

## Crosley Sales And Service Plan Is Remarkable Success

**Very Few Changes Made in Awarding of Franchises, Even Though 15,000 Have Been Granted.**

Reports from dealers and distributors throughout the country indicate that the new Crosley Sales and Service plan is a notable success. Some 15,000 authorized dealers have been appointed up to this time. Of these appointments less than 300 have been changed. This number is surprisingly small when one considers that natural causes, such as proprietors of stores retiring or moving to other locations, deaths, etc., make occasional changes necessary.

Of course, mistakes are now and then made in the routine of appointing dealers. The Corporation always strives, however, to correct such mistakes in the minimum of time. Fortunately such mistakes are the exception, and do not cause much difficulty.

The small number of changes that have been made is evidence of two things: first, that Crosley distributors have used excellent judgment in recommending the dealers now acting as Authorized Crosley Sales and Service Stations; and second, that the Corporation itself stands squarely behind its dealers.

The Corporation wishes to avoid changes wherever possible. It feels a certain loyalty to its dealers, and believes in backing them to the fullest extent. Every dealer who is enthusiastically selling Crosley is regarded as one of the great Crosley family, and it is earnestly desired that he permanently continue his connection with the Corporation.

### Handle Phones Carefully

Headphones, when well made, are delicate instruments, and should be handled just as carefully as a fine watch. One should never let them drop, or handle them roughly, any more than one would willingly let a glass tumbler fall on the floor. Though headphones will often stand considerable rough treatment without serious damage, as witnessed by reports from owners of Crosley phones who have repeatedly dropped them without apparent injury, strict adherence to the rules of care outlined here is the best assurance of good reception.

## Crosley Directs Airplane By Radio During Series of Interesting Tests In New Method of Air Communication

Captain W. H. Murphy, United States Signal Corps, stationed at McCook Field, Dayton, Ohio, has been conducting a series of experiments with engineers in the broadcasting station of The Crosley Radio Corporation in an effort to prove whether or not two-way radio communication between an airplane, flying at an altitude of about 5,000 feet, and a ground station, is practical.

Three tests have been made, and others have been planned for the near future. The tests already made have proven to be exceptionally successful, Captain Murphy's conversation with the engineers at WLW having been heard, not only in the station but also by listeners within a radius of several hundred miles.

The plane piloted by Captain Murphy has been equipped with a 500 Watt transmitter of the most modern design, with power supplied by two small generators. Listeners reported the volume and modulation were excellent and they were ex-

ceedingly interested in listening to the officer broadcasting from such a great height.

During one of the tests, Powell Crosley, Jr., handled the transmitter and receiver in the WLW studio. He was conversing with Captain Murphy when the latter expressed a desire to land near the broadcasting station at Harrison, Ohio. Being without his map, the officer asked Mr. Crosley to direct him to Harrison. Mr. Crosley told him exactly how to get to the station, but it seemed that Captain Murphy could not locate the huge towers. Mr. Crosley then asked one of the operators at Harrison to try to locate the plane, using the powerful glasses in the station. This operator reported to Mr. Crosley that he could not see the plane but could hear it in the north-west. Mr. Crosley then told Captain Murphy to bear to the south-east. This was done and the officer flew directly over the station.

Army officers stated later that this (Continued on Page 3)

## California Listener Hears WLW On PUP; "Tis Young and Small But Some HE Dog," He Says, In Letter Praising One Tube Set

How a radio listener in California listened to a concert broadcast by Station WLW, owned by The Crosley Radio Corporation, in Cincinnati, is described in the following letter:

"The Crosley 'Pup' may be young and small but it is some he dog.

"Curiosity got the better of me yesterday and I bought a Crosley Pup—hooked it up with a dry cell and an old 'B' battery and received delightful music from local stations. During the 'silent' half hour, last evening, I swung the dial for distance. Got Los Angeles, Salt Lake and Denver, and at 7:45, Pacific Time, I picked up a tenor solo by one Howard Hafford and the announcement WLW. This was followed by a fine orchestra for fifteen minutes until KGO came on and put me out of commission.

"The 'Pup' now has a permanent position with my three other sets.

"Respectfully yours,

"F. B. Willard,

"Saratoga, California."

And here is one from E. L. Daverac, of 1414 Milwaukee St., Denver, Col.:

"About three weeks ago I purchased one of your Crosley Pup and since then it has been a constant pleasure. I find, to my surprise, that I am able to tune on local stations with wonderful ease and get distant stations.

"On November 14th, I picked up Station KFWO, Avalon, California Island, California. It was about 7:50 Mountain Time. There was a woman announcer, but I failed to record the name of the piano solo that was being played.

"Chicago comes in easily. I have picked up at various times WBERM WOK, and WSBC.

"This is probably old stuff to you but I think it good distance for a one tube set. I should be very much pleased to hear if better records have been made with only a 22 1-2 volt 'B' Battery."

## Every New Circuit Is Tested Carefully In Crosley Laboratories

**Engineers Always on Lookout for Something Better to Offer to Radio Jobbers and Dealers.**

In order to retain a high position in the radio world, a manufacturer must be "on his toes" continually. That explains why Powell Crosley, Jr., never wears out the heels of his shoes. But, to be more serious, it is something for a radio manufacturer to keep experimenting with something new all the time. It is almost impossible to pick up a radio magazine without seeing some new circuit and every mail brings to us a number of hook-ups described by their originators as "something revolutionary." Not one of these is overlooked. Engineers in the Crosley Laboratories give every circuit obtainable a thorough trial, sets using from one to twelve tubes being made and discarded just as rapidly as engineers report they are no better than the ones now being manufactured.

When better radios are made, they will be offered to Crosley customers at typical Crosley prices. About five years ago Mr. Crosley adopted the slogan "Better—Cost Less" and has used that as a foundation for the tremendous business in which he is now engaged. It has been in the past, and always will be, his desire to produce better radios that cost less. Systematized buying on extensive scales has permitted his selling receiving sets at ridiculously low prices. But in manufacturing these radios on a quantity production basis he has turned out merchandise that has more than satisfied his customers.

Every promise made by Mr. Crosley to the trade has been kept. There has been no so-called "dumping." Wherever the necessity has arisen both dealers and distributors have been protected. In many instances the stock of one distributor has been transferred to another instead of filling the second man's order from the factory. Fairness has been shown at every turn—and always will be.

Crosley dealers are on the alert continually. They know that when "something better" is available, it will be offered by Crosley. They have watched him in the past and are watching him now—watching for something better in radio.



# WORLD'S GREATEST PORTABLE RADIO SET

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### THE RADIO IN CAMP

A construction camp, when far from a town, is a lonesome place when the sun goes down: For the day's work is done, the men all fed, And all but myself have retired to bed.

'Tis then that the Radio proves its worth, And livens me up with music and mirth: The loneliness goes as I listen and hear Both music and voices from far and near. (From Indi-Gest) GEORGE

**T**HEY are still building trails through deserts and the wilderness for the Iron Horse. Horny handed men of toil are still cleaving mountains, hewing trees and laying rocky beds for the steel rails destined to bear on their slender backs limitless tons of human and mercantile traffic for ages to come.

Human brawn and human hearts are still enacting the drama of the pioneer. In one respect, however, there is a wonderful difference now than that which

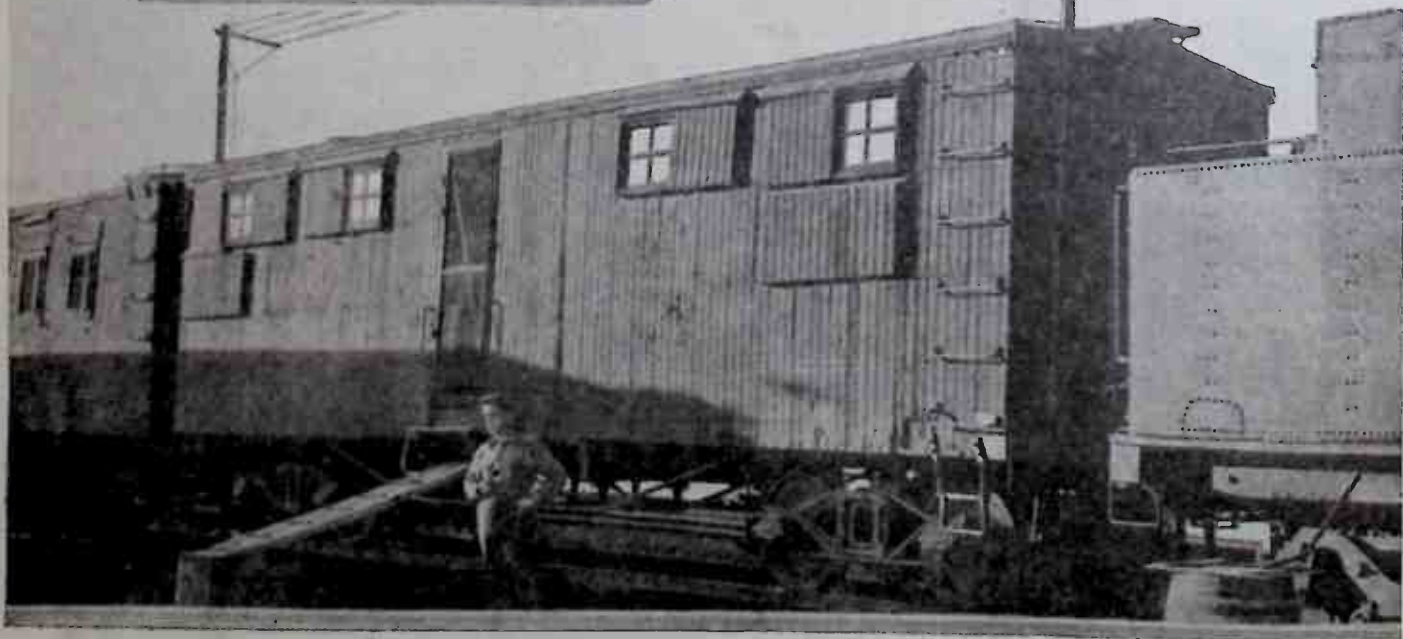
existed in the middle of the last century when the Iron Horse first puffed his way westward to the Pacific coast.

Radio has come.

(Continued on Page 6)



Indi calls this the largest "portable receiving set" in existence. You have to get inside the cabinet, which happens to be a box car, to turn the dials. But it isn't any too big for the purpose it serves in bringing the outside world to the hard working men of the C. B. & Q. R.R. now building a railroad line into a remote region of Colorado. George Donaghy, whose contributions are familiar to Radio Digest readers, is shown directly above in his commissary office. Beside this picture is the set described in his story. Even a private compartment in a "slide-door Pullman" may be made tidy as shown in George's den at the left. Below is the general view of this remarkable "receiving set," part of the construction gang's train. When evening comes the men gather around while George tunes in cities from all sections of the country. The loud speaker is placed so that all can hear. The distant howl of the coyote and the hoot of the owl are mingled with strains from dining rooms of the greatest hotels. They receive the world news of the hour as it has developed since the evening before.



# Every Person Who Buys a Radio This Winter Will Need a Crosley Musicone



CROSLY  
MUSICONE

Every radio listener is talking about the Musicone. It is greatly outselling any loud speaker on the market. Buyers of all types of receivers are demanding it. Price—\$14.75.

### World's Largest Portable Radio

(Continued from Page 4)

And through Radio much of the loneliness of the long, star-lit nights has been banished. Dreary chirping of the desert insects has been drowned out by voices from the gay and brilliant centers of the cities, wafted instantaneously through the great, blue spaces to the isolated camp.

We have today the story of George Donaghy, commissary clerk in a railroad construction camp somewhere in the interior of Colorado. George only hints at his surroundings, saying nothing of the assembled crew of weather beaten men crouching on the tie piles and kegs with flickering lantern light touching the highlights of their dark faces as they listen in silence to the lilting notes that pour from the side door of the old box car, where George has placed the loud speaker to his receiving set.

No argument about silent nights where George Donaghy is. He gets everybody everywhere, it seems and he is duly thankful for the increasingly cold nights when the programs come clearer and louder.

Almost as marvelous as the Radio itself is the fact that so many men who live work-a-day lives find keen zest in understanding the why and how of Radio and that these men be found even in such remote places as railroad construction camps.

Because George Donaghy is that kind of a man his comrades are made happy. But George gets his enjoyment from the fact that he has developed what he had to such a high point of efficiency.

You can see the ardent radio fan shining through this letter. It follows:

"A Radio in a railroad construction camp is a great boon to its owner and to the many workers in the camp. It provides, when the camp is located between towns, the only form of amusement obtainable outside of card playing and horseshoe pitching. Newspapers are not always readily obtained and news items broadcast by the various stations within range keep those in the camps posted on much that is going on.

"The set illustrated herewith is a two tube Crosley portable, Model 51, with a one stage amplifier added. In order to secure as much volume as possible for the loud speaker, the amplifier was supplied with separate batteries. Programs from such places as Los Angeles, 980 miles; San Francisco, 1,000 miles; Minneapolis, 580 miles; Chicago, 775 miles; Davenport, 625 miles; San Antonio, 775 miles; Cincinnati, 970 miles and New Orleans, 990 miles come in with sufficient volume to be heard at some

distance from the car in which the set is located. Denver, 130 miles distant, is the nearest broadcasting station and, of course, comes in loud and clear at all times unless static is present.

"The furthest reception points noted during the summer on ear-phones were: East, Altoona, Pa., 1,260 miles; North, Minneapolis, 580 miles; South, New Orleans, 990 miles and West, San Francisco, 1,000 miles. Pittsburgh, Pa., though heard regularly through Hastings, Neb., was caught direct a number of times. Many of the long distance stations picked up on the phones during the summer are now heard plainly on the loud speaker.

"The tubes in use with this set are the C-301A are each of four No. 6 cells connected in series, giving six volts to each A battery. The B batteries are each made up of four 22½ volt cells, giving 90 volts.

"When using earphones with this arrangement a very small turn of the amplifier rheostat will bring a distant and weak signal up so it is plainly heard. However, at this season of the year this is not often necessary, for, as stated above, long distances are now being handled by the loud speaker which could only be heard through the phones during the summer."

George, incidentally the same George whose name is familiar to readers of Radio Digest in the Indi-Gest column where his clever verses and comment always are welcomed, describes the pictures included in his letter as follows:

"1. The exterior of the commissary clerk's car in which he carries a stock of tobaccos, work clothing and various supplies needed by the men employed on the track and boarded in the camp.

"The next car to this contains his supply of groceries, meats and staple foods. Following this car come the diners, kitchen and men's sleeping cars.

"2. This shows the interior of one-half of the car, the counter, loud speaker and in back are the stock shelves.

"3. Opposite end of same car showing clerk's room and the Radio.

"4. The Crosley portable, Model 51, on stand with batteries on shelf below. The wires to the

**SELL YOUR CROP OF TOBACCO AT THE KENTON LOOSE LEAF TOBACCO WAREHOUSE Covington, Ky.**

loud speaker may be noted running up the wall at back.

"When used as a portable set the batteries are contained in the cabinet, which has room for three No. 6 cells and three units of B battery 22½ volts for use with ear-phones. The ground, when the cars are on a siding which joins the main line, is secured by joining the ground wire to the truck of the car.

"When on a spur, which is a track laid especially for the outfit and disconnected from the main line as soon as the cars are run on it, a ground rod must be used. The one used with this set is a ¼-inch rod six feet long, five feet of which are in the ground.

"The truck connection, when the cars are on a siding, needs no ground rod with it as the main line gives a surface as long as the entire railway system and reaches water or some other good ground, somewhere near. The aerial used is a two wire antennae but the wire is continuous being run through the insulators and the ends jointed. The car is thirty-

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## CROSLY BETTER—COST LESS RADIO Distributed by THESE JOBBERS

OHIO, KENTUCKY, INDIANA

**DEALERS!** Send For Our New Catalog. Ask How to Become a Crosley Franchise Dealer. **OHIO RUBBER 228 W. 7th St. Cincinnati**

OHIO, KENTUCKY, INDIANA

**The JOHNSON-ELECTRIC Supply Company 331 Main St. 232 E. Fifth St. CINCINNATI** Radio and electrical supplies of quality. Write us for Dealer proposition.

When handled with care, a storage battery should last at least five or six years.

four feet long and the aerial is thirty-one feet long.

**GEORGE DONAGHY, Eckley, Colorado."**

### Health Talks

Dr. Carl Wilzbach, Physical Director of the Cincinnati Y. M. C. A., has been giving weekly talks upon the subject of "Health" through the Crosley WLW broadcasting station. The time is 12:30 and the day is Thursday.

**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.**

## CROSLY BETTER—COST LESS RADIO Distributed by THESE JOBBERS

ILLINOIS

**National E & A Supply Co.** Distributors of CROSLY Sets, MUSIC MASTER reproducers, TOWER headsets, EVEREADY batteries, and complete line of Supplies. PEORIA, ILLINOIS.

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**Radio Equipment Co. of Texas** Distributors in Texas for CROSLY RADIO APPARATUS EVEREADY BATTERIES CUNNINGHAM TUBES and OTHER QUALITY LINES 1319-1321 Young Street Dallas, Texas

# Crosley Sales and Service Manual

## SERVICE HINTS

### BATTERIES (Continued)

In the service article last week, a table was given showing the approximate life in service of dry-cell "A" batteries. It is impracticable to estimate the life of dry-cell "B" batteries, because so many factors enter into the consideration, such as size of the battery, etc. In general, dry "B" batteries should last several months in service 2 to 4 hours a day. For greatest economy, the larger sizes should be used, especially when it is necessary to furnish current for several of the larger tubes.

**Use of Dry-Cells as "A" Batteries.** Dry cells have come into widespread use as "A" batteries, chiefly because of their convenience and low initial cost. It is estimated that about 60 percent of vacuum tube set installations employ dry "A" batteries. With the smaller tubes, dry "A" batteries are a satisfactory and economical source of current. It is not so practicable to use them with the larger tubes, such as the 201-A and 200 types. The new dry-cell power tubes (120 type) make it possible to get sufficient output for good loud speaker reproduction with dry-cell "A" batteries.

**Use of Dry-Cells as "B" Batteries.** As "B" batteries are required to give a high voltage and small current, dry batteries have always been popular for this purpose, since a number of small dry cells may be assembled into a high-voltage unit at a comparatively moderate cost. There is only one objection to the use of dry-cell "B" batteries, and that is that some of the inferior grades give trouble due to high internal resistance, which may cause the radio set to squeal. For average purposes, dry cells fill the battery need satisfactorily and economically.

**Use of Dry-Cells as "C" Batteries.** Dry-cells are almost universally used as "C" batteries, as the convenient and cheaper than storage are so small as to make it undesirable to use storage cells for this purpose.

**Advantages and Disadvantages.** Dry cells are best adapted to intermittent service (2 to 4 hours a day, perhaps) where the current requirements are fairly low (say below 0.25 ampere per cell.) They are not economical for continuous service, or for heavy currents. The ever increasing popularity of the "self-contained set", with compartments for the batteries, is largely responsible for the widespread use of dry-cells. They are more convenient, and cheaper than storage batteries, occupy less space, weigh

less, and are free from acids and other such objectionable features. On the other hand, they do not deliver as steady a current, and, especially in "B" battery use, sometimes cause reception trouble because of internal defects. As "A" batteries, they are recommended only for use with the smaller tubes, such as the 199 type, 120 type, and 12 type. As "B" and "C" batteries they may economically be used with any tube. In using them with more than two 199 type tubes or with a combination of 199's and 120's, it is desirable to connect six cells in series, parallel as an "A" battery, since that will greatly prolong their life per cell. Two cells in parallel per tube will also insure longer life per cell than one with 12 type tubes (see table of life in service printed last week).

**Testing.** The dealer should test every dry-cell before it passes into the customer's hands. The test should be made with a volt-meter, while the battery is connected to tubes, and the current is turned on. Batteries may conveniently be tested while connected to a set, while the tubes are lit. The voltage of batteries, especially dry-cells, falls considerably when current is being drawn from them, due to the dissipation of energy within the cell (caused by its internal resistance) and to certain internal chemical actions; and therefore, if their unloaded or "open-circuit" voltage is read, it may be quite deceiving, as it may be considerably higher than the terminal voltage actually delivered when the set is in operation. When dry-cell "A" batteries test less than 1.4 or 1.5 volts per cell and dry-cell "B" batteries test less than 21 to 22.5 volts per 22.5 volt unit or 42 to 45 volts per 45 volts unit, they are not in condition to be sold. After the voltage of dry-cell "A" batteries falls below 1.1 per cell and that of dry-cell "B" batteries falls below 17 volts per 22.5 volt unit, or 34 volts per 45 volts unit, they should be discarded.

### Three Soloists

Helen Renley, soprano; Arthur Dondero, violinist, and Arthur Bowen, cellist, will be the soloists on the Pogue concert, Sunday evening, January 4th, to be broadcast through the Crosley WLW station. Walter Esberger will conduct the concert orchestra. The program will start at 8:30 in the evening, following the services from the First Presbyterian Church of Walnut Hills.

## SALES HINTS

THE FIRST ESSENTIALS OF SUCCESS



Radio is Specialty Selling. It is vital for anyone selling radio to realize one important fact—selling radio is specialty selling. One cannot sell radio by the same methods that he sells groceries, drugs, or dry goods. The purchase of radio is an out-of-the-ordinary purchase—an investment. People, as a general rule, do not buy out-of-the-ordinary things, they must be sold. The kind of selling that makes people purchase insurance, or automobiles; that makes merchants purchase cash registers, or computing scales; that makes business men purchase adding machines, dictaphones, and typewriters, is the kind of selling needed for radio. It calls for specialty salesmanship—inside and outside the store. Moreover, radio brings in its train a service problem—a problem that has a bearing on good will and reputation, and therefore on sales and profits. With these two thoughts clearly in mind, one will realize that to be successful in retailing radio requires organizing and planning.

**Put Someone in Charge.** The first essential in organizing a radio store or department is responsibility. In the smaller store, or course, the proprietor himself naturally takes charge. In the larger store, radio should become a distinct department, with a manager in charge. The responsibility will be entirely upon his shoulders. It will be his work to see that the department makes money, that proper selling plans are developed, that sets are well displayed in the store and win

downs, that effective advertising is used, that stock is kept moving, that demonstrations are made as efficiently as possible, and that servicing is adequate but not extravagant.

**Have a Competent Service Man.** The radio dealer must expect a service problem, just as an automobile dealer does, but not to the same degree. Batteries will run down, poor tubes will be found, receiving conditions in some localities will be bad, some folks will tinker with their sets and get them out of order—for a dozen and one reasons the radio dealer will get calls from perplexed (and occasionally indignant) customers. This condition can only be met by having a competent serviceman. Servicemen are not difficult to get. In every community there are young men who have become quite expert with radio sets and can quickly locate trouble. They can be hired for a reasonable wage—on a whole or part-time, as conditions dictate.

**To the big store, a service department is an inevitable necessity.** To the small-town dealer, servicing is perhaps the best possible weapon against mail-order competition. To the "neighborhood" dealer in the larger cities, service represents his greatest opportunity.

**First settle these two questions of responsibility and servicing—do it in the most efficient and clean cut manner possible—and you will have started on the road to profitable business and success.**

# WATCH

**For The Startling Announcement  
To Be Made Next Week**

**by**

**Powel Crosley, Jr.**

**Complete details will be published in the next issue of the Crosley Radio Weekly.**