

AND WLW PROGRAMS

PUBLISHED BY THE CROSLY RADIO CORPORATION, MANUFACTURERS OF RADIO APPARATUS, CINCINNATI, OHIO.

VOL. III, NO. XLVII

PRICE \$1.00 PER YEAR.

NOVEMBER 24, 1924

Complete Crosley Line Is On Display At Chicago Show

Remarkable Difference Between Apparatus Now Offered and That Exhibited Three Years Ago.

There is a remarkable difference between the display of radio apparatus at the Chicago radio show this year and that which was on view three years ago. One of the most marked changes in the display of radio equipment is found in the complete line of receivers at the booth of The Crosley Radio Corporation. There is a radio receiver for every type of home and they range in price from \$14.50 to \$100.

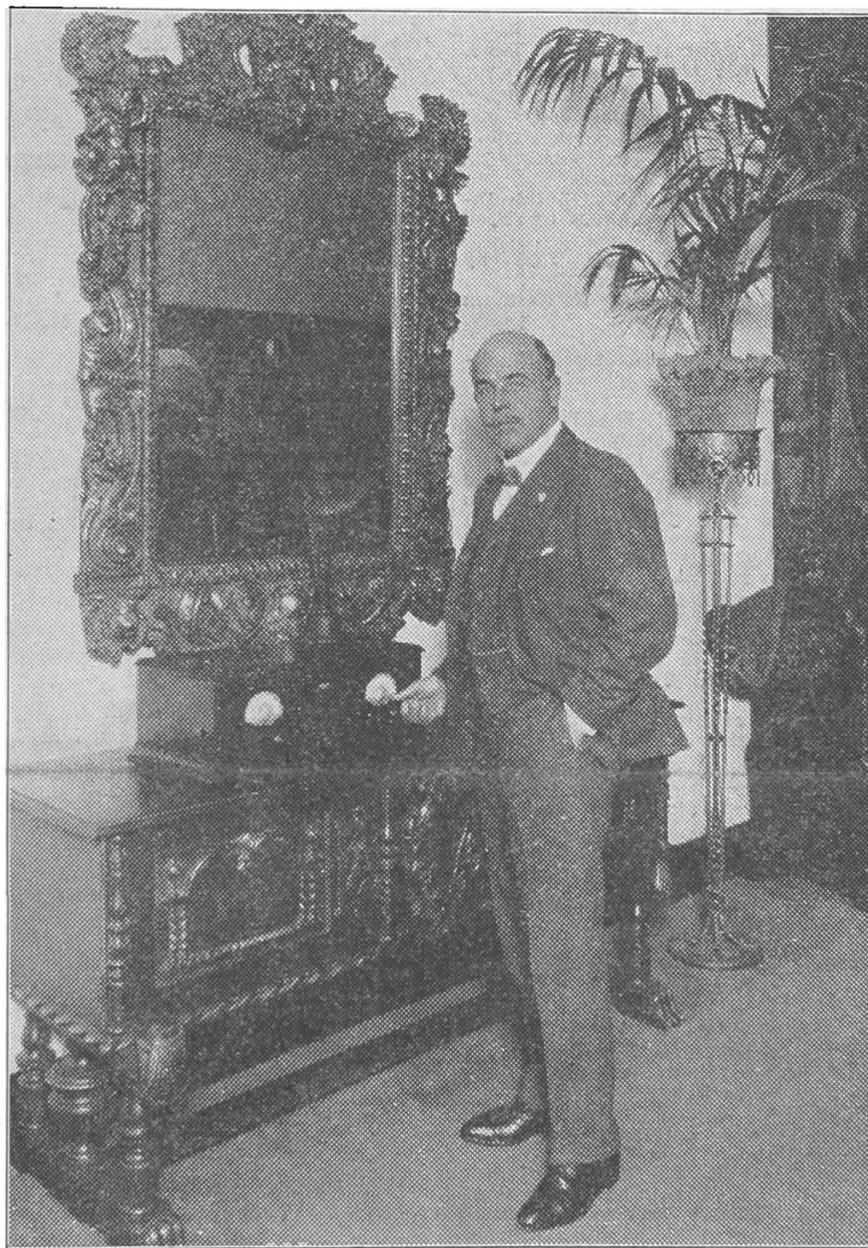
A very few years ago, Powel Crosley, Jr., exhibited a porcelain socket and the famous book-type condenser, together with a little crystal set. Today, the organization, headed by the same exhibitor, makes more radio receivers in one day than any other manufacturer and has gained for Cincinnati, the sobriquet of "The Radio City."

One of the most important factors about the popularity of Crosley apparatus is its remarkably low price and excellent quality of construction and performance. The compactness of the Crosley receivers has caused a lot of favorable comment among radio devotees, who desire efficiency of operation with the minimum amount of space. How different these receivers are from the ones which required so much space a few years ago, and despite the small size of the Crosley receivers, their operation is more simple and the results obtained are far greater than those that took up much more room.

The receivers are so attractive that the women no longer wish to place them in some remote part of the home but rather want to have the Crosley receivers in the best room in the house where they may be seen and enjoyed by the entire family and guests. Radio receivers have taken their place alongside fine pianos, phonographs and other handsome articles of furniture.

Clearer signals are obtained with the detector tube adjusted below maximum signal strength.

Congressman A Radio Fan



The picture above is that of Nicholas Longworth, son-in-law of former President Theodore Roosevelt, and Congressman from Ohio, listening to a radio concert. Mr. Longworth spoke from radio station WLW on Election Night. The picture was taken in the WLW studios while the Congressman was listening to part of the Election Night Concert.

International Broadcasting Tests are Expected to Promote Good Will

The most important radio broadcasting test in the history of the art will take place every night from November 24th to 30th inclusive. Every listener in this country, or the entire world for that matter, will have an opportunity to take part in the test. There is no need for you to use special equipment. The receiver you are now using will do.

On each of these nights, from ten to eleven p. m., Eastern Standard

Time, which will be nine to ten Central Standard Time, all the broadcasting stations in Canada, Cuba, Porto Rico, and the U. S. are going to put on special programs for listeners in Europe, Australia, New Zealand and other foreign countries.

During the next hour each night, from ten to eleven Central Standard Time, all the foregoing stations will remain silent in order to per-

(Continued on Page 6)

Modern Theories Modify Old Ideas Of Wireless Waves

Einstein, Electron and Quantum Explanations Disagree With Notion of Radio Waves In Ether.

By John R. Loofbourow.

It has been many years since scientists first began to accept the idea that there existed an invisible medium, called the ether, in which radio waves, x-rays, light and other such waves traveled.

Not long ago, every newspaper discussed the brilliant scientist, Albert Einstein, and his theory of relativity. You will remember seeing articles about "The Only Woman in the World Who Understands Einstein's Theory," "Noted Mathematician Says There are But Half a Dozen Scientists Who Understand Einstein's Theory," etc. These articles scared most people away. They gave the layman the notion that the new theory was something for a superman to comprehend. Really the fundamental idea of relativity is but common sense. For instance, if you are traveling ninety miles an hour in an aeroplane with regard to the earth, you will be standing still with regard to a train traveling just as fast in the same direction. In other words, position and motion are always relative to something else—if you say you are traveling ninety miles an hour, it doesn't mean anything unless we know with regard to what object you are traveling that fast. It is the development of this idea of relativity, and the higher mathematical proofs of it, that are complicated.

Two other theories, with which you are not so liable to be familiar, played an important part in the abandonment of the idea of a substance called "ether." These were the electron theory and the quantum theory.

The electron theory supposes that all substances are made up of little negative particles of electricity, called electrons. When you hear people say "do you know what matter is—it's just electricity," this is the theory on which they base their statement. It plays an important part in the explanation of the operation of radio tubes.

(Continued on Page 8)

Crosley WLW Programs For Week of Nov. 23rd

SUNDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation,
Cincinnati, Ohio.
November 23, Central Standard Time.
423 Meters.

9:30 A. M.—
School conducted by the Editorial Staff of Sunday School Publications of the Methodist Book Concern.
11:00 A. M.—
Services of the Church of the Covenant; Dr. Frank Stevenson, Minister.
7:45 P. M.—
Services of the First Presbyterian Church of Walnut Hills; Dr. Frederick McMillin, Minister.
8:45 P. M.—
Concert by the Western and Southern Orchestra; William Kopp, director. (Under the auspices of the Welfare Association of the Western and Southern Life Insurance Company). Soloist—Don Beddoe. Thonie P. Williams, accompanist. (Baldwin Piano).

MONDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation
Cincinnati, Ohio
November 24, Central Standard Time.
423 Meters.

10:45 A. M.—Weather Forecast and Business Reports.
1:30 P. M.—Business Reports.
3:00 P. M.—Market Reports.
4:00 P. M.—Lesson in "ILO" the International Language, by Fred Smith.
Babson Reports.
8:00 P. M.—
Popular program by ALVIN ROEHR'S MUSIC MAKERS; followed by Crosley Theatrical Review. Alvin Roehr, violin, director and MANAGER
Fred Gooseman, trumpet
M. B. Van, saxophone
Russel Smith, saxophone
George Ellis, trombone
Pete Miller, banjo
Art Mees, piano
Nat Barnhart, entertaining drummer
9:00 to 10:00 P. M.—
Special program in connection with International Test Week for radio listeners in Europe, New Zealand, Austria and other foreign countries.
Featuring WENDELL HALL.
Concert program by the COOPER CORPORATION ORCHESTRA and MALE QUARTET. (Courtesy of the Cooper Corporation.)
Quartet:
Richard Pavey, first tenor
Ferd Raine, second tenor
Herbert chatz, baritone
Howard Fuldner, bass
Grace Raine, accompanist
ORCHESTRA PROGRAM
Overture: "The Call of Bagdad"
.....Boeldieu
Selections from "Sari".....Kahlman
Italian Folk SongsSelected
Concert WaltzStrauss

Popular Airs (Requests)
Finale: "The Monitor".....Hays
(Baldwin Piano)

TUESDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation
Cincinnati, Ohio
November 25, Central Standard Time.
423 Meters.

10:45 A. M.—Weather Forecast and Business Reports.
1:30 P. M.—Business Reports.
3:00 P. M.—Market Reports
4:00 P. M.—Lesson in "ILO" the International Language, by Fred Smith.
Thanksgiving Dinner Talk by Miss Eleanor Ahearn.
Recital by pupils of William Kyle.
4:30 P. M.—
Mah Jongg talk by Miss Lucy Blackburn.
9:00 P. M.—
Featuring WENDELL HALL.
Concert by the OHIO RUBBER QUARTET and INSTRUMENTAL TRIO of Violin, Flute and Celeste. (Courtesy of the Ohio Rubber and Textile Company.)
Entertainment from GOODWIN'S PALM GARDENS.
10:00 to 11:00 P. M.—
Silent hour in order to permit Radio listeners in North America to hear programs from foreign countries, in connection with International Test Week.
11:00 P. M.—
Continuation of program. (Baldwin Piano)

WEDNESDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation
Cincinnati, Ohio
November 26, Central Standard Time.
423 Meters.

10:45 A. M.—Weather Forecast and Business Reports.
1:30 P. M.—Business Reports.
3:00 P. M.—Market Reports.
4:00 P. M.—Lesson in "ILO" the International Language, by Fred Smith.
Program for the "Shut Ins" given by the Duning Benevolent and Musical Service, cooperating with the Lillian Aldrich Thayer Settlement School of Music and all other Institutions.
8:00 P. M.—
The CHUBB-STEINBERG ORCHESTRA. (Remote control from the Kemper Lane Apartment Hotel of Walnut Hills.)
9:00 P. M. to 10:00 P. M.—
Special program in connection with the International Test Week for radio listeners in Europe, Australia, New Zealand, and other foreign countries.
Featuring: WENDELL HALL.
Concert by the FORMICA BAND and ORCHESTRA; Walter Esberger, director. (Courtesy of the Formica Insulation Company.) (Baldwin Piano)

THURSDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation
Cincinnati, Ohio
November 27, Central Standard Time.
423 Meters.

10:45 A. M.—Weather Forecast and Business Reports.
1:30 P. M.—Business Reports.
3:00 P. M.—Market Reports.
4:00 P. M.—Lesson in French by Madame Ida Teimpidis.
Piano recital by Adelaide Apfel.
9:00 P. M.—
Popular program by the DOHERTY MELODY BOYS.
Frank Pendergrast, piano and director
Ridge Bludau, trumpet
Leo Bludau, saxophone
Roy Goodlander, trombone
J. Wainer, drums
J. L. Doherty, banjo and MANAGER
Feature—WENDELL HALL.
Concert program by the Milnor Instrumental Trio (Courtesy of the Milnor Electric Company.)
10:00 P. M. to 11:00 P. M.—
Silent Hour in order to permit radio listeners in North America to hear programs from foreign countries, in connection with International Test Week.
11:00 P. M.—
Continuation of program. (Baldwin Piano)

FRIDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation
Cincinnati, Ohio
November 28, Central Standard Time.
423 Meters.

10:45 A. M.—Weather Forecast and Business Reports.
1:30 P. M.—Market Reports.
3:00 P. M.—Stock Quotations.
4:00 P. M.—Lesson in French by Madame Teimpidis.
Recital by pupils of Leo Stoffregen.
4:30 P. M.—
WENDELL HALL.
(Baldwin Piano)

SATURDAY

**RADIO PROGRAM
WLW**

The Crosley Radio Corporation
Cincinnati, Ohio
November 29, Central Standard Time.
423 Meters.

10:45 A. M.—Weather Forecast and Business Reports.
1:30 P. M.—Market Reports.
6:00 P. M.—
WENDELL HALL.

Thirty broadcasters quit sending during September, reports the department of commerce. But almost as many new ones sprang up at the same time.

DAILY PROGRAM

11:00 Weather Forecast.
A. M. Fifth-Third National Bank Bond Department Report; financial letter, call money rates, on Cincinnati and New York, Liberty Bond opening quotations, Foreign Exchange opening, Chicago opening grain quotations, Cincinnati and Chicago hog market reports.
Westheimer and Company; opening quotations of New York Stock Exchange.
Weather Forecast repeated.
P. M.
1:30 Fifth-Third National Bank Bond Department Report; financial letter, call money rates, on Cincinnati and New York, Liberty Bond, Foreign Exchange and Chicago grain noon quotations. Also closing Chicago cash grain quotations. Complete Indianapolis and Chicago live stock report; Cincinnati cattle market report.
Westheimer and Company, closing quotations Cincinnati Stock Exchange, giving the bid, offer and sale.
3:00 Henry W. Brown & Company, Cincinnati Cash Grain Market quotations with market conditions. Closing quotations of the Chicago Grain Market.
Westheimer and Company, closing quotations at New York Stock Exchange.
Bureau of Markets, United States Department of Agriculture, Chicago and New York Butter and Egg Market reports.
Special Half Hour Program and News at 4:00 each afternoon, except Saturday and Sunday, as announced by Radio.
Sunday School Services at 9:30 and Regular Morning Services of the Church of the Covenant, beginning at 11:00.
Special Program at 9:00 P. M.

PROFITABLE INSTALLATION SERVICE IN NEW ENGLAND TERRITORY.

Two boys with a big idea and a Ford car, compose the Marchand Electric Company. It is the idea, however, which is new and shows the possibilities to be found in any new business. Their idea is installation service to purchasers of Crosley receiving sets in the New England territory. The boys have their headquarters at 185 Beacon Street, Somerville, Mass.

Despite the fact that many opportunities present themselves for the sale of radio apparatus, it is not the mission of this youthful organization to make sales because the installations are made for all companies who sell radio apparatus.

CONDENSED TIME TABLE OF WLW BROADCASTING STATION OF THE CROSLY RADIO CORPORATION

709 KILOCYCLES, 423 METERS CENTRAL STANDARD TIME

CINCINNATI, OHIO

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9:30 A. M.	10:45 A. M.	10:45 A. M.	10:45 A. M.	10:45 A. M.	10:45 A. M.	10:45 A. M.
11:00 A. M.	1:30 P. M.	1:30 P. M.	1:30 P. M.	1:30 P. M.	1:30 P. M.	1:30 P. M.
9:00 P. M.	3:00 P. M.	3:00 P. M.	3:00 P. M.	3:00 P. M.	3:00 P. M.	
	4:00 P. M.	4:00 P. M.	4:00 P. M.	4:00 P. M.	4:00 P. M.	
	8:00 P. M.	10 P. M. to 12 P. M.	8 P. M. to 10 P. M.	10:00 P. M.	Silent Night	

Crosley Radio Weekly

Published by The Crosley Radio Corporation, Manufacturers of Radio Apparatus
Colerain and Sassafras Streets, Cincinnati, Ohio.
Telephone, Park 3200
Subscription Price, \$1.00 a Year
Robert F. Stayman
Editor
Alvin R. Plough
Associate Editor

INTERNATIONAL RADIO WEEK

Radio listeners in every civilized country of the world will become members of one great family during the week of November 23 to 30, which has been set aside as International Radio Week. The radio industry will be brought to the front in greater vividness than ever and the world at large to a greater realization of the widespread influence possessed by the science.

Radio, in the fullest sense of the word will be shown to the world at large as one of the greatest influences for the world's good that has ever been created. The beneficial effects will be felt by the industry also from a publicity standpoint. When a desire is created in the mind of the buying public there is nothing it will permit to brook fulfilling that desire. International Radio Week will unquestionably prove to be one of the greatest boons and publicity mediums that radio has enjoyed. It is entitled to a proper place in the pages of the world's progress and when it is given fitting recognition in the eyes of the buying public it is bound to reap material benefit.

While the activity in amateur radio work and in broadcasting is still greater in the United States than in any other nation, the past year has brought about marked changes in the situation in many foreign countries. Today, few are the nations which have not recognized the popular and growing interest in radio by the enactment or revision of regulations of one sort or another.

Naturally, the development abroad has had its greatest growth in Europe. In the British Isles, France, Germany, Sweden, Switzerland, Holland, Belgium, Denmark and Czechoslovakia, the broadcasting of programs of entertainment and news is on a rather regular basis while in Italy, Finland, Spain and Austria, programs are sent out at irregular periods with a decided likelihood of regular schedules being adopted in the no great distant future. In other countries of Europe there has been some sale of long range sets to pick up British and French stations.

In South America, Argentine stands out as having made the greatest progress in the dissemination of music and other entertainment by radio telephony, with Chile also maintaining regular broadcasting service. For a time, regular services were also maintained in Brazil and will, undoubtedly, be re-established in the course of time. Uruguay, as a result of broadcasting from Buenos Aires, has shown a considerable interest in radio, and in Peru arrangements are going forward looking toward the establishment of regular service.

Australia and New Zealand have each displayed much interest in the new art and in view of the recent lifting of hampering regulations in Australia a marked expansion in radio interest in that country may be looked for. In the Orient, little has as yet taken place, though India and Ceylon are opening up, and intermittent broadcasting is being provided. In Japan, adequate legislation has been enacted, making provision for the establishment of broadcasting stations, but little progress has taken place. In China, radio is technically barred under an embargo forbidding the entry of anything usable as war material, though in the British port of Hong Kong and in the international settlement of Shanghai, some broadcasting has been done.

In no foreign country is the use of the radio receiving sets as free and unrestricted as in the United States. Even in Canada users of receiving sets must pay a nominal license fee therefor, while in some countries the restrictions imposed and the license fees assessed are onerous.

The interest shown by plantation owners, mine operators, ranchers and the like in the interior of India, Ceylon, Central America, South America, Australia and parts of the East Indies, is sufficient to indicate that the field is there. In part, of course, the potentialities of these fields cannot be developed until better broadcasting is provided at points within a distance that can be regularly and reliably covered by a good modern set. However, in the case of sections, such as Central America, Northern South America, the West Indies and even many of the Island groups of the South Seas, the high class American set will today enable the isolated planter or mine operator to reach some of the more powerful American stations.

CEYLON GETTING BUSY

Ceylon has been getting very busy on the subject of radiocasting and the committee which has been sitting to investigate the question advocates that it should be controlled by the Post Office. The programs will take the usual form of musical items and news with commercial information supplied by the Chamber of Commerce.

Rush of Radio Into Everyday Life Is "Miracle of the Age"

Home of Listener No Longer Cluttered Up With Coils, "Gadgets," Etc., As It Was In "Good Old Days."

"Those good old days" in radio were not always so good after all. Every radio fan who was in on the new art in its infancy will always remember with a vividness and joy akin to affection his experiments and struggles in those early days, and his delight when he overcame the difficulties under which he worked and got results with his primitive set.

But if you were one of those early fans, of course you remember how your house was strewn with huge coils, switchboards and other apparatus, and how crude your set looked. You will never forget, however, the thrill when you brought in something, even if it was only the time signals at Arlington on an earphone.

Loud speakers, amplification without distortion, distance reception, scores of powerful broadcasting stations, daily programs that filled two or three columns of the newspapers—all of these then meant nothing in your young life. Enthusiastic as you were about radio, you had not yet dreamed how the new utility would permeate and influence almost every phase of life. Now the general public is beginning to realize how rapidly and how potently radio is affecting education, music, entertainment, sports, politics and other spheres of modern life. But way back there in the beginning, who dreamed of the ramifications of radio? Honestly, did you ever expect then to hear a world's series over radio?

And yet what a short few years ago it was when radio was in its beginning stages everywhere. Its rush into every-day life is one of the miracles of the age.

Imagine how surprised and thrill-

BOILER IS LOUD SPEAKER

Radio fans have reported all sorts of freaks and fancies of their sets and hook-ups, but an ardent devotee of the great indoor sport, Eli Lafreiner, of 44 Fort St., Northampton, claims to be the discoverer of a brand new loud speaker which will be a great boon to housewives."

The other evening, after tuning in his set, the young man went into the kitchen and detected a hissing noise, which he thought was leaking water. Close examination showed no flood on the floor, nor leaking of any kind, so young Lafreiner put his ear to the kitchen range water tank. Lo and behold, from within came the sounds of a violin and a piano in perfect tune.

He returned to his set and the number coming through was a violin solo with piano accompaniment. His set was grounded to the water pipe but Lafreiner offers no explanation as to how the music could be carried through the kitchen boiler.

ed you would have been in those old days—'way, 'way back in 1918 and 1919—to look at one of the more modern sets bringing in stations within 1000-mile radius loud and clear so that a whole roomful of people could hear as well, and better, than you could then with the earphones glued to your ears. What a contrast to the huge tuning coils and crude condensers. In those days, your apparatus covered a whole big table and spilled over on the floor and surrounding furniture.

Your personal experience has been duplicated by the manufacturer as well. The new art is so new, even yet, that the "old-timers" in the manufacturing side, as well as the receiving side of the game, are still youngsters.

TWO LOSS CAUSES

Two causes for losses in receiving set are: 1. Resistance of wires of other parts. 2. Absorption of energy from electromagnetic fields formed in the set.

SUBSCRIBE NOW!

Detailed information regarding the development of receiving and broadcasting, interesting news and feature stories and advance programs of WLW are to be found in the Crosley Radio Weekly. This is the most up-to-the-minute paper of its kind in the radio field, and should be in the home of every owner of a radio receiving set. Information contained in every issue is of the greatest value to you. The subscription price is but \$1.00 per year. Subscribe now.

Name

Street and Number

City and State

Attach \$1.00 and mail this to the Crosley Radio Weekly, The Crosley Radio Corporation, Cincinnati, Ohio.

Many Are Interested In Mystery Program Broadcast by WLW

Thousand Listeners Recognize Crosley Station Although Call Letters Were Not Mentioned During Evening.

Another high point or originality was reached by Crosley Radio, WLW, on a recent Thursday evening. During a period of two and one-half hours Station WLW ran without announcing the name of the owner, location or call letters, offering from time to time the following explanation:

"We are running our program tonight at this station without announcing the name of the owner, location of call letters, as an experiment. Now we realize all our radio listeners within a radius of one hundred miles will easily recognize us, but we do not know how well-known we may be hundreds of miles from our city. So we are offering some interesting prizes to the distant members of our radio audience hoping they will assist us in this experiment.

"All who live within a distance of from one hundred to three hundred miles, who send us a letter or card, stating correctly the name of our company, our city and our radio call letters, will receive a 35 cent package of delicious after-dinner Arrowmints made up in assorted flavors.

"Anyone writing from a distance of over three hundred miles will receive a box containing twenty packages of Arrowmints valued at \$1.00.

"The one writing from the longest distance will receive the most remarkable three tube radio receiving set on the market.

"The one writing from next to the longest distance will receive a three tube regenerative radio receiving set."

It will be seen immediately that the local audience of WLW, that is to say, the listeners living within a radius of 100 miles of Cincinnati was eliminated; and not only the metropolis itself, but such cities as Hamilton, Dayton, Middletown and many others had to be counted out. In other words, the source from which the bulk of correspondence would ordinarily be drawn was not to be reckoned with on this occasion.

Nevertheless, a gratifying stream of letters and cards, over the thousand mark, came to WLW claiming the Arrowmintic reward. The following letter is typical of those re-

HEARS LONDON IN DAYTIME

William Wilson, of 608 Western avenue, Covington, Ky., and half dozen friends were surprised at 4:30 o'clock one afternoon recently to hear London, England, broadcasting. Mr. Wilson was operating a Crosley Trirdyn, which had just been installed by A. B. Northup, of the Citizens Radio Company, and had been bringing in one distant station after another.

All of a sudden he was surprised, after listening to a selection, to hear the announcer say the music was coming from the Savoy Hotel, London, England, and that the program was being broadcast especially for listeners in the United States.

Considering the great distance between London and Covington, Ky., and the fact that the music was received at 4:30 o'clock in the afternoon, the achievement is a remarkable one and provides added proof of the efficiency of the Trirdyn.

ceived from hundreds of miles away:

"1234 Taylor St.,
Topeka, Kansas,
October 23, 1924.

"Radio Station WLW,
Cincinnati, Ohio.

"Gentlemen:

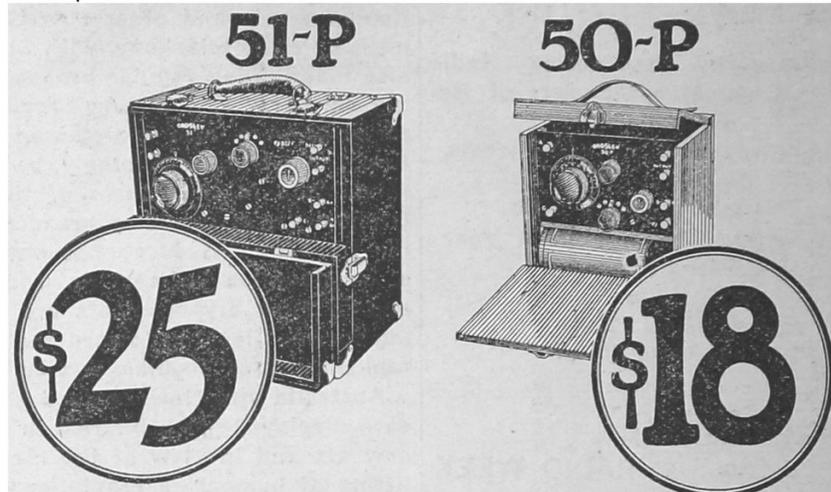
"Pursuant to your incognito broadcasting tonight, as announced by you at 10:38 p. m., let me assure you that 'I know that voice' all right, and your station is very familiar to my ear. Even when the static was bad in the summer time, you came through comparatively good when very few others that far away were distinguishable. I stayed with you, off and on, tonight until 11:55 p. m. and you had not then signed off. We heard your excellent lady soloist and corking good instrumental trio; also the political talk, instructing the dear voters where and how to put the three x marks on their ballots on election day.

"My distance is a little over 600 miles from Cincinnati (I mean Cincinnati) and maybe I will draw down your 'longest distance' prize or perhaps the 'next to the longest' one. If so, I have a place to put it to good use, namely, a shut in over 80 years of age, in Western Idaho, where I am sure it would be a source of pleasure and entertainment to her. When you get that high power station going, as I am looking forward to, I am sure it will reach to every point in U. S. on most any receiving set. I get you O. K. even with the detector tube alone, with no amplification, either radio or audio. "Best 73's.

"A. G. Lewis."

- First act requiring use of radio on passenger-carrying vessels was approved June 24, 1910.

TAKE YOUR ENTERTAINMENT WITH YOU



This is the Crosley 51-P, our portable set. It is the Crosley Model 51 two-tube receiver mounted in a leatherette covered carrying case, having nickel-plated trimmings and a leather handle. It has a compartment for a pair of head-phones and a compartment large enough to hold three standard dry cells and three "B" batteries, thus providing for an ample power plant for continuous use over a reasonably long period of time with the popular dry cell vacuum tubes. This receiver can be used as a stationary set in the home or as a portable set to "take your entertainment with you." It is licensed under Armstrong U. S. Patent 1,113,149.

Here is a genuine Armstrong Regenerative Portable radio receiver, known as the Crosley 50-P, for but \$18.00. A one-tube, long range regenerative set, it must not be compared with any non-regenerative one-tube receiver, for it must be remembered that no one-tube circuit is comparable with an Armstrong hook-up for long distance results and for volume. In other words, far-away broadcasting stations will be heard loudly and clearly by owners of the 50-P—stations that owners of non-regenerative sets never are able to tune in.

This new set is mounted in a solid quartered oak portable carrying case—a portable receiver having a big power compartment to hold one standard dry cell and one "B" battery. Manufactured under Armstrong U. S. Patent No. 1,113-149.

For Sale By Good Dealers Everywhere

THE CROSLY RADIO CORPORATION

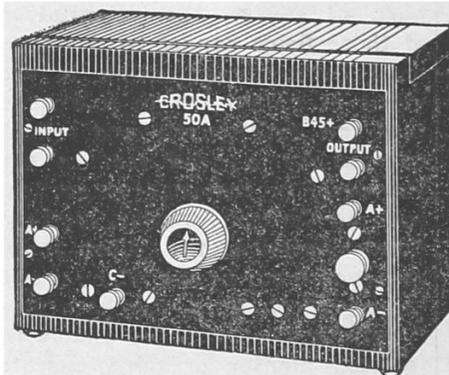
200 Sassafras St.

CINCINNATI, O.

CROSLY

AUDIO FREQUENCY AMPLIFIERS

Model 50-A



The Crosley 50-A is a two-stage audio frequency amplifier designed primarily to be added to the Model 50 by those persons who desire to operate a loud speaker in connection with their detector unit. However it may be added to any other type of detector unit. This unit is equipped with a filament switch for shutting off the current from the "A" and "B" batteries, Crosley Multistats, universal filament control rheostats for all makes of tubes, Crosley standard sockets, and Crosley Sheltran transformers.

PRICE \$18.00

MODEL 51-A

The Crosley 51-A is a one-stage audio frequency amplifier designed primarily to be added to the Crosley 51. Naturally the 51-A can be added to any detector set, but, as stated, was designed to match the Model 51. When added to the latter receiver it gives the equivalent of detector and two stages of amplification. Owners of the Model 51 claim to be able to hear every large broadcasting station in the United States and so, with the amplifier unit added, there is no reason why all these stations should not be received on a loud speaker.

PRICE \$14.00

THE CROSLY RADIO CORPORATION

200 Sassafras St.

CINCINNATI, O.



To combine the two most desirable things in radio—distant clear reception at the lowest possible price—there is only one radio receiver for you. That is a Crosley.

When you listen in on a Crosley—no matter what the price—you wonder, as thousands of others have, that such exceptional results can be obtained, and so reasonably.

The answer is simple—quality radio receivers built in quantity production. During the past twelve months, we believe Crosley made and sold more sets than any other manufacturer in the world. This is self-evident proof of Crosley Performance. Combined with Crosley excellence are such additional advantages as selectivity, ease of tuning, simplicity and beauty—all at the lowest radio cost.

Crosley has made it possible for everyone to own a radio receiver. You can start with the one tube Armstrong Regenerative Receiver at \$14.50, without accessories—\$22.25 with tube and head phones—the lowest priced regenerative set on the market, and equivalent in reception to many two tube receivers. Then as more volume is desired, you can add to it at a very low cost.

Or, you can purchase the three tube Crosley Trirdyn Regular, which has come through the summer period of comparatively poor reception with colors flying—for only \$65. In Special Mahogany cabinet to house necessary accessories, \$75. The combination of one stage of tuned radio frequency, with regenerative detector and reflexed amplification, has proven beyond a doubt that the features of selectivity, volume and ease in operation can be obtained with three tubes better than heretofore has been possible with five tubes.

We believe that no other set on the market combines these features so well incorporated in the Trirdyn.

In addition there are the Crosley 51, the two tube Armstrong Regenerative Receiver that became the biggest seller in the world in just 24 days, price \$18.50. This set will at all times bring in local stations on the loud speaker and distant stations under fair receiving conditions. Distant stations can at all times be heard with ear phones. The three tube Armstrong Regenerative Crosley 52, that brings in distant stations with loud speaker volume under practically all conditions, price \$30; and the Crosley 50 and 51 set in portable cabinets at \$18 and \$25.

These receivers, each in its own class, though assuring you as good or better reception than any other instrument of the same number of tubes, are by far the least expensive offered to the public.

Before You Buy—Compare

Your Choice Will Be a Crosley

For Sale By Good Dealers Everywhere

Crosley Regenerative Receivers are licensed under Armstrong U. S. Patent 1,113,149

Prices West of the Rockies add 10%

Write For Complete Catalogue

THE CROSLY RADIO CORPORATION

Powel Crosley, Jr., President

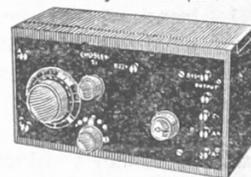
200 SASSAFRAS STREET

CINCINNATI, OHIO

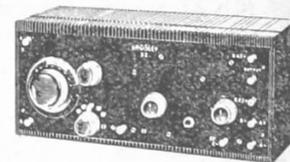
Crosley Owns and Operates Broadcasting Station WLW



Crosley One Tube Model 50, \$14.50
With tube and Crosley Phones \$22.25



Crosley Two Tube Model 51, \$18.50
With tubes and Crosley Phones \$30.25



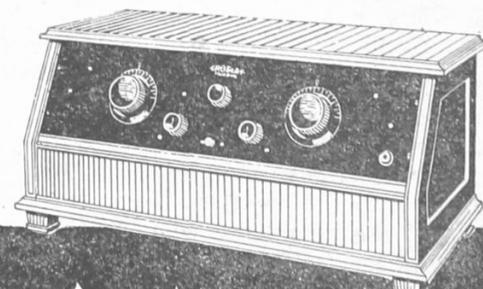
Crosley Three Tube Model 52, \$30.00
With tubes and Crosley Phones \$45.75



Crosley Trirdyn Regular, \$65.00
With tubes and Crosley Phones \$80.75



Crosley Trirdyn Special, \$75.00
With tubes and Crosley Phones \$90.75



Crosley Trirdyn Newport, \$100.00
With tubes and Crosley Phones \$115.75

CROSLY
Better-Costs Less
Radio

Radio Fans Donate To Fund For Great National Cathedral

Many Pathetic Letters Received from Listeners Who Give Helping Hand to Religious Work.

Washington, D. C.—Radio is making it possible to build a great cathedral in the twentieth century in much less time than was required in the Middle Ages, according to a survey made public of the contributions to the National Cathedral Building Fund received from Bishop James E. Freeman's radio congregation.

Hundreds of gifts from the deaf, blind and invalided in many States, who hear Bishop Freeman preach in the Bethlehem Chapel at the uncompleted cathedral, where Woodrow Wilson is buried, and from visitors to Washington and other Eastern cities, who listen in at hotel lobbies and the homes of friends are being received by the National Cathedral Foundation. These contributions range from one dollar to several hundred and are doing much to swell the building fund.

The letters that accompany the gifts show what the radio is doing for religion. A typical one from a man who has been an invalid for years follows:

"Now comes the radio, restoring many of the blessings, long denied through the tedious and suffering process of this disability; the joy of the entertainment, music, addresses, games and, what I have missed more than any of these, the services of the churches. I am moved to make the inclosed contribution to the building fund of the cathedral.

"It is a tiny mite, to be sure, but given gladly in a spirit of prayer for the welfare of this great undertaking and a desire to be one of the 10,000,000 others sharing in the glory of this house of God."

Another letter came from a blind broom-maker in West Virginia. He sent the Bishop a whisk-broom along with his contribution and said that his mother, who had been deaf for years, also heard the sermons by radio every Sunday. One man wrote that he heard Bishop Freeman preach on board the Leviathan going to Europe last summer, later in Paris and again over the radio from Bethlehem Chapel.

A crippled boy in Southern Maryland, who did not have an amplifier, wrote Bishop Freeman that he listened to the sermon and then repeated it to the members of his family and the neighbors, who came in for the service. Many such groups attend the service by radio. They often take up an offering and

ask that it be used to help build the Cathedral.

Bishop Freeman wrote in reply on one occasion: "One of the most inspiring aspects of the extension of my ministry made possible by the radio is the responses coming in from over the country and helping to form an image of the vast congregation worshipping in unity, though so widely scattered. It is deeply gratifying to me to find that this great congregation is also responding to the vision of the Cathedral and disposed to aid in bringing it to a completion."

In a recent address Bishop Freeman declared that the revival of the prophetic ministry would result in a great reawakening of interest in religion and that the radio would play an important part.

EXCELLENT CATALOG ISSUED BY CENTRAL ELECTRIC COMPANY

The Central Electric Company, 316 South Wells Street, Chicago, Ill., deserves to be complimented on a catalog just issued. It is known as Catalog R-87-A. This contains illustrations and descriptions of all radio receiving sets and accessories handled by the Central Company. Crosley products are featured and so arranged that they attract immediate attention. All-in-all the booklet is a mighty neat piece of work and really should be on the desk of every radio dealer in the United States.

RADIO DEALERS
Write today for our new No. 26-R Radio Catalog and Wholesale Discount Sheet. Best lines and right prices. Prompt shipments. Exclusively wholesale.
"OHIO RUBBER"
228 W. 7th St. Cincinnati.

Dealers
New York Vermont Massachusetts
Crosley orders shipped at once
Get our Catalog
Ignition Supply Co.
238 Washington Ave. Albany, N. Y.

If you wish to BUY or SELL
SECURITIES
Or own some about which you
DESIRE INFORMATION
COMMUNICATE WITH US
Our Statistical Department is At
Your Service
WESTHEIMER & CO
Members of—
The New York Stock Exchange
The Cincinnati Stock Exchange
Telephone Main 867
326 Walnut Street

Broadcasting Tests Expected to Promote Good Will Feeling

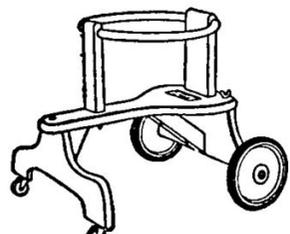
(Continued from page one)
mit listeners in Canada, Cuba, Porto Rico and the U. S. to hear special programs from the foreign countries. This means that there will be a silent period of one hour each night for the entire North American continent to listen for broadcasting from most of the European countries, the islands in the Pacific, New Zealand and so forth.

The names, call letters and wave lengths of the foreign stations it is possible that you may hear will be announced at a later date, both by Crosley WLW station and in the press.

Very elaborate arrangements have been completed by Radio Broadcast Magazine, the originator of the International Test idea, with its correspondents in most countries of the world, especially with the "Wireless World and Radio Review" of London and "La Presse" of Montreal.

If plans now being worked upon materialize, almost every country on the globe will take part in these tests. Who knows but that some such undertaking as this, which will put us in intimate touch with the people of other lands, will go a long way toward promoting international understanding and good

The Go-bi-bi



FOR LITTLE TOTS TOO YOUNG TO WALK

The GO-BI-BI answers his baby eagerness to go, and leaves you free to attend to your household tasks. You know he is off the floors—on the go to his heart's content!

It's tiny—only two feet square—can be tucked away in any corner. Sells for \$3.50 everywhere. If your department store cannot supply you, order direct from us.

THE CROSLY MFG. CO.
Dept. 3 Cincinnati, Ohio.

will, perhaps, go a long distance in preventing war?

These tests will be one of the principal features of International Radio Week and we feel sure that you will find them exceedingly interesting.

WLW has prepared special programs for this occasion.

KANSAS CITY DISTRIBUTORS ISSUE NEW CATALOGS.

The Harbison Manufacturing Company, Sterling Radio Company, Schnelzer Company and Central States Electric Company have issued new catalogs. They are all very complete and of course show the complete Crosley line. They are worthy of any dealers attention and may be obtained by addressing any of the above concerns.

AUTOMATIC SENDER

The Atlantic liner, Olympic, is equipped with an automatic sender that transmits at the rate of forty words a minute. The machine looks like a typewriter. It can reach a speed of 100 words a minute.

The **Quiet NILES**



Battery Charger

The Charger That Stays Sold
Light to handle. Puts 72% of the current into the battery. Handsome crystallized black finish. For radio and auto batteries. No liquids. No fumes. No bulbs. Model A for 6-volt batteries, \$19.00; Model AB for 6-volt and 24-volt batteries, \$21.00. Write for prices.
Niles Manufacturing Company
Dept. 11, Ypsilanti, Mich.

Radio Equipment Co. Of Texas
Distributors in Texas for
CROSLY RADIO APPARATUS
ATLAS LOUD SPEAKERS
CUNNINGHAM TUBES
and
OTHER QUALITY LINES
1319-1321 Young Street
DALLAS, TEXAS

Work On Big Towers For WLW Station Is Nearing Completion

Crosley Engineers Hope to Be Able to Broadcast Christmas Message from New 5 Kilowatt Station.

The task of erecting the two 200 foot aerial towers for the new 5 kilowatt super-power broadcasting station, WLW, of The Crosley Radio Corporation, at Harrison, Ohio, is nearly completed. Every effort is being made to rush the completion of this station so as to be able to broadcast Christmas tidings to radio listeners throughout the world. Telephone wires will connect this new station with the microphones in the studios at 3401 Colerain Avenue, Cincinnati, some twenty-five miles away.

No expense has been spared in providing the best equipment, both in the station proper and the giant aerial towers, in order that this new super-power station will not cause interference with the majority of radio listeners in the thickly-populated districts of great Cincinnati.

There is a great difference between the aerial used for the reception of broadcasting and the transmission aerial. A little wire, perhaps, forty to sixty feet long is sufficient in some places to receive the incoming signals but the Crosley super-power station antenna wires are so heavy and large, due to the tremendous amount of energy to be sent forth, that two giant towers are required to hold them. Some idea of the weight of these towers and their size may be had from the fact that solid concrete to a depth of seven feet is used to embed the four supports. From their 30-foot square base, the giant towers rise 200 feet to an apex, forming a pyramid of fabricated steel of decreasing sizes as it approaches the point.

A view of the surrounding country for many miles may be had from the top of the massive towers which can be reached by a ladder. Located upon one of the highest knolls outside of Cincinnati, and with nothing to interfere with perfect broadcasting, the new WLW station will make itself known throughout the world and be an interesting place for visitors.

FINE MEASUREMENT

The Bureau of Standards measures the frequencies of broadcasters to one-tenth of 1 percent. Engineers of one large company are making such measurements to within one-one thousandth of 1 percent.

Western and Southern Orchestra



The picture above is that of the Western and Southern Life Insurance Company's Orchestra, which entertains radio listeners every Sunday evening by playing at the WLW Studio. This orchestra is very popular among radio listeners and is regarded as one of the best in the country. William Kopp is the director.

RAIN IS NOT CAUSED BY RADIO WAVES

The theory has been advanced recently that the unusually heavy rainfall this year, and, in fact, for the past three years, is directly due to radio waves and other electrical disturbances caused by power and telephone lines. It is maintained that the number of good days will continue to diminish as long as radio is on the increase, and it is suggested that the only way to obviate this trouble is a reduction of the use of electricity. The advocates of this theory are evidently not acquainted with the rainfall statistics of the past 50 years, especially in France. The month of August, 1875, was considered the wettest August in well over 100 years in France, and still holds that

record in spite of a close second by August, 1924. In 1875, Hertz, Branly and Marconi were unheard of, radio unknown, and electric power was in its infancy.

CROSLY DEALERS

Write us for our New Radio and Accessory Catalogue—just out.

We are Crosley)
Also Burgess Battery) Distributors
and Balkite Charger)

Harger & Blish, Des Moines, Ia.

IMMEDIATE DELIVERY ON NEW MODEL CROSLY RECEIVING SETS

Full Crosley Discounts to Dealers Only.

WAKEM & McLAUGHLIN, Inc.,
225 East Illinois St.
Radio Distributors Chicago, Ill.

DEALERS

Place Your Orders With
THE JOHNSON ELECTRIC SUPPLY CO.

232 E. 5th St. 331 Main St.
CINCINNATI

Distributors for
The Crosley Radio Corporation
Genuine Radiotron Tubes
General Radio Company
Magnavox, Eveready.

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.

Bond Department
THE
FIFTH-THIRD
NATIONAL BANK
of Cincinnati.

BRACH

ELECTRIC SOLDERING IRON



The Brach Soldering Iron measures up to the high standard of the other Brach products. Each iron stamped with a broad guarantee to perform satisfactorily. It is light of weight and comes equipped with either a pencil point for radio soldering or commercial point for heavier work. The Brach iron can be identified because it comes in the orange, red and blue package.

List Price Each \$2.50

SOLDERALL

For Radio Connections

Solderall is a metal solder and flux complete. It is the first complete solder to be dispensed from collapsible tubes, making it very easy of application.



Solderall has proven itself useful in very many ways where old-fashioned soldering used to be employed, and is especially desirable for soldering wire connections. Radio companies are using it for their radio apparatus and amateurs are building up their equipment, for Solderall has the means of joining their electrical connections, soldering their jacks, couplers, condensers and other purposes. The heating of a match will suffice in most cases, but the use of the Solderall torch or electric iron is advised in its application.

Retail Price 25c a Tube

Solderall Torch

No one should be without the new Solderall Torch. This is the final successful result of 11 years' effort in the design and manufacture of a self-acting pocket blow torch.

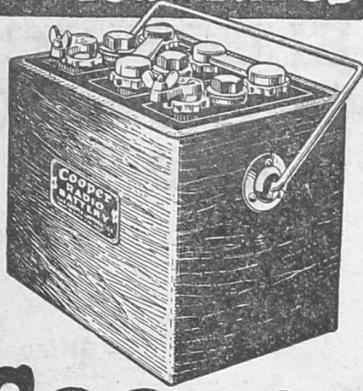
The new torch is guaranteed to generate a pointed flame up to 4 inches in length. It is absolutely safe, will not explode or leak.

These torches are now found in the kits of mechanics, tool chests, shops, garages and the home. It is made of heavy brass. Size 1 1/2 inches by 5/8 inches high.

List Price \$2.00

L. S. Brach Mfg. Co.
Newark, N. J.

A Dependable Source of Power for Your Tubes



Cooper
rechargeable
RADIO "A" BATTERIES

Sustained voltage does the trick - a steady even flow of current that brings in and holds distant stations clear and unwavering.

The special mix in Cooper radio plates is responsible - gives them greater capacity and allows them to yield a higher rate of constant voltage.

Here is a battery that has been especially designed for radio work - to give improved radio results.

Ask your nearest radio dealer or Cooper Battery Service Station about it or write us direct.

Dealers and Jobbers

The Cooper line of rechargeable radio batteries stands second to none - a profitable, fast-selling line, backed by a responsible nationally known concern.

The Cooper proposition is liberal and there is still some territory open. For full particulars fill in and mail the coupon.

THE COOPER CORPORATION

General Offices Factories
Cincinnati, O. Cincinnati, O.

Branch Houses

The I. J. Cooper Rubber Co.

Cincinnati Indianapolis
Columbus Knoxville
Dayton Memphis Nashville

The Cooper Corporation
Cincinnati, Ohio

Please send me information about the Cooper Rechargeable "A" Radio Batteries.

Name.....

Address.....

If you are a radio dealer or jobber, please indicate.

**Modern Theories
Modify Old Ideas
Of Wireless Waves**

(Continued from page one)

The quantum theory assumes that instead of x-rays, radio, etc., traveling through space as waves, they travel as little groups of electrical particles, or "quanta of electrical energy."

These three theories, which are the generally accepted ones today, are incompatible with the idea of an invisible substance called the ether. After all, it requires rather a stretch of the imagination to think of a medium that you can neither see nor feel filling all space and penetrating into the very heart of all objects. It does not seem strange to us that we cannot see the air. But we can feel it—breezes blow dust into our eyes, and cool us when we are warm from the sun. And we can actually see air if we look through a sufficient thickness of it. It is what makes the sky appear blue.— But to think of a medium that we can neither see nor feel requires a more vivid imagination than most of us possess.

The new theories do not require that there be an ether in space. They call space "space," endowed with certain properties, and let it go at that. As to just how x-rays and radio travel through this space, they are not so definite as the wave theory. The quantum theory, as stated above, assumes that these phenomena travel in groups of electrical particles, or "quanta of electricity." But it is harder to get a mechanical notion of x-rays, and radio, traveling through space, than it is to think of them as waves like water waves, in a substance called the ether.

After all we do not know positively, or perhaps never will know positively, whether light, radio waves, x-rays, etc., travel as waves, as quanta of energy, or what. All that we do know is that certain apparatus, at the transmitting station, sends out energy into space, and that this energy is received by radio sets in homes everywhere. It would, perhaps, be best if we would let well enough alone, and state the facts in that way. But our curiosity runs away with us, and causes us to puzzle over just what happens between the transmitter and receiver. That is why such ideas as radio waves, quanta of energy, etc., are propounded. They are merely interesting problems to puzzle over and attempt to solve. The radio art will go on just the same whether or not we ever succeed in solving them.

Acid from your storage battery will eat holes in most anything, so be careful.

STERLING RADIO, OF KANSAS CITY, ENJOYS ENORMOUS CROSLY BUSINESS.

Mr. Bonfig, manager of the Sterling Radio Company, of Kansas City, Mo., tells us that the demand for Crosley apparatus there is astounding. He says all good dealers everywhere are demanding Crosley apparatus, and that his dealers tell him the consumers are demanding it.

The Crosley Trirdyn is out performing sets costing five and six times as much, Mr. Bonfig says. His men are so well sold on the Trirdyn that they are willing to put it up against any machine on the market regardless of price.

Mr. Bonfig thinks the Crosley franchise is the most important for the good jobber, and urges every dealer who is in business for making big money to handle the Crosley line. He states that good apparatus plus advertising, backed by a square shooting concern, will sell anywhere, and that Crosley more than fills the bill.

Purchase or operation of radio sets in China is prohibited.

— DEALERS —

We Distribute Crosley.
Quick Shipment—Get Our Catalog

BADGER RADIO
495 E. WATER ST. CH. MILWAUKEE

**96 PAGE
RADIO CATALOG
TO
DEALERS**

Write today for Copy.

DISTRIBUTORS OF

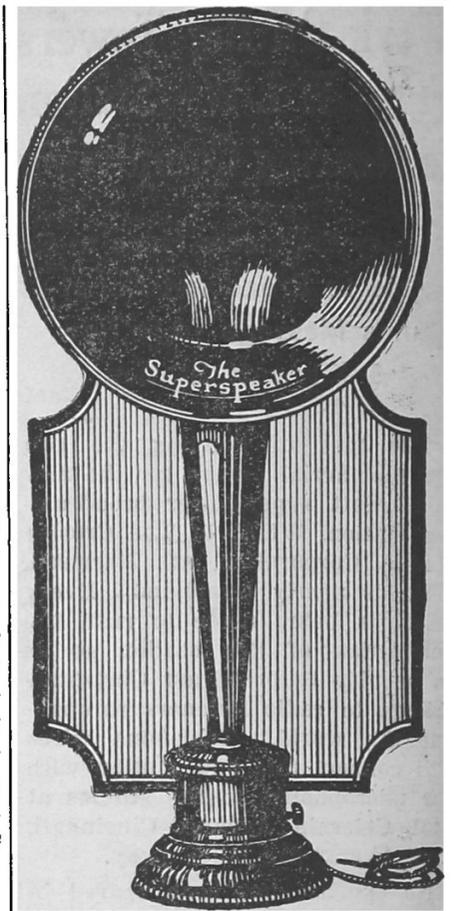
- Crosley Sets and Accessories—
- Cunningham Tubes
- Burgess "B" Batteries
- Magnavox Reproducers
- Western Electric Reproducers
- Brandes-Products
- Cardwell Condensers
- Brach Products

and

Many Other Lines of Leading Manufacturers

THE SUTCLIFFE CO.
Incorporated
Louisville, Ky.

Dept. C. R.



Superspeaker

**MUSIC
AND VOICE**

contain no note to which the Superspeaker horn can possibly vibrate. Resonance — that bane of all reproduction — is thereby eliminated, leaving only the actual values of each note and tone, sent broadcast by the far-away station.

Micrometer adjustment to bring in extra distant stations — Needs no extra batteries or coils — A big, handsome, ebony-gloss finished musical instrument. Dealers, you can sell it!

JEWETT RADIO & PHONOGRAPH COMPANY
5680 Twelfth Street
DETROIT MICHIGAN
6666 Twelfth Street
DETROIT MICHIGAN