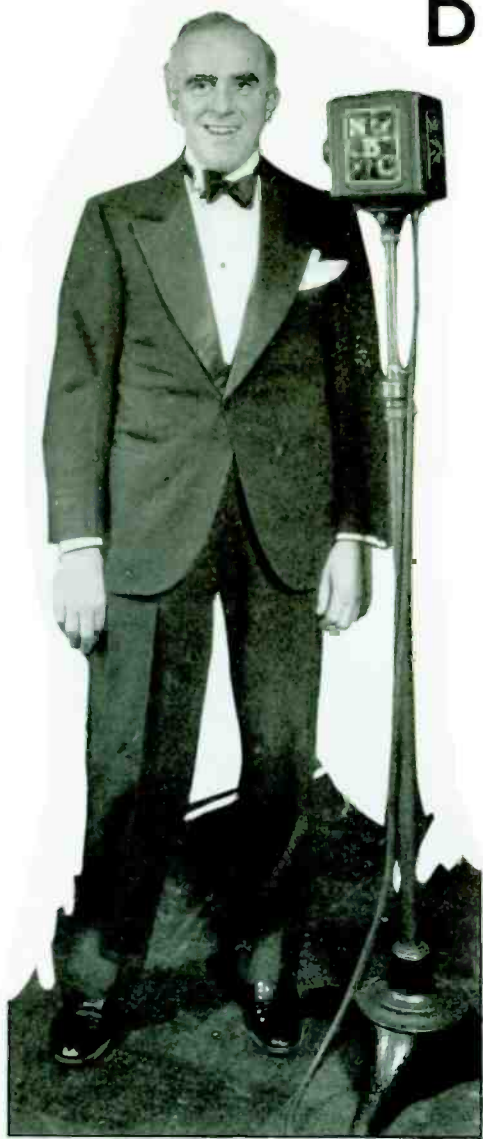
A magazine of radio merchandising counsel to help distributors and dealers of RCA Radiotrons make more profit.

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

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"Bugs" Baer Heads

*Famous Humorist and Columnist
Galaxy of Radio Headliners on*



WITH Arthur "Bugs" Baer, famous humorist and newspaper columnist, as Master of Ceremonies, and an array of talent including exceptionally popular radio artists, a new series of broadcasts was inaugurated over a coast-to-coast NBC network at 8:15 on the night of Saturday, November 29. Millions of radio fans and expectant listeners had turned their dials to the premiere of a feature that is destined to soon become one of the most popular broadcasts on the air—the RCA Radiotron program!

To RCA Radiotron dealers this initial broadcast meant a great

deal more than the beginning of just another radio program. To them this new program meant another forward step in the comprehensive plan adopted by the RCA Radiotron Company for increasing the already established public acceptance and demand for RCA Radiotrons. They knew that this new program formed an integral part of an advertising and merchandising program that far surpassed that of any other tube manufacturer; that it was the greatest of the 16 major accomplishments achieved by the RCA Radiotron Company since January 1, 1930; and they knew that this company would not stop here, that it would continue to go forward and continue to help them more and more.

"Bugs" Baer, "father of a thousand wise-cracks," Master of Ceremonies for the new RCA Radiotron Program

**At 8:15 on Saturday Night,
November 29**

After months of careful planning and weeks of rehearsal, Arthur "Bugs"



Maestro Daly, conductor of the RCA Radiotron Orchestra, "stirs up his mice"

New Radiotron Program

Now Master of Ceremonies for Twice-Weekly Broadcast Schedule

Baer wise-cracked the new RCA Radiotron broadcast into a coast-to-coast fame as permanent as it was immediate. For it was the inimitable and original wit of this incomparable Master of Ceremonies that broke the ice for one of the most famous and

most popular groups of stars that have ever been gathered into one program. "Famous wherever English is broken, and known as the man who always gets things right—the second time," "Bugs" Baer's continuous, amusing flow of wit caused even the most stone-like of faces to break into a smile, if not into a hearty laugh.

Introduced by the well-known enthusiasm belonging to the voice of John S. Young, one of NBC's most able and most popular announcers, "Bugs" Baer made a solemn promise to his nation-wide audience. He vowed that he would "not interfere with the entertainment," and apologized for his "voice with the school-girl complexion."

Following a brief description of the 18-piece Radiotron Orchestra, "consisting of one banjo in good condition; a xylophone about 15 feet long, and open at both ends, that should be played at the rate of about one teaspoonful an hour; one double-jointed trombone, owner unknown; and three

musicians that had not as yet made up their minds"—"Bugs" Baer called upon Maestro Daly to "stir up his mice" and start the music.

An interruption in the music played by this group of talented musicians who had "not only graduated from leading conservatories, but—what was more important—all started together and ended together," was allowed by "Bugs" Baer so that Welcome Lewis, the popular contralto, might croon one of her favorite pieces.



Welcome Lewis, the little girl with the big contralto voice, one of radio's favorites

A duet by Welcome Lewis and Harold Van Emburgh, a xylophone solo by Sam Herman, some red-hot syncopation by William Daly and his Radiotron Orchestra, and innumerable side-splitting remarks by "Bugs" Baer concluded the first broadcast of the RCA Radiotron Company's new twice weekly coast-to-coast broadcasting schedule which

"like Lady Godiva, after a short but eventful journey approached its close!" Unquestionably, this new program offered a quarter of an hour of the fastest, most varied, most amusing, all-star entertainment that had ever been packed into a program of such length.

With WEAJ as the key station, the Red Net-work of the National Broadcasting Company carried the RCA

(Continued on page 28)

RCA Radiotron Program Every Wed. and Sat. Night Over These Stations

8:15-8:30 p.m. E.S.T.; 7:15-7:30 p.m. C.S.T.; 6:15-6:30 p.m. R.M.S.T. and 5:15-5:30 p.m. P.S.T.

City	Station	Wed.	Sat.
Atlanta	WSB	Yes	Yes
Birmingham	WAPI	No	No
Boston	WEEI	No	Yes
Buffalo	WBEN	Yes	Yes
Chicago	WIBO	Yes	Yes
Cincinnati	WSAI	Yes	Yes
Cleveland	WTAM	Yes	Yes
Dallas	WFAA	Yes	Yes
Davenport	WOC	No	No
Denver	KOA	Yes	Yes
Des Moines	WHO	No	No
Duluth-Superior	WEBC	No	No
Fort Worth	WBAP	No	No
Hartford	WTIC	Yes	No
Hot Springs	KTHS	No	No
Houston	KPRC	No	Yes
Jackson, Miss.	WJDX	Yes	Yes
Jacksonville	WJAX	No	Yes
Kansas City	WDAF	No	Yes
Los Angeles	KECA	Yes	Yes
Louisville	WHAS	No	No
Memphis	WMC	No	Yes
Miami	WIOD	Yes	Yes
Milwaukee	WTMJ	No	No
Minneapolis-St. Paul	KSTP	No	No
Nashville	WSM	Yes	Yes
New Orleans	WSMB	Yes	Yes
New York	WEAF	Yes	Yes
Oklahoma City	WKY	No	Yes
Omaha	WOW	Yes	Yes
Philadelphia	WLIT	No	No
Philadelphia	WFI	No	No
Phoenix	KTAR	Yes	Yes
Pittsburgh	WCAE	No	Yes
Portland, Me.	WCSH	No	Yes
Portland, Ore.	KGW	No	Yes
Providence	WJAR	Yes	Yes
Raleigh	WPTS	Start	Jan. 7
Richmond	WRVA	No	Yes
Salt Lake City	KSC	Yes	Yes
San Antonio	WOAI	Yes	Yes
San Diego	KFSD	Yes	Yes
San Francisco	KGO	Yes	Yes
Seattle	KOMO	Yes	Yes
Spokane	KHG	Yes	Yes
St. Louis	KSD	Yes	Yes
Tampa	WFLA	Start	Dec. 31
Tulsa, Okla.	KVOO	Yes	No
Washington	WRC	Start	Dec. 3
Worcester	WTAG	Yes	Yes

N.B. All stations marked "no" are not available at present because of local Commercials or Time Divisions.



Alfred Norton Goldsmith has, since his freshman days at the College of the City of New York—where he graduated in 1907, been keenly interested in radio. He has done much original research work and is the author of many books on the theory and practice of radio. During the World War, both the Army and Navy found his instruction invaluable. From 1915 to 1917, he cooperated with Dr. Alexander, of the General Electric Company, developing vacuum tube radio telephone equipment. Since the advent of broadcasting, his success, due to his brilliant mind and keen analysis of the problems of radio, has been meteoric. He has served as President of the Institute of Radio Engineers. Now, as Vice President and General Engineer of the Radio Corporation of America, as well as one of the recognized outstanding authorities of radio in the country, he is particularly well qualified to give some sound comments on the nearness, commercially, of television.

IN every discussion between radio men nowadays, someone in the group comes out with the inevitable question: "And what of television?" Usually, the questioner wants to know what has been accomplished so far, and what are the prospects for acceptable television in the future.

Television of today is a purely experimental art. It is in the laboratory, and that is a good place for it at present. The television egg needs an incubator like the research development laboratory for another year or two before it can be expected to hatch out a healthy fledgling.

Three Groups of Receivers

Television receivers which have been demonstrated up to the present fall into three main groups. One group is arranged so that the looker (who is the equivalent of the broadcast listener) sees a picture a few inches square through an enlarging lens. The picture is dim, has pink highlights and fairly black shadows, has a certain amount of flicker, and is produced by a receiver containing a motor and scanning disc.

—And What of Television?

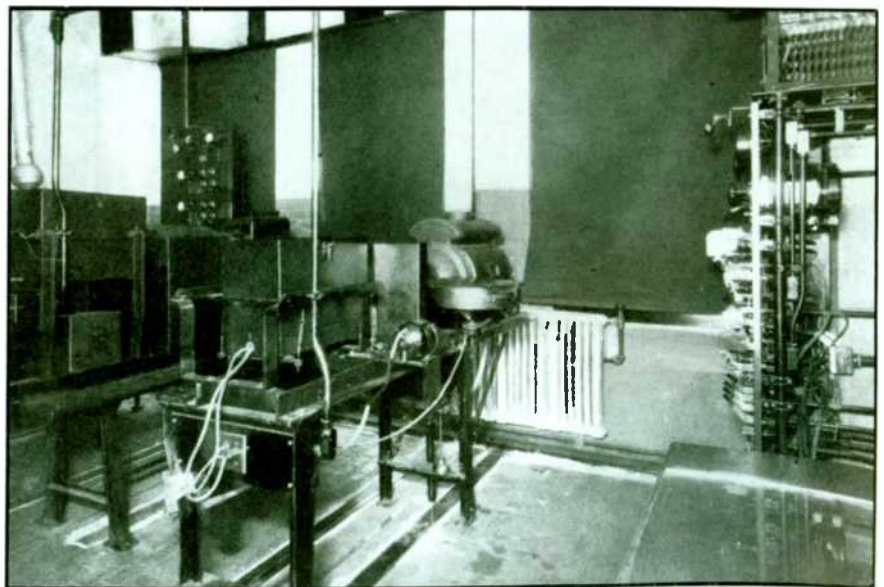
Many Obstacles Yet to be Overcome Before This New Art Emerges From the Laboratory to Commercial Practicability

By Dr. Alfred N. Goldsmith
Vice President and General Engineer,
Radio Corporation of America

The scanning disc is generally a circular sheet in which a spiral series of holes has been punched; a neon or gas-filled lamp of the plate type is used in this case. These plate type lamps have a uniform glow over a surface an inch or more square. The scanning disc enables only a small section of this plate to be viewed at any time, although permitting all parts of the plate to be viewed in such rapid succession that the looker gets the impression that he is viewing the entire plate. The magnified image produces the television image provided the neon lamp is turned on and off in just the right way by the incoming television signals.

In the second type of equipment, the projected picture is a few tens-of-square-inches in area. Here, too, a neon lamp is used, but in this case, it is of the so-called crater type. That is, a small intensely bright and glowing spot of light is produced in one of the electrodes through special internal arrangement and design of the tube. Lens discs or perforated hole discs are used in this case as well for "scanning" the picture.

The third type of equipment, which has been used primarily for theatre demonstrations, has produced a black and white picture as large as six feet by seven feet. The illuminating source here is an arc lamp, the light from



Television studio of the Westinghouse Electric & Mfg. Co., at Pittsburgh, Pa., showing the switchboard, movie transmitter and stereopticon slide machine

which is modulated or controlled by a so-called Karolus cell. A lens disc or a mirror drum or other equivalent draws out the light spot into the television image.

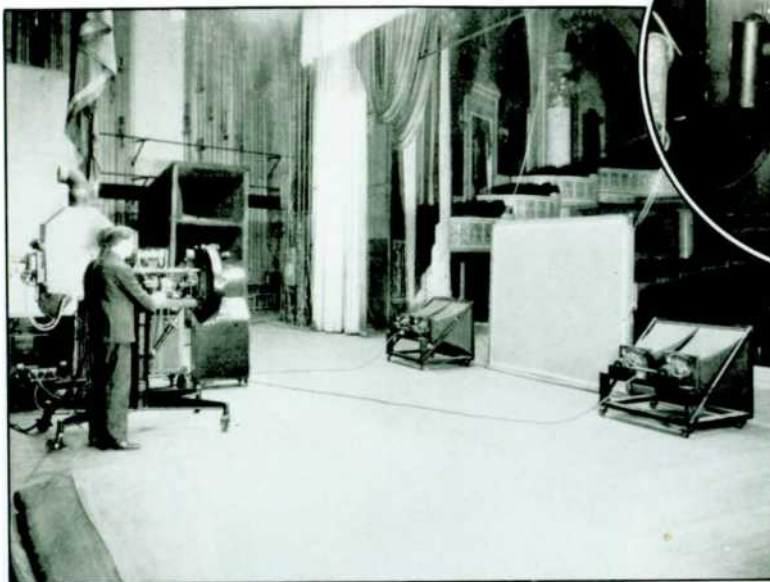
In all these cases, it is significant that there is a considerable amount of rotating machinery. It is also a fact that the detail which pictures of this sort can present is very limited in the present state of the art. In fact, the head and shoulders of a single person in a close-up view is about the limit of their capabilities, which thus fall far behind those of home motion pictures, not to mention the still more elaborate motion pictures shown in the theatre.

The equipment is not of a type which would be generally acceptable for use in the home. The pictures produced are not sufficiently bright nor detailed, nor yet steady enough in position and sufficiently free from flicker. They do not show enough subject matter to have continuing entertainment value. Unfortunately, the difficulties of the situation increase

and improvement of existing methods in various ingenious ways. Others involve more radical and novel methods of attacking the problem and these, too, show considerable promise.

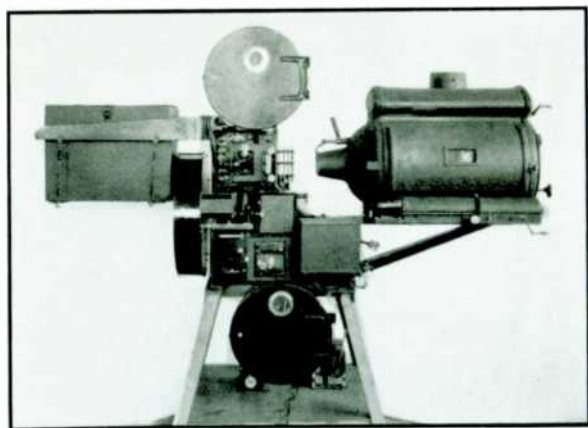
After the receiving equipment has been produced in satisfactory model form, there will still be many steps to

the public concern itself with this matter. In the second place, it is possible to assure the public that the engineers are hard at work ingeniously contriv-



The television and transmitter pick-up arrangement used by the General Electric Company

Theatre television projector developed by Dr. Alexander of the General Electric Company



A movie machine equipped for transmitting talking movies at the Westinghouse Electric & Mfg. Co.

very rapidly as the detail of the picture is increased.

The laboratory engineers are working along a number of different lines. Some of them involve painstaking im-

take before commercial television is with us on a nation-wide scale. Studios must be established; actors and actresses who are capable of facing the televisor must be found. Studio backgrounds and stage sets must be designed, methods of syndicating the programs all over the United States must be contrived, and transmitting stations, strategically located in all parts of the United States, must be built—and paid for. The question of engineering design and economics involved in all this is serious, and it is doubtful whether we may hope for television on a nation-wide scale, and of acceptably high quality, within the next few years.

There are two optimistic features about all this. In the first place, radio distributors and dealers need not worry about the effect of television on their business in the next few months, nor need

ing new devices and methods which, in the course of a few years, may be expected to place a marvelous new service at the disposal of the public. When that day comes, the previous limitations of our human senses will in large part have been removed by radio. With the human eye, one can see a face distinctly only over short distances, and one can hear a voice only in its immediate neighborhood. By means of radio television and telephony, men will be able to see and hear each other even though they are at the antipodes and the great bulk of the earth itself lies between.

New Field for Tubes

The advent of commercial television will open new fields of interest for the public and extend the radio merchant's scope. The apparatus will, in all probability, be separate from the present radio set which will mean a new radio tube market.

Members of the radio industry, in any capacity, are fortunate in being associated with so remarkable a field, which is so rapidly expanding, and which carries so definite a promise for even more glorious a future.

The Selling Fool

A Novel Idea With a Human Appeal Sends Wilrath Sales Climbing

By J. R. Wilson

President, Wilrath, Inc., Philadelphia, Pa.

In an Interview with H. G. Ommerle

"BELIEVE it or not, and in spite of the prosperity talks to which our politicians have subjected us, the Wilrath, Inc., is still doing business at 212-214 South 17th Street, Philadelphia, Pa. We're selling a lot of RCA Radiotrons, and we're going to sell a lot more, thanks to the Selling Fool and his brothers. No matter how depressed the depression becomes, people will still want to enjoy their radio sets; and if they are going to enjoy their radios, they must equip them with good tubes. It's poor economy to buy inferior radio tubes, and the public knows it. They have learned the very elementary lesson that, when it comes to radio tubes, *e-c-o-n-o-m-y* spells RCA."

That is the theory on which Mr. Wilson has been building his RCA Radiotron business, and, like most good theories, it works. His belief that it pays to buy the best and not take a chance on inferior merchandise has been well borne out, as his increased RCA Radiotron sales will clearly indicate.

Selling Fool Points the Way

Now, Mr. Wilson had held that belief for a good many years. His well lighted, modern store featured only quality merchandise. His radio sets lived up to the high standards demanded by the RCA Radiotrons that he sold. Good sets and good radio tubes went hand in hand. It was one thing, however, to feel convinced that it paid to buy the best, and another to get that message across to the public.

Mr. Wilson was faced with the problem of telling his story to the people who passed his store. That problem was an acute one, one that

worried him—until the Selling Fool came along. The release of the Selling Fool by the RCA Radiotron Company



Mr. J. R. Wilson, President, Wilrath, Inc., whose effective use of the Selling Fool brought him greatly increased RCA Radiotron Sales

proved the answer to Mr. Wilson's problem, for it pointed the way to the effective telling of his story. With the Selling Fool to help him, Mr. Wilson could very easily get his message of quality across to the hundreds of people who passed his store every day. This, of course, is exactly what Mr. Wilson set out to do, and did.

For, as soon as he saw one of the brightly painted Selling Fools, he realized in it its tremendous display possibilities. Mr. Wilson knew that people were eye-minded and that, at heart, they were all "grown-up children" in whom the play instinct was still very strong. The Selling Fool, then, was an ideal display, for it not only would attract their attention—but, through its appeal to their "play instinct"—would hold their attention for a sufficient length of time

to get a merchandising or sales message across to them.

A Merchandising Lesson

Since the idea that Mr. Wilson had in mind was really somewhat of a lesson, it occurred to him that a very effective way of teaching this "lesson" would be through the Selling Fools that he had ordered.

Immediately, he installed a "school window." There was a blackboard at which one Selling Fool, in the role of a teacher, presided, while four or five other Selling Fools sat around attentively listening to the words of wisdom that dropped from his lips. On this blackboard had been printed the poem that had been the winner of a contest conducted by the charming sales girls who assisted Mr. Wilson. A number of poems had resulted from this competition, but the following had been judged the best:

"Don't buy cheap tubes!

It does not pay.

E-C-O-N-O-M-Y

Means R-C-A."

Mr. Wilson had found an ideal way to teach the public this simple merchandising lesson.

People Stop, Look, and Learn

The people, who had been hurrying by Mr. Wilson's store, now began to stop. Crowds formed outside the store, amusedly and interestedly reading the simple lesson, made attractive and novel by being in poetic form, that had been printed on the blackboard. The novelty of this Selling Fool window had destined it for certain success. Everyone is interested in something new and different, and this display fulfilled both requirements.

Teaches School

The people who had stopped to read this lesson, taught so effectively by the Selling Fools in the window, had also profited by it. The Selling Fool had proved an able teacher, for they had not only stopped and looked, but they had also learned. More and more frequently those who had stopped to look at the window began to come into Mr. Wilson's store, and more and more firmly these customers demanded RCA Radiotrons. They had learned their lesson of quality from the Selling Fools. No longer would they be satisfied with tubes of inferior quality; they were convinced now that true economy consisted in buying the tube that would give them more than "Their money's worth," E-c-o-n-o-m-y did mean R-C-A-

Naturally, Mr. Wilson did nothing to discourage them. On the contrary, he was, of course, more than pleased to see his belief borne out by his steadily increasing sales. His RCA Radiotron sales were fast exceeding even his most ardent hopes. They had taken a surprising jump forward. The Selling Fool had driven home Mr. Wilson's long held conviction that quality pays.

The marked success of Mr. Wilson's Selling Fool school window left no doubt in his mind as to the effectiveness with which these super-salesmen

could be used in all displays. The number of people who had come into his store and asked to buy one or more of these attractive displays, proved that point beyond question. They had to be effective to stop the passers-by-



The Selling Fool School window with which Mr. Wilson taught a simple yet valuable merchandising and buying lesson

So, Mr. Wilson decided that the Selling Fool should form an integral part of every one of his window displays. The World Series between Philadelphia and St. Louis was then being staged, so Mr. Wilson promptly installed a baseball window, with Selling Fools featured as players on the world championship Philadelphia team. A score-board on which the score by innings was written formed the center of this novel display, while a play-by-play description of the games was broadcast through a loudspeaker in the doorway. Baseball fans, attracted by this Selling Fool window, thronged the sidewalks outside the Wilrath, Inc., and RCA Radiotron sales increased accordingly.

"There's absolutely no question about

it," said Mr. Wilson when interviewed. "The Selling Fool is the greatest display feature I have ever seen. He has done for me in two months more than I could have done without his assistance in two years. He has successfully taught the people who pass my store that quality merchandise pays big dividends."

Just to prove that he was as wide awake to other methods of merchandising as he was to the potentialities of Selling Fool window and interior displays, Mr. Wilson originated a "Special Two Dollar Radio Service" that brought in results

with a capital R. A thorough testing and balancing of their radio set, cleaning of the chassis and speaker, inspection of the antennae, and a complete checking of all the tubes were to be had for only two dollars; and Mr. Wilson let everyone know about it. More than ten thousand four-page folders, with attached reply cards, describing this special service were sent out to prospective customers. When they saw what they were getting for only two dollars, a large percentage of these reply cards came in with a check in the "yes column." The venture had proved a great success.

Mr. Wilson has made extensive use of the RCA Radiotron Broadcast Station Directories and of other sales promotional material. In these, he has found an invaluable means of creating good will, and of building business for himself.

Wilrath, Inc., may not be the biggest RCA Radiotron dealer in the Philadelphia territory, but it certainly is headed toward success. Its owner, Mr. J. R. Wilson, is guiding it with a sure hand and is steadily building up its RCA Radiotron business.



This Selling Fool baseball window attracted scores of World Series fans who were anxious to hear the inning-by-inning returns

Showmanship in Education

RADIO is a show business. If the educator is going to educate by radio, he must grasp the essential fact that he must use showmanship, to do the job effectively.

Education is a business as well as an art. The foundation of good business is good salesmanship. Educators realize this fundamental principle as well as business men. They know that without getting and holding attention, their work is ineffective. Every person entrusted with an important educational post will succeed or fail according to his ability or lack of ability in what I would call salesmanship.

Education and radio have many ideals in common. But, each has a technique of its own, a background of its own so different from the other, that, if they are to be combined wisely, forcibly and harmoniously, the mind of the showman and the mind of the educator must co-operate on the problem.

When education joins hands with radio it enters the show business—and a show business with a wealth of experience of its own. If education by radio is to reach its highest degree of value, it must conform to the practices of the show business.

Salesmanship in Broadcasting

Now, if we are to consider radio broadcasting as a method of mass or general distribution, we must remember that in radio there is no compulsion. The listener is not assigned to a schoolroom seat. Neither is he bound by the dictates of courtesy to listen to a presentation, as he would be to a speaker who was materially present. Every program must compete with several other programs for the attention of the listener. In this circumstance, it seems to me obvious that educational programs must have entertainment value to hold the average audience. We must use salesmanship to bring the product pleasingly and forcibly to the attention of the consumer.

*NOTE—Extracted from an address given before the Institute for Education at Columbus, Ohio

*Education by Radio Has Wonderful Possibilities, but, to be Successful, a Dramatical Technique of Presentation Will Have to be Used**

By John W. Elwood

Vice President, National Broadcasting Company, Inc.

In general, we find evidence of departures from some of the old, established, dry-as-dust methods of



John Worden Elwood was born in Iliion, New York, in 1895. His father, who was an educator, died less than two years later. From then on, the matter of education became one of extreme importance in the life of Mr. Elwood. By dint of hard work, he finally entered the gates of Amherst and, later on, those of Harvard. In 1928, Mr. Elwood was made head of NBC's program department. Here he had a chance to gain first hand knowledge of the wonderful opportunities radio offered as an aid to education. Since 1929, he has had his present title, and his interest in education is as keen as ever.

teaching. We are attempting to make subjects more than merely informative. Progress has been slow, and results thus far achieved are only a few steps up a long, steep mountain. The reason

for our tardiness in development is simple, it seems to me. The selection of teachers has been based on the requirement that by reason of education, they have a certain store of knowledge (which they may or may not be able to dispense to their pupils). We have not necessarily judged them on their showmanship—their ability to sell—in presenting stimulating pictures.

Technique of Broadcasting

Broadcasting is a highly specialized type of showmanship. Difficulties of effective presentation are great.

In radio, the ear alone receives the impression. In the schoolroom, on the stage or in the talking picture, the eye, as well as the ear, receives the impression. If you can imagine the difficulties of portraying a situation to a person temporarily deprived of the senses of sight, speech, touch and smell, you will understand the obstacles that modern broadcasting has to overcome. It is this operation that workers in radio have studied for several years. As a result, they have developed what we are pleased to call "radio technique." We believe that it is a highly technical branch of showmanship and that it requires specialists to do it well. Unfortunately, educators up to this time have not specialized in radio technique, and radio program builders have not specialized in education. We, therefore, have the problem of applying radio technique to educational programs.



Walter Damrosch, whose musical education broadcasts reach eight million American school children, is a master in the art of showmanship

Radio, as we know it now, is an art, and art is notably slow in maturing. Music, literature, the drama, as they exist today, represent slow, plodding processes of change and improvement. But broadcasting, unlike some other arts, has had the advantage of sound organization and adequate financing. This has been an important factor in its meteoric growth. In addition, radio has had the advantage of using the results of centuries of cultural accomplishment.

Radio is only ten years old. But the yardstick of years does not apply to an activity which has been surrounded with every possible condition making for quick maturity. Witness the fact that there are in the United States today between twelve million and thirteen million radio sets, and an audience of more than fifty million.

Powers of Radio Known

So let us not speak of radio as something untried. Let us rather know it for what it is—a tremendous force, and an accepted factor in the social and economic fabric of the nation. Its practices and its policies are well defined. It is operating as a “going” concern. Its history is short in years,

but full in experience. Let us keep those facts in mind as we consider some of the fundamentals of broadcasting as manifested in its growth to date.

Audience is Backbone of Broadcasting

The listener makes the program. That is the keynote in the public relations work of the broadcaster.

Radio came into our lives primarily as an entertainment factor. The early broadcasts—in fact, virtually all broadcasts until three or four years ago—

Broadcasting has limitless possibilities for those who, while taking advantage of its potentialities, will, at the same time, understand its requirements. Radio is a remarkably productive agency when properly utilized, but it is a waste of time and energy when the psychology and the technique of broadcasting is disregarded. The person or institution failing to recognize that radio is essentially an entertainment medium is firing blank cartridges when it broadcasts.

Let us not lose sight of the fact that there are nearly six hundred radio stations in this country, and that a relatively small percentage of the total time on the air is devoted to education, *per se*. It is estimated that the people of America spend one hundred million listener-hours per day at their radio sets. That is a huge total. I believe education should share largely in it. It seems to me that educators should try to take advantage of all existing facilities—of as



Every morning, countless housewives are the glad recipients of cooking instruction given over the radio

were entirely, or almost entirely, mere diversion. The listening public naturally came to look to radio for entertainment, and for nothing else. Any departure from the use of radio as entertainment is met with resistance.

many hours as possible on the entire radio structure of the country.

If educators are to realize their opportunities, and are to capitalize on these opportunities, they must make use of salesmanship and of showmanship.

TUNING IN

With J. W. McIver

Manager, Sales Promotion Department

YOUTHS and modern successful business men have their faces turned toward the future, with their eyes open. Historians, nice old gentlemen and unsuccessful business men have their tail lights faced toward the future. Facing the future means planning and thinking ahead.

The men who will make the money during the coming years are those who are, now, investigating the possibilities of new markets, the selection of the right leading products and the proper methods for making money.

* * *

RECENTLY, it was my privilege to witness the premiere of a thrilling mystery show, produced in a small town with a sparkling cast of locals. The principal part in this thriller, which was that of a daring detective, was completely taken by the native tailor, accompanied by the prompter. This pants creaser, in addition to his fits of Thespianism, ran a small hotel, as a left-handed side line and as a feeder for his main business.

The script required that he make each of his many thought-provoking exits with his eyes glued upon the then suspect, and with his nether portions leading in the glide to the door as he hissed a permanent exit line: "Sh-h! Sh-h! Not a sound! Not a sound!"

After watching his reversing stunt successfully accomplished for two entire acts, I knew I was witnessing the most remarkable performance



the theatre, and things like that, had ever known.

In the third and final act, there came a spectacular moment. The sliding sleuth was preparing his case for the great exposure. He had one last exit to make. One last grand crawfish. The audience was breathless, in spots. The cast was registering awe and silence, by means of the many standard methods. The great detective was backing away, hissing his warning "Not a sound! Not a sound!" Then, for one tiny moment, his sense of direction failed him. In his haste, as he hissed, he completely failed to hit the opening in the painted canvas. Down came scenery, cradle and all, with a rip and a roar. The delighted audience leaped to its feet with howls of glee and ill-mannered merriment. They rolled in the aisles. They held their aching sides as they choked with larruping laughs that came from away down there. The vice versa and featured performer stopped the show completely.

Frantic juveniles, villains and off-stage noises dug into the canvas to save the great one. Though, obviously, he had been drowned in a deluge of canvas, when they reached bottom, the hero wasn't there. Nor was he found during the three days following.

* * *

MANY merchants are moving skillfully into 1931 with their eyes glued upon what appears to be the right merchandise, backing smoothly toward the open-



ing that must mean success. They may make the objective, but the plot of our play requires no such maneuver. We know it is hard enough to find the right door to the money, with keen eyes, skill and science.

Many merchants today are moving into 1931 with their eyes on the past. This means that they do not recognize that the radio tube is the ideal leader for successful radio merchandise. It means that they do not realize that there can be too much "sets appeal." Which means that they do not appreciate the great importance of developing the tube renewal market. They haven't looked into the future and do not realize the possibilities of handling and becoming identified with the standard radio tube of the industry, the tube that people want to buy—the RCA Radiotron.

* * *

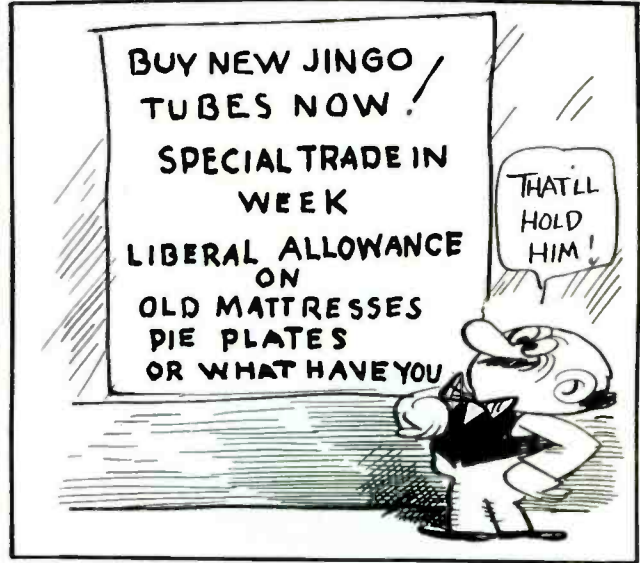
MOST of our advertising and promotional plans are set for 1931. We must plan and work a year ahead. We do not intend to follow tendencies, we plan to make them. We are not satisfied with the so-called "normal demand," we shall go about making an unusual demand for RCA Radiotrons. We must face the future and move toward the goals we plan to reach.

Modern wide awake dealers are looking in that same direction. In the direction that leads to better value to the public, better service, greatest popularity, or more profit—to you.



Keep Your Eye on Your Customer—

By MILT GROSS



Our Debt to the Future

To the Past We Owe the Conveniences of Today—to the Future, Those of Tomorrow

By Wm. T. L. Cogger

Vice President in Charge of Manufacturing,
RCA Radiotron Company, Inc.



THE Laboratory, with its research and development workers is the life-blood of modern industry. From here, comes the stimulus that keeps industry vitally active. Without it, there would be no progress made. It is because of the diligent work of scientists of the past that we have modern business built up as it is today. To the laboratory workers and inventors we owe the conveniences of today. Without them, we would in all probability still be reading by kerosene light, doing our plowing and hauling by means of horses; taking days and even months to go from place to place where now these distances are a matter of minutes and hours (besides having no means of quick communication such as radio affords). Now because of forward progress in science by research and development, we have many advantages that our ancestors did not have. We have the railroad, automobile, telegraph, telephone, electric light, and radio, as well as many other things now thought of as indispensable.

How did we get these things? Only by research, investigation, and develop-

ment. It is evident that we owe a real debt to these workers of the past.

Investing for the Future

But, supposing we accepted all the things we have today and used them without any thought for their improvement. At once stagnation would set in. To progress, we must keep adding to the fund of knowledge that has been given us. As we use, we must create.

To us has come a very definite responsibility for the welfare and

success of future generations. Even as those of the past have invested money and time so that we might realize on their efforts, so we must invest time and money, that industry and civilization may march forward. This is a very definite responsibility for us to assume. The farmer, whose efforts are responsible for the existence of all of us, has been a constant example of one who has accepted his responsibility. The farmer has to spend many hours and much money plowing under fertilizer in order to get his land ready before he may plant his seeds and realize on the crops that he then will grow. In just such manner must we in industry "plow back" scientific research and investigation to make fertile the field for future commercial progress.

Industry Greatest User of Science

Industry is at present the greatest user of science. If we use up what we



The scientific workers responsible for the future health of RCA Radiotrons

have for today without developing something to fill the needs of tomorrow, we will perish.

The great industrial leaders of today know this and have, therefore, set up very definite plans for research and development.

The radio industry, with which we are all concerned, is one of the most outstanding examples of progress and service due to scientific research. It is barely ten years old, and yet it has made greater progress than any other industry. That is because the radio industry, in the hands of progressive, far seeing leaders, has made full

use of scientific research and has not stinted in investing money in doing it. The result is one of the greatest industries in the world, with a history of the fastest development behind it.

Research Precedes the Product

Years of patient work in the laboratory and millions of dollars were spent before the first radio tube was sold to the public. When it was finally offered, it was capable of performing a very definite service. It brought entertainment and education such as had never before been possible. But did research stop at this? It did not. Millions more have been spent since that time, with the result that the radio tube has been improved many fold and its services extended beyond the fondest dreams of those first research workers. Although the true amount of money spent in the development of the vacuum tube may never be known, one thing is sure—it has

given, and is giving, the radio public more value for the dollar than ever before.



One of the totally screened rooms for circuit investigation in the RCA Radiotron Laboratory

General view of the RCA Radiotron Chemical and Physical Laboratories



Working Years Ahead

In our own extensive laboratories in Harrison, N. J., we have many scientists and engineers who are working on problems which will not concern industry for many years to come. It is the job of these

their findings and developments that will be the life of the radio tube industry in the years to come.

These men not only seek improvements in the radio tube itself, but set up circuits for its operation in new fields of use and also develop machines for economies in manufacture.

The RCA Radiotron Company's Laboratory Organization covers—electronics, research in materials, chemical, physical, metallurgical and ceramic, research, radio tube circuits, equipment development and service testing, as well as development of tubes, cir-

cuits, methods and processes of manufacturing. All of these activities are very closely related and are, in fact, so interdependent that while each specialist is working on some particular problem, they are all working as a group.

With the entire group, however, the primary thought is not

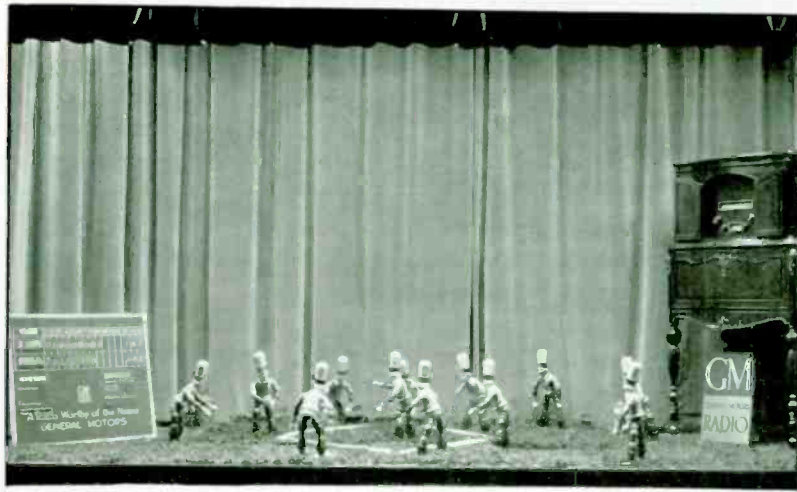
men to anticipate uses of radio tubes and solve the problems that arise with them. Then, when industry is ready to apply tubes to a greater extent than it is today, we will have the product ready, and be able to help industry in its application. Although our laboratories are naturally solving the problems that come up in everyday manufacturing, they are not concerned with the mere sale of these tubes. The axiom of the laboratory is that it is not in the business of selling tubes; it is in the business of selling the service that goes with the tubes. Their's is the responsibility of quality and service of operation. In the greatest and most exclusive radio tube laboratories in the world we now have a corps of highly trained scientists whose whole endeavor is given over to the problems of radio tube research and development. Together with their assistants, they make a most complete laboratory organization. It is

with the radio tube itself, but with its service to the user. Their aim is to intensify and increase the uses of the tube to the consumer. The radio tube itself is but the vehicle that carries the results of their efforts to the public.

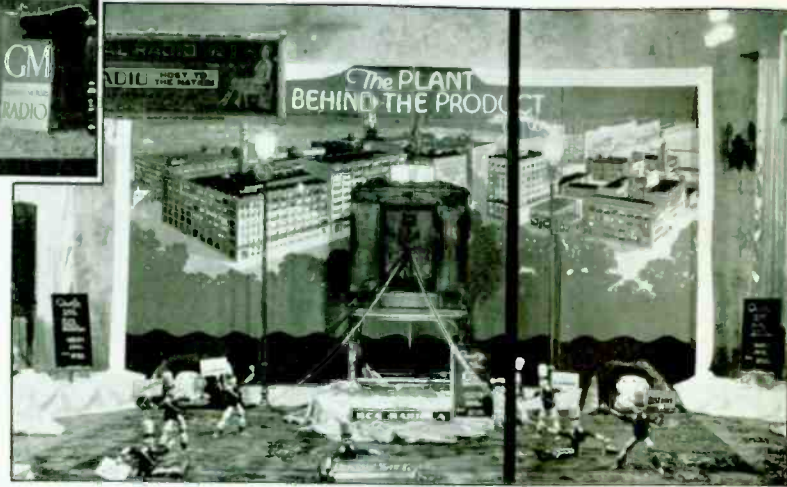
The trend today in every type of business is toward a more thorough study and investigation. Modern business leaders know that opinions not based on scientific investigation are liable to result in failure. The RCA Radiotron Company is spending money unstintingly for research so that RCA Radiotrons will continue to be what they have been in the past—the standard of the radio industry. With this continuance of supreme quality of product comes greater public confidence and acceptance. Our problem is not only to build tubes that will give the best service today, but to develop tubes that will give increased service in the future.

Can You B

THESE few windows, which are typ Union, show a few of the diversifi making himself known and stopping into real customers. Let's see s



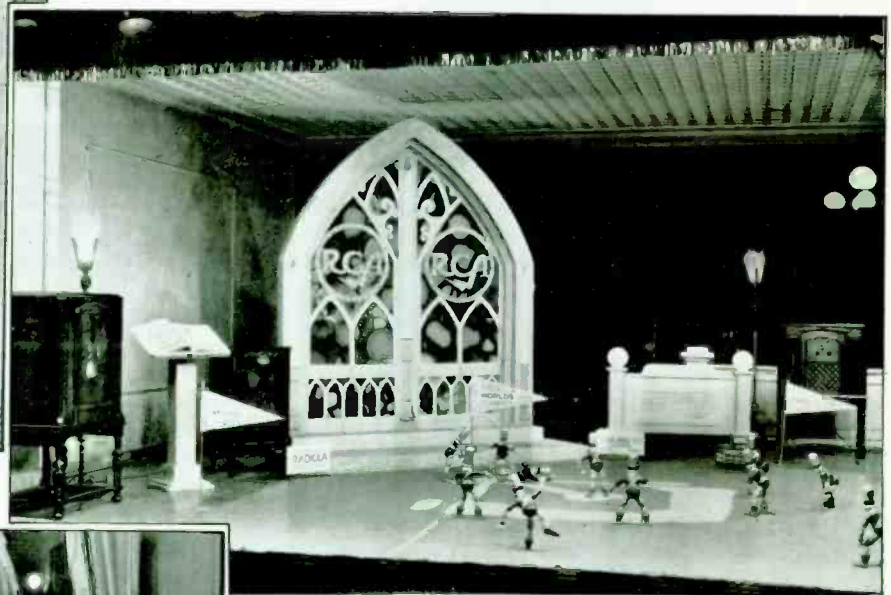
Gemco Radio Stores Inc., Buffalo, N. Y.



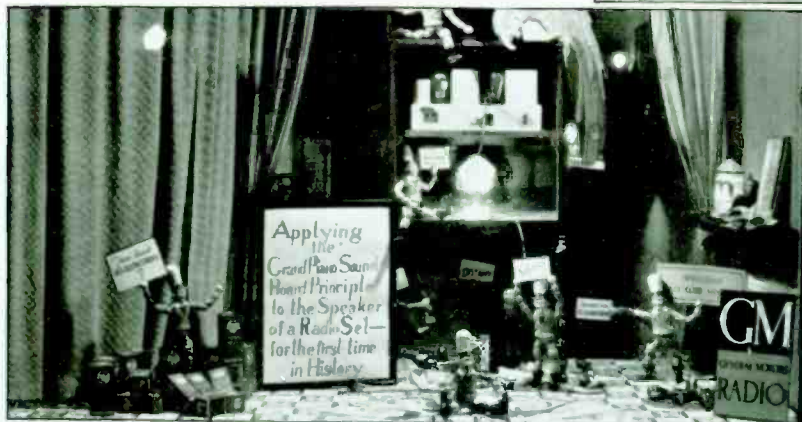
Standard Furniture Co., Salt Lake City, Utah



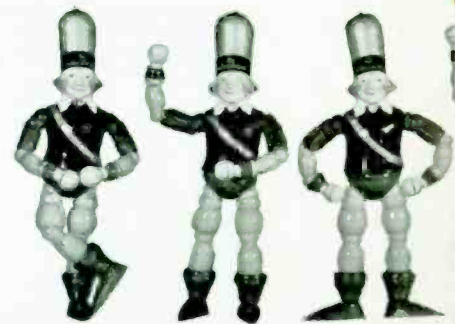
Wise Radio & Electric Shop, Canonsburgh, Pa.



Rowland Furniture Co., Fort Wayne, Ind.



The Melody Shop, El Dorado, Kan.

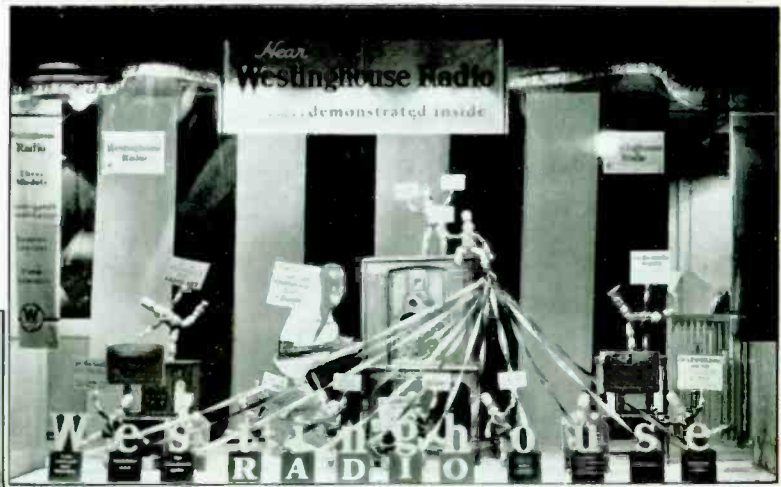


eat These?

ical of thousands in every state in the
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potential customers and turning them
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Freija Electric Co., Binghamton, N. Y.



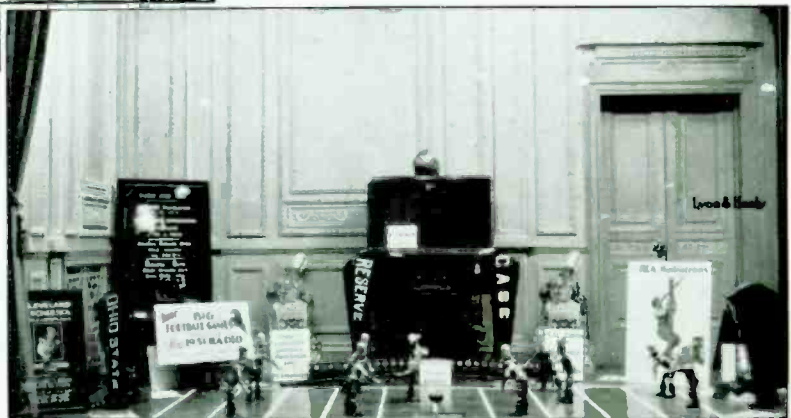
McCarthy Bros. & Ford, Buffalo, N. Y.



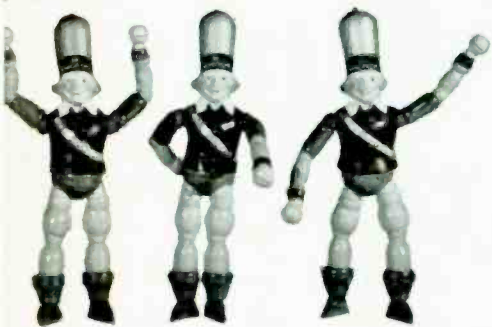
Samara's Radio Shop, Yonkers, N. Y.



Kaufmann's, Pittsburg, Pa.



Lyon & Healy Co., Cleveland, Ohio





When a Directory was picked up the sign with the heart flashed on

ONE of the basic advertising and merchandising policies of the RCA Radiotron Company is to get the facts—then act.

For months the representatives of the RCA Radiotron Company have been quietly investigating the merchandising methods of successful radio retailers and, at the same time, trying out new merchandising ideas.

One of the most important of a series of tests has just been completed with Jordan Marsh Company, Boston's largest department store. This merchandising experiment, which started August 12 and was completed on September 29, had four main objectives:

1. To study merchandising and selling methods with a view to establishing some basic radio tube merchandising and selling principles.
2. To study customer reactions.
3. To determine the extent of the public acceptance and demand for RCA Radiotrons.
4. To find out what type of sales aids we should provide to help you increase your tube sales and profits.

Test Divided into Two Phases

The test was divided into two phases. The first phase was under the supervision of Mr. V. P. Finger of the RCA Radiotron Company. The second phase was under the direction of Mr. R. J. Bond, Radio Merchandise Manager, Jordan Marsh Com-

pany. Accurate figures were kept throughout the entire survey, which are the basis of the charts illustrated.

Thoroughness a Keynote

The ground was carefully laid for this test. We wanted to be right. At the outset, the clerks in the radio department were given thorough instruction in over-the-counter selling of RCA Radiotrons. They were in-

structed to sell RCA Radiotrons on quality alone, rather than by so-called high pressure sales methods. They were told not only to test all tubes brought in by customers, but also to ask all cus-

tomers to bring in their tubes for checking. The clerks received no extra compensation for the selling of RCA Radiotrons in preference to other makes of tubes handled by Jordan Marsh, and every possible precaution was taken to insure that the test would be absolutely fair.

Direct Mail Campaign Conducted

To start the campaign of reminding people to buy RCA Radiotrons it was necessary for Jordan Marsh to tell its customers that it sold radio tubes and particularly RCA Radiotrons. Five thousand customers who had bought sets from Jordan Marsh ten months or more ago—customers who should be in the market for tubes—were selected for a direct mail campaign.

To these customers, two duplex and one single page letters were sent. These letters told of the important part good tubes played in radio enjoyment, the necessity of changing all



24 CUSTOMERS PER DAY

62% of customers bought 1 tube

10% bought 2 tubes

5% bought 3 or 4 tubes

13% bought 5, 6, 7 or 8 tubes

10% bought complete renewal

One Out of Four—

of Jordan-Marsh's Radio-Music Department Customers Tube Purchasers. Boston's Largest Department Store Finds More than 65 per cent ask for RCA Radiotrons. Other significant facts result from seven weeks' test

By T. F. Joyce

Sales Promotion Dept., RCA Radiotron Co., Inc.

tubes at least once a year and why customers should buy at Jordan Marsh. Customers were told that, if they came to the Radio Department, they would be given a Broadcast Station Directory (RCA Radiotron) free.

Window Displays Play a Part

Then, also, two windows, immediately adjoining two of the store's main entrances, were attractively arranged with RCA Radiotron displays. Placed in these strategic positions, these windows proved very successful.

Interior Displays Arranged

Prior to the start of this merchandising test, several attractive interior displays were arranged. Shoppers leaving the elevators (the Radio Department is on the second floor) were immediately attracted by a display of RCA Radiotrons which reminded them of a possible need for radio tubes.

In the radio department proper, a photo-electric cell was so arranged that, when customers picked up one of the Broadcast Station Directories which were given away, a sign, "RCA Radiotrons, the heart of your set," flashed on. This ingenious device created much curiosity among the customers, and served as a direct stimulus to RCA Radiotron sales.

Here Are the Significant Facts

1. Radio tube sales are in direct proportion to the number of customers passing through the radio department. In plain merchandising language, tube sales are in direct proportion to the number of customers reminded to buy—as with all reminder products.

2. People will buy complete renewals. This we found out almost at once. With no sales pressure, only one person

in 24 bought a complete renewal. However, with intelligent sales effort, one out of eight people will buy a complete renewal. These figures are encouraging.



105 CUSTOMERS SERVED DAILY
 22.9% of customers bought tubes 62.9% of customers buying tubes asked for RCA Radiotrons 79.1% of customers buying tubes bought RCA Radiotrons

They show that a job can be done if effort and initiative is applied.

3. In the first phase of the test, 62.9 per cent of the people buying tubes asked for RCA Radiotrons by name, a remarkable and almost unbelievable percentage. During the second phase of the test, the percentage rose to 75. This increase is undoubtedly due to the direct mail campaign which by that time had had more time to show results. People were told about

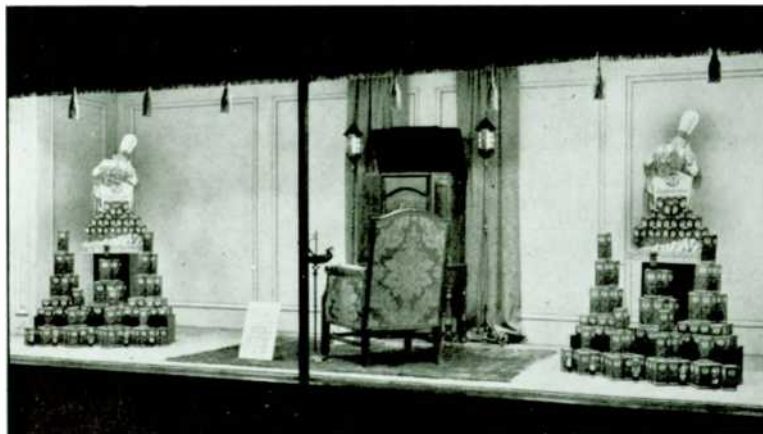
at the same time the product of a competitor was on display, too. Also, this same competitor was conducting an intensive newspaper campaign in the Boston market. Then taking into consideration the advantages which RCA Radiotrons had in the way of store display and direct mail advertising, the percentage asking for RCA Radiotrons by name was extremely high.

4. People will buy RCA Radiotrons when asked to buy. In the first phase of the test, one person out of 16 bought when asked. In the second phase, one out of eight. This indicates that the direct mail campaign already had sold many customers; all that was needed to complete the sale was the added stimulus of a clerk.

5. Customers come in to buy tubes to replace the worn out ones—no more. However, customers will buy spare tubes when shown the expediency of having them on hand for emergency. Customers easily take to the idea of keeping one spare tube on hand for each type in their sets.

6. Developing a highly profitable over-the-counter tube business can be easily accomplished, whether by the large department store or the small radio store.

For every dollar spent on radio during 1931, it is estimated that 40 cents will go for radio tubes. Will you get your share of this profitable tube business? You will, if you will study the significant facts developed by this merchandising experiment and apply to your store those merchandising principles found to produce results.



One of the two Jordan Marsh windows which displayed RCA Radiotron material

RCA Radiotrons—that Jordan Marsh recommended them and consequently they came in and asked for them.

In considering these figures, we should remember that RCA Radiotrons were prominently displayed, although

The results of this survey show plainly what can be accomplished by up-to-date merchandising methods. These sure-fire sales boosters are just as applicable to the average dealer as to large department stores. Use them!

If You Can't Sell Apples— Don't Sell Lemons!

By
Arthur "Bugs" Baer



Arthur "Bugs" Baer

HELLO, folks. You are listening to Arthur "Bugs" Baer—better known as the Voice with the School Girl Complexion—

and famous wherever English is broken. I would like to meet you all in person, but this is even a better way to tell you that I am glad to be associated with the RCA Radiotron Organization. In other words, even if I am not present, I am glad to be here.

I consider it a very fine compliment that I have been chosen to act as Master of Ceremonies for the RCA Radiotron Varieties and will certainly do my share in helping to sell RCA Radiotrons to the public. It's the easiest job I know of—selling an article that sells itself.

As Master of Ceremonies for the RCA Radiotron Varieties, I have promised not to interfere with the entertainment—and there will be plenty of that. The RCA Radiotron Orchestra has been engaged under the skillful direction of William Daly, the finest arranger of orchestrations in the country. His musicians are all graduates of leading conservatories, and they play marvelously! What is more important, they all start together and finish together.

Then we have Welcome Lewis, who has an alluring contralto voice. A contralto is something between a soprano

and an alto—which isn't a bad place to be.

Also Harold Van Emburgh, not a tenor, but *the* tenor, and Sam Herman, xylophonist. A xylophone is a mouth organ that saw its chance and seized it—and that's what we are going to do.

We are going to broadcast over the NBC Red Network every Wednesday and Saturday evening from 8:15 to 8:30 p.m., Eastern Standard Time. It will be the fastest hour on the air, for we will condense it to fifteen minutes.

voice is too manly—we hope to broadcast every night in the week, and we can assure you that we are going to have more fun than a barber does when he uses your ear for a cup to mix his lather in.

When I say we are going to have fun on the air, I mean work, for there is nothing more serious than entertainment. You only hear us fifteen minutes, but it takes days to whip the program into shape. However, I can promise you we are going to strive just as hard as anybody to put our shoulder to the wheel and keep our hands off the brakes.

The fifteen minutes we will be on the air are the concentrated essence of thought, labor, and rehearsals—which is the spirit of the RCA Radiotron itself. Our national hook-up will enable us to jump all over the map—like the Austin car whose chauffeur had the hiccups. Go any place

in America, and RCA Radiotrons will be known before you get there. It is a tonic to realize that our program will be picked up on RCA Radiotrons.

Don't forget, folks, every Wednesday and Saturday night from 8:15 to 8:30 Eastern Standard Time—the new RCA Radiotron program. Listen for the Voice with the School Girl Complexion and the strains of hot syncopation as Maestro Daly stirs up his mice.

I wish to thank you all and would like to give you a little advice. Don't try to use this record as a lullaby to put the baby to sleep. I haven't got that kind of voice.



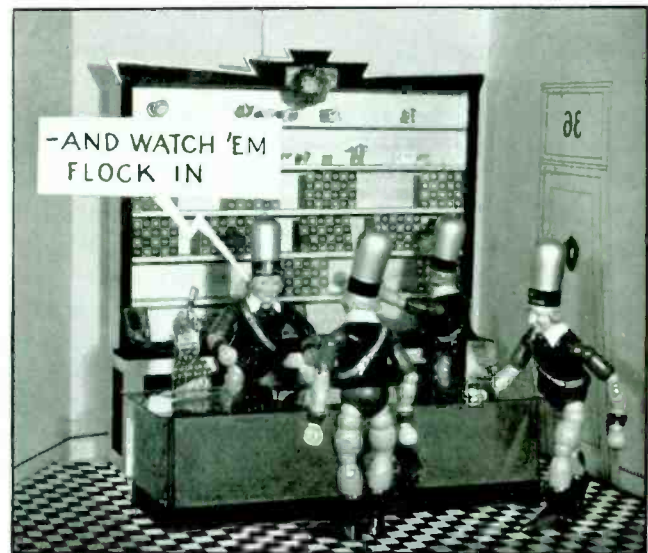
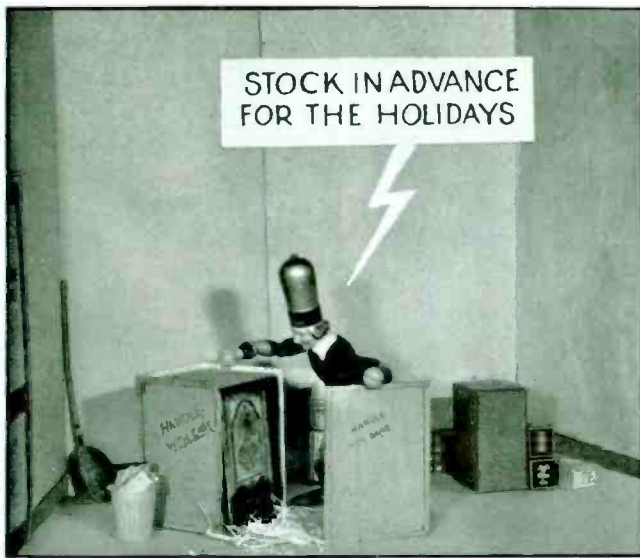
If You Can't Sell Apples Don't Sell Lemons

This is the best time of the evening for our broadcast, because people have just arrived home fresh from their work and have not yet exhausted themselves playing miniature golf.

We are going to cover the country with a Radiotron blanket, and you folks will keep warm under that same blanket, providing that you keep up the pace that we're going to set.

Our motto is, "If you can't sell apples, don't sell lemons." We are going to start fast and go faster. There will be two broadcasts a week, but just as soon as the folks get used to the rough, robust baritone of "Bugs" Baer—some people seem to think my

Make the Most of Christmas



Why a Filament?

A Discussion of the Necessity of Having a Filament in a Radio Tube and the Various Types Used*

By L. G. Lessig

Commercial Engineering Dept., RCA Radiotron Co., Inc.

THE most important single device known to radio science is the thermionic vacuum tube. It consists of a glass bulb somewhat similar in appearance to an electric light bulb. It contains a heated electrode (acting as a source of electrons) thus thermionic, and additional electrodes, grids and plates which number ordinarily from one to four. Special tubes may employ additional electrodes, depending upon the service for which the tube is designed. In general, these types are evacuated to a high degree, although there are some that depend upon a very small amount of gas for special characteristics.

In nearly all cases the filament or heated element occupies the innermost position. Next to the filament is the grid, an open mesh or spiral of wire. The plate is located outside of the grid and is usually made of nickel.

In order to give the reader a clear idea of the various types of tubes we will start with the rectifier, the simplest type, and work up to the screen grid, the most complicated type.

The two-electrode type (diode) is the simplest of radio tubes. It uses a filament and plate. In this family of RCA Radiotrons are the UX-280, UX-281 and UX-866. The latter type shows the electrodes of a two-electrode tube so well that it has been used in Fig. 1 as an example.

*The first in a series of articles on the operation of modern radio tubes.

The three-electrode type (triode) has a filament, grid and plate. RCA Radiotrons in this group are the WD-11, WX-12, UX-112-A, UV-199, UX-199, UX-120, UX-200-A, UX-201-A, UX-226, RCA-230, RCA-231, UX-240, UX-171-A, UX-210, UX-245, UX-250 and UX-852. Fig. 2 shows a typical three-electrode tube with the mount cut away to show construction.

Four-electrode tubes (tetrodes) popularly known as screen-grid tubes, employ a screen in addition to the regular filament, plate and grid. RCA Radiotrons in this group are the UX-222, UY-224, RCA-232 and UX-865. Fig. 3 shows a typical screen-grid tube with the mount cut away to show construction.

Filament is Heart of Tube

The filament is the heart of the vacuum tube and the electrons that rush about in it form its life blood. The filament has undergone many changes since the invention of the tube. What is desired, of course, is a copious emitter of electrons at a low filament temperature and with little expenditure of current from the power source. Pure tungsten filaments, such as used in the obsolete UX-200 and UX-201, must be raised to a dazzling white heat and draw a

relatively large current before appreciable electron "boiling off" occurs. Other materials have been found which emit electrons just as freely as tungsten and may be operated at lower and more economical temperatures, so that pure tungsten now has many competitors.

Thoriated-Tungsten Filaments

For instance, by using a tungsten filament which has been impregnated with thoria (a rare metal oxide) and properly treated, a high electronic emission is obtained at a bright red, rather than at a dazzling white, heat.

Examinations of the thoriated-tungsten filament have shown that when so treated, a very thin layer of metallic thorium forms over the tungsten, a layer theoretically only one atom thick, and that the electron evaporation takes place from the thorium and not from tungsten.

The relative efficiencies of thoriated tungsten and pure tungsten filaments can be shown by comparison of the filament power requirements of the UX-201 and UX-201A types of tubes. The UX-201 required 5 watts of power with a filament current of 1.0 ampere at 5 volts. The UX-201A which employs a thoriated tungsten filament requires only one-quarter as much power, or 1.25 watts, with a filament current of 0.25 ampere at 5 volts. Such thoriated-tungsten filaments

are far more efficient from the standpoint of power consumption.

Another type of filament even more efficient than the thoriated form, is the

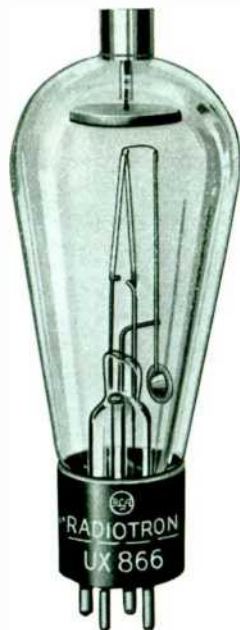


FIG. 1
RCA Radiotron UX 866,
a two-electrode type



FIG. 2
Showing the elements
of typical three-
electrode tube

oxide-coated filament. Filaments of the oxide-coated type are used in the following RCA Radiotrons: WD-11, WX-12, UX-112-A, UX-226, RCA-230, RCA-231, RCA-232, UX-171-A, UX-245, UX-250, UX-280, UX-281 and UX-866. This type of filament is made of a nickel or alloy ribbon coated with a thin layer of rare metal oxides. A filament of this nature provides a generous emission of electrons, even at a dull red heat. For a given electronic emission, an oxide-coated filament requires very much less power for heating than that required by a thoriated filament.

A-C. Filaments and Heaters

Radio tube filaments which could be used in alternating current have long been sought by all workers in radio fields because of the greater convenience of power supply. A transformer attached to the house current is much less cumbersome than a storage battery which must be periodically charged. There are, however, several reasons why the direct-current tube cannot be operated from alternating current. When ordinary battery-operated tubes are lighted by alternating current, an objectionable hum results. Suppose the ordinary D-C. filament is lighted by alternating current. The current in the filament continually reverses in direction—part of the time one side of the filament is positive with respect to the other side, and part of the time it is negative. There is a continual heating and cooling going on which cannot help but transmit some of its variations to the plate circuit. In other words, the filament has too little thermal inertia to compensate for the continual heating and cooling without transferring some of the resulting variations to the plate circuit. Suppose, however, a very heavy filament wire is used which has a low voltage drop across it. Such is RCA Radiotron UX-226. It uses a very

rugged oxide-coated filament. It has a low voltage drop and its thermal inertia is high, so that its hum output is low.



Fig. 3
The much used screen grid construction

Other A-C. tubes have been developed which use a cathode-heater in place of the filament. The heater itself is a tungsten wire enclosed in an oxide-coated metal sleeve from which it is electrically insulated. The sleeve is heated by conduction or radiation. The thermal inertia of the entire sleeve is so great that the fluctuations in alternating current introduced into the heater wire do not affect the characteristics of the plate circuit. The UY-224 and UY-227 employ such heaters as shown in Figs. 4 and 5.

If there is air surrounding the filament, the desired phenomenon of electronic evaporation cannot be brought about. Tungsten for example, if heated in air to a temperature sufficiently high to produce electronic evaporation, at once oxidizes. Furthermore, even if electronic evaporation could take place from a metal surrounded by air, the electrons would at once be forced back into the metal. The air molecules, being so much heavier than the electrons, impede the motion of free electrons. For these reasons at least, the filament that emits electrons must be in a highly evacuated container.



Fig. 4
Mount of RCA Radiotron UY-227 cut away to show position of heater

When an electron is released from the filament it goes shooting out into the space in which the elements are situated. Since the electron is a negative charge, it will be attracted toward any positively charged body nearby. The plate in the tube is positively charged so that it will attract electrons to it. Every electron which hits the plate constitutes a minute electric current. When enough of

them arrive per second a measurable current is obtained.

Just as water will boil more enthusiastically if the generated steam is pumped away and a vacuum maintained, so will more electrons come off the filament if the free ones are constantly drained by the attraction of a positively charged plate. This is accomplished by connecting the plate to the positive terminal of a "B" battery or d-c. supply. As has been explained, the filament is usually heated by a battery called the "A" battery or by a-c. from the lighting circuit by use of a step-down transformer. The negative terminal of the "B" battery is connected to one terminal of the "A" battery. The positively charged plate attracts the free negative electrons and they are transported through the space from the filament to the plate.

This stream of electrons from filament to plate furnishes a connecting medium or path for a current which flows from the "B" battery to the filament, from filament to plate and plate to "B" battery.

It should be noted that the electron flow is indicated as the current flow. This is in accord with the present-day theory that electric current is electrons in motion.



Fig. 5
Illustrating the position of the heater in the RCA Radiotron UY-224

Rectifier Action

If the plate potential was made negative, that is, if the connections to the "B" are reversed, the electrons would be repelled and little or no current would flow. If the "B" battery were replaced by an alternating-current generator, the electrons would be attracted during the positive alternation and current would flow only during this half cycle. On the negative alternation the electrons would be repelled. Thus the tube acts as a rectifier allowing its current to flow in one direction and not in the other.

The many important applications of vacuum tubes acting as rectifiers in radio circuits will, however, be considered in full detail in the next issue of Good News.

Twenty Hints for the Service Man

Harbeck's Radio Shop Has Been Built Around a Successful Service Department

By E. C. Hughes, Jr.

Sales Promotion Department

THE primary purpose of a service department is, of course, to repair and install radio sets in a manner that will prove entirely satisfactory from a technical standpoint. If a service department does not accomplish this, it is of no practical use either to the customer or the organization in which it operates. However, a service department that accomplishes only its purely technical function, scarcely fulfills its possibilities as a builder of sales and good will.

By regarding the service department as an important channel for distributing merchandise as well as to scatter good will, the live anxious-to-make-money dealer will find it a very simple matter to over-exercise his cash register. Courteous service men, carefully trained to answer questions intelligently are in an ideal position to discover the needs of the customer. After this is done, little difficulty should be experienced in the consummation of a sale.

Around this sound and undeniable principle, Gene Harbeck, owner of Harbeck's Radio Shop in Battle Creek, Michigan, has built his business. By following religiously the twenty hints contained in the accompanying box, his service men have built up a group of satisfied customers who have played an important part in making Harbeck's business a success.

It is impossible, however, to organize and conduct a service department by merely glancing over the accom-

panying hints and preaching them. On the contrary, a service department not only deserves but necessitates

20 Hints for the Service Man

1. Knowledge breeds confidence. Know thoroughly the principles and mechanics of radio.
2. Keep your appointments—be on time.
3. Be a gentleman—first and always.
4. Find out what is wrong. Ask questions.
5. Listen courteously to what your customer says.
6. Do not argue—lead.
7. Smile.
8. Always take complete readings.
9. Be thorough in your work.
10. Don't make dirt, but if you do, clean it up.
11. Don't spoil your good work by carelessness.
12. Don't "gyp" your customers by passing off inferior merchandise or workmanship. Why sell a tube of unknown value when RCA Radiotrons are recommended by 17 leading set manufacturers?
13. In the presence of the customer, break tubes to be replaced.
14. Do not knock your competitors or their merchandise.
15. Work on a system.
16. Complete the job within a reasonable length of time.
17. Make no rash promises.
18. Always have your customer's interest at heart.
19. Play square with your employer.
20. Do all these things and you'll be playing square with yourself.

panying hints and preaching them. On the contrary, a service department not only deserves but necessitates careful planning, organization and executive supervision. Realizing this, Gene has concentrated on his service department and developed it into one of the most important units of his radio retailing business.

The first hint, "knowledge breeds confidence," is self explanatory. It develops not only a confidence in the service man but a confidence in the customer. Men who go about their job, knowing definitely what they are going to do, establish an immediate confidence in their ability in the minds of the customer. An inefficient service man soon makes it apparent that he lacks not only confidence but also ability. The customer soon detects his inefficiency, and, in a short time, loses faith in the service man, himself, and in the organization that he represents. The necessity of employing only the best possible service men is readily apparent.

"Even the best men," says Harbeck, "will make mistakes if they are rushed through a job. I insist that all my men take a complete set of readings on all the sets they test and that they devote as much time to the job as they deem necessary." And Gene is right. It is only by doing a thorough job that a customer can be satisfied.

"And peculiar as it may seem, a service man should ask questions, whether or not his customer knows anything about radio. The customer knows what has been done on his set before," insists Harbeck, "and he knows why he called for service. From the customer's answers the service man is very often given a clue to the trouble and a basis on which to start his work.

"There is one danger, however, that must be assiduously avoided, in talking

with a customer concerning his set. That is argument! Never, under any circumstances, should a service man argue with a customer. People don't like to be told that they are wrong, especially when they have to pay to have it done. If your customer disagrees with you and your arguments, guide him by careful and inoffensive reasoning to see your side. If it is necessary to convert your customer to do your job in the most efficient manner possible, then convert him! It's all part of your job.

"And always play fair," says Gene. "It is one of the oldest and soundest of all business principles. If you can win the confidence and respect of a customer you have hurdled the most difficult of all sales obstacles.

"There are a number of ways to establish customer confidence, but there are none more important than the use of only superior products. Cheap, inefficient materials bring cheap inefficient results and tend materially to batter down whatever good will and confidence may have been built by the

service man's courtesy and knowledge. "For the very reason that all of my men use superior products, they

dence, because, by doing it in front of them you destroy whatever doubts they might have had as to the quality of those bad tubes."

In addition to these major points, Mr. Harbeck, has incorporated a code of behavior. Be a gentleman, is his slogan, and each of his service men is carefully instructed to seize every opportunity to please the customer. His service men are prompt on all calls. They are neat and whatever dirt they are forced to make, they

clean up before leaving. In addition, he urges all of his men to complete the job on which they are called out in a reasonable time. The customer is waiting for the set, wants to use it, and appreciates getting it at the earliest possible moment.

By the strict observance of these points, the servicemen of Gene Harbeck's establishment have made a name for his store and have turned many an indifferent prospect into an enthusiastic customer. Why don't you, too, recognize the importance of these points, apply them, and let them help you to build sales?

These "Twenty Hints for the Service Man" have already established themselves as merchandising principles of proven worth. They can be readily and effectively applied to your business. Make them work for you!



Harbeck's slogan, "Satisfied Service" is assured by experts

have been carefully instructed never to criticize a competitor's product. If you are handling the best possible merchandise it is unnecessary to knock an inferior product. As soon as you exhibit an effort to destroy the customer's estimation of another product, you actually raise it. It is only reasonable, in such a case, for the customer to believe that your product must be sold by argument rather than by performance.

"I have made it a practice," continued Mr. Harbeck, "to have my service men destroy the defective tubes they have removed from the set before the customers' eyes. This is one of the sure ways on developing customer confi-



This attractive window makes customers come into the store and a well arranged interior helps sell them



RADIO TONICS

Helpful Hints on Christmas Merchandising

By G. Gerard Clark and T. A. Jolloff

DECEMBER is not just another month for the radio merchant, nor Christmas just another holiday. Everybody has cause to buy and is in the mood for buying. The problem is not one of supplying the urge, but of showing customers that your place of business is the place to satisfy it: of calling their attention to the possibilities of your merchandise as gifts.

We depart somewhat from our customary practice this month, therefore, in order to help you make the best of your Christmas opportunities—not only for selling RCA Radiotrons, but for selling all your merchandise. It is a chance that comes but once a year, and one that may be turned into gold if it is accepted properly. Do not, however, get the idea that this is easy. Christmas is an open season and your efforts are pitted against those of the best minds in the retail world.

Give RCA Radiotrons

Before proceeding to general practices, it should be appreciated that RCA Radiotrons may be played up for their gift value with excellent results. It isn't a question of hoping that Uncle John uses a tooth pick so that you can give him a gold-trim tooth pick holder. Nearly everybody has a radio. Nine tenths of those who have make such constant use of it that a new set of tubes will find a hearty welcome.

That brings up another point—the surprise element. Tubes wear out gradually, so that the set owner is often not aware that his old tubes need renewing—until he gets a new set and notes with a thrill that his reception is greatly improved.

RCA Radiotrons make intensely practical gifts, yet, like all fine mechanisms, they stimulate imagination because of the wonders they are able to invoke. When your customers give RCA Radiotrons for Christmas, they are not giving complicated assemblages of glass and wire—any more than the giver of a fine watch is presenting a mess of cog wheels—they are giving high class entertainment and complimenting the recipient on his discriminating taste.



Here's a Christmas window that is sure to make the passers-by stop and buy. Attractive, distinctive and original this RCA Radiotron window will draw attention, no matter what the competing attraction around it

Work Your Windows to Capacity

This is one of the suggestions you would naturally follow, and in order to make it as easy for you as possible, we have prepared an RCA Radiotron Christmas window that will draw attention, no matter what the competing attractions around it. The snowy mountains are constructed of Dennison's white crepe paper No. 11 which is first wrapped around a broom handle and pressed toward the floor to give the wavy effect. The trees are cut from Dennison's green crepe No. 44. The house, which is cut from beaver board and painted, stands three feet from the floor at the tallest point. Paste cotton on a Selling Fool's face and give him a

pack of four RCA Radiotrons tied together and you have Santa Claus. The other two Selling Fools will perform their antics on the ice without urging, for it must be remembered that this is their first winter.

Keep the Sidewalk Clean

You may have tried this, but if you haven't, don't get the idea that the practice of keeping your sidewalk free of snow and slush is merely a gesture. It is almost a necessity. People know when they are passing such a store. They appreciate it. You won't need a microscope to discover the difference in your sales. Cleanliness should also be the order, of course, in the window and interior.

Put Your Store in Order

Don't delay or waste time. The sooner you attend to this the more your chances of doing a land office business this Christmas. Put your store in order now.

Let Light Be Your Salesman

Light is the symbol of Christmas. Christmas means cheer and light carries the same message. You can draw people in with light on your store front and in your windows, and appeal to them with a well lighted interior.

Decorate Your Store

This is Christmas, the event of the year. Show people you realize it. Give your place of business a "Christmasy" appearance with evergreens, colored paper, Christmas bells and so on. Use seasonal displays for your merchandise, on counters and elsewhere. Such a display for RCA Radiotrons is especially effective.

Cold Without—Warm Within

Don't bluster if shoppers linger in your warm store to postpone the ordeal of braving the wintry blasts. The longer they linger the more they buy. Make sure the atmosphere is warm and agreeable.

Rearrange Your Store Interior

Newness always attracts. This is the ideal time to give your store a new face, make it more interesting and pleasing to old as well as to your new customers.

Check Your Merchandise Stock

"Sorry, lady, we're all out of that." That's no Christmas slogan. Now's the time when adequate stocks pay their greatest dividends. Check your stocks now and estimate what you will need. Then check again every day until Christmas.

Feature Gifts in Your Display

Remember that at Christmas time you are selling gifts. Wrap your merchandise up in Christmas paper, tie it up with Christmas string. The RCA Radiotron counter display illustrated gives an idea of what we mean.



Decorate for Christmas

Use Gift Signs Throughout the Store

Use "talking signs" throughout your store, to call attention to Christmas gifts. Give the signs a seasonal appearance with the right use of colors and Christmas symbols.



Clean up your store

Price All Merchandise

Don't make your customer express his first thought, "How much does it cost?" He may not ask.

Gift Cards For Customers

Have gift cards, pen and ink handy. Little things like this

impress your customers tremendously.

Cash Christmas Checks

Hundreds of millions of dollars will this year be distributed from Christmas savings funds. One way to get a first crack at it is to offer to cash Christmas Savings Checks. Advertise your willingness to do so, in the newspaper, in your window and within your store.

Radiate the Christmas Spirit

Be the most cheerful man in town. Radiate the Christmas spirit. It's contagious. Be sure your clerks have it, especially if you hire temporary sales people for the holidays.

A gloomy sales-clerk can scare away more customers and kill more potential sales than a quarantine sign. If, on the contrary, you and your sales clerks look cheerful, act cheerful, and are cheerful, your customers will quickly adopt that same attitude and your sales will have been strongly stimulated, for a well pleased prospect is usually a sold prospect.

Tidy Packages Please Customers

After the sale has been made, you should be sure that all merchandise is wrapped neatly and securely in attractive packages. A broken string, a piece of torn wrapping paper, or a loosely tied bundle will go a long way toward nullifying all the good will that has been created in making the sale. People are but grown-up children at heart, and they like to open packages that are attractively done up, not just thrown together. Make the packages that leave your store representative of the merchandise that they contain. Make them expressive of high quality.

It is also a good practice, from a good will and service standpoint, to have your sales clerks offer to wrap the other packages that the customer may be carrying with the purchases made in your store.

It is a great deal easier to carry one large well-tied package, than three or

four smaller bundles of different sizes. Your customers know this and will appreciate the service you render them.

Feature Christmas Gifts

To make the most of your Christmas sales possibilities, you must talk gifts in

every way that you can—and particularly in your newspaper advertising. All advertisements that call attention to the approaching holiday are now receiving special attention, for people are looking for suitable gifts. Simplify their problem by listing a variety of gift suggestions for each member of the family. People will read these advertisements because they help them with their Christmas shopping, and will buy from those who advertise.

Use Gift Checks

Money is always appreciated. Many people prefer to select their own presents and make sure that they get what they want. Gift checks, therefore, are favored by Christmas shoppers.

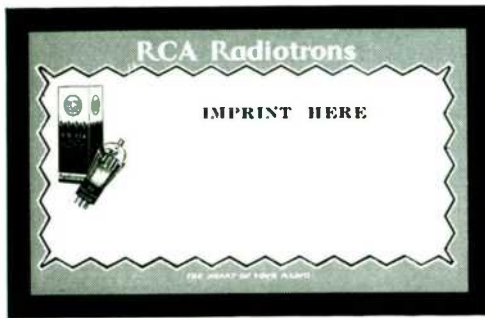


An ideal gift—RCA Radiotrons

Increase Your Profits

Display Material

DECALCOMANIA—Silver tube, green lightning, red slogan. Size, 10 in. by 12½ in. Free. Order from Warehouse.



Address Label—Two Colors—Furnished Free with Your Imprint

FLOODLIGHT SIGNS—A combination floodlight and sign made of bronze. Lettering "RCA Radiotrons" silhouetted on glass. Size, 10 in. high, 22 in. long, and 5 feet deep. Price, \$5 each, including 10-foot cord and plug. Order from Harrison.

WINDOW DISPLAY—No. WD-1 "For Better Radio Reception" features boy putting up aerial. Lithographed in full color. Size, 24 in. by 31½ in., for center panel. Two side cards 11 in. by 14 in. "Bring in your tubes and have them tested free" and "RCA Radiotrons plus our service insures satisfaction." 12 special 224 cartons, and 12 special 227 cartons in units of two, as well as two pyramids using 227 cartons. 60 dummy cartons in all. No charge. Order from Warehouse.

NO. 4 DISPLAY—RCA Radiotron man cutout is used as carton holder. Lithographed in six colors. Size, 15 in. by 8⅞ in. No charge. Order from Warehouse.

No. 5 DISPLAY—Consists of a carton with a place to insert real tube. Arrow points out tube. Size, 7¼ in. by 5½ in. Fastened to window by means of gummed strip. Come in pairs, left, right. No charge. Order from Warehouse.

SUPER SELLING FOOL—Red feet, yellow legs, arms, red from shoulder to

elbow—rest yellow, black body, white color, natural tinted features, hat in shape of silver tube, black base. Made from moulded wood turnings. Flexible, can be placed in any position. Held together by elastics and springs.

Slotted feet and hands to hold cards. Ring in hat for suspension. Stand 15 in. high. Price \$5 for four, including set of 14 two color display cards. Order from Warehouse.

TRANSFER STRIP—Lithographed red and black easily applied to any surface, contains slogan, "RCA Radiotron—The

Heart of Your Radio," carton and tube reproduction. Size, 10¾ in. by 1⅞ in. Free. Order from Warehouse.

Sales Promotion Material

CATALOG AND PRICE LIST—Description of each RCA Radiotron, list and net prices, standard package quantities and RCA Radiotron characteristic chart. No charge. Order from Warehouse.

BUSINESS BUILDING SALES LETTERS—Twelve suggested letters to build tube renewal business and three typical reply cards. No charge. Order from Warehouse.

BLOTTERS—Featuring popular Good News covers. Four different designs in four colors. Size 3¼ in. by 6 in. Price, 40 cents per 100 with your imprint; minimum order 300. Order from Harrison.

BROADCAST DIRECTORIES—American, Canadian, Mexican and U. S. possession stations, pictures and biographies of 21 leading announcers. Studio slang, messages to customers, and catalog of RCA Radiotrons. Price, \$2.50 per 100; in lots of 1000, \$2.25 per hundred; in lots of 2500 or more, \$2 per 100. Prices with or without imprint. Order from Harrison.

EARTH'S FOUR CORNERS—One-reel, sound on film, motion picture.

Also silent version. Interesting, educational travelogue showing where materials going into RCA Radiotrons come from. Description of scenes by John S. Young, NBC announcer of RCA Radiotron hour. Film loaned,



Theatre Lantern Slides—In Colors—Furnished Free with Your Imprint

no charge. Excellent for local theatres and meetings. Order from Harrison.

MAN-MADE MIRACLES—One-reel, silent or sound motion picture. Sound on film. Step by step study of manufacture of RCA Radiotrons. Interesting, educational and live picture of modern tube manufacturing. Of interest to everyone. Film loaned, no charge. For use in local theatres and meetings. Order from Harrison.

LANTERN SLIDES—Six, hand-colored slides, with three line imprint. No charge. Just the thing for local theatre advertising. Order from Harrison.

PERSONALIZED POST CARDS—The very latest in direct mail. Come in sets of three. Hand lettered and hand addressed. Price, \$10.50 for 300 stamped cards. Send names of 100 customers with order. Order from Harrison.

POST CARDS—Six cards to help build RCA Radiotron sales. Price, 40 cents per 100 with your imprint; unimprinted, free. One cent extra per card for stamped cards. The minimum imprinted quantity is 300—not less than 100 of any design. Order from Harrison.

PRICE LIST FOLDERS—To be used for envelope stuffers, etc. Un-

With These Sales Aids

imprinted, free. Order from warehouse. Imprinted 40 cents a 100, minimum order, 300. Order from Harrison.

PRICE REFERENCE CARDS—On cardboard— $4\frac{1}{4}$ in. by $8\frac{1}{2}$ in.; for reference only. Designed to be hung near tube counter. No charge. One per dealer. Order from Warehouse.

SET NAME PLATES—Brass, gold lettering on black background. Size, 4 in. by 2 in. Fastened by gummed back or small brads. Space to write tube renewal date. Price \$3.00 a hundred imprinted. Order from Harrison.

TECHNICAL BULLETINS—Technical information on all RCA Radiotrons free. Address requests to Commercial Engineering Dept., Harrison.

ERASERS—Designed in the form of a carton. Best rubber. Size 1 in. by 2 in. Price \$2.50 per 100 with your imprint. Order from Harrison.

KEY CASES—Sheepskin cover. Six ring, swivel type, spring steel key clips. Price, \$10 a hundred, with your imprint. Order from Harrison.

MATCH BOOKS—\$3.50 per 1000 with imprint. Order from Harrison.

NOTEBOOKS—With red leatherette covers, refillable. Price, \$10 a hundred with imprint. Order from Harrison.

PENCILS—Best grade of lead and rubber. Round, wooden pencils. Price, \$3.85 a gross with your imprint. Order from Harrison.

SHOPPING MEMOS—Twenty-four pages—perforated. Handy size, 2 in. by 3 in. Price, \$5.50 per 1000 with your imprint. Order from Harrison.

TAPE MEASURES—Fifty-inch, linen tape with red celluloid cover. Price, \$10 per 100 with your imprint. Order from Harrison.

Utility Material

ADDRESS LABELS—These are $3\frac{1}{2}$ in. by $5\frac{3}{4}$ in., lithographed in red and



Window Decalomania—Furnished Free

black. Supplied ungummed with imprint. Free. Order from Harrison.

BINDERS FOR GOOD NEWS—Stiff, black imitation leather covers, imprinted in gold letters. Price, \$1 each with name imprinted in corner. Additional imprinted lines are 10 cents each. Order from Harrison.

GOOD NEWS—A monthly publication of the RCA Radiotron Company. Free to all RCA Radiotron dealers. Order from Harrison.

SET PRICE SIGNS—Made of polished celluloid and lithographed in two colors. Size, 3 in. by 4 in. Slot in back for the insertion of price card. Price, 10 for \$1. Order from Warehouse.

SET SIGN—Polished celluloid. Red and black. Copy—"This set is equipped with RCA Radiotrons." Size 5 in. by $1\frac{3}{4}$ in. Price 12 for \$1.00. Order from Warehouse.

TAPE MACHINES—Made of cast iron and steel and are 10 inches long by $2\frac{1}{2}$ in. wide, $4\frac{1}{2}$ in. high. Price \$4.25 each, including 10 rolls of tape. Order from Warehouse.

TAPE ROLLS—Come in two colors with the slogan, "RCA Radiotrons, the Heart of your Radio." Five hundred feet, one-inch wide. Price, 10 for \$2. Unimprinted. Order from Warehouse.

Where and How to Order This Material

[[Print—do not write—imprint instructions. Check or money order must accompany all orders for those sales aids for which there is a charge, unless ordered through your distributor.]]

Eastern District

Order from Sales Promotion Department, RCA Radiotron Company, Inc., Harrison, N. J.

District includes: Connecticut, Delaware, District of Columbia, Maine, Massachusetts, New Jersey, New Hampshire, Rhode Island, Vermont, Virginia, Maryland—except Allegany and Garrett Counties, New York—except Niagara, Orleans, Monroe, Genesee, Erie, Wyoming, Livingston, Chautauqua, Cattaraugus, and Allegany Counties—Pennsylvania—Eastern part bounded by Tioga, Lycoming, Union, Mifflin, Juniata, and Franklin Counties.

Lake Erie District

Order from Mr. L. E. Mitchell, RCA Radiotron Company, Inc., 1133 East 152nd Street, Cleveland, Ohio.

District includes: Ohio, West Virginia, Kentucky—East of and including Hancock,

Butler, Ohio, and Logan Counties, Maryland—Garrett and Allegany Counties only, Michigan—except those counties adjacent to Wisconsin, New York—in counties mentioned above as not included in the Eastern District, Pennsylvania—counties bounded by western county boundaries mentioned in the Eastern District.

Southern District

Order from Mr. E. E. Jordan, RCA Radiotron Company, Inc., 498 Spring Street, N. W., Atlanta, Ga.

District includes: Alabama, Florida, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Louisiana—East of the Mississippi.

Central District

Order from Mr. W. J. Flannelly, RCA Radiotron Company, Inc., 589 E. Illinois Street, Chicago, Ill.

District includes: Colorado, Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin, Michigan—part bounded by Lake Michigan on South and Lake Superior on North, Kentucky—Southwestern part.

Southwestern District

Order from Mr. W. A. Magevney, RCA Radiotron Co., Inc., 2200 Griffin Street, Dallas, Texas.

District includes: Arkansas, New Mexico, Oklahoma, Texas, Louisiana—West of the Mississippi.

Pacific District

Order from Mr. H. G. Cunningham, RCA Radiotron Company, Inc., 325 Ninth Street, San Francisco, California.

District includes: Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming.

Radiotron premiere into millions of homes in all sections of the country. In addition to the stations used in this first Radiotron coast-to-coast hook-up, other stations are constantly being recruited so that this program will soon have one of the most complete coverages used in any of the NBC broadcasts. There will be no section of the country, no matter how distant it may be from the nearest broadcast station, to which the enjoyment of this new program will be denied.

Program Has Wide Appeal

One of the fundamental requirements of all successful broadcasting programs is that they have a wide appeal. That they are popular in New York, or in other large cities, does not mean that they will necessarily be popular in the smaller towns scattered throughout the nation. A successful program cannot limit its appeal; it must be just as entertaining in Squeedunk as it is on Broadway.

The RCA Radiotron program appealed to every type of American, to every class in this broad land of ours. It did not "high-hat" anyone, nor was it so "low-brow" that the



Harold Van Emburgh, not a tenor, but
THE tenor

so-called "high-hats" would not enjoy it to its fullest extent.

With "Bugs" Baer as Master of Ceremonies, the new RCA Radiotron program was assured of a wide appeal, because it struck deep into that emotion which is common to all races, all classes, and all types of people—humor! Clean, sparkling, and original—it is a humor that everyone understands and appreciates.

Sales Pulling Announcement

Strengthens Demands of Millions of Listeners for RCA Radiotrons and for Sets Equipped With Them

A new radio set makes an ideal Christmas gift to the family. It will bring many hours of happiness and joy, particularly if it is equipped with RCA Radiotrons, the radio tube which is recommended by leading set manufacturers. When you buy one of the many fine new sets now being offered, be sure to look inside and examine the radio tubes. Make certain that it is equipped throughout with RCA Radiotrons, the tubes which radio set engineers use in designing their circuits.



John S. Young whose sincerity and enthusiasm has made him one of NBC's most popular announcers

As Famous in Their Fields as "Bugs" Baer in His

When "Bugs" Baer introduced the other artists on the RCA Radiotron Program on the night of November 29, he knew that he was presenting to his huge radio audience a group whose every member was as famous and well-known in his particular field as was "Bugs" Baer in his. There was no ordinary or mediocre talent on this new program. Every artist was a headliner, who had proved his right to nation-wide fame.

William M. Daly, the director of the peppy eighteen-piece Radiotron Orchestra and one of the most capable arrangers of orchestrations in the musical world, brought with him

a name that was already famous where ever musical comedy is known. George Gershwin's favorite conductor, having assisted in the arrangement and conducting of such successes as "Oh Kay," "Funny Face," and "Strike Up the Band." Will Daly had also earned his place in other popular Broadway shows.

Welcome Lewis, the little girl with the big contralto voice, needed no introduction. Her repeated appearances before the microphone and the



Sam Herman, Master of the Xylophone

remarkable way in which she could put her entire personality into the blues songs which she crooned, had already carved a deep mark in the memories of those who had heard her before. When "Bugs" Baer introduced Welcome Lewis, he was introducing a star whose popularity is hard to equal, and to whose Wednesday and Saturday night broadcasts millions would eagerly look forward.

Like Miss Lewis, Sam Herman, had already won a place as one of radio's favorite artists. He had already achieved a perfection of expression and technique on the xylophone that had given him a unique position on the air.

Harold Van Emburgh, although popular in the east, had never been introduced to a national audience until his first appearance on the RCA Radiotron broadcast. The unusual appeal of his voice, however, was enthusiastically and appreciatively received by this much greater audience.

With this celebrated group of artists the RCA Radiotron Company went on the air for the first time with its own broadcasting program.



“RCA Radiotrons banish
the troubles
caused by poor tubes”

says

ALFRED H. GREBE

President

A. H. GREBE & CO., INC.

“THE Grebe Radio standards of precision of manufacture imply the use of vacuum tubes of the highest quality. RCA Radiotrons are the last word in vacuum tube design and construction. They improve musical reception. Because of their uniformity and dependability, they banish the troubles so often caused by poor tubes. That is why we say to every Grebe Radio owner: ‘Insure the finest performance of your set by *always* using RCA Radiotrons.’”

RADIO ENGINEERS ADVISE:

Replace all the vacuum tubes in your radio set with RCA Radiotrons at least once a year. This is the only sure way to maintain good performance and minimize disagreeable noises and other troubles caused by inferior tubes. RCA Radiotrons will give you the maximum in selectivity, sensitivity and *tone quality*.

Old tubes may impair the performance of the new.

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



This is the 21st in a series of endorsements of RCA Radiotrons by the leading radio manufacturers.

RCA Radiotrons
THE HEART OF YOUR RADIO

Free Display Material

*Bring in
your tubes
and have
them tested
FREE
We Recommend
RCA Radiotrons*



RCA Radiotrons
plus
Our Service
insure
Satisfaction



HERE is a unique display for your window. It is the first of a new series and is known as the WD-1 display. It's a sure-fire attention getter. It stops customers and gets across your sales message. It's just what you have felt a need for to pep up your window with.

This display is furnished free to all RCA Radiotron dealers. None will be sent to you, however, unless you send in an order for one. Like all good things they are expensive, so we have no desire to waste them. The reproduction of the painting showing the boy climbing the pole featured

is lithographed in full color and is 24 inches wide by 31 1/2 inches high. The two side cards are 11 inches wide by 14 inches high. The cartons, which are dummy ones, are regular size and are furnished in the following groups: twelve 224 cartons and twelve 227 cartons in groups of two.

Then there are two pyramids using 227 cartons. This makes 60 dummy cartons in all. You will find this display suitable to both your windows and store interior. See for yourself what a powerful sales appeal it has by sending in your order to your District Warehouse or Distributor.

RCA RADIOTRON COMPANY, INC. » » » HARRISON, N. J.

RCA Radiotrons
THE HEART OF YOUR RADIO

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