

Crosley South American Business Expanding

Central and South American Countries Demand Crosley A-C Sets

Brilliant Gains Shown in Argentina, Brazil, Uraguay and Chile

The year 1928 closes with a decided gain in Crosley business on the South American continent. Especially in Argentine, Brazil, Uruguay and Chile, there have been great advances made.

In January 1927 the assistant manager of our Foreign Department, Octavio Bermudez, made an extensive visit to South America and the gains noted are a reflection of his work of last year.

Big advances have been shown in the West Indies, particularly in San Domingo. There is also substantial Crosley business in Cuba and Mexico.

The development of broadcasting stations has a direct bearing upon the sale of Crosley sets. In this respect, Argentina is better equipped than any of the South American nations. There are, in that country, eight first-class stations. A number of smaller stations are in operation in the Argentine, but it is usually considered that there are eight reliable stations.

Brazil has several good stations, in Rio de Janeiro, Pernambuco, Sao Paulo, and other towns of less size. Chile possesses several stations. In Peru and Venezuela, broadcasting is a national monopoly.

There are one or two excellent broadcasting stations in Uruguay. There are no stations of importance in Bolivia. In this respect the city of Buenos Aires is fortunate. Evidently, radio is decidedly popular in Buenos Aires and the Argentine.



Young Italy Discovers Crosley

SINCE the war, there have been tremendous developments in Italy and Spain. Each of these two countries has taken steps to bring itself into line with the march of modern civilization in which power plays a large part.

With this development of public utilities has gone, hand in hand, an increased radio interest. Recently Mr. C. J. Hopkins, Manager of the Foreign Department of the Crosley Radio Corporation, made a trip to Spain and Italy. That was in August and September, 1928. He awarded exclusive Crosley distribution for Italy to the firm of Menotti, with offices in Laveno and branches in Milan and Turin. (The picture above is the young son of Signor Minotti, with a Crosley Showbox and Dynacone).

For the balance of 1928, Italy's Crosley purchases amounted to more than for the two years previous!

In Spain, the Crosley distributor is Lores Codina y Roig, at Barcelona. Their December 1928 purchases equalled the whole of 1927.

Both in Italy and Spain, the demand is for Crosley A-C receivers and power speakers.

WLW Serves As Local Station in West Indies

Crosley Representative To Visit Central America

1929 finds a growing demand for Crosley radio sets in the Central American countries. The name Crosley is a household word in many Central American homes, due to Crosley station WLW. It is the most reliable station for the Caribbean countries.

The call in Central America and Mexico, as in the West Indies and South America, is for all-electric sets.

On January 9th the assistant manager of our Foreign Department, Mr. Octavio Bermudez, left for a trip in the interests of the Crosley Radio Corporation, to Cuba, Mexico, and Central America.

The Crosley distributor for Cuba is the Ramirez Electric and Radio Mfy. at Habana. This was Mr. Bermudez' first port of call. He also visited the Crosley dealers on the island of Cuba.

From Cuba, our Crosley representative goes to Merida, Yucatan, stopping at Progresso to call on the Crosley distributor for the provinces of Yucatan, Campeche and Quintana Roo, La Compania Importadora S. A. Panama, Nicaragua and Gautamala will also be visited.

F. Armida and Cia., are the Crosley distributors for Mexico. They are located in Mexico City. Mr. Bermudez' visit will include not only the distributor at the capital city but also brief visits to the larger Crosley dealers throughout the Mexican republic.

Under this impetus, Crosley business in the Spanish countries will undoubtedly grow at an even more rapid rate than it has been doing in recent years. THE CROSLEY BROADCASTER



THE CROSLEY BROADCASTER

Gembox Winners on WLW Letter Contest Announced

Out of the thousands of letters sent in to Crosley station WLW, at the occasion of the formal dedication of the 50 Kilowatt transmitter, one from each state in the Union has been selected by a jury to receive the state prize of a Crosley Gembox. It was a big job to make the selections. Some of the letters were very fine and a choice hard to arrive at. All the letters were read and passed upon. To each winner, a Crosley 6-tube all-electric set has been shipped. A list of these state

winners follows:

Mr. Walter B. Mills, Jr., State of Alab Montgomery, Ala.

Mr. Galen H. Drury, P. O. Box 274, U tion, Tucson, Ariz.

Mr. Hamp Williams, Hamp Williams Company, Hot Springs, Ark.

Wilbur J. Hudson, 1230 W. Rose S Stockton, Calif.

Edith H. Goddard, 1436 Elizabeth S Denver, Colo.

Mr. W. R. Hopkins, 341 Clinton Av Bridgeport, Conn.

John C. Saylor, Jr., 100 West 22nd S Wilmington, Del.

Claude C. Coleman, Canal Point, Fla.

Mrs. A. V. Copelan, Madison, Ga.

H. C. Goggins, University of Idaho, Po lo, Ida.

Mr. C. H. Weber, 1744 North-Shore Chicago, Ill.

Mr. James L. Gailbraith, 212 Meeks Muncie, Ind.

Mr. Cecil F. Cook, 224 Union Savings Bldg., Davenport, Iowa.

Mrs. W. F. Costello, 2610 E. Douglas Wichita, Kan

Mr. R. L. Schuhmann, 4823 S. Third S. Louisville, Ky.

Francis L. Pullen, 337 St. Hypolite S Baton Rouge, La

John M. Coyne, 186 York Street, Ba Maine.

James E. Hiltz, 3201 Windsor Ave., more, Md.

Mr. Reginald W. Tolman, 243 Mill S New Bedford, Mass.

Mr. Hiram Hirleman, Box 51, Green Mich.

Mrs. Frank H. Jennings, Onamia, Minn

Mr. J. Hubert Little, Meridian, Miss.

Mr. James O'Neill Bruen, 6247 Broo Blvd., Kansas City, Mo.

Gladys S. Deal, 415 Boulevard, Lewis Mont.

Page 2

Page 3

Best Letter Contributed from Each State Draws Crosley Set

bama,	Free Booklet on Super-Power	Mr. J. W. Powers, 68 Green Street, Burling- ton, Vt.
Sta-	The case for powerful broadcasting stations	Rev. C. L. Nisbet, Norton, Va.
Auto	has been clearly and concisely stated in a little booklet just issued by Crosley station WLW. It is entitled: "The Country Needs Super-Pow-	C. L. Tempany, 610 E. Sumach Street, Walla Walla, Wash.
street,	er Broadcasting Stations." In view of the onslaughts against high pow-	R. E. Livingston, 1224 Julian Street, Parkers- burg, W. Va.
street,	ered broadcasting stations which have been re- cently made in Washington, it is important for all radio dealers to be posted on the subject.	Mr. J. Nash McCrea, 254 Mason Street, Mil- waukee, Wisc.
enue,	Therefore we are enclosing a copy of the booklet with this issue of the BROADCASTER,	Allen A. Campbell, Box 214, Columbine, Wyoming.
Street,	so that all Crosley dealers may be thoroughly informed on a matter so vital to their interests. We urge each Crosley dealer to carry out	Tom Clare, 10827 Jasper Ave., Edmonton, Alberta, Can.
·	the suggestion made in the booklet, to take up this matter promptly with his Representative and Senators.	Mr. Ralph A. Logan, 1601 Comox Street, Vancouver, B. C.
ocatel-		George R. Porter, 212 Lorne Avenue, Portage la Prairie, Man.
Ave.,	Mr. G. E. Morrison, 640 S. 55th St., Lincoln, Nebr.	Mr. James S. Neill, Fredericton, N. B.
1170.,	Mr. Harry Harper, 812 S. Virginia Street, Reno, Nevada.	Mr. J. A. Macmillan, P. O. Box 476, Char- lottetown, Prince Edward Island.
Ave.	Mr. William F. Howes, Manchester, N. H.	Mr. E. L. Reyuolds, 533 Rushton Rd., Toron-
Bank	Mr. Albert H. Ward, 100 E. Maple Ava., Wild- wood, N. J.	to, Ont. Mr. A. J. Cook, P O. Box 133, Temiskaming,
Ave.,	Alexander M Wheeler, Radio Operator, U. S. Marine Hospital No. 9, Fort Stanton, N. M.	Que. Mr. Dounglas Slocombe, 737 Fourth Ave.
Street,	E. W. Edwards, Jr., Box 355A, R. R. 2, White Plains, N. Y.	North, Saskatoon, Sask.
Street,	Dr. A. W. James, The Ellen Fitzgerald Hospital, Monroe, N C.	Jose F. Camunas, P. O. Box 396, Fajardo,
angor,	Mrs. Enill Herr, Wishek, N. D. Mr. R. C. Hall, Proctorville, Ohio	Porto Rico, U. S. A. Mr. and Mrs. R W. Hoyt, H P. Terminal,
•	Mrs. J. T. Martin, Grandfield, Okla.	Tampico, Mexico.
Balti-	Mr. Richard Smurthwaite, Jr., P. O. Box 405, Baker, Oregon.	Lorenzo Daniel, Paseo 9, Vedado, Havana, Cuba.
Street,	William C. Bostwick, Prov. Mutual Life Ins. Co., 46th and Market Sts., Philadelphia, Pa.	
nville,	Clarence Goffette, 138 Cattage Street, Cen-	Atlantic Ocean Home Address
1.	tral Falls, R. I. E. E. Strong, Due West, S. C.	Henry Drave, SS Monterey, Ward Line, Pier 12 E. R., New York, N. Y.
	Mr. Paul F. Burke, Vermillion, S. Dak.	Pacific Ocean
dside	A. M. Edwards, Bemis, Tenn.	E. G. Drake, Opr. MS Los Alamos, c-o Gen- eral Petroleum Corp., Terminal Island, Calif.
stown,	Mr. H. R. Brayton, College Station, c-o Ag- ricultural and Mechanical College of Texas. Agnes B. Dauwalder, Myton, Utah.	Gulf of Mexico Captain E. V. Farrow, Steamship Socony, 26 Broadway, New York, N. Y.



L. M. Hilbert. San Francisco, Cal.

Seattle, Washington, Testifics.

"I purchased my Crosley from Woodlawn Electric Co., Seattle, and T think T have the best radio made I get your station, WLW, any time after 6 P. M. Comes through with wonderful volume."

Clarence C. Culver, Seattle, Wash.

Crosley Stands Treat in Detroit. "I want you and others of your company to know we are very much makes our home very happy. My wife was lonesome until I bought this new Crosley. Our Type-E Dyyour station WLW. Tonight at 10 and we heard them. Everyone that hears my Crosley Gembox is in the market for one.

> H. M. Scrivener. Detroit. Mich.

Germantown, Pa., Speaks Up.

"I take this opportunity to tell you how delighted I am with the Showbox. Far superior to the other makes I hear around me. Your programs from Cincinnati are plainer and louder than WJZ (New York) which is hard to make others

> (Mrs.) Florence Ranck, Germantown, Pa.

Kind Words from Minnesota. "Listening to the fine programs coming from WLW! The family join me in thanking you for what you have done for Radio, and the best of luck for the future."

J. F. Jelke. Minneapolis, Minn.

"We have one of your 8-tube the Crosley Radio enough." Joseph Knapp.

Springfield, Ohio,

WLW Best Station for Long Island. "I am using one of your Gembox receivers, which I must say with sincerity, is a wonderful little ma-

> Geo. B. Marsh, Smithtown Branch, Long Island, N. Y.



The thousands of letters which we have received from listeners throughout the entire country, telling us of the wonderful reception from our new station, WLW, confirm the belief which prompted us to purchase this station, and to locate it within one hundred miles of the center of population of the United States.

These letters tell us how it overrides static, and state that high-power is the only kind of static eliminator that has yet been invented. Daylight reception is now possible in many sections of the country, especially in the rural sections where heretofore radio sets were of no value during the day time.

You have undoubtedly heard of the proposal of Senator Dill to reduce the power of all broadcasting stations and establish a much larger number of small stations scattered throughout the country. If such a foolish law should go into effect, radio receiving sets would lose much of their value. High power is absolutely necessary in order to render radio listeners satisfactory service, and such stations must be in the hands of interests able to afford them and able to secure talent to put on programs of the standard demanded by the public today. Furthermore, such stations must be located near the centers wherein good talent is available.

This subject is of most vital interest to you because if any such bill should be passed, it would seriously damage your business. It is something of importance to everybody in the battery. This should speak for it- static, we don't have any at all over radio business as well as to the millions of lis-

I can not impress upon you too strongly the importance of immediate action. Write to your senators and to your representatives in Washington. Tell them just what this means to you and to the listening public. I urge you not only to write but suggest that you interest your City Council and other public officials, the Chamber of Commerce, and every person estly and honestly proud of my your wave length from Cincinnati. you possibly can to write to their congressmen and to do this

Powellerosley Jr.



The retail merchants who sell a fine radio line in themselves indicate the character and standing of the product. Amrad points with pride to the hundreds of retail leaders all over the United States who feature the Symphonic Series in their stores, among them Jordan Marsh in Boston; Davega, Wanamaker and Walthal in New York; Kimball and Marshall Field in Chicago; Stieff and Wanamaker in Philadelphia; Brandeis in Omaha, and many others.

No Other Radio Set

At ANY Price Includes All of these Features: Four-Way Tone Control World's Finest Dynamic Speaker The Mershon Condenser Hand Carved Consoles 250 Output Tube

And Amrad has the "Finest Tone in Radio"!

THE AMRAD CORPORATION Medford Hillside, Mass.

POWEL CROSLEY, JR., Chairman of the Board

JAMES E. HAHN President

THE CROSLEY BROADCASTER

Testimonial Letter from Pleased Crosley Fan Death Valley, California, Hears WLW on Gembox From Cincinnati, Ohio, to Death Valley, California, is quite a leap. It is spanned by the famous Crosley combination, Station WLW, plus a Crosley all-electric radio set. In this case, it was the Gembox which accomplished the feat for Death Valley. DEATH VALLEY VIEW HOTEL Deco (DAT 19, 1920 t for dour one I instelled . crosled Genbor redio sot with Dynacone specier, che first derbot reaio set with syndence and areas with der er the I did not have an areas distant stations-probably because 5 and not econstoric to tunino with a dunamic-ture success. to act Station (La Dith clarit, and yel). su des present lieve been able le rei verwise. Since then I heve been able le rei in tune it Since then I have been able to the in the it won end time I desired one right of prosent I you call allow a construct on a rise. as argament a listoning to a program from your Station sponstreaming to a crouture from work prister aron sored of the tonerry of yournal of UR10 as tie prehestrals backersund of the tune receiting ohio." The derbox has rende, velue 3, hereith, ent coneral ter. rer. ar.se tot sarritanse av sets eosting meh er, bee in ann (Beeth Tollo,) Thru train pours. Thos. D. L. Inahla cerifornic.

Mr. Washburn's letter struck the editor of the BROAD-CASTER as embodying most of the points one would like to see brought out in a testimonial letter. We are glad to number Mr. Washburn among the host of Crosley enthusiasts!



Page 8

This ad supplied in 1-4 or full page size.

Feature this combination-the smart, unmatchable Showers C-3 Console with Dynacone power speaker built in and the 6 tube AC Electric Gembox installed. This is the Value that brings them in. Write us for mats of this ad.

SHOWERS BROTHERS CO.

HKHH)

Dept. 81 Bloomington, Ind.

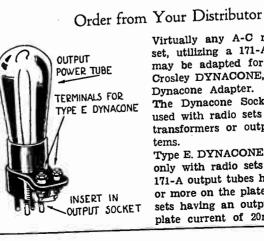
the marvelous neur MEROLA CETECTOR SOCKET ADAPTER ISONLY CONNECTION IN YOUR The MEROLA electric tone-arm instantly changes over from A-C radio receiver to electrically operated phonograph. The full brilliance of electrical reproduction possible even with small portable phonographs. Crosley

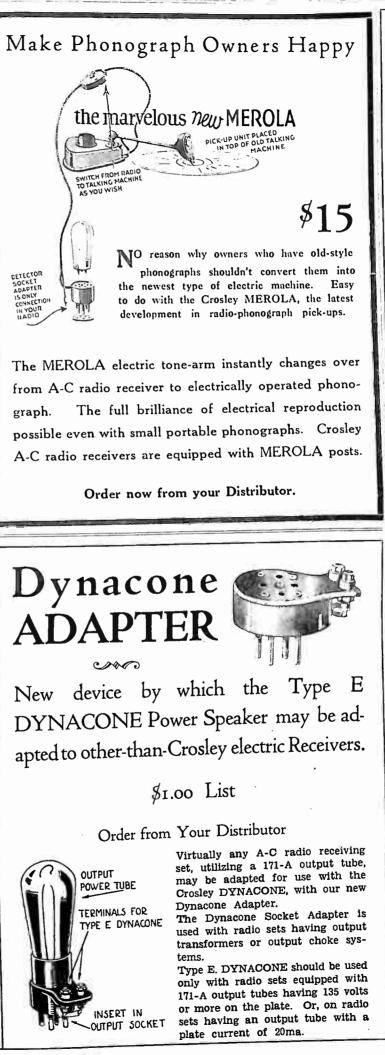
Order now from your Distributor.

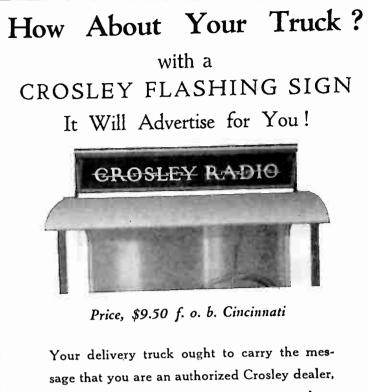
Dynacone **ADAPTER**

New device by which the Type E DYNACONE Power Speaker may be adapted to other-than-Crosley electric Receivers.

\$1.00 List



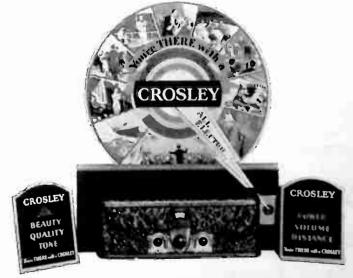




handling Crosley all-electric receivers, whenever you are making a delivery. With this Flashing Sign you get advertising on the main traffic boulevards. This sign is approximately 8 x 36 inches; it shines without the use of electricity

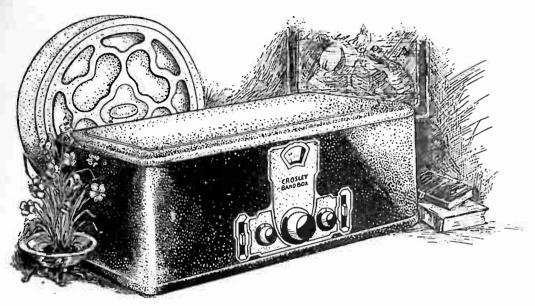
Order from your Distributor.





Fits Right Over Receiver A Splash of Live Color! Order from your Distributor.

A Bandbox in Every Home without Current The Battery-type Set of True Crosley Quality





Operating the Crosley Type-D MUSICONE magnetic speaker

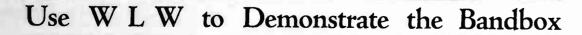
6 Tubes **Storage Battery** Genuine Neutrodyne

WE are still manufacturing the famous storage battery type receiver, the BANDBOX. The demand for this type of radio set is still strong. Great stress has been laid upon our A-C models, but the storage-battery type set reigns in countless homes where electric current is not yet available.

The Crosley BANDBOX was the sensation of its season. It is paramount among battery sets. There is still a wide market for it. Looking over your territory, you will discover large areas without power lines. Even in districts supplied with a satisfactory power source, you find many homes without wiring.

Every home without wiring is a logical prospect for the Crosley BANDBOX

The BANDBOX is a modern radio receiver of the storage battery type; completely shielded, with acuminators, illuminated dial and other radio refinements. It is wired for use with output tube and may be converted, by means of a suitable power supply unit, for use with current. Furnished in a handsome metal case with gold highlighted ripple finish.





Striking Growth of the Geo. C. Beckwith Co. in Three Cities

One of the most recent additions to the ranks of Crosley distributors, is the Geo. C. Beckwith Company. This organization, under the aggressive leadership of the president and treasurer, George C. Beckwith, is making a commanding position for itself in its territory, which includes Minnesota, South Dakota and Wisconsin. It has three plants in this region, the main one at Minneapolis, another in Milwaukee, Wisconsin, and a third at Aberdeen, South Dakota.

This territory has certain well defined characteristics. It is a great grain country and, at least in Wisconsin, is a great dairy country as well. An advanced standard of rural education is maintained, the people are alive politically, and there is a prevailing prosperity. This prosperity takes its rise from the soil and is therefore exceptionally steady.

Operating in this field, the Geo. C. Beckwith Company has enjoyed a rapid expansion. They have seven salesmen in the field. This force is of particularly fine calibre. They are not only salesmen, but capable business men.



Minneapolis Display Rooms

The George C. Beckwith Co. has recently issued a brochure which is a sort of tribute to the institution itself. It is a handsome product typographically. It is printed in two colors on a fine laid paper. The booklet gives evidence of careful design, and will undoubtedly serve to add to the prestige of the organization.



The Milwaukee branch of the Geo. C. Beckwith Company, particularly, has made a brilliant record. The concern became Crosley distributors in May 1928. The territory covered by the Milwaukee office is comparatively small. They are located right in the downtown section of Milwaukee, among their competitors in the wholesale district of the city.

George C. Beckwith, President

Like all Crosley distributors, they confine their radio efforts to the Crosley and Amrad lines. When they became exclusive Crosley distributors, the Crosley line was almost unknown in that field.

Preceding the Geo. C. Beckwith Company in Milwaukee was a jobber who handled a variety of radio lines, including Crosley. Their Crosley business for the period from May to December, 1927, inclusive, amounted to \$73,806.73.

In the corresponding period in 1928, May to December, the George C. Beckwith Company of Milwaukee, did a Crosley business amounting to \$257,454.41.

Well over three times as much radio business is an equal length of time! This for only one of the three branches operated by the Geo. C. Beckwith Co.

The conclusions to be drawn from this are obvious. Comprised within the Crosley and Amrad lines, are enough radio styles and in a wide enough range of prices, to cover the whole market. Effort can be concentrated in selling, in advertising and in merchandising. The exclusive Crosley distributor eliminates a great deal of physical and mental confusion. He simplifies his shipping and handling. By becoming thoroughly familiar with a single strong line, his salesmen are not competing with themselves; they get to know the Crosley and Amrad combination right down to the ground. Consequently they sell it better and with less effort.

A feature of the Beckwith organization is the close touch they maintain with their dealers. We'd like to quote briefly from the brochure mentioned previously: "Throughout this fertile section we have helped hundreds of dealers to become better merchants, and they enjoy, in a large measure, business success for which Beckwith Service, to no small degree, has been responsible.

"The reaction of dealers to the Beckwith policy and business ethics, has made possible our development and progress equaled by few distributors in our field of operation."



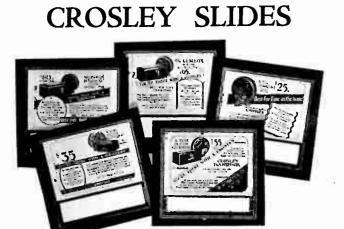
Minneapolis Building

THE CROSLEY BROADCASTER

The Crosley Direct Mail Campaign Strengthens Sales Effort

NOW is the time to put into effect the Crosley Selling Plan. The thoughful use of this selling campaign by mail is a great asset to a Crosley radio dealer. This direct mail series has been prepared by experts in this line of selling. The three main pieces are highly attractive, printed in bright color.

All you need to do is send for sample pieces from your Distributor to judge for yourself how effective this plan is for your territory. Each piece carries your individual imprint and, so far as the customer is concerned, is your own advertising. Why not get going on this plan right away!

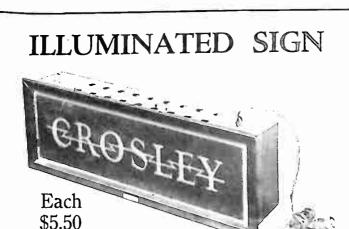


Movie Slides Tell the Crosley Story \$1.50 for Set of 5 Crosley Slides, Imprinted The price of \$1.50 for each set of 5 new Crosley Moving Picture Slides includes a 3-line imprint carrying your name and address. Order from your Distributor.

CROSLEY BOOK MATCHES



Book Matches of the finest grade, carrying your own name and address on one side, and the Crosley slogan on the reverse, are invariably acceptable to your prospects. Priced very reasonably for wide distribution, at \$3.75 for one thousand, or at \$3.50 per thousand on order of two thousand or over, from your distributor.



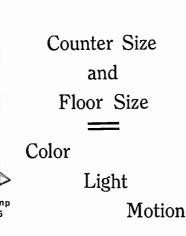
f. o. b. Chicago Our ventilated Shadow Box throwing the name "Crosley" out in a deep glowing Neon red, against a black background, is an indispensable asset to your Crosley sales.

Order from your Distributor.

MODERNISTIC LAMPS

Color Table Lamp

MAKE YOUR DEMONSTRATIONS with WLW

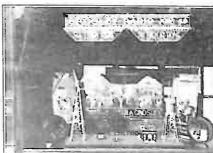


Up-to-the-minute decoration for your Crosley display. The Table Lamp is \$2.50. The Floor Lamp is \$3.50. Prices include all fixtures but the bulb. Rotating Shade with futuristic pattern of flashing color. From your distributor.

THE CROSLEY BROADCASTER

Broadcasting Station in Window! ley into Headhunter Lands

Cynthiana Dealer Installs Miniature WLW to Display Crosley Line



S. T. Maffett, authorized Crosley dealer at Cynthiana, Kentucky, made a small broadcasting station of his own several years ago. When WLW came forth with its increased transmission power, there was, of course, an immense amount of publicity about this great station. So Mr. Maffett resurrected his little old station. furnished it up and used it as a window display, in conjunction with the Crosley circus window trim. In the words of Mr. Maffett's letter, his display was "the talk of the town."

The 20th Century Radio Corp. of Brooklyn, N. Y., announce the appointment of J. F. Mc-Grath as Sales Manager.

A Richmond Stunt

Woman Drives Continuously for 4 Days



Lady deLores, champion among women mara thon autoists. Dabney & Bugg supported this stunt put on in Richmond, Va. Above Lady deLores is shown with her Showbox and Dynacone. stop an active radio distributor.

Pageg 12

Unfortunately, Captain Salisbury's small Crosley battery set was lost when his ship was destroyed by fire off the Italian coast, upon his return to the U.S.

On one occasion, when his ship was anchored off an island in the South Seas, Captain Salisbury was able to get the station at Fort Worth. He was usually able to hear the California stations except under bad weather conditions.

In the Spring, Captain Salisbury heads another expedition, this time into the jungles of Burma, to make a study of primitive tribes there.

20th Century Radio Corp.

Activities not Checked by Fire

A fire in the service department at 104 Flatbush Avenue, Brooklyn, failed to interrupt the activities of that busy radio wholesaler.

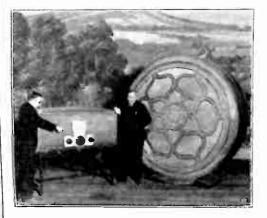
Twelve hours later, under dripping ceilings, the office force telephoned, entered orders, checked bills and carried on as usual. But the elevator refused to run, so from the storerooms below a human chain carried out undamaged cartons to dryer quarters.

20th Century trucks made their regular de-Schermerhorn Street where the bulk of the radio sets were stored. All of which goes to himself the phenomenal advances made in raprove that it takes more than a little fire to dio set construction and broadcasting in recent

Famous Explorer Takes Cros- Huge Crosley Children's Party

The Saturday before Christmas, December 22, 1928, to be exact, the Crosley Radio Corporation was host and Santa Claus to thousands of Cincinnati's poor children.

This mammoth affair was held in Music Hall, a large and famous structure with which the musical history of Cincinnati is closely bound up. Into its great spaces flocked thousands of children and filled it to overflowing.



On the stages was the traditional Christmas tree hung with many-colored lights. In front of it was erected a giant Dynacone, out of which later stepped the king of Christmas, Santa Claus. Beside the Dynacone was a giant Showbox.

There was music and entertainment, Santa Claus burst through the Dynacone to shrieks of delight from the children, and there was nuts, candy and fruit for all the youngsters. It was the annual Crosley party for Cincinnati kiddies.

Nicaragua Dances to WLW Programs

Sergeant Hurst of U. S. Marines Uses Old Crosley Coil in Homemade Set

In a letter from 1st Sergeant Harry E. Hurst, 5th Regiment of the U.S. Marine Corps, stationed at Managua, in Nicaragua, we learn that Crosley programs come to them via WLW loud and clear, with enough volume for dancing.

Sergeant Hurst is using a receiver of his own making. He writes: "I have a small 4-tube set I made myself, using the coil from an old Model 51 Crosley, 1 stage of audio, and a set of push-pull, one 300-A and three 112-A tubes; and it is the only set I know of in the bushes that is any good."

By this graphic expression, "in the bushes," we take it that Sergeant Hurst means the mighty state of Nicaragua, recently in the throes of a national election. And he adds, "We have to use batteries from the Field Service Sets, and the boys do anything for the use of a battery for the night!"

Sergeant Hurst has had an adventurous career in the Marines, most of the time in the iveries from the stocks at the warehouse at 333 tropics. In two years' time he is to return to the United States and then he can see for years.



Captain Edward Salisbury, who has created

a sensation with his motion pictures of life

among the cannibals and headhunters of the

South Sea Islands, carried an old Crosley set

At present, Captain Salisbury is making a

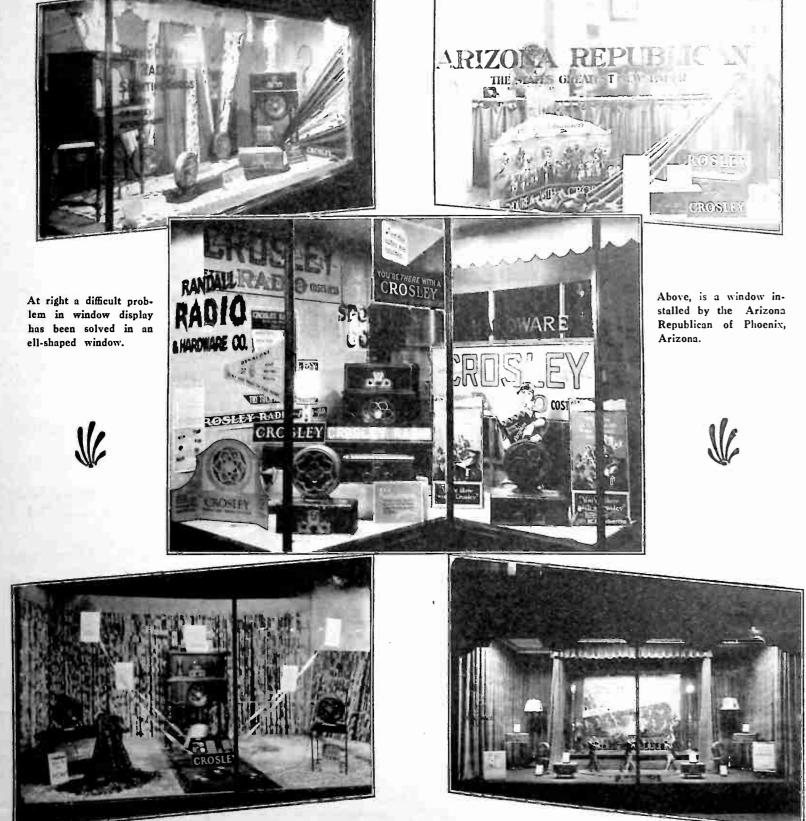
lecture tour of the United States and exhibiting

his moving picture, "Gow." In the most vivid

and stirring scenes, this film depicts the actual life of the headhunters of the Solomon Islands

on his famous trip.

Snappy Windows Which Have Sold Crosleys Merchandise Carefully Displayed Rewards with Sales



Upper left-hand, a window display by Tommy Griffith, Crosley dealer in Norwood, Ohio. Upper right, an advertising window used for a week by the Arizona Republican, published in Phoenix, Arizona. In the center is an excellent window which drew natives of Denver, Colorado, to the Randall Radio and Hardware Company. Lower left shows a handsome window installed by the Badger Music Co., Fond du Lac, Wisconsin, and at lower right you see another large window used by the People's Outfitting Company of Detroit. THE CROSLEY BROADCASTER



Choke Coils.

We have seen how the effect of inductance is to oppose changes in current flow. Suppose we put an inductance coil in a circuit in which alternating current is flowing. The effect of the inductance will be to oppose, or hold back, the alternations of the current. A coil used in this way is known as a "choke coil".

LESSON V

As an example of the practical application of choke coils, consider the power supply units of radio sets, in which A. C. from the lighting system is changed into D. C. for operating the tubes. The D. C. as it comes from the rectifier tube of the unit is not smooth, continuous direct current, desirable for operating the tubes of the set, but fluctuates considerably in intensity. The use of suitable choke coils and condensers (the action of condensers will be explained later) in the circuit opposes these fluctuations and effectively blots them out, so that the current delivered by the unit is actually smooth and continuous (Fig. 1).

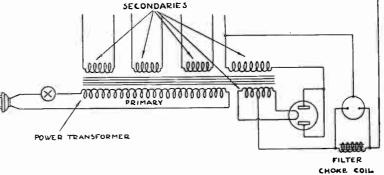


Fig. 1 Power System, Model 608, Showing Practical Use of Transformers and Choke Coils

It has been stated that electrical current (measured in amperes) Like transformers, choke coils for audio-frequency circuits are supindicates how fast electricity is flowing in a circuit, and electromotive plied with iron cores, while those for radio-frequency circuits are not. force (measured in volts) indicates the electrical pressure or force tending to send a current around through the circuit. Series and Parallel.

At this point we must consider the different methods of connecting When a railroad engine pulls a freight train, the power that the engine must develope depends upon the force with which the engine batteries, coils, and other electrical devices. Take three dry cells and connect one line lead to the positive termust pull in order to keep the train in motion (roughly on the length

minal of one cell. Then connect the negative terminal of this cell to of the train) and upon how fast the train is moving. the positive terminal of the second cell, the negative terminal of the Power developed by Engine=Pulling Force X Speed of Train. In an analogous manner, electrical power is equal to electrical pullsecond cell to the positive terminal of the third, and the negative terminal of the third cell to the other line lead. The three cells are then ing force (electromotive force) multiplied by the speed with which the electricity is moving (current). said to be connected in "series" (Fig. 2).

Electrical Power-Electromotive Force X Current. In commercial Each cell has a voltage of approximately 11/2. When the three cells practice, electrical power is measured in watts, electromotive force in are connected in series their voltages will "add up", so that the total volts, and current in amperes. voltage supplied by the group will be the sum of the individual voltages Watts==Volts × Amperes; in symbols, of the cells (in this case, 41/2). Note that if one cell is connected backwards (positive and negative leads reversed) so that its voltage opposes $P = E \times I$ Since the watt is too small to be used conveniently for measuring that of the other two, the total voltage will be 11/2 plus 11/2 minus 11/2, the power supplied by power and lighting circuits, a unit called the which equals 11/2. "kilowatt", which is equal to 1000 watts, is used. Now reconnect the three cells so that all of their positive terminals

have a common lead to one side of the line and all their negative ter- Electrical Work. minals have a common lead to the other side of the line. The cells are

Power is rate of doing work. A ten horse-power engine is capable of doing work at a certain rate, or speed, indicated by the horse-power then said to be connected in "Parallel". rating. The amount of work that the engine actually does depends upon Each cell in the parallel method of connection supplies approximately how long it runs. A strong, powerful man can work faster than a weak the same voltage across the line leads. The individual voltages do not man, but the amount of work that he does depends both upon how fast add, but the line voltage is simply equal to the average voltage supplied he works (that is, upon his power) and upon how long he works. Simby the different cells. Each cell is delivering current to the same line ilarly, electrical work depends both upon electrical power and upon the leads and the total current is the sum of the currents delivered by the time during which this power acts. individual cells. The amount of current which flows through the cir-Electrical Work-Electrical Power × Time. cuit is, of course, governed by the voltage and resistance of the circuit, Watt Hours (Work)=Power X Time=EIT. but with the parallel method of connection there is more available current which can be drawn under appropriate conditions than with the How Electricity is Sold. series method of connection.

Resistances in Series and Parallel.

If two or more resistances are connected in series (that is, end to kilowatt hours of electrical work, the rate per kilowatt hour ranging end) the total resistance is equal to the sum of the separate resistances, from 3 to 15 cents in different localities and for different types of service. for the current must flow successively through each one. If they are connected in parallel (across the line) on the other hand, they offer a *The actual relation is number of paths through which the current may flow, and their group 1-R=1-r1+1-r2+1-r3+1-r4+etc. resistance is consequently less than the individual resistance of any one where: R is the total resistance, r1, r2, r3, etc. are the resistances of the of them. individual units

CROSLEY DEALER'S RADIO COURSE

10 Simplified Lessons Especially Prepared for Crosley Dealers

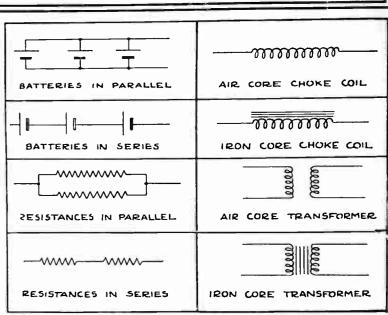


Fig. 2. Wiring Diagram Symbols

If all of the resistance units are the same, two in parallel have half the resistance of one, three in parallel one-third the resistance of one, four in parallel one-fourth the resistance of one, etc. If the units have different values of resistance, the effect of several in parallel is more complicated than this, but it is always true that the more units there are in parallel the less is the total resistance.»

Electrical Power.

When you buy electricity you are paying for work, not power-just as when you hire a man you pay him for the amount of work he does, not for how fast he does it. Electrical bills are rendered in terms of

You can easily calculate how much it costs you to run a 100 watt lamp bulb in your home for an evening of 5 hours. The number of watt-hours consumed will be $5 \times 100 = 500$. This is equal to $\frac{1}{2}$ kilowatt hour. At 5 cents per kilowatt hour, the cost would be 21/2 cents.

Power Input and Output of Transformers.

It was stated in the last lesson that the energy put into a transformer primary must be at least as great as that drawn from the transformer secondary. This is equivalent to saying that the power put into the primary must be equal to or greater than that delivered by the secondary. For a 100% efficient transformer:

Primary Power=Secondary Power.

EDID=ESIS.

Thus if the secondary voltage supplied by a transformer is twice the voltage applied across the primary terminals, the secondary current will be half the current in the primary. In other words, if we "step up" the voltage by means of a transformer, the current is reduced in proportion; while if we "step down" the volt-

age, the current is increased in proportion. Current in Different Parts of a

Circuit.

If a steady electrical current is flowing through a continuous electric circuit, without branches, the rate of flow of current through the circuit is everywhere the same (Fig. 3). This is analogous to the flow of water in a pipe. The rate of flow must be the same in all sections of the pipe-otherwise the water would pile up in some sections and leave other sections empty.

the sum of the currents in all branches at any one point is equal

to the sum of the current in all branches at any other point.

Heating Effect of a Current.

When a current flows through a conductor, some power is always lost through heating of the conductor. Now power is equal to voltage times current. A loss in power must be accompanied, then, by a fall in voltage or a fall in current. Since the current is everywhere the same in a conductor, the voltage must fall off as we go along the conductor, because of the power lost in heating.

The power lost in a resistance unit, for instance, is equal to the voltage drop in a resistance unit multiplied by the current flowing through the unit (for P=EI). This lost electrical power is converted into heat.

Fall of Voltage in Conductors.

The fall of voltage in a conductor due to its resistance is equal to the product of current and resistance.

Voltage Drop=Current × Resistance.

E=IXR.

This is simply Ohm's law stated in another form. Ohm's law says that current equals voltage divided by resistance. This means that a certain electrical pressure difference, or voltage difference, must be applied to the two ends of a conductor of given resistance in order to send a given current through it. The voltage difference applied to the ends of the conductor is the voltage drop in the conductor.

Example: Suppose we connect a resistance unit of 10 ohms to a battery which has an e.m. f. of 2 volts and an internal resistance of 2 ohms. The total resistance of the circuit (battery and resistance unit) is 10+2=12 ohms. The total e.m. f. is 2 volts. The current flowing in the circuit equals e. m. f. divided by resistance=2+12=1+6 ampere. The voltage drop in the resistance is, therefore, current×resistance=1--6× 10=1% volts. The voltage drop inside the battery is $1 \div 6 \times 2 = 1 \div 3$ volt.

The fall of potential in resistances is made use of in radio sets for obtaining negative "C" voltages for the tubes, etc. Resistance units used for obtaining "C" voltages are known as "biasing resistances."

Power Loss in Conductors

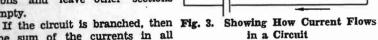
The power used in heating conductors is lost as far as electrical energy is concerned. How can we calculate this power loss?

Suppose we have a resistance of R ohms carring a current of I am-The voltage drop or voltage loss may be obtained from: Voltage Loss=Current × Resistance.

E=I X R.

To get the power lost, we know that Power Lost=Volts Lost × Current.

P=IR×I=IR.



The lost power increases as the square of the current and directly 25 the resistance.

Now consider a lighting circuit carrying 10 amperes at 110 volts. The same power would be delivered by this circuit if 1-10 ampere at 1000 volts were used (for Power=Current×Voltage; 10×100=1÷10×1000). But the power lost in heating the lines equals Current²×Resistance of Lines, so that there would be much less line loss at the higher voltage and lower amperage. Consequently the greatest efficiency is obtained by operating lighting and power circuits at high voltages and low currents.

On the other hand, high-voltage circuits around private homes would endanger lives. Consequently what the large power companies do is to distribute high-voltage A. C. to the different neighborhoods they serve, and then step down the voltage and step up the current by means of local transformers in these different neighborhoods. The voltage in the main distribution lines may be as high as 20,000, while that delivered to the house circuits by the step-down transformers is usually 110 or 220. In this way power companies maintain efficient distribution without using large, expensive wires of low resistance.

QUESTIONS

Answer the following questions carefully. If you have any questions regarding them or regarding portions of the lesson text, write to the Editor, "Crosley Radio Broadcaster."

1. Three storage batteries each delivering 6 volts are connected in series. What is the total voltage delivered by the group?

2. What is the total resistance of four 6 ohm resistances connected in series? What is their resistance when connected in parallel?

3. The filaments of certain radio tubes draw 0.25 emperes at 5 volts. What power in watts do they consume?

4. An electric heater operating at 110 volts draws 5 amperes. What is the cost per hour to run it at 10 cents per kilowatt hour?

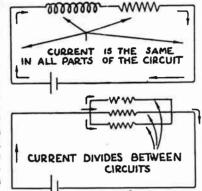
5. A 50 ohm resistance and a 100 ohm resistance are connected in series across a 110 volt line. What is the voltage drop in each?



Our Attractive Dealer Helps

Make Sales Easier.

THE CROSLEY BROADCASTER



First Night of Ownership Keeps Him Logging Until Dawn!

A letter just received from John W. Fisher, Gembox booster living at Hastings-on-Hudson, New York, gives an account of his experience with his new Crosley set the first night he had it.

"On Friday last I purchased one of your Gembox outfits complete with Model E Dynacone. This outfit has fulfilled more than I expected.

The first night I listened in, I succeeded in actually digging out forty or more stations throughout the country. The farthest point received was broadcast from General Electric KOA at Denver. I believe this to be a notable record. This demonstration was heard also by a number of my friends who happened in earlier in the evening. T guess the truth of their staying on till early morning was due to the exceptional performance of your product. Other stations logged were KWKH in Louisiana, WBAP at Fort Worth, Texas, and numerous other stations in all directions, including your own WLW.

I also note your set to be most selective, and even though I am but 18 miles from the high-power programs from New York City stations, I can perfectly tune in stations near or between N. Y. frequencies.

Please find my purchaser's card enclosed as per instructions, and believe me to be a Crosley booster. (Signed) JOHN W. FISHER.

40 Stations

Gembox Owner Dials