

THE CROSLLEY BROADCASTER

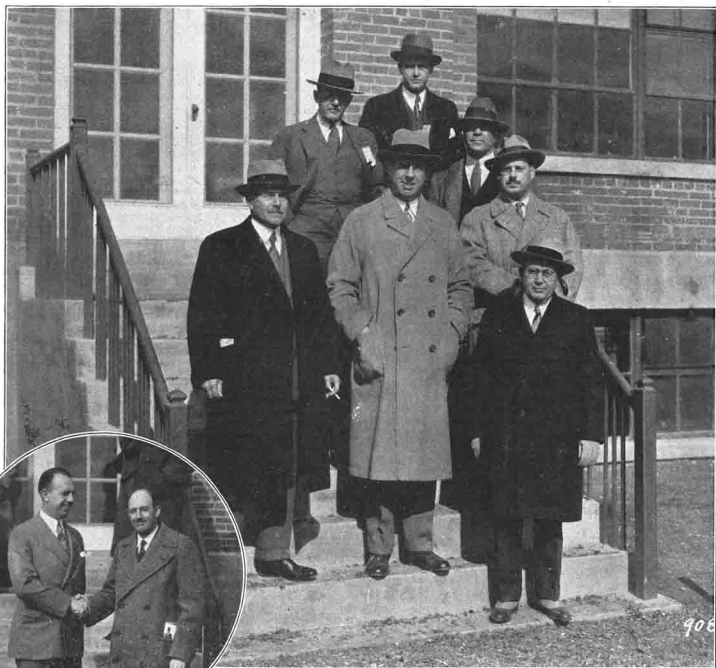
PUBLISHED BY THE CROSLLEY RADIO CORPORATION

VOL. VII.

NOVEMBER 15, 1928

NO. 22

WLW's Inaugural Draws Enthusiastic Throng



On the steps of new WLW Transmitter Building at Mason, Ohio, during its formal opening, Oct. 29, 1928; Charles A. Hinsch, Pres. of the Fifth-Third Union Trust Co., Cincinnati; Powel Crosley, Jr.; J. W. Garside, Pres. of the De Forest Radio Corp.; in second row are R. E. Field, Pres. of R. E. Field & Co., Cincinnati; C. A. Hinsch, Jr.; Frederick Flaeh, Pres., of the Metal Specialties Co.; Major James E. Hahn, Pres., of Amrad Corp. In the circle, William Hedges, Pres., of the Association of National Broadcasters, is congratulating Powel Crosley, Jr. on his achievements in radio.

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WE'LL PUT YOU IN THE LEAD AND KEEP YOU THERE!

With Crosley Merchandise and the Crosley Selling Plan

CROSELY radio values give you the inside track over your competition. The Crosley Retail Sales Plan keeps you in the lead. Compare it with any "campaign" plan offered by other radio manufacturers as to attractiveness, effectiveness, and price. Then you will understand the tremendous selling advantage Crosley has provided for you.

The Retail Sales Plan

The Crosley Retail Sales Plan consists of three attractive, sales compelling mailing pieces in four beautiful colors, showing the complete Crosley Line, including the famous Gembox-Dynacone Console Model at \$115.00. Each piece is especially designed for your use, with your own store name and slogan. These pieces are your adver-

The Crosley Retail Selling Plan is admittedly the **finest, strongest, and surest** way to build business that has ever been presented in the radio industry. Thousands of dealers are participating. Every Crosley dealer can use it profitably. The next few months are especially the time when you need it most. Get your orders in now. **Do not put it off.**

tising—not factory pieces with a rubber stamp imprint for your store. If you were to attempt anything like these beautiful pieces exclusively for yourself, the cost would be at least 100 times as great. You make this huge saving because the plan is cooperative and you pay only your share of the cost.

More Than Pays for Itself

In minimum quantities of 300 sets (total of 900 mailing pieces), the Crosley Retail Selling Plan costs you but 10 cents per set (only a fraction more than 3 cents per mailing piece). We address the pieces and furnish the postage stamps for only 5 cents per set additional (only a little more than the stamps themselves cost). You can have the sets without addressing and postage and you can handle the addressing and stamping yourself. Or, you can have all these details handled for you at less cost than you can have it done locally. In either case, the pieces are imprinted with your store name, slogan, telephone number, and address.

The minimum quantity of 300 sets will cost you only \$30.00 if you address and stamp them—or \$45.00 if we handle the addressing and stamping for you. That's your total cost. Figure it out for yourself how many Crosley sets you will have to sell to get back your investment. Can you sell one Crosley set and speaker by working 300 selected prospects? That question is almost ridiculous. Of course you can! The Crosley Selling Plan will help you sell a far bigger average than one out of 300. It can't help but more than pay for itself! This is no gamble. It is the surest thing in radio selling that has ever been invented.

More Leads from Crosley Owners

You get more leads from Crosley owners. The Crosley Owner Follow-Up Plan provides an endless chain selling plan. You spend only 10 cents on a new Crosley owner to get the names of three or more interested prospects. Cash in on every new owner's enthusiasm.

The Crosley Owner Follow-Up Plan consists of two single Government postcards and one double Government postcard, printed in attractive colors. The new owner detaches the return portion of the third card, fills in with names of friends and mails it to you. All you do is address cards to each new owner and see that they are mailed at proper intervals.

Your distributor can show you samples of the complete plan and complete information as to its use. If he has not already done this, write or wire us at once, and we will see that you have this information promptly. Do not put this important matter off. Order at once.



Immediate Deliveries Now. Send for Sample Pieces.

For Holiday Distribution

Book Matches

Crosley Book Matches, No. 28-16, your ad on front, Crosley on back, \$3.75 for one thousand books; two thousand books or more \$3.50. Order from your distributor. F. O. B. Barberton, Ohio, or Springfield, Mass

Imprinted Pencils

A good lead pencil—round, yellow, nickel tip, white eraser. Each, 3 cents, plus \$1.50 for three line imprint, minimum quantity 500. Order from your distributor. F. O. B. Cincinnati.

Pencil No. 28-26

Auto Key Cases

Two-hook auto key case, No. 28-15, genuine russet leather. 59 cents each, plus \$1.50 for three line imprint. Minimum quantity 25. Order from your distributor. F. O. B. Cincinnati.

Memorandums

No. 28-13 looseleaf memo-book, genuine russet pigskin, 50 sheets check-ruled filler, size 2 1/2 by 4 1/2. Price 73 cents each, plus \$1.50 for three line imprint in genuine gold leaf, minimum quantity 25. Order from your distributor. F. O. B. Cincinnati.

Memo-Book
No. 28-13



Book Matches
No. 28-16

Auto Key
Fold
No. 28-15

Nation-wide Response to New National WLW

Far South Gets Its First Taste of Great Broadcasting

Congratulatory Letters Pouring In : Increased Power a Revelation

The night of October 29, 1928, was a momentous occasion to many radio listeners in places remote from Cincinnati, from which was broadcast the gala program of WLW with the new Crosley fifty thousand watt transmitter. Places, especially in the South, which had always been prevented by atmospheric interference, from tuning in on big programs, found that the tenfold increase of power now used on WLW, cut through static like a knife, and allowed the brilliant dedication program to come through with even greater volume than local stations. We know this to be the fact because of the many letters which have testified to pleasure received from the new Crosley station. We are printing only a few of such letters. To run them all would occupy several entire issues of the Broadcaster. Read these; they are typical of many.

This comes from Mr. G. G. Gavin of Jacksonville, Florida. He says, in part: "Permit me to congratulate Mr. Powell Crosley, Jr., and his co-workers on the splendid operation of the new broadcasting equipment at Station WLW during its dedication program last evening. Station WLW, with its new transmitter, will fill a long felt want on the part of a large audience who have heretofore been unable to enjoy good programs nine or ten months in each year because of their location. This section of

the country like many others, located as it is a thousand miles or more from the high powered stations which broadcast the most desirable programs, is a very poor one for radio reception except during a very short season in mid-winter. Even last evening, static so dominated the ether that programs from New York and Chicago could not be heard with any enjoyment, but the tremendous power of the carrier waves from Station WLW was so far above the static level that the reception was comparatively favorable with that from our local station."

Here's another from Florida, this time from Sarasota. "The receiving set I was using is a one tube affair made by my school-boy son three or four years ago, from a few dollars worth of radio supplies furnished him. This picks up the stations as far as the Great Lakes, Mexico, Cuba, and occasionally as far West as the Pacific Coast; but I had never had as clear rendition as received last night from your new station. It was as though the distance was completely annihilated, as to both articulation and tonal effects."

The general manager of the

CINCINNATI, TUESDAY, OCTOBER 30, 1928.

Tremendous Ovation Given Crosley When He Opens World's Most Powerful Radio Transmitter in Cincinnati

Head of Internationally Known Concern Throws Gold Switch at Celebration at Gibson That Sets New Plant in Operation.

"Why do you broadcast?"—a question hurled at Powell Crosley, Jr., ever since he went into the radio business—was answered by him at the Gibson Roof Garden last night in his dedicatory address during the banquet spread in celebration of the completion of the new Crosley 50,000-watt transmitter at Mason's O. Charles W. Hirsch, President of the Fifth Third Union Trust Company, was toastmaster at the banquet.

A rare tribute was paid Mr. Crosley by Mr. Hirsch, who, in introducing Mr. Crosley declared the President and founder of the corporation probably was the keenest young business man in Cincinnati. "He is blessed with vision in keeping with the remarkable success enjoyed by the corporation which he started with practically nothing and which had an annual turnover of \$5,000,000 in 1927," Mr. Hirsch said. Mr. Hirsch congratulated Cincinnati upon having the good fortune to have a Powell Crosley, Jr., to place it among the leaders of the radio world.

"I realize that, even—
ers . . .
"



POWELL CROSLLEY, JR.
—Photo by J. A. Hill.

—From the Commercial-Tribune, Cincinnati

"Southwest Magazine" writes us from Fort Worth, Texas: "It has never been my pleasure to hear such a remarkable array of musical talent as presented to the world-at-large by your Station WLW last night. As regards reception, you will be pleased to learn that the program came in here as clear and distinct as tho' it were a local station. Also, there was a noticeable reduction in static, even at this distance."

Mr. C. G. Griffith, living in Ocean Springs, Mississippi, wrote a very kind letter: "Dear Mr. Crosley: You have no idea what a fine thing you have done for people in this vicinity by putting in this powerful installation. I am right on the edge of the Gulf of Mexico; the static is very bad and it is a rare occasion when we get the first class stations of the East with no static. The static last night was bad but the new WLW station came in with such power that I was able to get the program with practically no static whatever."

The Far South was also represented by W. O. Miller, secretary of the Holden Hardwood Lumber Com-

pany, which is in Holden, Louisiana. "I am very frank to say," writes Mr. Miller, "that last night's broadcast was without exception the very best that it has been my pleasure to hear. I reside in Hammond, La., and the reception was perfect. The 50,000 watt station will mean much to the listeners in our section, for there is simply no comparison with the reception last night and that heretofore."

J. U. Perkins, of Shreveport, Louisiana, states: "Beginning last night my radio set has doubled in value. We can now receive high-class entertainment twelve months in the year, instead of six months as formerly, due to static."

Little Rock, Arkansas, has something to say: "I was working without either ground or aerial, and your program came in with all the volume one would wish; and, because of your powerful transmitter, the static was eliminated. Mr. Crosley is undoubtedly the greatest benefactor radio has ever had, and the listeners of the nation can never repay him." That from a bank manager! This looks like a sale for some

lucky Crosley dealer: G. G. Fagot tells us in his letter from Stephenson, Mississippi that "I am living in the extreme south portion of Mississippi, just a few miles from the Louisiana state line, and your station was as loud and clear as any I have ever listened to. Permit me also to state that every one who owns a receiving set was tuned in on your new station last night, and in the future we all will look with satisfaction to WLW for our entertainment, as static will have to be pretty noisy to keep us from hearing you." Then he adds a P. S. "Will see the Crosley dealer and find out about your wonderful receiving sets."

A 14-year old boy wrote a most interesting and informed letter. He is Carlton Lewis Duckett and his home is Columbia, South Carolina. We quote in part: "I heard your dedication program with a homemade, single-tube set. The volume of the speeches and music was such that if the headphones were removed, the sounds were audible."

Hero of 1926 Florida Disaster Guest at Crosley Banquet

Among the guests at the great dinner given the night of October 29, 1928, in honor of the formal opening of the new WLW station, was Gifford Grange, radio hero of the Miami hurricane in 1926.

Although the gale had disrupted the power lines which supplied his transmitter, young Gifford Grange waited patiently in the attic of his home at his amateur station 4HZ, located at Jacksonville, Florida, and was first to receive the frantic radio signals from Palm Beach, where the tornado had struck with full force.

Sitting beside three receivers, each tuned to different wave lengths Grange received the message. He could receive, but the lines were down, he was getting no power and could not transmit. As soon as he got the message he drove madly through the flooded streets and falling trees of his home city, to the nearest contact telephone. Within a few minutes he had got in touch with the Associated Press and through that agency, informed the nation of the terrific disaster which held Florida in its grip.

Grange is at present chief radio man of the Seventh District Naval Reserve and in line for a commission.



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Editor: A. E. Deaderick



Crosley manufactures radio sets for radio amateur, experimental, and broadcast reception use, under patents of the Radio Corporation of America and Associated Companies, The Hazeltine Corporation, and the Laitour Corporation.

All prices quoted in the Broadcaster are Eastern prices. Western prices are slightly higher.

Editorials



This is your paper. Help make it interesting by sending in contributions. All material sent in will be most welcome. Comments of every description will be appreciated. What do you say? Let's all pull together.

The outstanding feature of the "open house" at Mason, Ohio, on October 29, 1928, when the new WLW transmitting station was dedicated, was the keen interest shown by the scores of visitors to the plant. They were not only interested, they were greatly impressed.

Many who visited the Mason plant were not radio men. Some of them knew very little about the science of broadcasting. But every point was carefully and simply explained by members of the Operating Staff who acted as guides. And as the visitors began to grasp the significance of the mechanism, the extent of the power dealt with in that little plant, their interest was mingled with a certain amount of awe. They came away with a better understanding of the big thing radio is.

The Mason trip was carefully planned in advance. The crowds of visitors, numbers of whom had made the trip to Cincinnati for the purpose, were assembled at Plant No. 1, of the Crosley Radio Corporation. They were taken the twenty-five mile trip out to Mason, in large busses chartered for the occasion. In this way, the guests arrived in groups and could be conveniently handled.

The estate at Mason consists of sixteen acres of level ground, 320 feet above sea level. Ground was broken for the new building on June 25, 1928. Fourteen weeks later, the 50 kilowatt transmitter was completed and went on the air in after-midnight tests. It was formally dedicated on October 29, 1928. WLW is now in operation as a great national broadcasting station. This new Crosley station is without rival in the radio field.

Dedicatory Address of Powel Crosley, Jr.

At the Opening of the 50 Kilowatt WLW Transmitter

Hotel Gibson, Cincinnati, Ohio, October 29, 1928, 9:00 P. M.

At nine o'clock Monday night, in the presence of many guests assembled in the beautiful ball room of the Hotel Gibson, and to the accompaniment of grinding movie cameras, dazzling lights, and an augmented orchestra, the President of the Crosley Radio Corporation pulled the gold switch which formally opened the new WLW broadcasting station.

MR. CHAIRMAN and guests assembled here, radio listeners, near and far, I am sure that my voice is reaching by far the greatest audience ever before linked by the waves in the ether with any one individual broadcasting station.

This is, I believe, the sixth broadcasting station that I have helped to dedicate for the Crosley Radio Corporation. The first, you could hardly call a dedication. It was a little 20-watt transmitter back in 1921 that I had in my own home. Its dedication consisted of saying one-two-three-four-hello-hello-into an old carbon-grip microphone, followed by a few phonograph records, but it was our first broadcasting station and I was quite as proud of it as I am of this new 50 kilowatt outfit, which is, we believe, the most powerful broadcasting station in the world.

This new transmitter was developed by the engineers of the Bell Telephone Company at Whippany, New Jersey. It contains many new features, including a crystal oscillator frequency control which in turn makes possible an entirely new method of modulation. Our carrier wave instead of fading into a whistle after a comparatively short range is modulated one hundred percent so that the music or voice goes on and on. I personally have always been an advocate of the use of high power, not merely because we could reach more people, but because we could serve those people whom we do reach better. In the earlier days of radio you heard much talk about static eliminators, none of which have proven to be of great practical value. On the other hand, there is one solution to the static problem, and that is increased power. This station is the greatest static eliminator that we know of, because it has more power than any other station that we know of and it will, therefore, cut through static, over-ride static and deliver a satisfactory signal at much greater distances than is possible with less power.

Some people have asked me:

"Why do you broadcast?"

"Do you make any money out of it?"

"Or does it cost you much money?"

"If it is expensive why do you keep it up?"

Being in the business of manufacturing radio sets, we feel a cer-

tain obligation to every radio listener to help in providing the entertainment for which his receiving set was designed. Of course, it may seem to some that it is similar to an automobile manufacturing concern supplying the gasoline after they had sold the car. And I rather imagine that it is something like that for if there were no other source of supply for gasoline than that which would have to be provided by the automobile manufacturers, I feel certain that they would be compelled to go into the oil business.

But it is more than that. I feel that a broadcasting station is a tremendous means of developing good-will. Good-will is essential in business. The more friends you are able to make in providing an excellent broadcasting service for the greatest possible number of people, the greater the good-will we can build up.

To answer the question:

"Is it expensive to operate a broadcasting station?"

The last two months' our records show that the operating deficit for WLW and WSAI has been ten thousand dollars per month. Of course, it has cost a great deal more than that, but we do have some revenue which has been deducted from the total operating cost to make the net cost.

Are we justified in spending this much money each month for broadcasting?

It is impossible to translate the service that we are rendering into a dollar and cents investment basis and I can only feel, as I said before, that anything which creates good-will, and so much good-will, must be worth all of the money that we are spending for it.

Sometimes I have wondered whether the radio audience does not take this service rendered not only by such stations as ours, but by hundreds of other stations, rather for granted. The listeners do not write as many complimentary letters as they used to. But that is to be expected. We, of course, receive letters from day to day, some of them are brick-bats, some of them are bouquets. It is mighty difficult to prepare two complete sets of programs, to keep two broadcasting stations in operation from morning until late at night and please everyone.

So we do get some brick-bats. They are few and far between, I am glad to say. Most of them are the result of hasty and rather unthinking flare of anger about something or other that has displeased that particular listener. Some people tell us that we should eliminate operatic numbers from our stations; that we should play nothing but jazz; and other people tell us that we should have no jazz on the stations but should only have classical music of the highest quality. We try to arrange our programs from morning to night on the basis of having the bulk of the material to please the average taste, and the small remainder so diversified as to give a little bit of those things that please the smaller percentage of the audience.

We welcome constructive criticism even though it may come back in the form of brick-bat letters. When anyone thing comes in for a considerable amount of criticism, you may rest assured that it is quickly eliminated from the station's program. We do not expect as many of the bouquet letters as we used to get because people do not write as frequently as they did in the early days. Really they used to write so much that it is no wonder that they quickly became tired of writing. It now takes a special event of some kind to encourage any great amount of mail.

Probably the most gratifying thing that has happened in recent months has been the evidence of interested listeners in this section of the country with a storm of protest, the offers of help and the actual help that has come to WSAI during the period when its very existence has been threatened. The attitude of the people throughout Ohio, Indiana, Kentucky, and other more distant points in this matter has been thanks enough for all of the efforts that we have put into building our broadcasting programs and thanks enough for all of the expenditure of money that we have put into our stations.

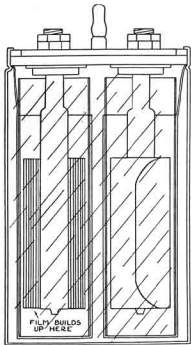
For after all, there is nothing quite so pleasing as that feeling that comes to everyone of us when we know and can prove to ourselves that we have really done any job well. I hope I personally may be pardoned for having that pride, which I can perhaps ill-conceal,

(Continued on Page 6)

Smooth, Quiet Set Operation with Mershon Condensers

Imagine an auto tire that would repair itself immediately, if one ran a nail into it, or cut it on a piece of glass!

That is exactly the type of article that you are selling your customers in the Mershon Condenser, used in all Crosley light-socket sets. The Mershon Condenser is as unique in the field of radio condensers as a self-mending tire would be in the automobile field.



CROSS-SECTION OF
MERSHON CONDENSER

Ordinary paper condensers, used in the majority of radio sets, may be punctured by a sudden surge in the lighting supply lines. Once punctured, they continually leak, and either partially or completely interfere with the operation of the set. The Mershon Condenser, on the other hand, immediately heals itself if a sudden surge punctures it, and thereafter operates as efficiently as before.

The self-healing principle is simple: Operation of these condensers depends upon an insulating film which is built up on the plates of the condensers as they are in use. As soon as the set is put in operation this film begins to build up to the proper thickness. If a sudden surge breaks down the film, it is immediately built up again. Thus the Mershon Condenser may be subjected to an indefinite number of powerful surges with absolutely no bad results.

The unique principle which makes the Mershon Condenser self-healing is fully controlled by patents, owned by the Amrad Radio Corporation. Mershon Condensers or condensers using this principle, are found only in Crosley and Amrad sets.

Although the self-healing feature is the outstanding one, there are other characteristics of the Mershon Condenser which puts it in a class by itself. For instance, the Mershon principle makes it possible to build greater condenser capacity into smaller space. This makes for compactness. It makes it possible to use all the capacity required for efficient operation, without increasing the size of the set.

Mershon Condensers used in the power supply systems of sets, have a smoothing effect on the current. The result is smoother, quieter operation with Crosley and Amrad light-socket sets than with sets making use of ordinary paper condensers. Thus the Mershon Condenser is one of the reasons for the quiet operation of Crosley and Amrad light-socket sets.

Every Mershon Condenser is contained in a rugged metal case and is thoroughly sealed in. Do not get the impression that because of the film-building principle used in Mershon Condensers, that there is anything in them which can be spilled or which will wear out. It may be turned upside down, dropped, or subjected to the roughest abuse without fear of injury. Its battleship type of construction enables it to stand up under any conditions.

The film-building material that these condensers contain, will not wear out. Mershon Condensers have been used for years without deteriorating. After a dozen paper condensers have been discarded because of irreparable punctures, a Mershon Condenser keeps plugging away, doing its job efficiently!

The use of Mershon Condensers in Crosley and Amrad sets constitutes an assurance of uninterrupted, high-class radio performance. Since light-socket sets have been accepted with enthusiasm by the public, they have been introduced into districts which differ greatly in their power supply systems. In many of these localities, power companies find it impossible to eliminate occasional high-voltage surges from their supply lines. In such communities, sets incorporating ordinary paper condensers experience much trouble. Frequently, in the midst of a program, the set with a paper condenser goes dead and it becomes necessary for a service man to take it to the shop and replace one or more of the condensers.

Such delays can never happen with Crosley or Amrad sets. The automatically healing film in the Mershon Condenser does the trick—saving expense on repairs, preventing countless inconveniences, and enhancing the enjoyment from Amrad and Crosley radio sets.



Powell
Crosley, Jr.

TALKS TO the TRADE

The dedication of our new station, WLW on October 29, 1928, brought hundreds of letters from radio listeners throughout the entire country. The one point in particular that has impressed me, is the fact that so many listeners have stated in their letters that the very excellent reception from WLW has increased the value of their radio set fully 50%.

These letters indicate that our station is covering the entire country. This should make the Crosley Dealer Franchise of more value to you and to every other dealer in the country. As we shall continue with programs of national interest, the operation of this station will prove of increased advertising value to you. It will tie up with our national advertising and newspaper advertising. Incidentally, it will tie up with the window and counter display material, newspaper mats, and so forth, which we have prepared for you to use.

Crosley dealers are the outstanding radio merchants in every community. Our production has more than doubled within the past thirty days and we are still unable to take care of the demand! Our distributors and dealers are taking sets as fast as we can ship them, and want more.

Consumers are replacing their battery sets with Crosley A-C receivers. The number of sales you make this year entirely depend upon your own constructive effort. We hope to be able to take care of your demand for the balance of the season, but must again urge you to co-operate with your distributor and with us, by placing your orders as early as possible.

Powell Crosley Jr.

A New Radio-Phonograph Hook-Up

the MEROLA

Instant Change from Radio to Phonograph



The Crosley MEROLA is the newest development in radio-phonograph pick-ups. Instant change over from A-C receiver to electrically operated phonograph is possible, using the MEROLA electric tone-arm. Old-style phonographs and even small portables can be transformed into modern electric reproducers, with tremendous improvement in tone, volume and quality. Crosley A-C sets are equipped with MEROLA posts and the permanent installation on a Crosley set is the work of a few minutes. The MEROLA is neat, compact, and handsomely finished.

\$15

Your Distributor Can Supply You

The Skipper of the "Tom Greene"

It's a Wise Man Who Takes a Showbox Along on a River Trip



Captain Greene
of the
Ohio River Boat
the "Tom Greene"

Captain Greene and his "Showbox"

When the good ship "Tom Greene" takes off on its long river trek, the monotony of river travel is considerably relieved by the strains of music and entertainment coming from the Crosley Showbox on board. As the boat struggles with the raging waves of the Ohio, both crew and passengers are cheered and enlivened. Captain Greene writes us that, aside from entertainment, the Showbox "has greatly assisted navigation, as the weather and river report is always appreciated by rivermen."

Crosley's Address

(Continued from Page 4)

that pride in our stations and, above everything, in the personnel to whom should go full credit for the excellent planning and preparation of the WLW and WSAT programs. And sometimes even more than that. A sort of pride that warms me inside, way down into my heart when I hear of some case where one of our stations or both of them, has brought a tremendously big thing into the otherwise pathetically vacant existence of people who are so unfortunate as to be shut-ins. If you folks who are well could read some of the letters I have seen come to us, I know that it would warm your heart as it has warmed mine so many times to know that this thing, broadcasting, which may have certain commercial aspects to you and which I say creates good-will for us, can at the same time do so much real good and bring so much joy and cheer and pleasure into the lives of those who might not otherwise have anything of the sort.

I say to you that I am glad I am in the radio business and while broadcasting presents its problems and its worries, I can assure you that those of us who are in the business actively, have our compensations and if that saying is true—"it is more blessed to give than to receive"—I feel that we are at least triply blessed.

In conclusion may I take this opportunity of thanking all who have had a part in making this station possible. Those people outside our organization as well as in, who have worked hard since last June to get this station on the air at the earliest possible moment. Those people who by their expressions of friendship and confidence have encouraged us to build this station. Those in all parts of the country who have expressed their good-will towards us and this station on this the day of its opening, and last but not least the Crosley distributors and the Crosley dealers in all parts of the country, and moreover the users of Crosley Radio apparatus who have made it possible for us to build this station.

Crosley Organization Boasts Fine Sales Force

Here Are Two You Want To Know



J. T. DALTON

Jack has been active in promoting the sale of Crosley products throughout the country, for a number of years. Since holding the position of eastern representative in charge of the New York office, he has assumed even more important duties throughout the East. Dalton's special work is of immense value to the Corporation.



C. H. CAREY

"Cut" Carey, one of the oldest Crosley field representatives, has represented Crosley in almost every section of the country. His experience with Crosley started in the Southeast and subsequently he covered territory throughout the Middle West, and is now permanently located in Massachusetts. Carey has a reputation with the company for which he rightfully can be proud.

SCHUSTER ELECTRIC COMPANY WHOLESALE CROSLY DISTRIBUTOR

2159 Spring Grove Avenue
412 Elm Street, Cincinnati, Ohio
West 144—PHONES—Main 820

100% Crosley Distributors

"THIS IS A CROSLY YEAR"

"THERE'S A REASON"

Distributors in Chicago Territory

— TRY OUR SERVICE —

HUDSON-ROSS, Inc.

116 S. WELLS CHICAGO

Eliminating Corrosion

Cadmium Plating, The Ideal Rust Preventer, Lengthens Life of Crosley Sets

One of the important features that manufacturers must consider in building products so that they will stand up well through long years of use, is the corrosion of metal parts.

In the automobile industry, for instance, prevention of the rusting of headlamps, bumpers, radiator caps, and other such parts, has been an important problem. For years these parts were nickle plated; although they resisted rust reasonably well, the effects of rain and humid weather would invariably show as noticeable corrosion in a few months time.

After painstaking experiments, the automobile industry hit upon an ideal solution to its problem in the form of chromium plating. It had been known for a long time that the metal chromium could be subjected to the most adverse conditions without noticeable corrosion, but certain technical difficulties stood in the way of using it for plating purposes. These difficulties were overcome after years of research.

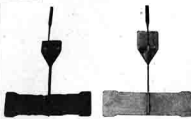
Corrosion Important In Radios

Although radio sets are not subjected to as severe weather conditions as automobiles, it is equally important that their iron and steel parts be protected from rusting. Corrosion is one of the few things that can cause a radio set to go bad—there being practically no wear and tear upon moving parts. Consequently, from its beginning the Crosley Radio Corporation has been interested in protecting the metal parts of its sets, and has conducted experimental work along this line.

Until the introduction of the Musiconic a few years ago, nickel plating was thought to be the ideal rust protection. When the popularity of the Musiconic took it all over the world, however, complaints began to filter in from some tropical countries concerning the rusting of Musiconic armatures. In sections of Africa, Hawaii, the Philippine Islands—and more specially in ships at sea, constantly in a humid, salt-water atmosphere,—it was found that nickel-plated armatures would occasionally rust, with the result that Musiconics would operate unsatisfactorily.

Research Solves Problem

This new problem gave an impetus to research in the Crosley laboratories along the lines of rust prevention. Iron parts were given various types of plating and subjected to extreme weather conditions for varying lengths of time. After extensive experimentation it was found that parts plated with the metal cadmium stood up better under these adverse conditions than those treated in any other way.



Left, unplated Musiconic armature and right, cadmium plated Musiconic armature after several years exposure to the elements.

As an example, notice the illustration of two Musiconic armatures. Both of these armatures have been kept for several years. One is unplated and the other plated with cadmium. The unplated sample is so badly rusted that unless gently handled it will fall apart, while the cadmium-plated sample shows only a small spot of corrosion where solder has been applied.

Technical Difficulties Overcome

Many technical difficulties were involved in applying cadmium plating to Crosley products. The plating solution must be right, and just the proper current must be used in order to get good results. These difficulties were solved, with the cooperation of other laboratories, and cadmium plating was adopted.

Musiconics with the new style armatures were shipped to tropical countries all over the world. They withstood the most adverse conditions. So encouraging were these results, that cadmium plating has been extended during the past two years to the plating of practically every iron or steel part that goes into Crosley sets. Even such small parts as screws, nuts and lock washers receive a coating of cadmium, permanently insuring them against rust.

Cadmium is a soft metal, with a dull grey appearance. It has a satin like surface as contrasted with the high lustre of chromium. This satin finish on the chassis and other parts helps to improve the appearance of the interior of the set.



Arrows on the above photograph show some of the cadmium plated parts on Crosley Gembox, Model 608.

The accompanying picture of a Gembox chassis assembly shows some of the parts on this set that are cadmium plated. Many other

\$25.
for the
**CROSLY
RFL 90**

**Complete with
Console and
Built-in Musiconic**

The Crosley RFL-90 is a 6-tube radio receiver installed in a handsome console cabinet, with a built-in Musiconic. The set consists of three bridge balanced stages of radio frequency, detector and two stages of audio frequency with the RFL circuit developed to the highest degree of efficiency. Every set is brand new and in the original shipping carton. Each set carries the Crosley guarantee.

Send Cash With Order

Because of their low price, these sets are sold only on cash-with-order. Enclose cash, money order of express money order with your order. If desired, sets will be shipped C O D, upon receipt of 25% of amount of order.

Place Your Order Today

The Crosley Radio Corporation, Cincinnati, Ohio



R. F. L.-90
Formerly
Sold For
\$98

parts, not in view from this angle, receive a protective coat of cadmium. (Because of this rust-proofing, the Bandbox line of sets will continue to be as good as new, long after many sets using inferior methods of rust-proofing are ready for the junk heap).

More Expensive, But Better

Cadmium plating is more expensive than many other methods of protection against corrosion, but it is the best method for radio parts. It has been adopted for the Bandbox line of sets to make these sets more durable and better able to withstand all kinds of conditions.

By the use of a completely automatic process of plating, expense has been reduced to a reasonable figure. The parts to be plated, chassis, shielding cans, etc. are carried by moving rods through the plating and washing tanks. From the moment a metal part is started on its way until it is delivered from the machine in its final plated form, the process requires no human labor. These efficient methods make it possible for Crosley dealers to sell, in their reasonably priced line, radio sets which are as proof against weather as modern science knows how to make them.

"The whole line is a knock-out. Should go over big."

Marcel Levy,
California Phonograph Co.

TUNE IN!

We broadcast daily at
11:00 a. m. and 1:30 p. m.

Financial News
Market Reports
Government Bond
Quotations
Call Money Rates
Foreign Exchange
Grain and Live Stock
Quotations

THE FIFTH THIRD UNION COMPANY
14 West Fourth Street
Cincinnati, Ohio

TAYLOR ELECTRIC CO.
MADISON, WIS.
Exclusively Radio
Wholesale Only
CROSLY DISTRIBUTOR

Movie Slides Tell the Crosley
Story in Pictures.

PROTECTION

The Franchised AMRAD DEALER sells with confidence that his standing and his profits are assured! The position of Amrad in radio engineering with five great laboratories at its disposal, is second to none in the industry. Amrad products are priced so favorably that ready acceptance by the public may be counted upon. Amrad with the genius of two great manufacturing plants behind it, may be depended upon to provide radio receivers of the highest class. And Amrad dealers are protected against a possible decline in price.

Prices slightly higher west of the Rockies.

What a tone to HEAR and what a line to SELL!

AMRAD

The Amrad Corporation

Medford Hillside, Mass.

J. E. Hahn
President

Powel Crosley, Jr.
Chr. of the Board



The NOCTURNE
Handsome walnut cabinet; built-in dynamic speaker; eight tubes; double shielded, \$295. (not inc. tubes).

The SONATA
Richly beautiful walnut and satinwood console, built-in dynamic of finest type; eight tubes including 250 power tube. \$475. (not inc. tubes).



Merchandise Displays Which Have Stimulated Crosley Sales



A page of suggestions for Crosley displays: 1—Merchandise display exhibited by the Morning Courier & Evening Journal, Evansville, Indiana. 2—Merchandise window installed by Des Moines Register & Tribune-Capital, Des Moines, Iowa. 3—Crosley dancing doll display, used by Wellsville Auto Supply & Radio, Wellsville, N. Y. 4—Glimpse of dealer convention held by Crosley distributor in Menominee, Michigan, the Northern Hardware & Supply Co. 5—Large display of Crosley radios at the St. Joseph Railway-Light-Heat & Power Co., St. Joseph, Mo. 6—Glimpse of crowd attracted to the Boyd Auto Co., Aberdeen, South Dakota, to get returns on the World Series. 7—California Phonograph Co., San Francisco. 8—Lowenstein Furniture Co., Hamilton, Ohio. 9—Booth at Central East Texas Fair set up by the Marshall Radio Corp., Marshall, Texas. 10—Booth at Lake County Fair, Indiana, installed by the G. & S. Sales Co., East Chicago, Indiana. 11—T. R. Brader Motor Co., Storm Lake, Iowa.

MEET COMPETITION



Height, 47 in.
Depth, 15 in.

Width, 38 in.
Shipping wt., 75 lbs.

with this New

MODEL C-8 CONSOLE

\$57

Attractive! Exquisite beauty! Beautiful walnut veneer embellishes the handsome design of this charming model. The decorative inlay effect gives a restrained but animated touch of the modernistic. Vivid color contrasts, provided by double stained routed line designs, heighten the rare beauty of the grain.

The panel is cut out to allow the controls of the receiver to protrude. Installation can be made without removing the outside metal case.

The DYNACONE — the wonderful Crosley achievement in a dynamic type speaker — is built in and renders an amazing tone with clear reproduction which is enriched through construction features of the console cabinet.

Feature it with the new

CROSLY AC

ELECTRIC
SHOWBOX

\$137

SHOWERS CROSLY
RADIO FURNITURE

SHOWERS BROS. CO.

Bloomington, Indiana

Burlington, Iowa - Bloomfield, Indiana

"The world's largest furniture maker."

USE THIS CONVENIENT ORDER BLANK

SHOWERS BROTHERS CO.

Dept. 81, Bloomington, Ind.

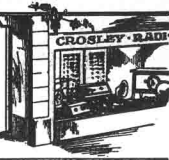
Dealer's Discount 40%

Radio Division
Gentlemen:

Enter our order for.....of the new CONSOLE MODEL C-8 SHOWERS-CROSLY Cabinets:

Our Jobber is Signed
..... Firm
..... City
..... Street Address

CROSLY DEALER'S PAGE

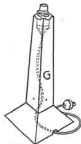


Make Your Counter Sparkle with a Practilite Rotating Torchere

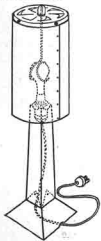
Get Light, Color And Movement In A Single Counter Lamp

Among our new numbers for introducing a fresh note of color and modern design into your Crosley display, is the Practilite Rotating Torchere. It comes in floor size and a smaller number for counter use. In appearance the Rotating Torchere is very gay and futuristic and its motion makes it a great attention-getter.

The Torchere is easily assembled: A complete table model consists of a column base, parchment shade, small brass fasteners, metal fan shade top, a glass thimble, wire clip for this thimble, a lamp socket with cord and plug, collar to fit around socket, eight large brass fasteners, and a wire upright to support the shade.



The Torchere comes to you all ready to be assembled and with complete chart and instructions for putting it together. The operation is simple. The table model and the floor model are alike, except that the column of the floor size is in two parts. When ready to operate, the table model stands like the illustration herewith.



The lamp shade should start re-

volving very soon after the light is set going. It revolves slowly to permit the advertisement to be read. A 60-watt bulb is recommended to get the most satisfactory results.



You will find these Torcheres add considerably to your display. The table model is No. 28-25 and is priced at \$2.50. The floor model is No. 28-24, priced at \$3.50. These prices are f. o. b., Cincinnati. Your distributor can supply you with both types of Torcheres and we suggest that you order immediately.

Dealer's Radio Course Starts in this Issue

Save All the Lessons for
Reference

On page 15 of this issue of The Crosley Broadcaster, you will find the first lesson in the "Crosley Dealer's Radio Course."

This course will consist of ten lessons. The whole series fairly well covers the subject of radio construction. The lessons will be simple, interesting, well illustrated.

There's no doubt that this radio course will provide you with a whole bunch of selling arguments. The better you know your Crosley set, the more convincingly you can describe its points to your prospects. You can also eliminate a great deal of servicing by increasing your own practical knowledge of set construction.

If you have questions on the course, or on points about radio which this course may not cover, write them in to the editor of the Broadcaster. They will be answered by a competent radio man in a later issue.

We hope you will get real pleasure out of this course. We think it is going to prove of great value and benefit to Crosley dealers.

Do You Watch the Aerials?

Boys Will Canvass Your Neighborhood to List Roofs
With Aerials

If you want to get a line on the number of homes in your neighborhood where radio is a live issue, count the aerials on the roofs. In every dealer's territory there are numbers of people who do not even know about A C sets. Many of these would be glad to learn about the improvements in radio receivers, and change over from old battery-operated sets to far more satisfactory Crosley A C sets.

You can get one or two high school boys to make a neighborhood canvass for you. They are glad to do a few hours work after school, and at a very small expense to you.

A high school boy is more responsible than a grade school boy and usually more accurate in his work. Wherever possible, instruct him to get the street address of each house which shows an aerial on the roof, and the name also.

In this way, you build up a list of prospects in your own territory which you can use in making personal calls, or for a round of calls by one of your salesmen, and you can also use it for mailing.

What we have called the "Crosley

Retail Sales Plan" is a method of selling by the use of direct mail advertising. A series of very attractive mailing pieces has been prepared for dealer use. In your copy of "Crosley Merchandising Helps," Bulletin No. 1, you will find the whole story of this direct mail campaign and how to put it in motion.

To get its best effect, the "Crosley Retail Sales Plan" depends upon a reliable mailing list. You must have a list of genuine names and addresses. In getting high school boys to gather this list for you, show them the importance of being accurate. Even a little matter like having the initials right is a help.

You'll find that a couple of bright boys will catch the idea, right away and will cooperate with you. In many cases, they will have the information before hand, but a good check-up is always wise. Once you have collected a trustworthy mailing list, not only will it serve for the "Crosley Retail Sales Plan" and for direct, personal calls, but will be useful to you for a long time to come.

Boston Store Window Excites Comment



If you are a "Fort Dodger" doubtless you saw the elaborate window display used by the Boston Store of Fort Dodge, Iowa, in featuring the Crosley line. This store, which is one of the biggest in the Middle West, is owned and operated on a department store basis, by the Turke Mercantile Company. They have had wonderful success in selling Crosleys. Located in the heart of a great agricultural and gypsum mining region, they are serving a prosperous and discriminating community.

Sell with the Help of the Screen

An Entirely New Set of MOVIE SLIDES



Set of 5 Slides \$1.50 f. o. b. New York
Enclose Cash With Your Order

When the folks in your community gather in the neighborhood picture house, then's the time to catch their attention. THEN is when you have the interest of the whole family. Moving picture slides in live colors, with short, snappy sentences, easy to read, easy to remember, stunning pictures of Crosley numbers—these win and hold the attention of the audience. We have a set of 5 new slides just ready for you. "You're there with a Crosley" with every one. The price of \$1.50 per set, postpaid, includes a 3-line imprint.

Order Right Now from Your Distributor!

Dynacone Contest Closes December 1

December 1st, 1928 is the closing date for the contest on the Dynacone Problem. Mail your solution to the Crosley Broadcaster before this date!

* * *

WE ARE offering three cash prizes to Radio Service Men who submit the best plans for connecting the Crosley DYNACONE on the greatest number of nationally advertised 1928-1929 models of Broadcast Receivers, Crosley sets excepted.

First Prize \$100.00
Second Prize 50.00
Third Prize 25.00

For every answer of sufficient value to be published, aside from winner answers, a \$5.00 payment will be made!



Get your answers in before December 1st, 1928. Diagrams and complete instructions regarding this contest have been announced in previous issues of The Crosley Broadcaster. No time to lose!

Radio's Debut In Warfare

Wireless Communication As Used in the Boer War

Everyone knows the important part played by radio during the recent World War, but few persons realize that radio's part in war originated almost 30 years ago. Yet a study of old newspapers and magazines reveals that radio (or "wireless" as it was then called) was considered an important aid in the conduct of battles at that time.

The first practical wartime use of radio was in connection with the Boer War, in South Africa, in 1899. The picture shows a member of the British forces operating one of the portable transmitting sets used in that campaign. The equipment was crude and bulky, and had a range of but a few miles.



A HERZIAN WAVE WIRELESS TELEGRAPH STATION.

Signor Marconi, in a speech which he delivered before the Royal Institute of Great Britain, February, 1900, describes radio's part in the Boer War:

"At the tardy request of the war office," says Marconi, "we sent out Mr. Bullocke and five of our assistants to South Africa. It was the intention of the war office that the wireless telegraph should only be used at the base and on the railways, but officers on the spot realized that it could only be of practical use at the front. They therefore asked Mr. Bullocke whether he was willing to go to the front. As the whole of the assistants volunteered to go anywhere with Mr. Bullocke, their services were accept-

ed, and on December 11 they moved up to the camp at De Aar.

"The results which they obtained were not at first altogether satisfactory, but this is accounted for by the fact that the working was attempted without poles or proper kites (from which to support aerials) and afterwards with poles of insufficient height, while the use of kites was very difficult, the kites being manufactured on the spot with very deficient material. The wind being so variable, it often happened that when a kite was flying at one station there was not enough wind to fly a kite at the other station with which they were attempting to communicate.

"However, on getting the kites up, they easily communicated over a distance of some 70 miles. I am glad to say that, from later information received, they have been able to obtain poles, which although not quite high enough for long distances are sufficiently useful.

"Stations have been established at several points which work well and will be invaluable in case the field telegraph line connecting these positions should be cut by the enemy. The military authorities have lately arranged to supply small balloons to my assistants for portable installations on wagons."

Evidently the Boers had not been asleep in the meantime. Realizing the advantage that the use of radio would give the British, they had made all possible effort to obtain equipment for their own use. "I find it hard to believe," says Marconi, "that the Boers possess any workable instruments. Some instruments intended for them were seized by the authorities at Cape Town. Those instruments turned out to have been manufactured in Germany. Our assistants found out, however, that the instruments were not workable."

Thus radio made its debut in warfare some 29 years ago. It was very soon a regular part of the equipment of all ships of the American, British, and Italian navies, and in but a few years it had become recognized as an indispensable part of the signaling equipment of modern armies.

Beacon, N. Y. Hears WLW Like Local

Crosley dealer at Beacon, New York, secured a good tie-up with his advertisement in "The Beacon News" of Monday, October 29th. The Carries' Music Shop of Beacon put in the local paper an announcement of the opening of Crosley's new WLW station, with special mention of the gala program which started at nine in the evening.

Any of our authorized Crosley dealers can secure good newspaper mats, by applying to his distributor. Whenever a big radio event takes place, such as opening the 50 kilowatt transmitter which WLW is now using, warrants a suitable ad in your local paper and often is the means of securing additional publicity.

Advertising of Sound, Permanent Value

Signs which Combine Quality
with high Attention Value

Crosley Rainbow Display

Dancing, Weaving Colors to Delight the Eye

This is the newest Crosley advertisement for your counter or window, our beautiful new Rainbow Display! Illuminated with changing colors which play over the bright colors in which the display is printed. It retains attention without distracting from your sales effort. In enamel and lacquer, brilliantly colored, with large transparent advertisements on 2 sides. A revolving heat motor within, maintains a constant shift and play of color. Your distributor will supply you.

Each \$3.00 f. o. b. Cincinnati

Order Today from Your Distributor



No. 28-23

Illuminated Shadow Box

Black, with Neon Red

This ventilated shadow box in black metal adds dignity and at the same time gets a great deal of attention. The name, Crosley, is lighted up from within in a rich Neon Red. This illuminated Shadow Box is 8 inches high and 24 inches long. Order now from your Distributor.

Each \$5.50 f. o. b. Chicago



Large Electric Sign

\$185 Value

5 Feet by 3 Feet

At last a large electric sign at a reasonable price! We are issuing an exceptionally handsome Electric Sign, worth \$185.00, at the reasonable figure of \$50.00. The sign is five feet long and carries the dealer's name at bottom of both sides. This sign gets attention up and down the street. It's a big number. Send order to your Distributor.

Each \$50.00 f. o. b. Lima, Ohio



CROSLLEY DEALER'S RADIO COURSE

10 Simplified Lessons Especially Prepared for Crosley Dealers

THIS is the First Lesson in our Dealer's Radio Course. There will be ten short lessons; as you follow the whole course carefully, radio will become simpler and more understandable. We recommend that all Crosley dealers work out the course themselves, and have their salesmen and clerks follow it through also. If questions come up in connection with these lessons, send your question to the Editor and it will be answered in a later issue of the Broadcaster.

LESSON I

To study the principles of radio it is necessary to start with the elements of electricity. A broadcasting station or a radio set is simply an assemblage of electrical parts. If you understand these parts and how they work together, you will have a clear conception of the complete broadcasting and receiving system. Our course will begin, therefore, with a study of some of the more important facts about electricity.

Electric Currents.

Connect a dry battery by two copper wires to the terminals of an electric bell (Fig. 1 and the bell will ring. Something has come out of the battery and gone into the bell to make it ring. This something is called "electricity". The travel, or flow, of electricity through the wires is known as an "electrical current", or simply "current".



Figure 1

Electric Circuits.

The bell continues to ring as long as both wires are connected to it. If we take off, or disconnect, one wire, the ringing ceases. Evidently, in order for the bell to ring there must be a complete path, or complete circuit, through which the electric current can flow from the dry-cell through the bell and back to the dry cell again.

If the circuit is broken at any point, the current stops and the bell ceases to ring. Similarly, if one of the wires in your house-lighting system becomes broken the lamps supplied by it will fail to light.

An electrician in describing this trouble would say that there was "an open circuit in the line", or simply an "open circuit".

Furthermore, electricity, like everything else in nature, is lazy. It will tend to follow the easiest path in going between any two points. Take a fat piece of copper wire and hold it across the terminal of the ringing electric bell. The bell will immediately stop ringing, because most of the electricity will follow the easiest path through the wire rather than to take the harder

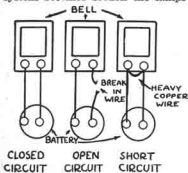


Figure 2

path through the bell. A little later we will see just how the current

divides between these two branches of the circuit. An easy path of this sort, which detours the electric current around the place where you want it to go, is called a "short circuit".

Summarizing: (1) A complete circuit, or closed circuit, is necessary in order for electric currents to flow continuously. (2) If the current fails to flow because of a break in the line, the trouble is described as an "open circuit". (3) If some undesired but easy path conducts the electricity around the place where it is intended to go, this detour is known as a "short-circuit".

Conductors and Insulators.

Remove one of the wires from the battery and bell and replace it with a piece of string. The bell will no longer ring.

In place of the string, put a piece of iron wire. The bell will probably ring again, but only feebly.

Evidently electric currents flow much more easily through some substances than through others. Those substances through which electric currents flow easily are called "conductors". Those through which they flow only with great difficulty are called "insulators". Examples:

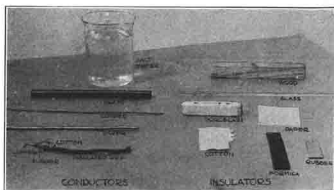


Figure 3

Conductors.

- Silver—best conductor.
- Copper—next best.
- Other Metals—still less conductivity.
- Salty water, or water with a trace of acid or alkali in it.

Insulators.

- Glass.
- Porcelain.
- Formica, Bakelite, and similar materials.
- Rubber.
- Cotton, silk, wool.
- Varnish, shellac, lacquer.
- Dry wood.

Nature of Electric Currents.

What is the electric current that flows from the battery through the bell and back to the battery again? Carefully study the answer to this question as it is given below. The explanation offered may seem rather theoretical or technical to you at this time, but it is absolutely necessary for you to get these ideas clearly in mind if you are to understand the workings of the radio tube and of other important radio devices:

According to the most modern ideas, an electric current is a flow of particles of electricity.

Apparently there are two kinds of electrical particles. These are called "positive" particles, or "protons", and "negative" particles, or "electrons". When a positive and a negative particle get together they neutralize each other, so that neither one has any effect on other things in the neighborhood. Separate a positive and a negative particle and they will tend to pull themselves together, or attract each other, just like an apple, when let go, falls to the earth. On the other

hand, two positive particles or protons, will tend to push apart, or repel each other, and likewise two negative particles or electrons will repel each other.

The protons are bound up inside the elementary atoms of matter. The electrons, or negative particles, attach themselves to the protons in the elementary units or atoms of matter. Often, however, a negative particle, or electron, gets knocked loose, and then it is free to wander about until it finds another positive particle to which to attach itself. It is these free, migrating negative, electrical particles, or electrons, that constitute an electric current. In other words, an electric current is a flow of electrons.

To get some idea of the extremely small size of the electrons, consider that 18,000,000,000,000,000 of them travel every second through the wires feeding a single, 6 ampere automobile headlight bulb.

How Currents are Generated.

Each elementary particle, or atom, of matter is normally supplied with the same number of protons and electrons (the atom is supposed to be the smallest possible particle, or unit, of matter, and is far too small to be seen even with the most powerful microscopes). Atoms occasionally lose an electron, however, and then, having an excess of protons, they tend to pick up electrons whenever they have a chance. Other atoms sometimes get an extra electron attached to them, which they are anxious to give up at the earliest convenience.

Devices such as batteries or generators, which supply electric currents, make use of mechanical, chemical, or other forms of energy to pile up atoms with extra electrons at one of their terminals and atoms deficient in electrons at the other terminal. If you connect a wire from one terminal of a battery to a bell and connect a return wire from the bell to the other terminal of the battery, then the excess electrons at one of the battery terminals will flow into the circuit, around through the bell, and back to the other battery terminal, where they will attach themselves to the atoms deficient in electrons that are awaiting them at that point. The chemical substances in the battery, or the actions in the generator, are continually supplying more extra electrons at one terminal and more atoms deficient in electrons at the other terminal. Thus the electric current is continuously maintained.

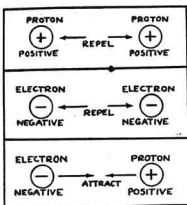


Figure 4

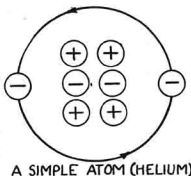


Figure 5

of a dry cell. In the center is a carbon rod. This forms the positive terminal of the battery—that is, the terminal at which atoms with an excess of positive charges (or protons), collect. The case is of zinc. It forms the negative terminal—that is, the terminal from which excess, free, negative electrical particles (or electrons) flow into the circuit. Between the carbon rod and the zinc case is a filler of crushed coke, graphite, and manganese dioxide, impregnated with a solution of sal-ammoniac and zinc chloride, the active chemical agents. It is the action of these chemicals which enables the cell to deliver an electric current. Lining the zinc container is a layer of absorbent paper which separates the filler from the zinc case.

If a current is drawn from a dry cell for a sufficient length of time the active chemicals will be used up and the cell will cease to supply electrical energy. It is then necessary to replace the cell with a new one. In describing the cell's condition, we say that it is "run down".

Direction of Current Flow.

At this point an important fact should be noted. According to modern ideas, an electric current consists of a flow of electrons from the negative terminal of a battery or generator, through the outside circuit, and back to the positive terminal.

Until recent years, before the nature of an electric current had been fairly well agreed upon, it was assumed that the current flowed from the positive to the negative terminal. This old idea has become so firmly fixed in electrical language that we always speak of a current as flowing from positive to negative unless we are actually talking about electrons.

Be sure to get this matter straight. Remember always that the electrical particles are actually flowing from positive to negative. If you are confused at this point, read the preceding paragraphs again and study them thoroughly until you have the facts clearly in mind.

Storage Batteries.

A Storage Battery (Fig. 7) is so named because of the fact that when its chemical energy has been used up in supplying electrical current, this chemical activity may be renewed by sending an electric current through the battery in the reverse direction. Thus a storage battery differs from a dry cell in that it may be used indefinitely.

In other words, a storage battery is a type of battery which may be put through an indefinite number of cycles of discharge and charge—electricity being drawn from it at the expense of chemical action during the discharge period, and chemical activity being restored by means of an electric current during the charging period. A storage battery is a feverish electro-chemical device, the chemical activity of which may be restored at any time by sending a current through it in the reverse direction.

We shall discuss in more detail, later, the action that takes place in a storage cell.

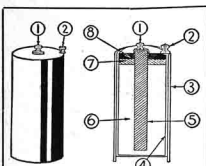
Following Lesson.

At this point, Lesson 1 ends. The following lesson will take up such matters as resistance, voltage, amperage, magnets, etc.

Answer carefully the five questions below. If you cannot answer some of them, study over the text of this lesson again. If you still cannot answer some of them, or if you wish to ask any questions about this lesson, write to the Editor, "Crosley Radio Broadcaster".

QUESTIONS

1. If a complete circuit is required for a continuous electric current to flow, how do you explain the fact that many automobile headlight bulbs have but one wire running to them?
2. Why are telephone wires supported on glass knobs instead of directly on the wooden or iron poles?
3. If you were to put a large number of electrons at a single spot on a hollow copper ball, would they stay in that position or would they move so as to take up new positions? Explain.
4. Why is it impractical to recharge a dry cell?
5. Does a storage battery actually store electricity or does it store something else? Explain.



Left—1. Positive Pole.

2. Negative Pole.

Right—1. Positive Terminal.

2. Negative Terminal.

3. Cardboard Cover.

4. Zinc Negative Case.

5. Carbon Rod (Positive).

6. Active Chemicals.

7. Sawdust Packing.

8. Sealing Compound.

CONSTRUCTION OF A DRY CELL

Figure 6

Batteries.

What is a battery? A battery is a device which contains certain chemicals that will react under the proper conditions so as to enable it to deliver an electric current. In other words, it is a chemical device for delivering an electric current.

The types of batteries most commonly used in radio are dry batteries and storage batteries.

Dry Batteries.

A dry battery (dry cell) which is dry is useless. Every good dry battery is wet on the inside. A filler for soaking up the wet solution together with a leak-proof case and a tightly-sealed top make the dry cell completely dry on the outside, however.

The accompanying illustration (Fig. 6) shows the cross-section



Figure 8

*Strictly speaking, a single unit of a battery should be called a "cell", and the term "battery" should only be applied to groups of two or more cells.

How About the Direct Canvass?

Are You Using the House-to-House Selling Method?

Is Your Neighborhood Fully Supplied with Crosleys?

There is no field of endeavor which retail radio dealers are more reluctant to enter than the field of canvassing. Many dealers feel that this form of selling lowers the character of their house and the products they are selling. Other dealers feel, because of the difficulty of obtaining good men to do this kind of work, that the men they send out make a bad impression. Still other dealers would like to get in the field but do not know how to go about it. Almost any man is able to go up and down streets and after he has covered a number of houses get some good prospects; yet it is often a question with our dealers whether or not the efforts to secure these prospects is profitably employed.

Canvassing is responsible for phenomenal growth in many businesses; many profitable businesses depend upon this method of selling entirely. By this method, the Fuller Brush Company sells 80 per cent of the brushes sold in the United States. The Real Silk Hosiery Company, through this method of selling, dominates the silk hosiery field. Many industries have adopted this form to introduce new articles and increase sales. The Broecker & Gamble Company uses house-to-house canvassers, the Curtis Publishing Company, the Post Products Company and many others.

The failure of many dealers in canvassing work has led them to condemn canvassing as an unproductive method of getting orders; however, this is not at all conclusive proof that canvassing in general is not effective. It only proves that the method of canvassing used was wrong. It would be just as wrong to condemn all advertising because some particular advertisement failed to produce satisfactory results. Successful canvassers have worked out through long experimental periods, the quickest, easiest and best methods of canvassing in their respective fields and all their salesmen are trained to follow the general methods which have been found most successful.

The following is a method used by an electrical radio dealer who has been very successful with the canvassing method of selling in the radio field:

A salesman loads two or three Showboxes and F Dynacones into his automobile, and goes out on location about 9 o'clock.

A great many raise the objection that a woman does not have her housework finished at that time and will not listen to a man who sells radios. If it is objections that one is looking for instead of sales, one can give good reasons why a salesman should not go to see prospects any hour of the day!

It is evident that if one is to be successful in canvassing that it is necessary to forget what can't be done, and instead to find ways to do the job!

The canvasser goes to the first house he comes to, rings the bell and when the woman comes to the door, he addresses her in somewhat the following manner: "Good morning; this is Mr. Brown of the Electrical Service Company; I am making an investigation to determine how large a radio market there is in this community; I wonder if you will let me know what kind of radio set you have." As a general rule, the woman answers this first question. The man's idea in asking a lot of questions here is to draw the desired information out of the prospect in such a way that she becomes conversational, unsuspecting and inclined to confidence. The next questions, if the prospect has a radio, are: "How many tubes is it?" "Is it an electric set, or a battery operated set?" "What kind of an aerial have you?" and any other questions that might be useful as recorded information for the dealer's files.

In many instances, prospects mention they are going to be interested in a new electric set, because their old type battery-operated set is obsolete.

With this information, the salesman immediately speaks up as follows: "I'll just step in and let you hear the set I have with me, Mrs.

Jones; all I have to do is just plug it into your electric light socket and let it play, and I know you will appreciate hearing the beautiful tone quality of this new A. C. set."

One dealer who uses this method, tells us that his salesmen daily place two or three sets in this manner. They also bring in to the files dozens of prospects who can be followed up successfully later. When the radio set is once placed in the home and the woman expresses pleasure in its tone and performance, the salesman assures her that better results are produced at night, and suggests that he leave the set there for her to play that evening, so that her husband can hear it. He tells her that she will be under no obligation to purchase unless she wants to do so. That evening, if possible, he gets around to see the woman while the husband is home and usually finds them both delighted with the performance of the set. Many sales are closed that same evening.

Dealers will no doubt be interested in methods used to overcome objections. A great many of our dealers tell us that the easiest way to overcome objections to a Crosley number is to demonstrate it in competition with any other set on the market.

As regards price, the Crosley line is scaled to give the price advantage to Crosley dealers. Comparison of prices among quality radio receivers demonstrates this conclusively. Point this fact out to your prospects.

The dealer may think that leaving sets out on trial will result in broken tubes and damaged sets; also that a great many will come back on their hands. Several dealers who are using this method have written us in regard to that, and they tell us that as high as 50 to 80 per cent of merchandise placed in this way stays and is sold! A dealer who uses this method in Cincinnati sold 62 sets in one month. Canvassing may have drawbacks; at the same time, if what the dealer is looking for is profits, this is certainly one way of reaping a harvest.

The following news story was prepared by the Crosley Publicity Department for your use in local newspapers in obtaining publicity for yourself and the Crosley products you sell. Clip them out, fill in your name and address in the blank space and hand them to your radio editor or to the advertising selector who calls on you. Please send us clippings of any of this material that is printed in newspapers in your territory.

"Do your Christmas Shopping early," the admonition heard every year about this time, applies to radio buying as well as any other kind according to

"Radio receivers are no longer turned out in big lots during the summer and then stored to await the last few days of the Yule rush," explains Mr. "Production in the Crosley plant at Cincinnati is being conducted just as is production in the big automobile factories in Detroit. Every set that has come from the assembly line for the past four months has been on order before its manufacture was started. Due to the heavy pre-election demand for sets many people were required to wait weeks for their Crosleys. We advise early ordering for Christmas to avoid disappointment."

Equal to the demand for the Showbox and Gembox receivers is that for the Dynacone, the new Crosley power speaker. This reproducer used in connection with a modern all electric receiver produces the finest tone possible.

Crosley Xmas Balloons Carry Your Ad All Over Town

Use advertising balloons; it pays! The popularity of colored balloons never seems to wane. So we have prepared a supply of Crosley balloons for the Holiday season of 1928. The chubby fist of many a kid, happy in the gift of a brightly-colored balloon, will be the means of carrying your name and address, with a picture of the Gembox and Dynacone, all around your town, and right into the homes.

These balloons are the latest product of the Perfect Rubber Company of Mansfield, Ohio. They are supplied in red, green, blue, purple, yellow. You can also get these in assorted lots if you like that better.

If you are near a school, this will be a good way to establish contact and create demand for a Crosley receiver in the school. The Eason-Meeth Company of Grand Rapids have just sold a Crosley Showbox and Dynacone power speaker to the Ottawa Hills High School of that city. The school field is just opening up as a radio market. Many school principals in high schools and grade schools are beginning to see the value of radio in the school.



A brilliant Crosley-Amrad dinner was tendered to the Davega organization of New York City. A large number of Davega representatives were present at this function, which was held on September 25, 1928, at the Pennsylvania Hotel. The 20th Century Radio Corporation were the hosts.