

# THE CROSLLEY BROADCASTER

PUBLISHED BY THE CROSLLEY RADIO CORPORATION

VOL. VII

FEBRUARY 15, 1928

NO. IV.

## Icyball Refrigerator Enthusiastically Received

### Letters Show That Dealer Organization Realizes Tremendous Sales Possibilities

It has only been a month since the Crosley Icyball Refrigerator was announced to Crosley Dealers, and yet already enthusiasm is running high. Hundreds of letters which have poured in, the comments which have been made to Crosley Distributors and Factory Representatives show the instant response with which the Icyball has been received by the entire dealer organization.

Dealers in every part of the country—large dealers, small dealers—dealers catering to farmer trade—dealers catering to city trade, all see in the new Crosley Icyball Refrigerator not only a tremendous money making opportunity, but the answer to the problem of continuous year-around sales.

#### "People Crowd Store"

Space does not permit us to quote from all letters received. We will just pick out a few at random, however, to show the general feeling of the entire Crosley Dealer organization. Here is a dealer from Oklahoma who states, "Saturday afternoon we received our first Icyball Refrigerator. We put it in our window over Sunday and this morning we have been crowded with people wanting more information about its cost and the form of operation. We are very proud that you have found a medium to keep our Crosley sales at their peak the year around."

#### "All Pepped Up"

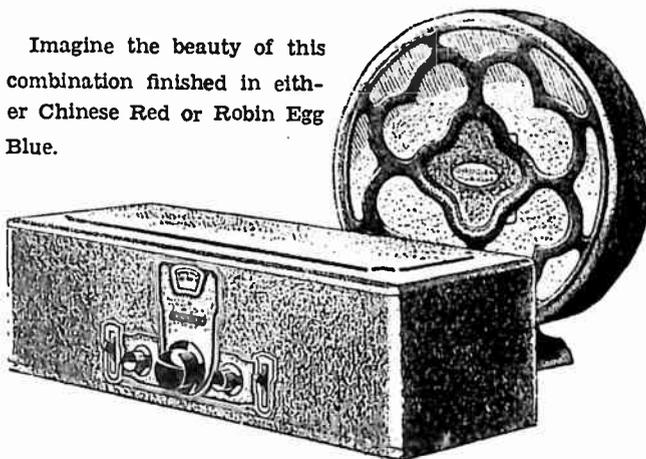
Here is a letter from a Crosley Dealer in Florida, "Just received announcement of 'Icyball.' This is what we have been waiting for."

A Kansas Dealer writes, "I have just been trying the Icyball and sure find it a wonderful piece of chemical perfection. I see no reason why it will not go over big this summer."

A Pennsylvania Dealer writes, "I am all pepped up over the Icyball

## Beautiful Duco Finishes Announced Crosley Branch Offices Closed

Imagine the beauty of this combination finished in either Chinese Red or Robin Egg Blue.



### Type "D" Musicones And Metal Cases For 601 And 602 Bandbox Available In Chinese Red And Robins Egg Blue

Bandbox receivers in beautiful Duco colors—that is the latest Crosley talking point offered by Powel Crosley, Jr. The type D Musicone and metal cabinet for the Bandbox 601 and 602 will now be furnished in both Chinese Red and Robin Egg Blue Duco finish. The cabinets will sell at \$5, while the Type D Musicone will sell at \$18 which is \$3 above its usual price.

Harmonizing the color scheme of rooms is becoming more and more the vogue all over the country. This new development has extended itself in many directions. Typewriters are furnished in color; furniture

is furnished in color; and naturally anything which may have a place in the decoration of a room is being furnished in colors.

#### Meets Big Demand.

This vogue of color has spread and grown with great rapidity. It is only natural, therefore, that there should be a great demand for radio receivers and even loud speakers furnished in special colors. Now Crosley Dealers will be able to meet this demand by furnishing the Bandbox 601 and 602 and the Type "D" Musicone in two special Duco finishes.

(Continued on Page 13)

Refrigerator and will absolutely get behind it in this territory. Hurry literature to me."

A Texas Dealer states, "We have received the sample of the Crosley Icyball and have it on display in our show room. It looks good to us and we think it will find a good sale in the outlying territory where power refrigeration is not available."

A Nebraska Dealer, all enthused, writes, "Yesterday we received our first Icyball. We would like a lib-

eral supply of any descriptive literature or letter stuffers that you can send us. I believe nearly fifty people have inspected the box today and it seems to have created a lot of enthusiasm for the Icyball. Not one adverse comment was to be heard. Now is the time to open a campaign for Spring business. We have frozen four trays of ice cubes during the day. The box is now registering 36°, despite the many times it has been opened for inquiring prospects."

(Continued on Page 12)

### Action Taken To Insure Better And More Efficient Cooperation To Crosley Dealers and Distributors

The Crosley Branch Offices, maintained experimentally for some months at New York and Chicago, have been closed. Mr. Crosley reached the decision to take this action after a careful investigation which disclosed that the offices were a hindrance rather than an aid to giving Crosley Dealers and Distributors the best cooperation.

#### Centralization Now Possible

By centralizing all the details of conducting the business at the Cincinnati office much better and quicker service can be given. It developed that in the past with the two Branch Offices matters were referred to the branch office which had to be handled in the Cincinnati Office. Thus there was naturally a delay in forwarding the correspondence on to Cincinnati. Further there was considerable unnecessary duplication of work—work which did not speed up service but which could be handled even more efficiently at the main office. It is felt, therefore, that the closing of the Branch Offices will prove a real benefit to everyone concerned.

#### Division Sales Organization

The company will still maintain the Division or District plan of sales organizations. There will be the three divisions, Eastern, Central and Western, with a traveling division sales manager over each. Mr. J. T. Dalton, will be the Eastern Traveling Division Sales Manager, Mr. R. P. Crawley, will be the Central Traveling Division Sales Manager and Mr. F. H. MacGowan, will be the Western Traveling Division Sales Manager.

The duties of the three Division Traveling Sales Managers will be to maintain frequent contact visits to the central offices and personal

(Continued on Page 11)

# Read This Letter Inspired By A Crosley Bandbox Which Was Received By A Dealer

CASH CAPITAL \$2,000,000 00

PLUMMER'S INSURANCE AGENCY  
121 EXCHANGE STREET  
PORTLAND, ME.

ORGANIZED 1853  
**Agricultural Insurance Company**  
of Washington, D. C.

FIRE, WINDSTORM, MAR. NE.  
AUTOMOBILE, SPRINKLER LEAKAGE,  
PARCEL POST & EXPLOSION INSURANCE

Mr. Fred Hooper

Oren Hooper Sons  
#236 Middle St.  
Portland, Maine.

Portland, Maine Jan. 3/28

Dear Sir:-

The Crosley Radio I purchased of you a few weeks ago, has proved to be far better than you told me. Chicago, New York, and all long and short calls came in wonderfully clear without any disturbances. Unless this is a specially good set or the harmonious, surrounding raised the tones to a higher standing, you can go one better when comparing the Crosley to other radios. Instead of saying there are no better on the market, truthfully say, best on the market.

Perhaps the location and association may clear up the static. There is no one living on my premises that drink, smoke or use profane language. We all know that this trio is a great breeder of static.

I assure you that we are much pleased and more than satisfied with the Crosley. On every point is the best Radio I have listened to, and I am glad that you persuaded me to purchase a Crosley.

Yours truly,

*Charles A. Plummer*

Say! Satisfied Customers Like This Are Your Best Advertisement. It Pays Big To Handle Merchandise Which Will Inspire Letters of This Character.

## Taking The "Miss" Out Of The Mystery In Radio

Be A Modern Radio Merchandiser---Demonstrate Superior Qualities Of AC Bandbox

Is the ability of the public to recognize radio value keeping step with the rapid progress being made in radio development? That is a pertinent question to the radio dealer today. The attitude of the public towards purchasing a radio is largely influenced by the radio dealer. Thus the educating of the public in the matter of judging radio value is in the hands of the radio dealer.

### Good Intentions—But

The prospective radio purchaser naturally has good intentions. Who does not want the very best that can be purchased for one's money? But we come back to the question, can the public recognize value in a radio receiver? Does the average purchaser of radio know how to determine whether one set is better than another? How often do they miss?

After all is said and done there is only one way to decide whether you are getting the biggest value in radio for your money, and that is by careful comparison of the performance and characteristics of the various radio receivers on the market. If the prospective buyer would compare one set with another before deciding to buy, there would be little likelihood of missing the real value in radio.

### Mystery Surrounds Radio

The fact that many people are not able to judge radio quality and value is due entirely to the mystery of radio. A great glamor has surrounded radio in the mind of the average person. Radio has been a great mystery which many have not taken the trouble to penetrate. This mystery of radio makes the average person miss the real value in radio. Radio is radio, they say. One set is as good as another. Thus, many spend their money for radio without proper care to determine whether they are obtaining the very best value. They miss this value because of the mystery of radio.

The time has come when the radio purchaser should have the opportunity to try out and make a careful demonstration of a set before he buys. Radio should not be purchased on faith or by name, but from the results of actual experiments. The "miss" must be taken out of the mystery of radio.

### Same Applies To Radio

For years the automobile purchaser has demanded a demonstration. He gets in the driver's seat and puts the car through its paces. He is not satisfied with a demonstration of one car. He tries a number of cars in his price range and then after careful comparison

of the relative merits of the cars he makes up his mind.

Why shouldn't the same procedure apply to purchasing a radio? How have you determined for yourself that the Crosley Bandbox is the greatest value in radio? By comparing it with other radio receivers in its price range, or course. You compared its ability to bring in

Have you made such a test? If not, you should do so at once.

Here is an experience which was recently reported here in Cincinnati. The AC Bandbox, Model 704, was placed alongside another well known AC set, very near its price. A throw-over switch was connected so that the antenna could be



distant stations, its selectivity, sensitivity and volume. After making these comparisons there was not a shadow of doubt in your mind, about the superiority of the Crosley Bandbox in comparison to every other set anywhere near its price range.

thrown from one set to the other. Fort Worth, Texas, was obtained on the receiver of the other make. It came in with only sufficient volume to be recognizable. Then the antenna was switched over to the 704 Bandbox and the same station tuned in. Immediately the program

## Bandbox Junior Captures Neglected Market

### Domination Of Four Cylinder Car In Automobile Field Indication Of Market For Bandbox 401

Not only a new and profitable field, but what has been for some time past an entirely neglected field, has been opened up for Crosley dealers with the introduction of Bandbox Jr., Model 401.

Undoubtedly during the past two or three years six tube radio sets, storage battery and light socket operated, have become the vogue; just as six cylinder cars represent the general vogue in the automobile line.

Despite the popularity of six cylinder cars, however, automobile manufacturers realize that there is today (and always will be) a vast market for four cylinder machines. For the past few years, radio manufacturers have failed to realize that an analogous market exists in their own field.

Which are the two largest automobile companies in this country? Anyone can answer that question correctly without a moment's hesitation—and the significant fact is that both of these great companies manufacture four cylinder au-

tomobiles exclusively. No more positive proof is needed to show beyond doubt that an immense field for this type of merchandise exists.

No doubt it is true that many persons who buy four cylinder automobiles would prefer to buy six cylinder machines. But after all, the majority of us have four cylinder pocketbooks, and even if we would like to, we cannot enter the six cylinder class. Besides, our four cylinder transportation brings us reliable service, pleasure and satisfaction—and we are consoled with the thought that if he had a "six" it would merely mean that we would want an "eight."

Now in the face of this great market, would it not be foolish if every automobile manufacturer would refuse to make fours, simply because six cylinder cars are popular, and the general vogue, and undoubtedly have advantages over their four cylinder running partners.

(Continued on Page 6)

came in clear and true and with such a surprising increase in volume that it has to be cut down with the volume control. A test of this nature is surprising in its revelations. If you have not made such a comparison, you should make it immediately.

### Reason For Bandbox Superiority.

Why the huge difference in the performance of the two sets? The answer is in the painstaking engineering that is behind the Crosley AC Bandbox. In the first place this set is a genuine neodyne receiver, far superior to the lesser type of circuit to be found in competitive sets. Then too, all the condensers, coils, wiring totally and separately shielded, giving the high sensitivity and sharp selectivity which is so amazing.

These characteristics are forcibly expressed in the ease with which overlapping programs are shut out and far off stations collected. One of the most important reasons, however, for this superiority of the AC Bandbox is that from 170 to 185 volts are on the plate of the power output tube. It is this which gives the clear undistorted music in more than ample volumes. It is this which places the AC Bandbox head and shoulders above competition.

### Note Comparative Checkings

The comparative checkings of competitive radios show very interesting figures. Under identical testing conditions the Crosley Bandbox shows a full 170 to 185 volts on the plate with 171 power output tubes. Other radio receivers show from 100 to 110 and 130 to 140 volts on the plate of the output tube. To operate most efficiently the 171 power tubes should have around 180 volts.

The prospective purchaser of a Crosley AC Bandbox may not know why it is superior to the other AC sets at anywhere near its price range, but the comparison, the demonstration of the performance with other sets will immediately show this superiority in unmistakable fashion.

### Do Your Part

Now it is up to Crosley Dealers to do their part in taking the "miss" out of the mystery of radio. The mystery of radio make the prospect miss the real value in radio. Take the "miss" out of mystery and you can persuade the prospective radio buyers to actually try out a radio receiver before actually making up their minds. You have in the Crosley Bandbox Receivers, the greatest value in radio. Careful comparisons emphasize this value. Thus, it is to your benefit to make demonstrations to all radio prospects in your territory. Make the demonstration right in the home of the prospective purchaser, let them compare it with their old radio set, if they have one. You can make

(Continued on Page 12)



Published By  
The Crosley Radio Corporation,  
Manufacturers of Radio Apparatus,  
Colum and Sassafras Streets,  
Cincinnati, Ohio  
Telephone Kirby 3200  
Editor: Charles E. Fay

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.



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 Latour Corporation.

## Editorials

### Selling Snowballs In Summer

In many parts of the country snowballs are so common in winter as to attract no attention at all—but just walk around the streets of one of our cities on a hot July day with a basketfull of snowballs and see what a crowd will collect.

Thus we are led to believe from long years of experience that hot days and snowballs do not go together.

Now we learn, however, that experience is all wrong—that science has completely upset what appeared to be definitely settled once and for all by common, everyday experience. A pair of balls appear on the market (called Icyball instead of Snowball it is true) which actually get colder the hotter you heat them.

This idea of heating a ball in order to make it cold is so radically new and different that it is startling. Most of us will hardly believe it until we see the trick done.

And yet hundreds of Icyballs are cooling refrigerators every day, simply by being heated on the stove for an hour or so. This scheme of refrigeration is so unique that it cannot help arousing curiosity and interest wherever it is first mentioned.

On hot streets everywhere thousands of Crosley dealers will be selling these perpetual snowballs next summer. They should take full advantage of the publicity features that it involves. A unit should be put in operation in the show window each day. These should be placards explaining how it works, and preferably an actual window demonstration. The resulting crowds

will bring many live prospects and customers.

The real practical value of the Icyball involves so many features that it would require a large amount of space to list them. Its value to farmers, campers, city dwellers of moderate income, and many other groups cannot be underestimated. But in devoting his attention to these genuine sales features, the dealer should not forget the crowd-drawing novelty of the new device.

Make the most of the spectacular show effects that Icyball affords. Then after you have drawn crowds, show them how Icyball is a truly practical and economical refrigerator filling a hitherto untouched need.

### Writer Pays Tribute To Mr. Crosley

Many nice things have been said and printed about the President of our Company, his radio products and world-famous WLW but it has been a long time since we have seen a better or more comprehensive article than the following which was published on January 30 in the Asheville (N. C.) Citizen. It was written by "By Gosh", radio editor of the Citizen:

"WLW operated for sixty-two consecutive hours in honor of its birthday . . . and Powel Crosley, Jr., president of the Crosley company officiated at the microphone during the Band Box Hour, which concluded the record-breaking broadcast. Our congratulations to WLW—one of the truly fine stations in our land, and one to which listeners have looked for good entertainment ever since radio began to become popular. Powel Crosley, Jr., has done great things for listeners. He has given them radio at a price they could afford; good radio, too. His product has won nation-wide renown for excellence, and the name "Crosley" is a household word wherever radio is known. He has conducted a radio station that is a model in every respect, as excellent in its "product" as are the famous bandboxes.

"We've always admired Powel Crosley for his genius. It has not been so very long ago that this man was a poor man, but he had an idea. Pluck, perseverance and determination, those essentials to success, proved their values in Mr. Crosley's case and today he occupies an enviable position among the leaders in the great new business world of radio, one of the largest manufacturers of receiving sets in the world.

"We've always admired WLW, too—we have an idea that it reflects the character of its founder, who as we were told last night, used to be chief operator, chief announcer and chief everything. It has always been a station to depend upon. In-

variably its programs are of the highest order, no matter what type of music or entertainment is on the air. A remarkable fine quality of transmission has always been a feature of WLW, evidence of a technical skill in its operation that is in itself fine advertisement for the firm that manufactures such popular receiving apparatus. WLW is one of the stations we would include in our list of those to be retained on the air, if we were asked to suggest an elimination procedure. It deserves its good location—more, it deserves some protection from encroaching stations that it does not receive. It is one of fifteen stations, which, if we had our way, would receive exclusive channels, to be used by them and none other. It has earned the right to enjoy a waveband on which there are no other stations—and we are glad to note that they do have that privilege, almost—there's just one other station, and its a small one of 500 watts on the 428.3 meter location used by WLW.

"This fine radio station is noted principally for the remarkable orchestral broadcasts so frequently heard from its studios. Of course, being located in a city of unusual advantages musically, we could expect WLW to produce better programs than most stations, but they produce programs of such surpassing perfection that we are moved frequently to marvel at their accomplishments. We congratulate Mr. Crosley and WLW upon reaching another milestone and we send them our sincere and best wishes for a continuation of the success that has graced their efforts—and that each year will find them more securely encircled in the esteem and affection of the great listening audience, if such can be possible."

### Crosley 52 Brings 'em In

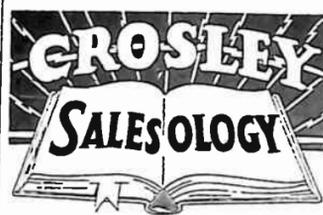
The Crosley Radio Corp.

I am more than delighted with the operation of the Crosley 52 that I have. It is the first Radio that I have ever operated, and want to tell you of my experience the first night. The Stations I got are as following:

KDKA—Pittsburgh, WGN—Chicago, WOK—Chicago, Whippany, N. Y., 3XN, WIOP—Miami, Fla., WPG—Atlantic City, WLBW—Oil City, Pa., WEAJ—New York City, WBZ—Springfield, Mass., WSN—Nashville, Tenn., WGY—Schenectady, WBAL—Baltimore, KYX—Oakland, Calif., 3OOL—Toronto, Canada, WOAX—Kansas, Mo.

I would like to know of any other set, three tubes, with a new beginner, do any better. If they can, they have got to show me. I can't say too much for Crosley Radio.

Crosley Radio Booster,  
John A. Ames,  
Richfield Springs, N. Y.



Automobiles are sold by letting prospects ride in them and drive them. Radio sets should be sold by having prospects listen to them and operate them.

It is unquestionably true that many more sales can be obtained in this way than by simply exhibiting models in a show room.

With the new Bandbox Junior and with the A. C. Bandboxes Crosley dealers have exceptional opportunities for home demonstrations.

To demonstrate Bandbox Junior it is convenient to build a small carrying case for the dry cells. This can be made in the form of a mahogany or walnut cabinet a few inches high and large enough to serve as a base on which the Bandbox may be set. All batteries may be concealed in this case, and the battery cable of Bandbox Junior may be permanently connected to it.

To demonstrate A. C. Bandbox models, no batteries are required, of course. For Model 704 everything necessary will be contained in the set itself, while for Model 602 it is merely necessary to carry along an appropriate Power Converter.

To demonstrate Model 601, a battery carrying case connected to the set with a fairly long cable, so that the case may be put on the floor, will be found convenient. A 40 ampere hour storage battery will be sufficiently large for demonstration purposes. It will be found more convenient to use batteries than to use "A" and "B" eliminators in most instances, since their use will make it unnecessary to string cable to an electric socket or other outlet.

For the ground connection, a thirty foot length of flexible wire with a ground clamp should be carried. This may be attached to the nearest water pipe.

In many localities an aerial will be found unnecessary for reception from local stations if a good ground is used. To be on the safe side, however, it is better to carry along a fifty foot roll of lamp cord or other flexible wire. This may be attached to the set and strung along the floor—out into the hall or wherever it will be out of the way.

Experiments are being conducted by the Columbia Broadcasting Chain with the broadcasting of the same program simultaneously by two stations on the same wave length. Especially designed crystal control apparatus for synchronizing the wave lengths of the stations is being used in the experiments.

## Law of Survival of Fittest Will Govern Broadcasting

Powel Crosley, Jr., Praises Federal Radio Commission For Its Job "Well Done"—Suggests Monthly Super Features



POWEL CROSLY JR.

## TALKS TO the TRADE

Praise for the Federal Radio Commission in its accomplishments of the past year, and a prophecy that the fundamental law of the survival of the fittest would continue the task of weeding out the unessential broadcasters were the main points made by Mr. Powel Crosley, Jr., owner of station WLW, in an extemporaneous dialogue with Fred Smith, WLW director, on January 28 at 8:00 P. M. Mr. Crosley's appearance before the microphone of his station was one of the features of the 62 hours of continuous broadcasting, celebrating the seventh anniversary of the station.

"I think the radio commission has done a very good job," Mr. Crosley said. "They had a difficult task before them in placing the more than 600 stations on 88 channels. Broadcasting developments in the future will depend, I think, on the fundamental law of the survival of the fittest. The best stations will survive because they are rendering a real service to the public."

Increase in power to serve a larger area was Mr. Crosley's answer to the question of the tendency in broadcasting. He suggested the possibility of increase in power for WLW in the near future.

"I am heartily in favor of a plan for putting on at least one super-feature each month," he continued. "There should be developed in the radio world, a fund to provide one national event monthly to be carried over a number of stations."

## Apologizes For His Bandbox

Claims His Bandbox Is Black Sheep of Family

Just recently we received a letter from Charles N. Sedenger of Maple Shade, New Jersey, who, upon taking the Crosley Bandbox home, declares that this set inspired him to write the poetry published below. Well, if the possession of a Bandbox will inspire poetry of this nature, it might be well for Crosley dealers, to advise those who desire to become poets, to buy a Bandbox. We quote as follows from Mr. Sedenger's letter:

"The enclosed verses were inspired by the possession of one of the 'Crosley Bandboxes,' Serial No. Z. 91869. Should you feel that 'The Box' should not be held responsible for such outbursts take comfort from the thought that the other 91868 Boxes did nothing of the sort and there is usually one black sheep in each family.

"With best wishes and congratulations on the quality of the 'Crosley Bandbox,' I am

Very truly  
"Charles N. Sedenger."

Dedicated To The "Crosley Bandbox"

Some boxes are famous in history  
Some others are not meant to use  
The contents of some are a mystery  
While some are made just to hold shoes.

Pandoras was chock full of trouble  
The Banders are stuffed with gold  
The Brokers hold many a bubble  
That bursts; And leaves him in the cold.

Some are fitted with hinges and hand locks  
They're long and they're short and they're tall  
But the little old "Crosley Bandbox"  
Is the box that tops them all.

My dear little "Crosley Bandbox"  
It is always ready to hand  
Just a turn of the dial and behold you  
Out of the "Box" comes the "Band."  
C. N. S.

Powel Crosley Jr.



### Imagination Ran Wild In Guessing Contest At WLW



Above Are Shown a Few of the 31,517 Letters Received

The radio audience certainly has "it" too.

This time "it" is the imagination with which they are so often credited. The latest evidences have come in the form of the 31,517 letters that came to station WLW during the week after its 62-hour birthday celebration. They were the answers in a guessing contest in which a Whippet car was given as the first prize for guessing the difference between the weight of the car, and the weight of Charlotte and Mary, popular WLW harmony team. Other prizes of Crosley products also were given away.

The weight of Charlotte and Mary as announced from station WLW on Wednesday, February 1, at 10:01 as the girls were publicly weighed, was 284 pounds and 4 ounces. Charlotte weighed 170 pounds and 12 ounces. Mary's weight was the remaining 113 pounds and 8 ounces. The guesses of the radio listeners ranged from 200,043 pounds, and 18,072 pounds as the most extravagant total for the two girls. The smallest guess was a total of 13½ pounds for the two, with Charlotte weighing 6½ pounds, and Mary 7. And that after the girls had been singing from the station for three weeks. One

guess was that the difference between the weight of the girls and the car was only 2½ pounds.

Every one of the letters was opened and read either by stenographers of The Crosley Radio Corporation, or by salesmen of the Whippet company.

### Fate Smiles Upon WLW's Birthday

Fate was kind to WLW. Five minutes after the station went on the air at 8:00 a. m. on Monday, January 30, one of the 5 kilowatt amplifier tubes blew out. Less than ten hours before, at 10:15 p. m. on January 29, WLW had signed off after 62 hours of continuous broadcasting with which it celebrated its seventh birthday anniversary. WLW engineers say that had the station run the extra five minutes following that, the tube would have blown and the station would have been off with a delay of ten minutes.

WLW reports that the 5,000 watt transformer at Harrison ran for all but seven hours.

## Bandbox Junior Captures Neglected Market

(Continued from Page 3)

Yet this very thing is just what radio manufacturers have been doing. Feeling that six tube sets were the ideal sets, and the stylish thing to have, and all that, they have concentrated their entire efforts on this particular type of radio equipment and on the particular field that it supplies. They have entirely ignored the millions of homes with income too modest to permit the necessary expenditures for sets of this type.

As a consequence, every Crosley dealer, with Bandbox Jr., in his lineup, has before him a market numbering probably more actual prospects than those for all his other models combined, and at the same time, a market in which he is practically without competition.

Crosley has realized from the beginning the vast sales possibilities for a set of this type. The development of Bandbox Jr. has been going on for many months. Whatever the demand, however, it was decided from the first not to introduce this set until it could be perfected to such a point as to represent an outstanding radio value well worthy of a place in the Bandbox line—a four tube set that would equal in distance getting ability, tone quality, and general performance many competitive six tube models.

Its many new features thoroughly tried and tested, and its performance developed to a point that will please any radio fan, Bandbox Jr. as now placed in the hands of Crosley dealers is bringing quality radio at last within easy reach of the four-cylinder pocketbook. And in so doing, it is going to make big money for Crosley dealers—bigger than they have ever made before.

In appearance this little set looks just like its bigger brothers. In performance—well, it will surprise your customers just as it surprises you. No innovation in the motor field marks a greater advance than the introduction of Bandbox Jr., to the radio buying public.

For those who buy moderate priced radio sets the accessories represent a large portion of the cost. For this reason, and for the sake of simplicity, Bandbox Jr., is dry cell operated. Requiring but three dry cells for an "A" battery and but four tubes, the cost of accessories to equip it is reduced to a minimum.

Many persons outside the particular field for which the set was designed will prefer to buy it because of its compactness, simplicity, and the small space required for the accessories necessary to operate it. Women, sometimes object to storage batteries. They will be glad to learn that here is a set that has

nothing connected with it which can spill—a completely dry outfit.

Others who may have the money to buy larger sets but who have no electric current to charge storage batteries or operate light socket equipment are live prospects. Thousands of farmers are included in this class. Radio entertainment and market information are invaluable to them, but the majority have no electricity on their farms and to take a storage "A" battery to town frequently for charging is considered by many too much of a nuisance.

Those who desire portability in a set will be interested in Bandbox Jr. Its compactness and light weight make it easy to carry from place to place, and the simplicity of the accessories required are again an advantage. It is ideal to take to the summer cottage or camp, and it may be made to serve double duty by using it as well in one's regular home during the winter months.

In fact the market for this new set is so large that it is hard to realize its actual extent. To take full advantage of this market every Crosley dealer should put real sales and advertising effort behind Bandbox Jr. Let the buying public know that you are offering a real quality set that anyone can afford to buy.

National advertising in the big magazines will carry this message to millions of homes. Tie up with the national advertising scheme and let everyone in your community know that your store is the place where these sets may be obtained. The market is enormous and it is a virgin field, as yet untouched by other set manufacturers. You are in on the ground floor. It is up to you to make the most of it.

### "The Bandbox Beats Them All"

Crosley Radio Corporation:

This is a commercial, point-to-point radio station, working with KDC, KVX, WJC, and WJAV on 1689 and 1790 meters.

We have a few receivers here, including the celebrated "\_\_\_\_\_ " receiver and your Bandbox certainly beats them all.

We flatter ourselves we know something about what a receiver should be, and want to congratulate you on the peer of them all; just a little appreciation outside of brass-pounding.

Cordially and fraternally,  
Mike Overholt.

## Crosley Man on Trip to South America Investigate Kits For Converting Battery Sets For AC Operation

Octavio Bermudez To Make Survey Of South American Market

Mr. Octavio Bermudez, assistant to the Manager of the Foreign Department of the Crosley Radio Corporation, left the last of January, by S. S. "AMERICAN LEGION," for a comprehensive trip to South America in the interests of the Corporation.

Mr. Bermudez will visit Crosley Distributors in Brazil, Argentina, and Chile, and may possibly continue his trip up the West Coast of South America in which case he will also visit Peru, Ecuador, Columbia, Venezuela and Panama.

He has been connected with the Foreign Department of the Crosley Radio Corporation for about two years and as he has practically had charge of the Spanish department, has been very instrumental in building up the organization now in force for distributing Crosley products in South America.

On account of the fact that, while he is of Spanish nationality, he spent his youth in Buenos Aires, his visit to that city will be especially pleasing to him as he will again meet his relatives and friends in



OCTAVIO BERMUDEZ  
Assistant Manager Foreign Dept.

that city after an absence of some six years spent in the United States. The good wishes of the entire organization go with him.

## Walthal Electric Company Makes Striking Crosley Display



### Window Display Shows This New York Radio Dealer, Constructive Merchandiser And A Strong Crosley Booster

The window display pictured above is that of our Crosley Dealer in New York, the Walthal Electric Company. The window faces on to Cortland Street.

The display created a great deal of interest. It is certainly attractively put together. The full force of it can not be seen from the picture above. The various signs placed in the window did a lot to awaken the desire of the prospect to go in and hear a demonstration on the Crosley Bandbox. Each carried a message which created interest and desire.

While the trend of radio interest in the cities seems to be toward the new A. C. sets, there are many cities throughout the United States where storage battery sets will continue to be sold exclusively because no A. C.

lighting current is available. Hundreds of small towns use direct current for lighting and portions of some of our largest cities—New York for example—have only direct current power supply.

### Investigation Discloses Reasons Why Crosley Dealers Should Examine Carefully Before Using

Numerous reports are to the effect that there are a number of kits on the market for converting radio receivers designed for battery operation so that they can be used with the new AC tubes on AC house light current. These kits are offered to dealers with the assurance that to effect this change in almost any set is a simple matter.

A most careful investigation of this matter has been made, especially in regard to the possibility of converting the Crosley Bandbox, Model 601, designed for battery operation, into a set using the new AC tubes on AC supply. The investigation brings out facts that show that the dealer should be suspicious of these kits and be very careful in attempting to make such changes, and in selling these kits to customers who own battery operated sets.

#### Results Of Investigation

The result of this investigation showing the difficulty which arises in converting a battery operated set into an AC operated set, are here briefly outlined:

- (1) The interelectrode capacity in the UY-227 is different from the UX-201A and the set would need to be reneutralized.
- (2) If the set is of the resistance stabilized type, the resistance would be less effective with the UY-227 and the set would probably oscillate.
- (3) It would be necessary to bias the tubes because operating without bias, the life would be short and the conduction between grid and filament would be so great as to materially decrease the selectivity of the set.
- (4) Many features which do not have to be carefully considered in the design of battery operated sets must be given careful attention in AC sets. One of these is the volume control by rheostat in the filament circuits of the radio tubes can not be used with the AC tubes. Variation of plate voltage or grid voltage is also unsuccessful as a volume control for these tubes. All three methods produce serious hum or weak signals. In making the conversion, therefore, it would be necessary to put in a new volume control system. Furthermore, this system would have to be worked out separately for each set.

Then, too, in the wiring, there is a possibility that the grid leak and grid condenser and other mechanical parts may produce serious hum on AC operation. In face of these facts, we strongly urge that Crosley Distributors

and Dealers do not attempt to change over any Crosley battery operated set to AC sets. We also recommend that they do not attempt to sell these AC kits to customers, who have Crosley battery operated sets without first careful investigation. Receivers so changed over would in many cases be very unsatisfactory in performance. This would not only reflect discredit upon Crosley merchandise, thus changed but would also reflect discredit to jobbers and dealers.

## WLW Announcer Is Drawn By A WLW Artist



WILLIAM C. STOEES

Melvin Ray, known to all WLW fans, has given us above his concept of William C. Stoess, Orchestral Director and Announcer at WLW.

Colonel George S. Gibbs will succeed Major General Charles McK. Saltzman as head of the Army Signal Corps with the rank of Major General early in January. Among other duties, he will direct all radio developments in the army.

The discontinuance of broadcasting in order not to interfere with SOS distress calls effects only stations near the coast. These stations have operators on duty whenever they are in operation listening for distress calls.

## Why Crosley Dealers Should Sell The Crosley Icyball Refrigerator

*Icyball Just What Crosley Dealers Need To Insure Profitable, Steady, All-Year-Around Business*

To what extent does Icyball fit in with my line of business? That is the question that many Crosley dealers everywhere are asking themselves today.

First of all, what about the exclusive radio dealer? Heretofore he has concentrated his entire efforts on radio. Selling refrigerators seems like a decidedly foreign field. The answer to this is easy—it is exactly the same reason that it is to the advantage of the Crosley Radio factory to manufacture Icyballs.

### All Year-Round Sales.

Everyone knows that a steady, all year-around business is more profitable than a seasonal one. Now radio is unquestionably seasonal, and the peak of sales comes during the fall and early winter months.

The sales of refrigerators, on the other hand, reaches its peak during the spring and summer and is slack during the fall and winter. Combine the two and you have ideal all-year-around sales activity, with no slack periods.

### Increase Your Profits By Increased Turnover.

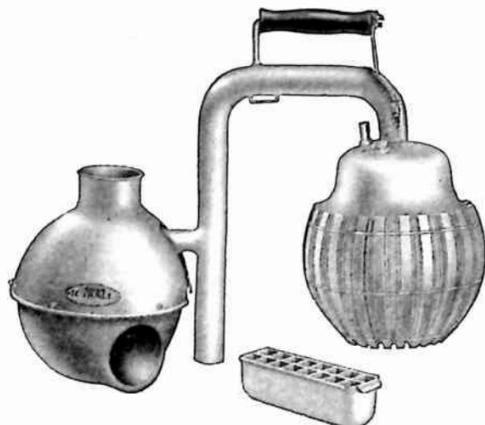
The value of non-seasonal, steady sales lies in the fact that this gives the dealer a greater turnover with the same amount of capital. With a given capital invested in a business, profits depend largely upon the number of times this capital can be turned over and reinvested in fresh stock during the year. With seasonal sales your capital works but half the time. With steady, all-year-around sales it works all of the time. The result is double profits.

Much the same line of reasoning applies to the combined electrical and radio dealer. He has electrical supplies to supplement his radio sales, and the demand for them is undoubtedly less seasonal than that for radio. Never-the-less, sales of electrical supplies are unquestionably much better during the Autumn and Winter than they are during the summer. Just as in the case of exclusive radio dealers, the Icyball will help the Electrical Dealer to iron out the sales curve of Crosley dealers who handle electrical supplies in addition to radio.

### Consider Department Stores.

Next let us consider department stores. The Icyball fits unusually well into the department store line. Handling refrigerators is not new to department stores—most of them have done so for years. In Icyball they have an iceless refrigerator that will enormously increase their sales; and which is at the same time, easy to handle and simple to demonstrate.

Department stores in the Crosley dealer family simply cannot afford



*Icyball Unit showing Tray where Ice Cubes, deserts, etc. are frozen. Cold ball is to left, and hot ball to the right*

to be without this new item. They must sell it to keep abreast of the times.

### Furniture Dealers Need Icyball.

Furniture dealers, too, have many of them sold refrigerators for years. They too, will want to handle Icyball because it represents an innovation with an excellent sales future, a remarkable step forward, in a line of merchandise which they are accustomed to selling. Like department stores, Crosley furniture dealers will feel that this is simply

too good a proposition for them to pass up.

Next, what about Crosley hardware dealers? They are not faced with a difficult seasonal sales problem, it is true, nor are refrigerators generally considered their customary line of merchandise. On the other hand, the hardware dealer is the man to whom the farmer goes to purchase supplies more frequently than to almost anyone else, and that is exactly where perhaps the biggest market for Icyball is—among the farm trade.

## Forty Orders For Icyball From Demonstrator

*Read This Letter From Enthusiastic Dealer*

The Crosley Radio Corporation,  
Cincinnati, Ohio.  
Gentlemen:

This is merely a letter to you stating our opinion of your Icyball.

We purchased our first demonstrator from the Radio Corporation of Kansas some time in September and have had it working and on demonstration every day since that time. We have had it under every kind of a load possible for the average housewife to have, and it just does the work every day, temperature ranging from six degrees above zero under the cold ball to about thirty-eight at the extreme end of the cabinet.

We have written over forty orders for the unit from the demonstrator without leaving our store, and now we have one man out working the country with another outfit and he is averaging one unit a day.

We have placed our order for three more units to be delivered to us as soon as possible and on receipt of them will place more men in the country selling.

We will average about eight sales out of every ten demonstrations.

Respectfully,  
SMITH DRUG STORE,  
L. R. Smith,  
Cherokee, Oklahoma.

### Hardware Dealers Land Sales.

Since the unit is so extremely simple, it requires no effort for the hardware dealer to demonstrate. Simply keeping an Icyball on display will bring in a large number of extra sales and extra dollars. Extra dollars, especially when they require little or no additional effort, are worth going after.

Lastly what about Crosley music dealers? It is true that music sales are seasonal—being best in autumn and winter months—but refrigerators seem a far cry from musical merchandise. Refrigerators are a far-cry from musical merchandise, but why should that deter a good live-wire music dealer from selling them, especially when they are going to help him iron out his sales curve on musical and radio merchandise?

### Music Dealers Can Sell Icyball.

When Crosley first entered the refrigerator field, many persons asked why a radio manufacturer should sell refrigerators. Yet as soon as one thinks about it the answer is obvious—because the Icyball unit Crosley is marketing is something entirely new and novel, destined to create a sensation with the buying public and to bring refrigeration into the homes of millions who have never enjoyed it before; and because refrigeration is an ideal sales field to tie up with radio in order to flatten out the seasonal sales curve. Crosley music dealers should sell Icyball because it means more profits to them. That is what they are in business for—profits.

As a matter of fact, there are a hundred reasons why every Crosley dealer—no matter what his business—should handle Icyball. The unit is entirely new and novel, a complete innovation, and at the same time so simple; and it appeals to such a large army of prospects that a dealer who handles Crosley merchandise and leaves Icyball out of his line is simply sacrificing big profits.

National advertising is tying up the name of Crosley with Icyball as well as with Bandbox radio sets. As the public learns of this wonderful invention, it will expect dealers in Crosley radio to have it for sale. Crosley dealers everywhere will receive inquiries from prospects who want to see Icyball and who are seriously considering buying it. If they have nothing to show these live prospects, they are simply sacrificing bone fide sales and profits.

The band wagon is passing by and it is the cue of every Crosley dealer to get on. The sooner you have Icyballs on display the sooner your sales will start.

# The Powerful NEW SINGLE UNIT—704 AC BANDBOX



One Cord to a *light socket* for power—*thats all!*

The Bandbox, with condensers, coils and wiring, totally and separately shielded, is amazing. It is a genuine Neutrodyne receiver—costlier to build than the common lossier type of circuit used in competitive receivers, but far superior in performance.

These features distinguish the radio of today from the radio of yesterday. Overlapping programs easily shut-out—far off stations enjoyed as though they were local.

Clear, undistorted music in terrific volume, by use of 170 to 185 volts on the plate of the power output tube! Comparative checkings of competitive radios show interesting figures. Other radios show 100 to 110 and 130 to 140 volts on the plate of the output-tubes. The 171 power tube should have around 180 volts.

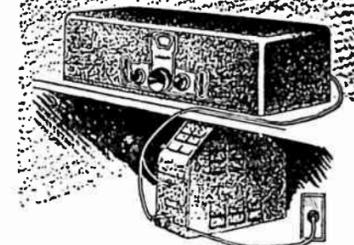
A comparative test with any other receiving set on the market will convince you of Crosley superiority and of the truth of every Crosley claim.

The Mershon condenser, in the power element of the set, contributes much to the success of this 1928 wonder radio. It is a patent device of small size, yet great capacity. Not being paper, the danger of its blowing out is entirely removed, so that the desired voltage can be used to produce the desired results.

A Volume Control of new and patentable design.

The double unit at \$90 provides console cabinet installation in ALL kinds of consoles. The 704 or single unit at \$95 is for those who want the entire set in one cabinet. The two sets are identical in elements, design and performance. The 704 is 17 $\frac{3}{8}$ " long by 12 $\frac{3}{4}$ " wide by 6 $\frac{1}{8}$ " high. Thus you have the qualities of leadership—a superiority in every phase.

or in 2 units  
for \$90  
for console and  
other installations



## The New Type-D Musicone \$15

Crosley Musicones are famous for their value. Now going into the fourth year of their production, they still lead the world. The latest member of this family is the new Type-D, purposely designed for use with the heavy power outputs of the new, better type sets and the AC Bandboxes.

This new Musicone stands a little over 12 inches high. Finished to match the Bandboxes, the orange-red cone behind the frosted-brown grille is a touch of color that makes this Type-D Musicone a thing of exquisite beauty.



# CROSLY RADIO

NEWSPAPER AD NO. 288

Mats or Stereotypes of the ad shown above may be ordered in 1/4, 1/2 and Full Page Size. Ask for Ad 288 and state what size you wish.

### Wins Second Prize In Liberty Magazine Contest With Attractive Crosley Display



Augustine's Music Shop at Fond du Lac, Wis., to be Congratulated on Above Window

The window display contest conducted by the Liberty Magazine is nation wide in its scope. Dealers of every type are entered in it. So it is a real honor to win second prize. This honor has recently gone to Augustine's Music Shop, Crosley Dealer at Fond du Lac, Wisconsin, who won second prize in the De-

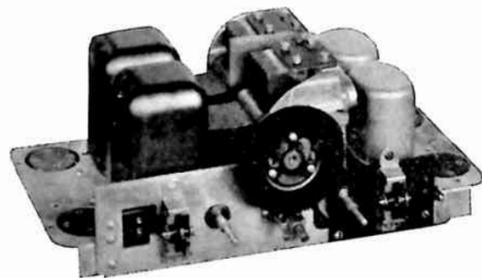
ember Contest, conducted by the Liberty Magazine.

In this window the clever combination of Crosley display material with the Liberty Magazine is quite striking. Incidentally, the Crosley advertisement in the Liberty Magazine made the tie up with the Lib-

erty Sales Contest even more productive.

Other Crosley dealers should become interested in the window display contests conducted by the Liberty Magazine. Put in an attractive window and send in your picture. Possibly you, too, can be a prize winner.

### Bandbox Jr. Little Brother To Other Bandbox Receivers



This Front View Of Chassis Shows Shielding And Fine Mechanical Construction

The above picture shows the chassis of Bandbox Jr., Model 401, the latest addition to the Bandbox line.

This efficient dry-battery operated set is exceedingly compact. In appearance, both externally and internally, it resembles its big brother, Bandbox Model 601.

Of the two sockets at the left of the chassis, the one in the rear is

the radio-frequency stage and the one in front is the detector. Next to these sockets are the copper shields housing the radio-frequency transformers. In the middle is seen the condenser assembly. This differs from that of Models 601 and 602 in that the condensers are ganged together in line behind each other instead of side by side. Thus a single shaft, without connecting

belts, turns both condensers.

Farther to the right are seen the small shields surrounding the audio-frequency transformers. The socket at the right in front is the first audio-frequency stage, and the one at the rear is the second audio stage.

The controls are much the same as on Bandbox Model 601. In the center is the master tuning dial. At the left of this is the volume control, and at the right a rheostat controlling the filaments of the tubes. This replaces the filament switch as used in Model 601. The small control at the extreme left operates as acuminator, and that at the extreme right an intensifier for added volume on distant stations.

As in Model 601, a battery cable is supplied for making connections.

Radio beacons have been installed on the Vineyard South Lightship, Vineyard Sound, Massachusetts, and at the Jupiter Inlet Lighthouse, on the coast of Florida, by the U. S. Government Bureau of Light-houses.

### Tubes Influence Balancing

When Set Is Out of Balance Change Tubes Around

An important fact that all Crosley dealers and distributors should remember is that the characteristics of the tubes used has a great deal to do with the balancing of a radio receiver.

The neutrodyne principle is undoubtedly the best method of balancing known. But even though a receiving set makes use of this modern method of controlling its circuits, one cannot expect it to be in perfect balance with all tubes of widely different characteristics.

#### Change Tubes.

Whenever a set shows signs of being unbalanced, therefore, the first thing to do is to try changing the tubes around in their sockets—not to start adjusting the balancing condensers. In by far the majority of cases, simply changing the tubes around, or substituting a new tube for one of those in the radio-frequency stages, will clear up the trouble immediately.

Tube manufacturers strive, to the best of their ability, to turn out a uniform product. But since a difference in the spacing of tube elements of but a thousandths of an inch results in a large difference in tube characteristics, there will necessarily be some variation in tubes no matter how carefully they are made.

#### Thousands of Tubes Tested.

In order that Crosley sets will be properly balanced to meet average tube conditions, thousands of tubes are tested in the Crosley factories, and of these, those which represent as nearly as possible the general average are chosen as standards. Crosley sets are balanced with these average tubes.

In almost all cases, when these sets get into the field they will be equipped with tubes which are very nearly like the average tubes to balance the sets at the factory. Occasionally, however, a tube installed in one of these sets will have sufficiently different characteristics to make the balancing unsatisfactory. When such occasion arises, the dealer or distributor, has simply to change the tubes around in their sockets in order to overcome the difficulty.

This important point should be kept clearly in mind, as it will prevent much unnecessary trouble. Re-balancing a set so that it is fitted to tubes that are not fairly good representatives of the average may bring satisfactory operation as long as those particular tubes are in use, but as soon as the set owner buys new tubes he will be in trouble again.



### Crosley Branch Offices Closed

(Continued from Page 1) contact with our men and their distributors in their territory. Each territory will be further divided and covered by factory salesmen whose work will be in connection with the distributors, their salesmen and dealers. It will be the factory representatives' duty to authorize the establishment or removal of dealers.

With this sales organization and all matters of service, distribution, etc. taken care of by the Cincinnati Office, it is certain that the most efficient cooperation can be given to Crosley Distributors and Dealers.

The Crosley Radio Corporation has just completed the most successful year in its history, with a sales volume increase over any other preceding twelve months by approximately fifty per cent. Mr. Crosley is now perfecting plans for an even greater increase during 1928, including a more closely knit sales organization which will necessitate more centralized control made possible by the closing of the branch offices.

### Surpasses Sets At Double The Price

Coast To Coast Record With Bandbox

The Crosley Radio Corp. I wish I could give in words the

**SCHUSTER ELECTRIC COMPANY**  
WHOLESALE  
CROSELY DISTRIBUTOR  
2169 Spring Grove Avenue  
412 Elm Street, Cincinnati, Ohio  
Phone West 144 Main 820

**TAYLOR ELECTRIC CO**  
MADISON, WISC.  
Exclusively Radio  
Wholesale Only  
CROSELY DISTRIBUTOR

### These Distributor Salesmen Are All Can't Keep Enthusiastic Crosley Boosters

Salesmen Of The Equipment Service Company, Crosley Distributor At Denver, Colorado, Hold Sales Conference



From left to right, lower row, Salesmen Koehne, Walsh, Sales Mgr. Killian, Gen'l Mgr. E. O. Hunting, Purchasing Agt. Rogers, Salesmen Young, Miller. Middle Row, Salesman Ferrer, Pleasants, Collier, DeLaney, Runyan, Robertson, Lee, Rains, Mowat. Top row, Salesmen Bell, Will, Hasted, Bliesner, Kirby.

Say, folks, here's a live wire bunch of star salesmen. They represent the Equipment Service Company, Crosley distributor, at Denver, Colorado, and incidentally are all strong Crosley boosters. The occasion of the picture was a recent sales conference, from which they gained a lot of valuable information. They went back to their respective territories even more completely equipped to give their dealers the very best of service and advice.

amount of credit my CROSELY BANDBOX deserves.

I have a coast to coast record with my set and reception is at all times equal to that of nearer stations.

The BANDBOX surpasses a number of sets I have heard and they were priced at nearly double the cost of the CROSELY.

Here is a small list of the stations I receive regularly with my set.

WOC—Davenport, Iowa, WHO—

Des Moines, Iowa, KFI—Los Angeles, Calif., BWAP—Ft. Worth, Tex, as,—A number of Stations in Canada and numerous Chicago Stations, also very many Stations of nearby location.

Hoping that 1928 will be a great CROSELY year and all BANDBOX owners will be as satisfied with their sets as I am,

Kenneth F. Handel,  
The Tower,  
Glastonbury, Conn.

**THE JOHNSON ELECTRIC SUPPLY CO.**  
331 Main St. Cincinnati  
Wholesale  
CROSELY DISTRIBUTORS  
Write Us For Dealer Proposition

### Radio Corporation Of Kansas Constantly Breaking Into Lime Light

When you are a big advertiser, like the Radio Corporation of Kansas has been this year, you naturally can expect some real publicity cooperation from the newspapers. The Radio Corporation of Kansas, under the able direction of W. E. Titus, President, has not only expected it but has obtained some mighty fine publicity.

The latest publicity they have received is to have their picture appear in the Sunday Rotagravuer Section of the Wichita Sunday Eagle. The picture which appeared showed W. E. Treweske as salesman and W. E. Titus as president of The Radio Corporation of Kansas, loading the first shipment of Bandbox receivers to be carried by air express from Wichita.

The Radio Corporation of Kansas sets an example which many other distributors and Crosley dealers can well follow. When you place advertising in your newspaper, get the newspaper to follow through and give you some publicity. We are always glad to help you here. When you need publicity just write in to Mr. H. W. Karr, our Publicity Director, and he will be glad to forward good Crosley radio publicity to you.

There are now 441 broadcasting stations in foreign countries. Of these there are 202 in Europe, 129 in North America, 52 in South America, 22 in Asia, 27 in Oceania, and 9 in Africa.

**QUINN BROTHERS RADIO CORPORATION**  
Neenah, Wis.  
Wholesale  
Crosley Distributors  
Write us for Dealers Proposition

Radio Sets and Icyballs  
**CROSELY RADIO**  
Sherwood Hall, Ltd.  
Grand Rapids

# Hear the *Exquisite* **Tone** of the *Royal Series* **AMRAD**

Now you can hear the sweetest, purest tone in Radio. A tone of thrilling richness and depth.

For quick sales, show your customers these new, purely electrical models.

- No batteries
- No makeshift devices
- No acids or water

Latest A. C. tubes and latest electrical engineering combined with exclusive construction have produced the Radio Set that sells!

Take the time to listen—then decide!

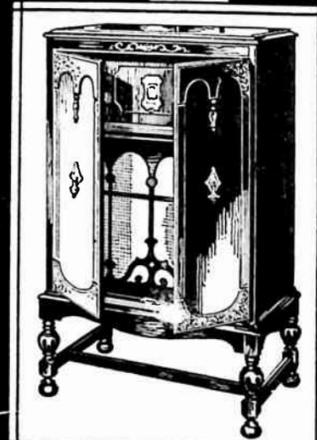
### The HASTINGS \$395

A. C. operated, requiring no batteries, Single-dial control, seven-tube Console operated by loop or antenna. Built-in cone speaker, mounted on special baffle board.

### THE AMRAD CORPORATION MEDFORD HILLSIDE, MASS.

F. E. MAHN, President      POWEL CROSLY, JR., Chairman of Board

Amrad sets are manufactured under license contract between Radio Corporation of America and Crosley Radio Corporation. Licensed under Hazeltine and Latour patents, issued and pending for radio amateurs, experimental and broadcast reception.



# Crosley Service Manual



## No. 101.

## General Service Information---Part II.

12-1-27

(Continued from Last Issue)

### II. Service Departments.

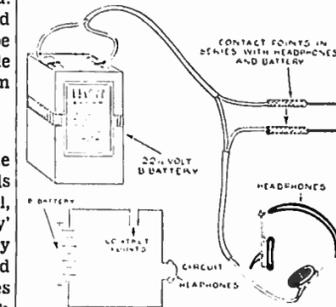
#### A. Service Room.

If it is possible to set aside a special room or space for the testing and repairing of sets and accessories, that should be done. The amount of space required will depend upon how much business the Distributor or Dealer does. The service room should be well-lighted. It should have a test table and a work table where repairs can be made. As many shelves as possible should be provided about the room for holding sets, accessories, etc.

#### B. Test and Repair Tables.

1. Test Table. The test table should be equipped with clip cords providing connections to aerial, ground, "A" battery, "B" battery and "C" battery. The batteries may be placed underneath the table, and the clip cords run up through holes in the table top and provided with small insulated clips on their ends. The cords should be weighted, so that when released they will slip back through the holes until the

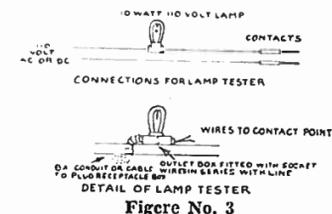
eight or ten inches long and wrapping tape around the other ends to serve as handles. Wooden-handled ice picks may also be used for contact points. The second type of tester required, hereafter called the headphones tester, consists of a pair of headphones in series with a 22½ or 45 volt block of "B" battery and two contact points. Expensive headphones need not be used.



DETAILS OF HEADPHONE'S TESTER

Figure No. 4

2. Work Table. The work table should have a light-circuit outlet conveniently located so that an electric soldering iron may be used. The table should preferably be covered with metal. Ordinary galvanized roofing sheet will do for this purpose. At the back of the table, a rack may be built for tools, or these may be kept in convenient drawers if desired.



DETAIL OF LAMP TESTER

Figure No. 3

clips are flush with the table top, acting in a manner similar to telephone exchange plug cords. Each cord should be labelled plainly.

A rack may be provided along the back of the table for standard tubes kept for reception tests. There should also be a Muscione speaker handy for tests. The ground and aerial connections should be to a good ground and an average-sized, outdoor antenna.

Two circuit testers are necessary in order to make complete tests for loose connections and defective circuits, as outlined in the service sheets. One of these, which will be called the lamp tester hereafter in this and other Crosley service sheets, consists simply of a 110 or 220 volt, 10 to 25 watt electric lamp bulb in series with two contact points and the light circuit (a lamp bulb should be used of voltage rating corresponding to that of the light circuit). Instead of the light circuit arrangement, a 6 volt automobile headlight bulb may be used in series with a storage battery and contact points if desired. The contact points may be made by sharpening the ends of copper rods

for cleaning out places difficult of access).

4. Test Equipment. In addition to the two circuit testers described above, the service room should be provided with voltmeters reading 0-5, 0-150, and 0-250 volts, or having similar ranges. The meter with the 0-5 scale should read to at least tenths of a volt. Ammeters should be provided reading 0-5 and 0-25 amperes. There should be a hydrometer for testing the charge of storage batteries.

### III. Aerial, Ground, Accessories.

#### A. The Aerial.

1. Kind, Length, Size. Crosley sets are designed primarily for use with outdoor aerials of moderate size, or suitable indoor aerials. The type of aerial best suited to each particular set is outlined in the service sheets devoted to that set, but all Crosley sets will operate satisfactorily under ordinary conditions with outdoor aërials from 25 to 75 feet long and 25 or more feet high, or with indoor aerial consisting of a wire stretched once or twice around the room. Each Dealer in each locality will have to make use of his knowledge of local conditions in erecting aërials. If interference from nearby broadcasting stations is a problem, the aerial should be short. If distant stations must be depended upon for programs the aerial should be longer. It is impossible to give recommendations which will enable every Dealer everywhere to erect an ideal aerial to meet all conditions. Therefore, with the general suggestions contained in these service sheets as a guide, the Dealer must rely upon his experience in order to erect the best aerial for each installation. Crosley Bandbox models are not critical to aerial size, and good results will be obtained if simply the general suggestions here outlined are followed.

2. Kind of Wire. The type of wire makes very little difference—whether bare or insulated, solid or stranded, etc.—if copper wire is used of sufficient size to be a good conductor.

3. Joints and Insulation. If an indoor aerial is used it may simply be constructed of insulated wire, and no aerial insulators need be used. In erecting an outdoor aerial, good insulators should be interposed between the supports and the aerial wire. There should be no joints in the aerial and lead-in wires—that is, the aerial and lead in wires should be continuous (in one piece). This is advisable in order to avoid high-resistance joints. Even well-soldered joints when exposed to se-

vere weather conditions sometimes develop high resistance through corrosion.

4. Power Line Interference. To avoid power-line interference, the aerial should be erected at right angles to nearby power lines whenever possible. When the aerial is parallel to power lines, the possibility of picking up interference is greatest.

5. Lightning Protection. Outdoor aërials must be provided with lightning arrestors. An aerial provided with a proper ground through a lightning arrestor affords protection from lightning in the same way that lightning rods protect a house. Details as to the size of grounding wire, etc., to use are contained in Underwriters' Rules.

6. Underwriter's Rules. The regulations of Fire Underwriters for the installation of aërials are not uniform in different localities, but those of the Philadelphia Fire Underwriters' Association (which is the authority for the National Electric Code) represent the usual practice. Every dealer should follow these rules in installing aërials and ground systems. A brief summary of the Philadelphia Underwriters' rules follows:

a. Outdoor aërials should be kept as far from power lines and high tension wires as possible. If they their supports must be rugged so as to avoid danger of contact with the must be erected close to such wires power lines.

b. Splices in antenna spans must be soldered or made with approved splicing devices.

c. When power lines or other electric service lines are used as aërials, the connection to them must be through an approved device.

d. Lead-in conductors must be of copper, copper-clad steel or other metal which will not corrode excessively. The minimum size for conductors of copper-clad steel or bronze is No. 17, B & S. gauge; for all other materials, No. 14 B. & S. gauge.

e. Outside lead-in wires must not come closer than 4 inches to power or light wires unless separated from them by rigid, firmly fixed, continuous insulation.

f. Lead-in conductors must enter the building through non-combustible, non-absorptive, insulating bushings, slanting upward toward the inside of the building.

(Continued in Next Issue)

See article on Page 10 entitled "Tubes Influence Balancing."

## Channel Numbers Simplify Tuning

*Convenience Of Method Is Explained In Interesting Talk by R. H. Langley*

Speaking from the studio of WLW during the celebration of its seventh birthday anniversary, R. H. Langley, chief engineer of The Crosley Radio Corporation, gave an interesting and illuminating address on the subject of numbering broadcast channels. Mr. Langley said in part:

"Radio, of course, really is seventy years old. It was just at the time of the Civil War when the first realization came that it would be possible to send messages without wires. When the first actual tests were made, and for many years after, the fact that the radio signal went out on a certain definite wave length or frequency, was not thoroughly appreciated.

### Fundamental Principals

"If you stand on a beach you can count the number of waves arriving at the shore each second. This is their frequency. Or you can measure the distance between the crest of two waves. This is the wave length. Everybody knew that radio waves had wave length and frequency just like the waves of the ocean do, but up to that time it had been quite convenient to think only of the wave length.

"When broadcasting began it was realized that the frequencies of music and speech were added to the frequencies of the radio waves and that this represented the range of frequencies which each station needed. Obviously this range of frequency would be the same regardless of whether the station was transmitting at a relatively low or high frequency. It was thus determined that every broadcasting station would have to be allowed a range of frequency 10,000 cycles wide because the music and voice frequencies might be as high as 5,000 cycles and would be added to or subtracted from the frequency of the radio wave.

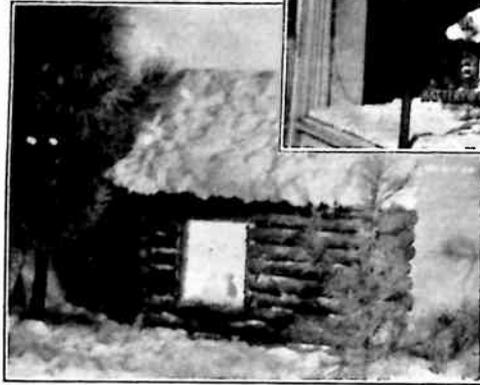
"Last spring the Federal Radio Commission realized the difficulty of using wave lengths and made it official to use the frequency designation.

### The Logical Plan

"Appreciating this difficulty, I suggested last spring that we throw away both the frequency and the wave length designation and merely number the 96 American broadcast channels. This corresponds, of course, to what we do in numbering houses and telephones and makes it equally convenient to remember the number of our favorite broadcasting stations.

## Crosley Distributor Makes Unusual Window Display

To right  
complete  
window



To left  
close view  
of cabin

### Battery And Electric Company Of Greenville, S. C., Attracts Attention By A Typical Winter Scene

The unusual always makes the biggest hit. The Battery and Electric Company, Crosley distributors at Greenville, S. C., certainly did the unusual when they installed the above window display.

Snow seldom reaches Greenville and so that this winter scene, typical of Christmas in the northern woods of Michigan, attracted more attention than anything they have ever done before.

By looking closely at the window of the log cabin in the lower left hand picture a lady can be seen tuning in on a Crosley radio receiver. The upper picture shows the aerial.

Keep this idea of a window display in mind and use it next Christmas.

"There are just ninety-six channels for broadcasting. There are in the United States slightly over 600 broadcasting stations. Obviously there are several of them on each channel, but each has its call letters which distinguish it from the other stations on the same channel. "Thus the channel numbers become much simpler and easier method for remembering and locating on the dial of the radio receiver where each station can be heard. WLW for example is broadcasting on a wave length of 428.3 meters. How much easier it is to remember that WLW is broadcasting on Channel 70, and it will be just about as easy for all the other stations."

With no charge to broadcast listeners for the programs they hear, the problem of how to make broadcasting stations "break even" is still a big one in the United States. In many foreign countries the situation is met by government taxes which every receiving set owner must pay. In this country, however, it is felt that there should be no charge to the radio fan for the programs to which he listens. Sponsored programs have gone far toward helping the broadcaster in this dilemma, but the high cost of good talent, the

enormous investment in broadcasting equipment, and the cost of operation make it almost impossible for any station to pay its own way, even if the majority of its time on the air is devoted to programs sponsored by radio advertisers.

There are only five broadcasting stations in the world outside of the United States operating on more than 10,000 watts power.

## Consumer Recommends Icyball

*Patrick Radio Company Makes Satisfied Customer--- Icyball Does It*

It has been some months now since the Patrick Radio Company of this city installed my Icyball Refrigerator, the first in this city.

I feel very grateful to him for having done so and think it only fair that others who have a need such as this and cannot go into the more expensive forms of refrigeration be told of the wonderful work of the Icyball. Mine has performed most satisfactorily and has even done more than Mr. Patrick claimed it would; it is no trouble, ices perfectly and is very economical.

I am only too glad to recommend the same and show it to my neighbors with much pride. If I can be of any service you are free to use my name as a testimonial to the efficiency of the Icyball.

Very respectfully,  
L. S. Simpson.

## Mr. Crosley Has Novel Experience

The manufacturer is always held responsible for every possible difficulty that a customer may have with his product. For that reason Powel Crosley, Jr., thought that he had heard of every kind of radio interference. And then a Tungsten lamp in his own home showed him that there was a least one new kind of interference.

While Mr. Crosley and his wife were listening to a distant station on his new 704 A.C. operated Crosley Bandbox, there arose a terrible roar in his set which could not be stopped. Transformers, light circuits, and light sockets in the house were examined. The power company was consulted about "leaky" transformers. And the roar continued.

Then in the silence, Mrs. Crosley heard a faint hissing noise. It continued until it had become as annoying as a mosquito. After they had listened to every article of furniture in the room that might be vibrating, Mrs. Crosley discovered that the noise was coming from the floor lamp. Turning the radio set on again, Mr. Crosley ascertained that the interference was still present. He turned off the floor lamp and the interference immediately stopped. When he had tightened the bulb in the socket of the lamp, and had turned it on once more, it would not light.

When Mr. Crosley examined the lamp to find out what had happened to it, he found that the 50-watt concentrated filament of the lamp had opened. When the lamp was burning, the heat of the light had kept the two ends so close together that an infinitesimal arc had formed which, although it had kept the lamp burning, had caused the radio interference.