

The CROSLEY

# Broadcaster

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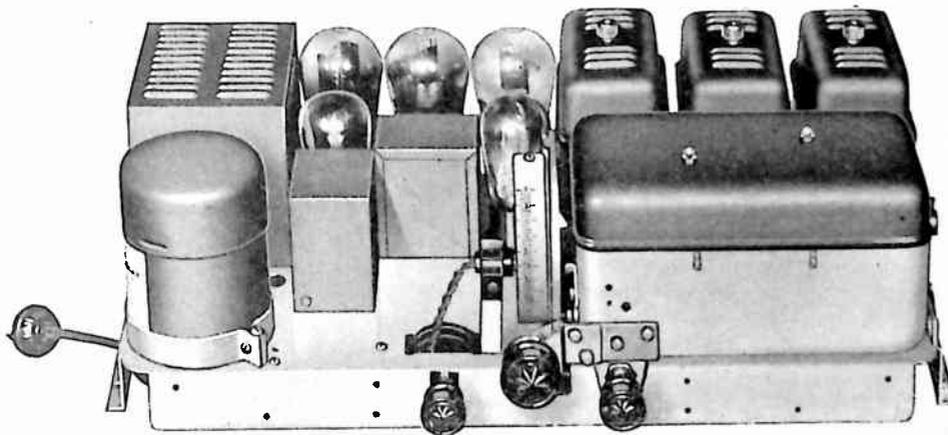
VOL. VIII.

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NO. 13.

## Screen Grid---What Is It?

An Answer  
to the  
Question



By Ralph H. Langley,  
Director  
of Engineering

THE CROSLEY UNITRAD, SCREEN GRID RECEIVING UNIT.

EVERYONE IS TALKING ABOUT THE screen grid tube. Practically every manufacturer of radio sets has brought out a new model in which the screen grid tube is used, and jobbers and dealers seem to feel that it contains some queer magic by which all former ills of radio are to be cured at one stroke. Yet nowhere, so far as we know, has there been a simple statement of just what it is and why it works as it does.

A vacuum tube is supposed to be a one-way device, that is, voltages applied to the grid will be repeated and amplified in the plate circuit, but there will be no action at all in the other direction, from the plate back to the grid. Tubes lived up to this expectation until we tried to get very high amplifications out of them. Then it was found that they were not 100% one way, but that it was possible for a small amount of voltage to leak backward through the tube, and this was very troublesome. It caused radio receivers to howl and squeal, and made them quite useless for radio broadcast reception.

Of course, when it was desired to make a tube generate an alternating current of high frequency, a path outside the tube was arranged to feed part of the voltage from the plate back onto the grid. This was done in regenerative receivers, and in transmitters, but in tuned radio frequency receivers, even the small leak through the tube itself had to be stopped or compensated for.

All the various methods of neutralization, including the Hazeltine method, which is probably the best, were developed to balance out this small voltage that leaked back through

the tube. The balancing devices called for extra windings on the transformers between the tubes, to collect the balancing voltage, and then a balancing condenser, by which just the right amount of this voltage could be fed back to the grid. The adjustment of these balancing condensers was difficult, and the whole arrangement was complicated and expensive.

The problem for the tube designers was to produce a new tube that was really a one-way device, that did not have this small leak for letting voltage come back the wrong way and cause trouble. The screen grid tube is the answer to this problem. In this tube the leak is so extremely small as to be negligible in all ordinary receivers.

The balancing of a receiver was therefore not a virtue but the necessary cure for a very troublesome defect in the tubes themselves. Receivers which use the screen grid tube do not require to be balanced, the tube has no feed-back path in it. The balancing condensers and the extra windings are left out, and the whole circuit becomes simpler and more stable.

The screen grid is an extra element inside the tube. It is placed on both the inside and the outside of the plate. It does not prevent the tube from amplifying, in the proper direction, but it does eliminate the small leak, back to the grid, that caused so much trouble.

When the screen grid was tried out, it was found that it not only stopped the leak, but that it also made it possible to get very much higher amplification out of the tube. It is not feasible, in broadcast receivers, to use all the amplification of which the tube is capable because if this is done, the voltage on the out-

put side will be so much higher than the input voltage that there will be sufficient leakage in the wiring of the set to cause very serious trouble. But the greater power of the screen grid tube can be utilized to make the whole receiver much better than the earlier types, not only amplification, but in selectivity and quality as well.

It would be very nice if the screen grid tube could be substituted for the old three element tubes in the standard receivers. Unfortunately this cannot be done. The new tube is radically different, and requires a very different circuit. The receivers that use the new tubes may look like the earlier types at first glance, but an examination inside will show that a great many things are different. The transformers have different windings, and the plate and bias voltages are different. Because the new tubes gives higher amplification, the whole set, including the tubes must be carefully shielded. The control grid of the new tube comes out at the top instead of through the base, as in the old tubes, and the lead that runs from the top of tube to the transformer must not run too close to grounded metal. Unless the set is especially designed for screen grid tube, all its advantages will be lost.

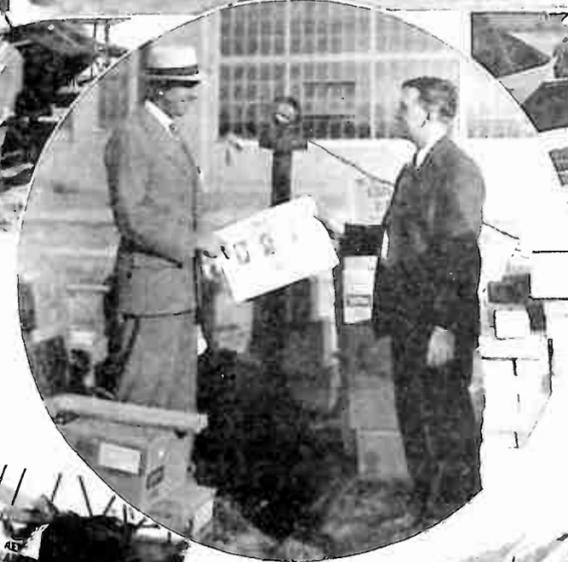
The screen grid tube is therefore seen to be a logical and very valuable advance in the art. It solves a problem which has occupied many of the ablest minds in the country. It is not merely a method of overcoming the troubles of the old tubes, it is the complete elimination of the trouble. It is the tube of today and tomorrow, and may well be the final development of this most marvelous electrical device.

# RUSHING THE BIG

RIGHT: Powel Crosley, Jr., presenting letters from the Mayor of Cincinnati to the Mayors of Atlanta, Georgia, and Chattanooga, Tennessee to George L. Washington of Gilham Electric Company, Crosley Distributor. Mr. Gilham and his bride are shown in the picture. Incidentally this is the first Crosley honeymoon by air!



IN CIRCLE: Powel Crosley, Jr., receiving a copy of the New Orleans "Times-Picayune" containing the story of the flight of the Shuler plane from New Orleans for Cincinnati. The microphone was the instrument used in broadcasting the arrival and departure of the Crosley distributor planes from Lunken airport. Several short talks were made by the president relative to the activities at the field.



ABOVE: Our president presenting letters for the officials of Baltimore, Md., and letters of appreciation to representatives of Lincoln Sales Co., Inc., Crosley distributor in Baltimore.



ABOVE: George D. Barbey, Crosley distributor in Reading, Pa., Eshelman Supply Co., of Lancaster, Pa., and R. M. Peer Co., of Harrisburg, Pa., combined to send this ship to Cincinnati. Their representative is shown receiving letters from Powel Crosley, Jr.



ABOVE: Powel Crosley, Jr., presenting letters to Pilot Jimmy Wedell for the Shuler Supply Co. of New Orleans. Jimmy has been flying since 1907 and has a record of 3000 hours in the air. Three gentlemen of the press accompanied Pilot Wedell including Herman Deutch, prominent New Orleans feature man one of Powel Crosley, Jr.'s classmates at the University of Cincinnati.



ABOVE: The chief presenting letters to C. J. Verret of Ozburn-Abston Co. of Memphis, Tennessee.



Lampton, Crane & Ramey of Louisville, Ky., represented by C. H. Marcus, receiving their letters from the president.



Tenk Hardware Co., Harbison Mfg. Co., and American Electric Co., sent this plane to Lunken airport for a large shipment of Crosley 41-S receivers. Powel Crosley, Jr., is presenting letters addressed to the presidents of their chambers of commerce and letter of appreciation to the Crosley distributors who chartered the ship.

# NEWS NATION WIDE!

RIGHT: Powel Crosley, Jr., presenting letters destined for Erie Radio Co., of Erie, Pa., and H. D. Taylor of Buffalo, N. Y., to their representative.



IN CIRCLE: "Big men in radio" discussing the "Big News in Radio". Powel Crosley, Jr., is presenting letters of congratulation from the Mayor of Cincinnati to the Mayors of Dayton, Toledo, and Cleveland, Ohio, and Detroit, Michigan, to James E. Aitken, president of Aitken Radio Corporation with branches in these cities.



ABOVE: Powel Crosley, Jr., handing letter of congratulation to Claude Urban president of the U. S. Radio Corporation of Pittsburgh, Pa.



ABOVE: Billy Stewart of Advance Electric Co., Terre Haute, receiving letters of congratulation from Powel Crosley, Jr., just before Crosley 41-S receivers were packed into the plane for the return hop to Indiana.



Presentation of greeting letters to E. H. Wessel and R. E. Pines, special representatives of Geller, Ward, Hasner Hardware Co. of St. Louis, Mo.



W. F. Kennedy, President of Ott-Helskell Hdwe. Co., Wheeling, W. Va., (right) receiving letters of commendation from Neil Bauer, Assistant Sales Manager.



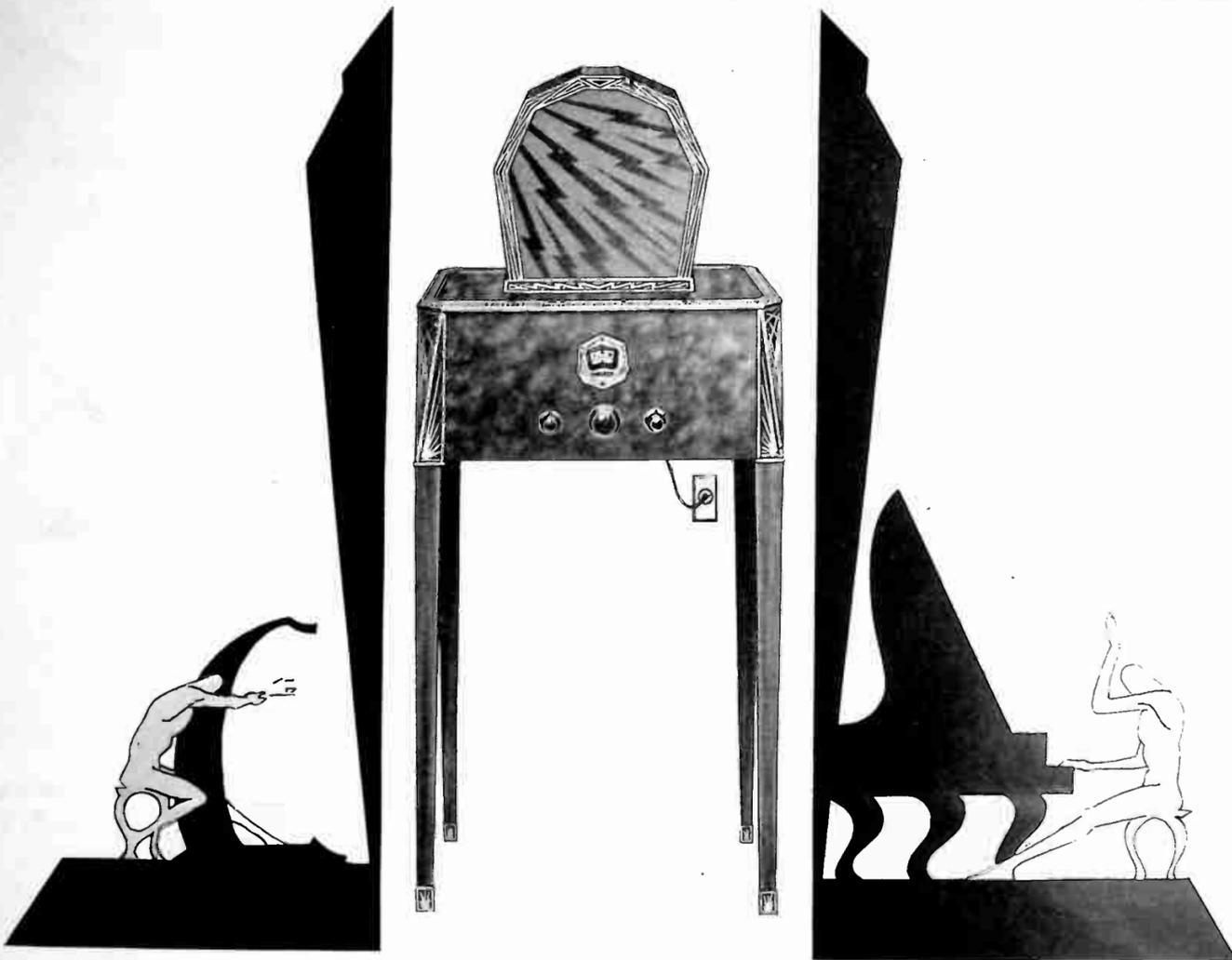
Wilkenning, Inc., of Philadelphia, Pa., can well boast the highest priced loading service in the world, after Powel Crosley, Jr., President of the Crosley Radio Corporation, assisted in packing the shipment of Crosley 41-S receivers into the cockpit of the Philadelphia ship.



Powel Crosley, Jr., handing Charles Kruse of the Kruse-Connel Co., of Indianapolis and South Bend, Ind., a letter from Mayor Seasongood of Cincinnati to the Mayor of Indianapolis.



John Hope, Jr., Credit Manager of the Crosley Radio Corporation presenting letters to P. D. Newell of J. H. & F. A. Sells Co., of Columbus, Ohio.



# The CROSLEY 31

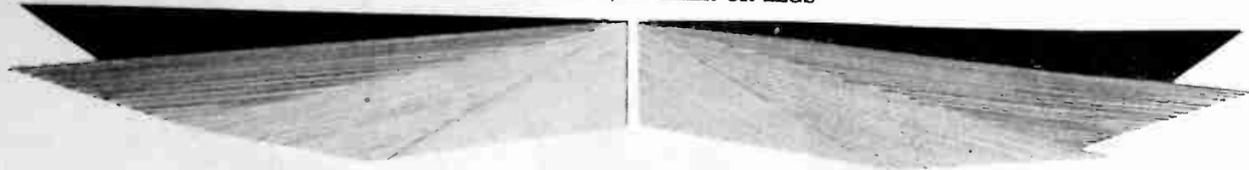
A 7-TUBE A. C. RECEIVER

**T**HE artistry of a fine musician finds more complete expression upon a faultless instrument. Crosley 31 is such an instrument. It is the product of public demand for a radio receiver embodying superior tone, and exterior beauty—both characteristic of Crosley instruments. In Crosley 31 we discover not only the genius of master engineers

and the painstaking care of superb craftsmen, but a most reasonable price. The burled walnut finish of the metal case decorated modernistically in white metal marks it a work of art, its consistent performance puts it in the front rank of radio receivers, its low price places it within the reach of all.

## \$55

WITHOUT TUBES, SPEAKER OR LEGS



# CROSLEY DISTRIBUTORS



## Crosley Dealers Guests of the Schuster Electric Company



MORE THAN 150 CROSLEY RADIO dealers from Ohio, Kentucky, and Indiana were guests of The Schuster Electric Company at their 7th annual dealer meeting held Thursday, June 13th.

The dealers met at 2 o'clock at the offices of The Schuster Electric Company and formed an enormous motor caravan of over 90 automobiles. From there they drove to the beautiful Three Rivers Country Club which had

been leased by The Schuster Electric Company for the affair.

During the afternoon Crosley and Amrad plans for 1929 were discussed to the dealers. The complete line of Crosley and Amrad models were on display and met with the complete approval of the dealers.

During the afternoon the Crosley Moonbeam aeroplane, which is the latest product being manufactured by Powel Crosley, gave

an exhibition of stunt flying for the benefit of the dealers.

Powel Crosley, Jr., president of The Crosley Radio Corporation, was present at the meeting and was enthusiastically received by the dealers.

A dinner at 6:30 and refreshments were served, and those dealers attending the meeting reported that a wonderful time was had by all.

## Dayton Distributor Holds Big Meeting

A MEETING WHICH RESULTED IN THE placing of good orders by interested dealers was held by the Dayton branch of the Aitken Radio Corporation, Crosley Distributor with branches in Toledo, Cleveland, Detroit, and Dayton.

The dealers met in the Van Cleve Hotel in Dayton where the new Crosley and Amrad lines were displayed and discussed. A large group of dealers turned out for the affair.

At a dinner attended by 60 dealers at the Engineers Club in Dayton further information was given concerning the new Crosley line. J. W. Hutchinson acted as toastmaster. James E. Aitken, President of the Aitken Radio Corporation, was the guest of honor and spoke on the new financing plan as outlined by the Commercial Credit Companies. Eugene Revercomb, Crosley Representative, discussed the Crosley Icyball Refrigerator; Neil Bauer, Assistant Sales Manager, talked on the new Crosley line; and A. E. Deaderick, Advertising Manager, discussed the national advertising campaign and the advisability of dealers tying in with it.

From reports of the meeting, the dealers expressed their enthusiasm in concrete form with good orders for the new Crosley and Amrad lines.

## Youngest Crosley Distributor



IN A PREVIOUS ISSUE OF THE Broadcaster the death of John G. Schuster was announced. The blow was a sad one to the organization, but fortunately there is another John Schuster to carry on. Though young in years, "Bud" has been associated with his father in the radio game for a considerable time and in the capacity of Vice-President and General Manager of the Schuster Electric Company he will cover the KIO territory for Crosley. The Crosley Radio Corporation anticipates splendid success for him.

### IMPORTANT NOTICE! NEWSPAPER ADS.

On June 14, mats containing a selection of newspaper ads featuring Crosley 31 and Crosley 32 for the use of Crosley distributors and dealers were mailed out. It is strongly urged that dealer advertising feature these low price models which will create the greatest demand. Additional mats will be mailed out on request.

All distributor and dealer advertising must show the Crosley logotype prominently displayed in its characteristic form to gain the factory cooperative allowance. Electros of the Crosley logotype furnished without charge.

THE FIRST TESTIMONIAL LETTER ON the new line came in several days ago from the Crosley dealer in Pickerington, Ohio. His offering needs no further comment.

In addition to putting in an order for advertising material he appends this note:

"Just received a sample of the No. 42 it sure is a wiz. It's there with tone, volume, selectivity, and pick up, should go over like a house afire.

SOME SET!  
C. F. Shoemaker.

# Fort Wayne Iron Store Air Campaign

"Free airplane rides with purchase of Crosley receiver" featured

THIS TICKET WHEN EXCHANGED FOR A REGULAR TICKET OF THE  
**Maumee Aviation Transport Service Co.**  
 will be \$3.00 on the purchase of a Crosley Radio Set  
 when presented to your authorized Crosley dealer  
**FORT WAYNE IRON STORE COMPANY**  
 Fort Wayne, Indiana

ONE OF THE MOST THOROUGH AND interesting advertising campaigns is a stunt now being featured by the Fort Wayne Iron Store Company, Crosley Distributor in Fort Wayne, Indiana.

For six months, from May until November, Fort Wayne Iron Store is co-operating with its dealers in a big airplane campaign. A new Waco airplane and a capable pilot have been secured by Fort Wayne Iron Store to barnstorm the Indiana towns in the territory of the Indiana distributor. The plane will be painted with Crosley insignia and will be advertised as the "Crosley-Radio Airplane". A feature of the tour will be a parachute jump by a trained dog, "Windy". Crosley dealers in each city will be visited twice by the plane during the campaign.

Each dealer is notified a week in advance of the arrival of the airplane and is supplied with posters for window and outdoor advertising, with newspaper ads, and broadsides advertising the arrival of the plane. Additional

J. J. Mehegan



IN THE HOTBED OF THE REVOLUTION, surrounded by the bean pots of Boston and the denizens of Hahvud, J. J. Mehegan lives among his Crosley radio receivers. Mr. Mehegan is the Crosley representative in the New England States utilizing Boston as his base of operations. The strength of Crosley products in New England are due in no small measure to the intensive work and capable salesmanship of Mr. Mehegan.

**COMING**  
**HERE** ADMISSION FREE  
**CROSLLEY-RADIO AIRPLANE**  
**PASSENGER RIDES**  
*This Plane is being Brought Here through the Courtesy of your Local CROSLLEY RADIO DEALER*  
 Come Out and Ride -- Enjoy the Most Fascinating of all Sports  
**EXTRA SPECIAL**  
 See WINDY The World's Champion Dog Parachute Jumper  
*In His Death Defying Trick Jump from an Airplane.*  
**THRILLS! THRILLS! THRILLS!**  
 See Your City from HIGH HIGH Up in the Air

advertising is disseminated when the plane has landed at the local airport.

Tickets for rides may be purchased at the landing field good for their face value with the purchase of a Crosley receiver at the store of the local Crosley dealer; or tickets distributed by the dealer are exchanged for regular tickets of the aviation service company which when presented to the dealer are good for \$3.00 on the purchase of a Crosley receiver.

Balloons and other advertising novelties are given away by the dealers during the campaign. The advertising will feature "free rides in airplane with purchase of a Crosley receiver.

This advertising stunt has been tried before and has met with tremendous success. In one town of 900, thirty sets were sold in

## "Old Ironsides"

IN 1926 CONGRESS AUTHORIZED THE reconditioning of the famous old warship, the United States frigate "Constitution," by popular subscription. The work of reconditioning has been going on, but the fund still lacks some \$200,000 of the amount necessary for completion. The National Save Old Ironsides committee is making a concerted effort to secure the needed funds.

The campaign is a patriotic one. It should appeal to the public imagination. Contributions need not be large, but they should be many. To preserve this earlier representative of our Navy so that this and future generations may see it and be inspired by it is a most worthy undertaking. The Crosley Broadcaster hopes that its readers may wish to take an active and substantial part in the undertaking. To all thus disposed we suggest that they send their contributions to Philip Andrews, rear admiral, United States Navy, chairman of the National Save Old Ironsides committee, Navy Yard, Boston.

A good selling talk is made up of a lot of ideas and a few words.

HERE WE ARE NOW!  
**The CROSLLEY RADIO AIRPLANE**  
 A REAL PILOT ADMISSION FREE  
**PASSENGER RIDES**  
*This Plane Has Come Here through the Courtesy of Your LOCAL CROSLLEY RADIO DEALER*  
 -- Come Out and Ride --  
**EXTRA SPECIAL!** See WINDY The World's Champion Dog Parachute Jumper  
*In His Death Defying Trick Jump from an Airplane*

one day. Perhaps no other field has occupied the public attention more than radio, save perhaps aeronautics. When both are combined the publicity results and the interest manifested are surprising. The shipping of Crosley 41-S receivers by airplane in June is evidence of the immense interest created by such a tie-up.

Leonard and Jenkins, Crosley dealers in Hartford City, Indiana, are the first to take advantage of this feature.

To date 43 dealers have lined up with Fort Wayne Iron Store. As an example of the interest in this venture it may be remarked that in the town of Monroeville, Indiana, 40 passengers took to the air and more than a thousand people came out to the field to see the plane. This interest cannot help but produce results regardless of the number of sets that the dealer might sell as the immediate result of this stunt. The Broadcaster awaits with keen anticipation the results of this venture.

R. W. French



IN THE CITY OF CLEVELAND LIVES AN aggressive, hardworking Crosley representative, R. W. French whose territory includes Cleveland, and Akron, Ohio; Pittsburgh and Erie, Pennsylvania; and Wheeling, West Virginia. Mr. French is known widely for his industry and integrity and The Crosley Radio Corporation is fortunate in possessing his services.



**STYLE CH-5B \$193.00**  
 This is a horizontal sign, 5' long by 3' 5" high. "CROSLLEY" in 7" high stencilkraft letters; "RADIO" in 10" high letters approximately 4" high, depending upon number of letters in name. Fifteen millimeter red neon tube border around word "RADIO". Number of interior sockets—25. Approximate shipping weight—400 Lbs.

**STYLE CH-5 \$82.00**  
 Same as Style CH-5B save that the neon border is not included. Approximate shipping weight—370 Lbs.

## CROSLLEY Electric-Neon Signs

THE ELECTRIC SIGN IS ONE OF THE MOST compelling advertising features of our cities. It has life, light, color and novelty! It cannot be ignored!

The electric sign transforms your store front into a living salesman—it puts your name and your business forcibly before the public. The electric sign has attained a strong position as an advertising medium because it pays.

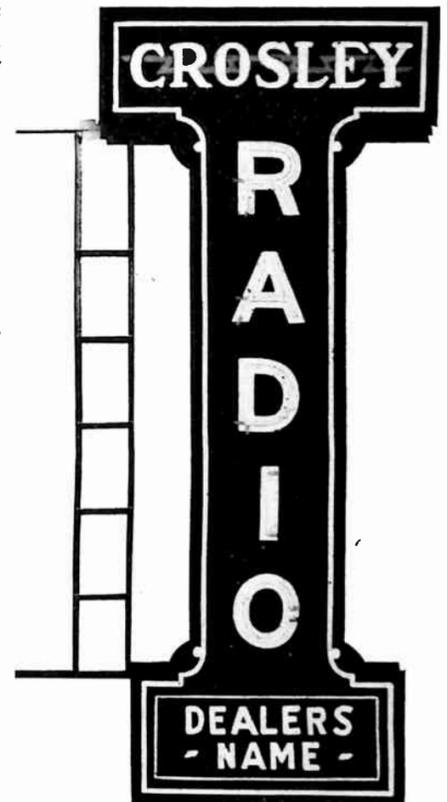
Today, tomorrow, especially at night the electric sign on your store front is catching the eye of the possible customer telling of your location, your name, your goods.

The Neon sign or the sign embodying the Neon principle is the most popular sign of today—and from all indications it will continue to be so. With customary thoroughness Crosley has prepared three models, in six different styles—two all electric, and four combination electric and Neon. The fact that these signs are purchased in large quantities permits Crosley to offer them to you at a price considerably below the price you would pay on the open market.

## GENERAL DESCRIPTION

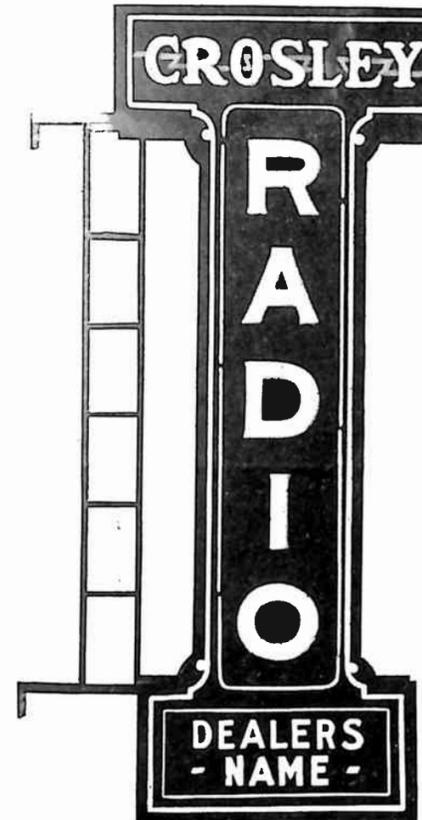
The inner frame work is of angle iron, cross-braced construction, so designed as to produce a substantial, rigid frame, which with porcelain enamel finished faces produces a sign of exceedingly attractive, tailor-made appearance of lasting quality.

These signs are illuminated from the inside, and the lamp receptacles are so placed as to produce an even and well balanced illumination, with a minimum of current cost. Properly placed doors for lamp renewals are provided. The dealer's name on the etched glass is covered with a plate of transparent glass to protect the lettering from the weather.



**STYLE CV-2 \$205.00**  
 This is a vertical sign, 9' 1" high by 3' 10" wide; "CROSLLEY" in 6" high raised opal glass letters; "RADIO" in 10" high twelve millimeter red neon tube letters, dealer's name panel 11" high by 30" long, size of letters to depend upon number of letters in name. Number of interior sockets—14. Approximate shipping weight 410 Lbs.

**STYLE CV-2B \$355.00**  
 Same as Style CV-2 save that "RADIO" is enclosed by 15 millimeter red neon tube border. Shipping weight approximately 455 Lbs.



**STYLE CV-1B \$250.00**  
 "This is a vertical sign, 9' 1" high by 3' 10" wide; "CROSLLEY" in 6" high raised opal glass letters; "RADIO" in 10" high raised opal glass letters; dealer's name panel 11" high by 30" long, size of letters to depend upon number of letters in name. Fifteen millimeter red neon tube border around word "Radio". Number of interior sockets—26. Approximate shipping weight—445 Lbs.

**STYLE CV-1 \$97.00**  
 Same as Style CV-1B save that neon border is not included. Approximate shipping weight 400 Lbs.

ALL THREE TYPES OF THESE SIGNS ARE of the interior illuminated type, double faced—reading from both sides. Letters "CROSLLEY" and "RADIO" in the horizontal signs are cut out of 18-gauge porcelain enamel steel and finished in vitreous porcelain enamel; background black; border stripe yellow and folder red. The letters in CV-1B are of raised opal glass and the letters in CV-2 are raised opal glass in "CROSLLEY" and red neon tubes in "RADIO".

The dealer's name panel is of acid etched, opal art glass, containing the dealer's name in white letters of approximately 4" in height, depending upon the number of letters in the name.



# THE BEL CANTO SERIES

## This NEW AMRAD Line SELLS!

THE opinion of Amrad Distributors expressed with emphatic enthusiasm in the May Convention has been corroborated by Amrad dealers in every section of the country.

Here is a radio line, out of the intensely competitive field—yet priced reasonably enough to sell readily.

It wins on appearance — for Amrad Consoles are beautiful examples of master furniture design; it wins on examination — for every detail of the chassis is engineered with painstaking exactness; it wins on demonstration for the tone is a marvel of rich, full, loveliness — the finest tone in radio!

Built-in full floating dynamic speakers; screen grid tubes in three stages; eight tubes including two powerful 245 tubes in push pull; extra heavy construction; four tuned circuits for maximum selectivity; special audio system. The most notable product of 1929.

THE AMRAD CORPORATION  
MEDFORD HILLSIDE, MASS.

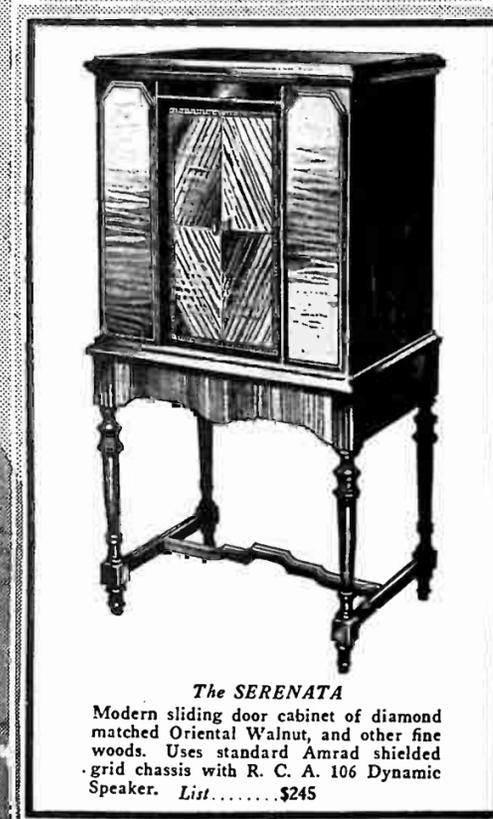
J. E. HAHN  
President

POWEL CROSLEY, JR.  
Chairman of the Board

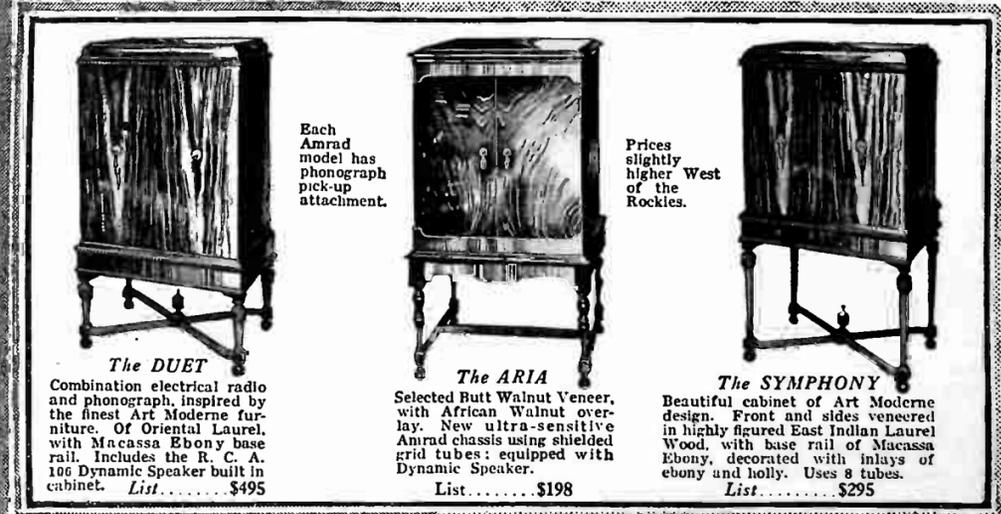
There are still open dealer territories for authorized Amrad dealers. Write today to Dept. UX for full details.



# THE BEL CANTO SERIES



**The SERENATA**  
Modern sliding door cabinet of diamond matched Oriental Walnut, and other fine woods. Uses standard Amrad shielded grid chassis with R. C. A. 106 Dynamic Speaker. List.....\$245



**The DUET**  
Combination electrical radio and phonograph, inspired by the finest Art Moderne furniture. Of Oriental Laurel, with Macassa Ebony base rail. Includes the R. C. A. 106 Dynamic Speaker built in cabinet. List.....\$495

Each Amrad model has phonograph pick-up attachment.



**The ARIA**  
Selected Butt Walnut Veneer, with African Walnut overlay. New ultra-sensitive Amrad chassis using shielded grid tubes; equipped with Dynamic Speaker. List.....\$198

Prices slightly higher West of the Rockies.



**The SYMPHONY**  
Beautiful cabinet of Art Moderne design. Front and sides veneered in highly figured East Indian Laurel Wood, with base rail of Macassa Ebony, decorated with inlays of ebony and holly. Uses 8 tubes. List.....\$295

# Publicity and Its Relation to Your Business

ALL LEGITIMATE BUSINESS IS A source of good news copy now and then, and due to the very nature of the radio business—its newness, progressiveness and romantic aspects—it is a better source of news than any other branch of big business except the financial market. Even at that there are many in the radio industry who do not know news when they see it, but think they do, and consequently the editorial room janitors have a large task emptying radio editor's waste baskets.

Too many people today have the idea that this publicity business is first cousin to the second story and porch climbing game. They all remember the brand of press agency made famous by Mr. Barnum, and his successors, and labor under the impression that the cir-



CIRCUS TACTICS DO NOT APPLY

cus tactics of yesterday apply to all publicity methods of today—that the main object in life is to steal as much white space in the newspapers as possible.

Unfortunately, in some industries and in some places in our own industry, this does not hold true. However, we who have the self satisfaction of knowing that our publicity is going over for a reasonable bit of white space every year, know that ballyhoo stunts are things of the past. To hold the respect of radio editors we must furnish them with the legitimate news of our industry and in so doing must present it in an open and above board manner.

There may be gentlemen of the press who will read this article. They will agree that 90 per cent of the matter they receive should never have gone into the mails, and, that 90 per cent of the radio news that they might have used in their column has never been submitted.

Everything you do in your business has some news value to it and if sent to the right editorial desk will find its way into print. In searching for the proper outlet via the printers' ink route you may waste a lot of white paper and typewriter ribbons, but you will be rewarded if your news appears in at least one of the publications to which you submit it.

Your two great outlets, of course, are to your local papers and to the trade papers of all businesses in which you are engaged. Publicity in the former will result in direct returns in sales. Publicity in the trade publications will serve to make you better known as a progressive merchant and will strengthen the name of the product you sell, in the minds of other business men.

The very fact that you are an authorized Crosley radio dealer is considered news in many localities but unless you call the attention of the local editor to this fact, the news will

never reach your public. With Crosley products being advertised in newspapers, magazines and on the air as being sold only by authorized Crosley dealers, a large number of people are anxious to learn the address of their nearest Crosley dealer. Any information that people seek is news.

Ever since the first commercial built crystal set came on the market the announcement of a new instrument has been news. New lines are put out because they incorporate features new to the science of radio—and any advancement in any science is news. There is a story when the new line is announced. There is a story when the first samples are received and put on exhibition, and there is a story when enough of the new devices are on hand to supply the local demand. If for some reason or other the supply is not great enough to meet the continued demand and it is necessary that customers place their orders in advance, there is a story in telling the public about this. When production catches up to demand the public again should be informed.

After new material has been received and sold there are many stories hidden in the success the consumer has with the new goods.

In the smaller communities the purchase of a new radio receiver by John Jones is considered just as important news as the purchase of a new cow by Farmer Brown or the setting of a Rhode Island hen by the Widow Green. Unless your local editor is told of John Jones purchase and you write out John's name so it will not be spelled wrong and make him mad, the story will never reach print.

New window displays are news in many localities.

Sales and installation of radio receivers in such institutions as public and private schools, hospitals, county farms, clubs, Y. M. C. A.'s and prominent retail business houses are news.

Then, too, there is news in the personnel of your business. Business trips away from town, illness of employees and their subsequent recovery, new additions to your staff, promotions, new store and delivery equipment, vacations, and even broken windows and robberies, are news.

Radio editors, and in fact all who seem to sit leisurely with their feet draped around the sides of typewriters in newspaper offices, are really busy men. You can save them time and effort and run better chances of getting your story in print if you will take pains to



AVOID SUPERLATIVES

present it to them in neat form. The old rule about typewriting, double spaced, on one side of the paper, still holds good in all newspaper offices. Unless a story is of extreme and immediate importance it is unfair to telephone it to an editor or tell it to him orally and expect him to write it for you.

Even though you do not know the journalistic style for preparing stories, you can at least type the facts in clear short, English sentences. Forget all the adjectives you ever knew and avoid such startling advertising verbs as "revolutionize."

Clean straight news will be more acceptable to editors, will read more convincingly, to your ultimate customers, and will avoid conveying wrong impressions of the product you are trying to sell.

Do not work under the impression that just because you have bought advertising space that you are entitled to a certain amount of free reading matter. The fact that you purchase the space should signify that you believe it worth the price that you are paying and



TALK TO THE ED. ABOUT YOUR PUBLICITY

the fact that you so believe convinces the editors that you are a progressive business man and that the material you hand him as news really is such and not mere publicity puffs.

Puffery and circus press agency have just about ruined the automobile sections of many first class newspapers. We of the publicity branch of the radio industry do not want to see the radio pages go hay wire the same way. Today the radio pages are among the brightest in the daily and weekly newspapers and consequently the radio industry is prospering.

The publicity department of the Crosley Radio corporation in Cincinnati is small. We employ no high powered methods to grab space and we believe that the name of Crosley is held in higher esteem by editors for this reason. But small as we are we stand ready to do the best we can to advise and help each and every individual dealer solve his publicity problems. With our small force it is impossible for us to write individual stories for each of you whenever you want them. From time to time, however, we prepare special stories of a general nature for the "Crosley Broadcaster", leaving blank spaces in them for the name of your business and we urge you to use them in your local newspapers. At times these stories may not apply to your individual situation and we want to caution you at this time not to try to palm them off on your local editors just to get your name in print.

If the Crosley radio station WLW in Cincinnati is received well in your territory, be sure to check your local newspaper to see if they use the WLW programs. If they do not, request the editors to use them and notify the publicity department in Cincinnati that we may be sure to include the editors on our weekly mailing list.

And remember that every mention of Crosley in print or on the air is a direct help to you.

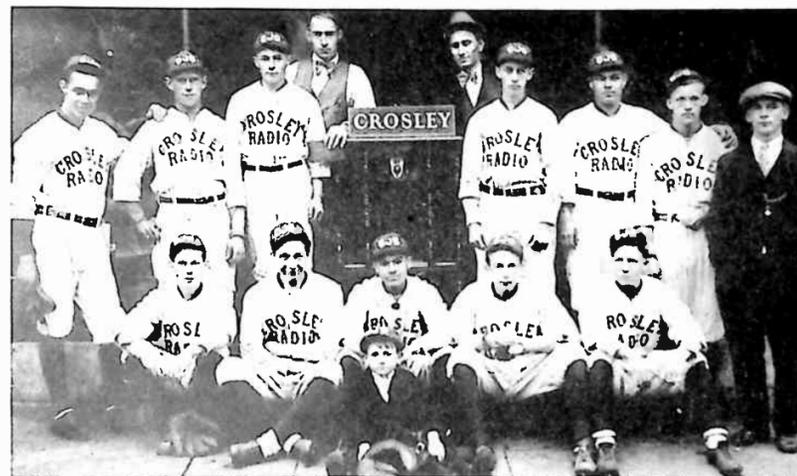


# CROSLLEY DEALERS



## George Does It!

## Empties!

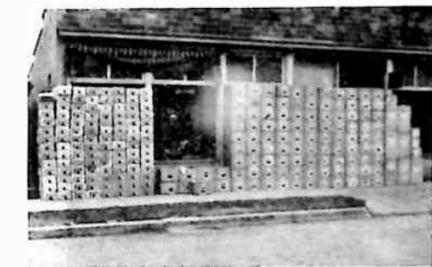


"ALL WORK AND NO PLAY MAKES Jack a dull fellow"—so goes the old chestnut. C. J. George, Crosley dealer in Dillonvale, Ohio, feels the same way about it. But friend George is a crafty Gent. He plays with gusto, but, lads, he keeps one eye to business.

A baseball fan is our George and not only that but he is owner and manager of the Crosley Radio Team in Dillonvale. (Whoops! That fills the bases! Clouting for Crosley, eh, C. J.?) This same Mr. George is given to stepping it up on the small time, out in the tall and tough. He will admit anytime that his is the best club outside the big leagues, and

if you press him he will regale you with statistics and batting averages which eliminate any comparison at all, at all. George and his gang of apple smackers get around a lot. The last crack means they travel—heigh ho! how they travel!

Well since the bases are full of Indians, let's get down to George again. Mr. George is not only a rabid ball fan but he is very much radio-minded, and by that we mean much. Wherever he goes with his merry men, his radio set goes too. And those quiet summer nights after the victory are made as gay as that good old set can make them.



NO GENTLEMEN, THE ABOVE PICTURE does not represent cases of Scotch and Rye from Canada or the Bermudas—nor after closer inspection do they represent a shipment of Crosley receivers. The photograph gives a graphic idea of how many Crosley radio receiving sets have been sold by the Stelzer Auto Repair Company, Crosley dealer in Cairo, Illinois. The pile of cartons represents the number of Crosley receivers sold between October 1, and February 1, and number 119 sets and 111 speakers, which in the estimation of this publication is a remarkable record. It is interesting to know that the Stelzer brothers each bought a car from the proceeds of their radio business—one bought a Lincoln coupe and the other a Buick sedan. Their version of it is that the cars should have been equipped with cards reading "Merry Christmas from Powel Crosley, Jr."

## Cuba Goes Icyball

DOWN IN THE HUMID TROPICS THE Crosley Icyball Refrigerator seems to have become an article for every home. At least J. M. Zayas of Santiago de Cuba feels that his are a great merchandising unit. He writes us from Havana:

"I am pleased to state that after some practice with your Icyball I have been successful in obtaining very satisfactory results and am very well pleased with it.

"I am sorry that after I received it I was not able to try it out at once as I have been out of town most of the time.

"Now that I know what it will do and understand it, I will like to go in the negotiation of representing same in Cuba and stocking a number of them.

"As I have lost most of the data on the Icyball I would appreciate if you will send me 25 complete sets of literature on same to distribute among my clients, also your best export price, I am,

Very truly yours,

J. M. Zayas,  
Santiago de Cuba  
Saco Baja No. 11  
Havana, Cuba.

## A. F. Beyer's Attractive Window Display



A. F. Beyer, Crosley authorized dealer in San Antonio, Texas, has been carrying a pretty complete Crosley display in the large window of his store on Houston Street. You will notice that he shows the Showchest and Gemchest in all three colors, as well as the new Gembox mounted on Findlay tables with the white gold finish.

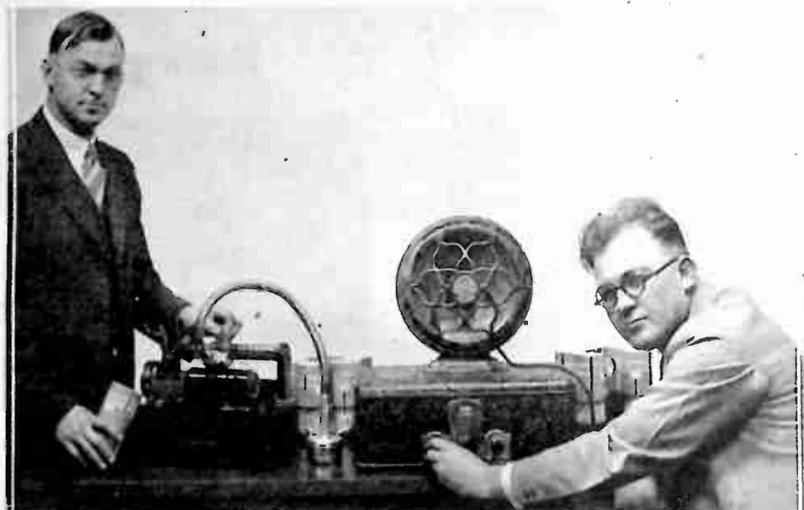
## New York Dealer Has Good Display



ARTHUR G. BOSWORTH OF SARANAC Lake, N. Y., shows us how he decorates his windows for a big Crosley week. Despite the fact that only the old line is displayed prior to the announcement of the Big News, this window may serve as a model of symmetry. The speakers, receivers, and display signs are artfully arranged to attract the attention of the passerby.

# Market Reports Recorded As Received Over Crosley Showbox

## Dictaphone and Transcribing Machine Used With Crosley Receiver in Tests Conducted by Oregon State College



The Crosley radio receiver performing a novel duty at Oregon State College. Market reports are being picked up by the set and recorded by the dictaphone.

A NEW USE FOR THE CROSLEY RADIO receiver has been found by the department of markets and marketing of Oregon State College. Experiments conducted by officials of the institution have demonstrated the feasibility of recording timely market reports as they are received over the air.

The following letter from John Loehr of the Office Equipment Company of Corvallis to C. A. Sharp, manager of the C. A. Sharp Company of Portland, Crosley Distributor, tells of the work being done for the farmers in connection with station KOAC.

"The set was hooked up to a dictaphone, as shown in the photograph. The dictaphone recorded the message as fast as the announcer could talk. The records were then transferred to the dictaphone transcribing machine

and were typewritten out in complete form. "The object of this demonstration was to ascertain the feasibility of equipping the county agent's offices with these machines for receiving timely market reports over the air from KOAC. These reports have been discontinued at present, but will probably be on the air again some time after July 1.

The Showbox did very good work for us with our special electrical recording unit hooked into the speaker circuit. In the picture we show only the Utah unit which we used in part of our work, and not this special recorder.

"Since the experimental work has been taken up at the factory we have been using the set only for determining the percentage of time KOAC will reach out far enough to make the project valuable."

### 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.  
Exclusive Radio Wholesale Only  
CROSLEY DISTRIBUTOR

SCHUSTER ELECTRIC COMPANY  
WHOLESALE CROSLEY DISTRIBUTOR

2169 Spring Grove Avenue  
412 Elm Street, Cincinnati, Ohio  
West 144—PHONES—Main 820

SO POPULAR AND INTERESTING IS the Crosley Icyball Refrigerator that it has earned editorial comment in a large South Dakota newspaper; they write:

"Likely simple enough when you know how it is done, but one of the recent inventions that has puzzled us is that kind of an ice box which you have to boil for an hour and a half every day to make it freezing cold. Out here on the plains of the middle west they ought to use the heat of the blazing sun in the same manner and refrigeration would be almost without expense."

# The CROSLEY ICYBALL Refrigerator

"for Health and Economy"

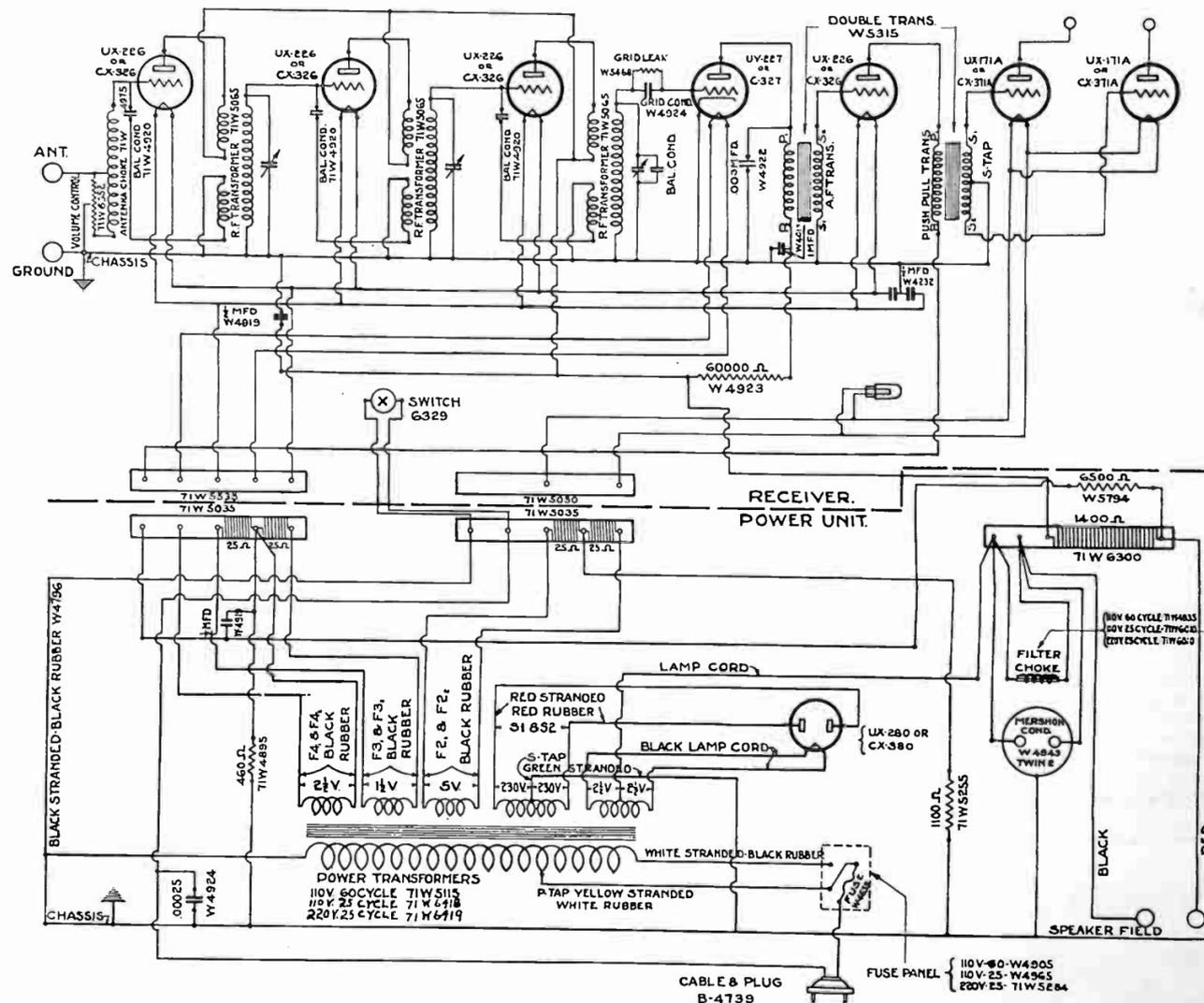
## INEXPENSIVE and UNIVERSAL REFRIGERATION

THIS striking Icyball banner is now available at the exceedingly low price of 90 cents. Printed in a dark cold blue and cool green, the banner may be used either inside or out as an effective display. 8 x 3 ft.

ORDER FROM YOUR DISTRIBUTOR.

# Crosley Service Manual

## Crosley Radio Receivers, Models 41A and 42---For A. C. Light Socket Operation



Model 41A is an 8 tube (including rectifier tube) neutrodyne receiver in a decorated metal case, for operation with Type H Dynacoil speaker, Model 242. It is supplied in either 110 volts, 25 cycle; 110 volt, 60 cycle; or 220 volt 25 to 60 cycle models for operation from A. C. house-lighting circuits.

Model 42 receiver is the same chassis as used in Model 41A, mounted in a wooden console cabinet, with built-in Type H Dynacoil speaker, Model 243.

### I—INSTALLATION AND OPERATION

#### A. Accessories

The following accessories are required:  
Material for aerial and ground.  
Eight tubes as follows:  
4 UX 226 or CX 326  
1 UY 227 or C 327  
2 UX 171A or CX 371A  
1 UX 280 or CX 380

\*Dynacoil speaker, Type H, Model 242, for Model 41A receiver. Model 42 receiver is equipped with built-in Dynacoil speaker, Type H, Model 243.

#### B. Aerial and Ground

These receivers will usually give best results with outdoor aerials from 50 to 100 feet long. Indoor aerials may be used with them if desired. They may be operated without an aerial by connecting the ground wire to the aerial terminal on the set instead of to the ground terminal.

#### C. Power Supply and Voltage Rating

As stated above, these sets are designed for operation from alternating current house-lighting circuits. They are supplied for 110 volt 60

\*Note—Mershona Condenser in set will probably be ruined if speaker field circuit is opened while set is in operation.

cycles, 110 volt 25 cycle, or 220 volt 25 to 60 cycle operation. The voltage and frequency ratings are marked on each chassis.

#### D. Connections

Follow the instruction-sheet connection diagram, reproduced herewith. Remember that because of the Mershona condenser in the power unit, it may require several minutes before the receiver will operate most efficiently when first installed or after it has been standing idle for several weeks.

#### E. Operation

Tuning should be done with the volume control (2) turned all the way on. Tune carefully and sharply with the station selector, and reduce volume, if necessary, by turning back the volume control (2).

### II—CIRCUIT

The circuit of Model 41A and 42 receivers

is very similar to that of Crosley Showbox, Model 706, described in the 1928 "Crosley Service Manual." It differs mainly in that the output choke is omitted and in that there are several changes in resistances and fixed condensers.

The circuit incorporates three neutrodyned radio-frequency stages, a tuned detector, and two transformer-coupled audio-frequency stages. The second audio stage, or output stage, is of the push-pull type. The first radio stage is untuned, the second and third stages being tuned.

#### A. Volume Control

Volume is controlled by a rheostat connected across a portion of the antenna choke coil. An improved style of rheostat is used as compared with that used on Model 706.

#### B. Alignment of Tuning Condensers

The tuning condensers may be adjusted so that they "track" together by means of a small, adjustable aligning condenser, shunted across the detector stage tuning condenser.

#### C. Filament Supply

The alternating current for lighting the filaments of the tubes is obtained from four separate secondaries on the power transformer, as follows:

(1) A 2½ volt secondary supplies filament current to the UY 227 detector tube.

(2) A 1½ volt secondary supplies filament current to the UX 226 tubes in the radio-frequency and first audio-frequency stages.

(3) A 5 volt secondary supplies filament current to the two UX 171A output tubes.

(4) A second 5 volt secondary, with a middle tap, supplies filament current to the UX 280 rectifier tube.

#### D. "B" Supply

A 460 volt secondary (230 volts from each end to middle tap) on the power transformer furnishes the "B" voltage for the various tubes. The current from this secondary is rectified by the UX 280 tube. The secondary has a middle tap connected to chassis and its ends are connected to the UX 280 plates, so that full-wave rectification is obtained.

The positive "B" lead is the wire coming from the middle tap to the 5 volt UX 280 tube transformer filament winding. From there it leads to a filter system consisting of a Mershon condenser and choke coil.

To obtain the different "B" voltages for the various tubes the voltage drop in resistances is made use of. The entire "B" current flows through the speaker field; from the filter system to the "black" speaker field terminal, thence through the field coils, and back to the "red" speaker field terminal. From the "red" speaker terminal, one branch of the positive "B" lead connects through a 6500 ohm resistance to the first audio tube plate. The drop in this resistance reduces the voltage to that required for the plate of the tube. A second branch of the positive "B" lead connects through a 1400 ohm resistance to the plates of the three radio-frequency tubes. To reduce the "B" voltage to the proper value for the detector tube a 60,000 ohm resistance is used, the positive "B" lead for the radio-frequency tubes connecting through this resistance to the detector plate.

The negative "B" return, and the grid circuit return from chassis are connected to the filaments of the radio-frequency and first audio-frequency tubes through a 460 ohm resistance connecting to the middle tap of a 50 ohm potentiometer shunted across the filament leads. A 1100 ohm resistance and a 50 ohm potentiometer are used in a similar manner to connect the plate and grid return, from chassis, to the two output tubes.

#### E. "C" Voltages

Proper "C" voltages for the various tubes are obtained by means of voltage drops in resistances. These resistances are common leads for the plate and grid circuits from the filaments of the tubes to chassis. The plate currents flowing through them furnish the required voltage drop. A 460 ohm biasing resistance connects the filaments of the radio-frequency and first audio-frequency tubes to the chassis, and a 1100 ohm biasing resistance connects the filaments of the output tubes to the chassis.

### III—TESTING

Follow the instructions for testing all Crosley sets given in the 1928 Service Manual.

### IV—REPAIRING AND REPLACING PARTS

#### A. Replacing Parts

1. In replacing parts on Models 41A and 42 the bottom of the chassis must be removed.

#### B. Tuning Condensers

1. The complete condenser gang should be removed and replaced as a unit.

2. Take off knobs and remove leads from pilot light socket and volume control first. Next remove switch from holder. Then unsolder condenser leads and remove assembly. Replace in reverse order.

#### C. Radio-Frequency Transformers

1. Unsolder leads first. Then remove shield. Finally take off transformer coils. Replace in reverse order.

2. Mark all leads and terminals.

#### D. Audio-Frequency Transformers

1. Both audio transformers are mounted in a single shield. These must be removed as a single unit.

2. Unsolder leads. Remove nuts holding assembly in position and take off transformers. Replace in reverse order.

3. Mark all leads and terminals.

#### E. Power Transformer

1. Mark all leads and terminals and unsolder leads. Then remove shield and transformer. Replace in reverse order.

#### F. Power Choke

1. Unsolder leads. Remove assembly. Replace in reverse order.

2. Mark all leads and terminals.

#### G. Mershon Condenser

1. Take off cap first and disconnect leads. Then loosen support strap and lift out condenser. Replace in reverse order.

#### H. Other Condensers, Volume Control, Switch, Etc.

1. From an examination of the set you can tell how to remove these units most easily. Whenever there is a chance of mistake be sure to mark all leads and terminals.

## New Crosley Neon Signs

### Icyball and Radio Featured



This Crosley Neon Sign may be hung from a support or placed on showcase or in window. It is equipped with either Icyball or Radio Plate, or, at a slightly higher cost, with both. Your choice of color—Mediterranean Blue, Sunset Red, or Brilliant Green.

#### FEATURES OF THE CROSLY NEON SIGN AT A GLANCE

Economy of operation.

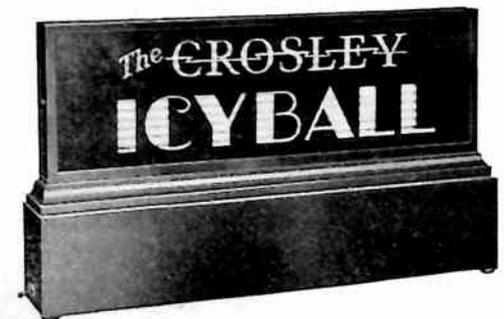
Choice of Color.

Letters readable from the side.

Wordings easy to change.

Improbability of tube breakage.

No exposed wiring.



This Crosley Neon Sign may be placed on showcase, in window, on top of set, etc. It is equipped with either Icyball or Radio Plate; or, at a slightly higher cost, with both. Your choice of color—Mediterranean Blue, Sunset Red, or Brilliant Green.

**\$39.00 f. o. b. Factory—Order from Your Distributor.**