

Local and Personal

Will Meet Wednesday

The Wednesday afternoon club of the Presbyterian church will meet tomorrow, in the church parlors. All members and women of the congregation are invited to be present. The hostesses for the day are Mesdames Bush, Curry, Dunn and Ellis.

5. It is logical that pouring drugs into the stomach will not cure catarrh in the head. Hyomel, medicated air, reaches the seat of the disease. Guaranteed by McNair Bros.

Ask your grocer for Golden Sheaf Bread. 52tf

Visiting in Medford—Mrs. Alice Hogue is visiting friends in Medford, so as to be near her daughter, Miss Grace, who has been seriously ill at a local hospital there.

Ask your grocer for Golden Sheaf Bread. 52tf

Sweet Cider, made fresh every day, two gallons 75c, one gallon 40c. Delivered. Phone 9-F-11.

Visit Near Medford—Mr. and Mrs. M. E. Randles and little son Bobbie, accompanied by Mrs. Randles' mother, Mrs. Lulu Van Wegen, and grandmother, Mrs. E. J. Roberts, motored down in the valley Sunday, where they spent the day visiting at the ranch home of Mr. and Mrs. E. G. Roberts, five miles north of Medford.

National Fruit Cleaning Machine—The National Fruit Cleaning Company is putting on the market, a late model fruit cleaning machine, which cleans the apple of spray and dirt but does not bruise it, as has been demonstrated from last year's crop. There were 20 machines used in Hood River valley during the packing season last year and proved very satisfactory, even though they are of the old model. A small amount of fruit is still in some of the ware houses in perfect condition for so long a time, thereby proving to the most skeptical that it does not bruise the fruit or remove the wax or paraffin so necessary to the proper keeping of the apple or other fruit. The fruit is carried by a padded belt between three adjustable spiral brushes revolving in opposite directions, causing the fruit to rotate rapidly while being carried along and brushed. The capacity is 1200 boxes per day and can be increased by increasing the speed slightly. Further information can be had by addressing Miss Elizabeth Reuter, Jacksonville, Oregon. 30-fr-m

Improving Property—Mr. and Mrs. B. O. Wallsten, of 78 Second street, are improving their property by building a new garage and wood shed.

Entire Family Had "Flu" "Keep right on using Foley's Honey and Tar. It will give quick relief," said the doctor, when the entire family had the "flu." Never saw anything so good," writes Mrs. A. B. Griffith, Andrews, Ind. Neglected coughs and colds often lead to serious complications. Foley's Honey and Tar gives quick relief. Free from opiates (ingredients printed on the wrapper.) Largest selling cough medicine in the world. Sold everywhere. —adv.

Recovering from Operation—Miss Grace Hogue is slowly convalescing from a major operation performed at the Community hospital in Medford about a week ago.

Armistice day is coming. Let us help you get ready. Ashland Cleaning and Dyeing Works. Phone 63. Ladies' work a specialty. Auto delivery. 56tf

Better insurance at reasonable rates. Billings Agency. Phone 211.

Visiting in Country—Mrs. Norman Mack is visiting with friends on Neil creek today.

Ask your grocer for Golden Sheaf Bread. 52tf

Fruit cake and mince meat time is here. For citron, orange and lemon peel, raisins, currants, figs, spices, sugar, etc., Detrick's Groceries sells for less. 48tf

Will Postpone Meeting—The secretary for Mr. Price, the evangelist who was at Ashland this fall, has been in the city and finds that the only available places for the holding of the meetings are not large enough, so Dr. Price's visit will be postponed until a tabernacle or large tent can be procured.—Grants Pass Courier.

No investment pays better than good clothes. See Paulsen's suits.

Fluff Rugs, made from your old worn out carpets. Telephone 208. 41-eod-1mo\*

Still Unable to Walk—Mrs. W. F. Shaw is still unable to walk, despite the fact that four months have passed since she fell and hurt herself.

If you want the best there is in bacon, boiled hams, chipped beef, lard and shortening, get it at Detrick's. We sell for less. 48tf

RADIO

SIMPLE ANTENNA IS BEST FOR AMATEUR

Straight, Single Wire Type, Placed High, Is Preferable for the Receiving Set.

It is estimated that in one year's time from 700,000 to 1,000,000, new radio receivers were installed in the United States and from observation it would appear that there were almost as many different styles of antennae erected as there were sets installed. This, too, despite the fact that the country was flooded with literature telling each and every citizen how to build his own set.

These cage, flat-top, multi-wire, umbrella, etc., kinds of antenna were designed primarily for their sending characteristics. Remember that, in the beginning of radio, the man who wanted to hear wireless signals had to know quite a bit about practical radio. He had to know the Continental and Morse codes, and in addition to be a fairly decent sort of mechanic. He was, in short, the radio amateur, who wanted to send as well as receive. Therefore all this early literature was for the man who wanted to send as well as receive.

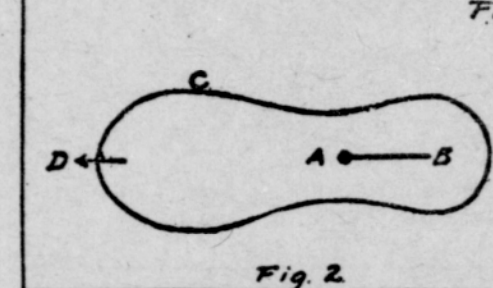
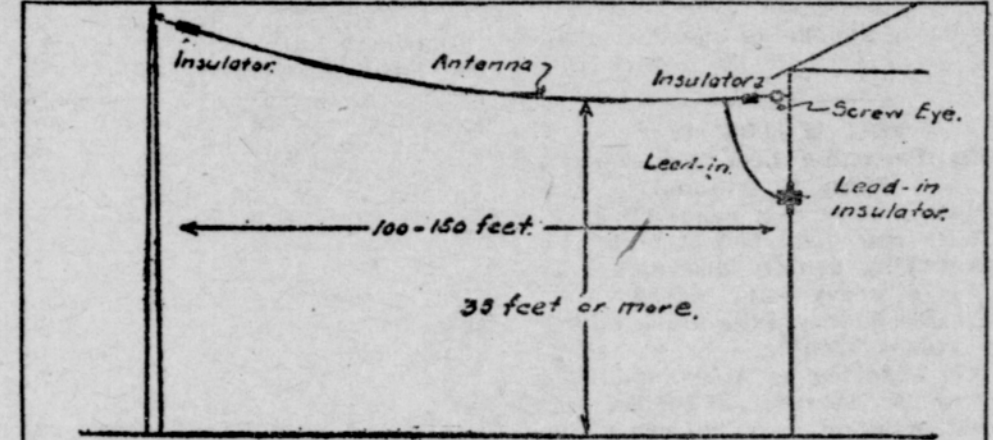
Since radiophone broadcasting was first started, there has grown up another army of radio enthusiasts, greatly outnumbering the pioneer amateurs, who do not want to send at all, but who do wish to receive. Therefore much of this early literature does not apply, or more correctly, all of it does not apply, to the new generation. In building an antenna, remember that nothing is more satisfactory for

of fine mesh chicken wire in a moist spot and connect the ground lead to this, or drive a six-foot length of galvanized pipe or copper rod into the ground.

All outdoor receiving or transmitting antenna should be protected by some form of lightning arrester or switch, approved by the National Board of Fire Underwriters. This switch must have at least a capacity of 100 amperes, 600 volts, and must be supported at least five inches from the side of the building. The ground connection from the switch consists of No. 10 B. & S. gauge copper wire, also supported five inches from the building. If the antenna is to be used for receiving only, any one of the numerous approved lightning arresters now on the market will be satisfactory. However, these cannot be used for a transmitting station, as the current put into the antenna by the transmitter is in effect a miniature lightning discharge and would escape to the ground through the arrester.

One of the most satisfactory antenna for short wave reception consists of a single wire, 100 to 150 feet long, supported at least 40 feet above the ground, with the lead-in taken from one end. This wire should be placed so that it is free from all obstructions, such as trees and houses. If power or high tension transmission lines are in the immediate neighborhood of the antenna, it should be placed as nearly at right angles to the power lines as possible, in order to reduce the 60-cycle induction.

No. 12 or No. 14 hard drawn copper wire, or copper clad or copper veiled of the same gauge make a very satisfactory antenna. Furthermore, this wire is strong enough to support itself, and will stand up in weather of all kinds. Phosphor bronze wire or standard copper cable has a higher tensile strength than a single wire, and therefore long spans may be safely made, but the receptional qualities of these wires are not noticeably superior to the wires first mentioned. If a single wire antenna were ro-



the amateur than the straight, single wire antenna, as high in the air as it can be placed, and about 150 feet long. An antenna of this sort, will give better results, in most cases, than any other sort. It will take up less room, and will not cut so heavily into the owner's finances.

The function of the antenna for a receiving set is to absorb the maximum amount of energy radiated from a transmitter. This means that it must be so built and placed as to be as efficient as possible. The factors governing the type of aerial to be erected are as follows:

- Amount of space available.
The amount of money which is to be spent.
The wave-length range which is to be received.
The distance from which signals are sent.

An aerial possesses both distributed capacity and inductance, which combined give it a defined period of oscillation. These oscillations will set up a wave motion the length of which is related to the capacity and inductance by a formula which can be closely approximated by multiplying the length of the antenna in feet, plus the length of the lead-in in feet, by 1.22. This will give the fundamental wave length of the antenna.

No matter what kind of antenna is used it must always be remembered that the lead-in should be as short and as direct as possible. In other words, don't use up any unnecessary energy received in the antenna to force a way through a long lead-in to the receiver.

If a multi-wire antenna is used, have the lead-in consist of as many wires as are in the antenna. These wires should be wrapped together at a point a few feet from the antenna and brought into the receiving set as a cable. Where this cable passes through the walls of the building, it should be insulated with porcelain tube or standard electro lead-in insulators.

Be careful to keep the lead-in as far as possible from electric light wires, telephone wires, etc. If this is not done, an objectionable 60-cycle hum may be heard in the phones, caused by electric light induction.

The ground connection should also be as short and direct as possible. Service water pipes or gas pipes make excellent grounds, and should be used in all cases where available. All connections in the ground lead-in should be soldered, especially the connection to the actual ground pipe. If this is not done, the ground resistance will so decrease the strength of the received signals as to make them almost inaudible.

If water pipes are not available for a ground, bury from eight to ten feet

tated through a complete circle. It would be noticed that a certain transmitting station would come in loudest when the antenna was in a certain definite position. That is, a single straight away antenna receives signals better from one direction than from others. This is illustrated in Figure 2, which shows the directional characteristics of this type of antenna. "A" shows the lead-in and "B" the direction in which the antenna is stretched.

If a transmitting station of constant power were moved around the receiver along the path of the curved line "C," the signals from this transmitter would come in with equal intensity at all positions. Conversely, stations from the direction "D" will be received over greater distances than those in any other direction. Keep in mind the direction of the transmitting station from which it is desired to catch signals and point the free end of the antenna away from the station.

If the lead-in is brought in from the center of the antenna, its fundamental wave length will be decreased, and its directional characteristics will be similar to that shown in Figure 3.

RADIO FLASHES

New York is to have a permanent radio fair. A reformed burglar is broadcasting a talk on how to beat crime and criminals.

Sir Oliver Lodge hopes to cure protracted droughts in England by using radio to electrify the atmosphere.

A camper at Cayuga Lake, N. Y., with a makeshift aerial, was astonished to hear a concert broadcast at Louisville, Ky.

At a meeting of the Rotarians at Ithaca, N. Y., the proceedings were conducted by the absent president by means of radio.

If it is possible, incorporate in your detector circuit an eight or ten-volt meter for obtaining constant voltage operation of your detector tubes. The life of your tubes will be increased about three times by careful operation under this plan.

A system of wireless telephony now connects the Turks Islands and the Calicos islands in the West Indies, the same installations being used also for wireless telegraph and for communication with ships. The distance covered by the radio-telephone circuit is about twelve miles.

IT'S TOASTED one extra process which gives a delicious flavor. LUCKY STRIKE CIGARETTE

Attending Livestock Show—Mrs. Arthur Brown left Monday evening for Portland, where she will attend the Pacific International Livestock exposition.

Get \$20 a Day—Legitimate plan and lady's valuable secret, 25 cents (coin). Address Franklin 593, Ashland, Or. 39-1mo

Visits in Ashland—Herbert Yost, of Portland, is visiting with the Herbert Sanford family and other relatives in the city.

Better be safe than sorry. See Beaver Realty Co. about your insurance. Phone 68. 237tf

Leaves for Fresno—Miss Agnes Hedburg left Monday evening for San Francisco, where she expects to spend the next few months.

Jack Frost is prowling around—fool him with a new overcoat. Paulsen's. 50tf

Returns from Portland—Bert Moses returned from Portland Sunday night on train 15, after having spent the past few weeks at that place.

ANNOUNCEMENT Having closed my Ashland office, I will take care of my Ashland practice at the homes of patients by appointment. Phone 401 for appointments. Dr. Geo. J. Kinz, Chiropractor. 54-1

This is the Stove Polish YOU Should Use. Black Silk Stove Polish. A Shine in Every Drop.

BUSINESS AND PROFESSIONAL

FOR RENT—Three room furnished front apartment. Allen Building. 52tf
FOR RENT—Front bed room for lady or man and wife, with privilege of cooking breakfast if desired. 326 N. Main. 56-2\*
FOR RENT—Furnished house. 47 Union. Call mornings. 56-3
FOR RENT—Three room furnished apartment, close in on Main St., \$18 per month. Phone 432-Y or 40. 56-3

WANTED—Wood sawing. Phone 269-R. 56-6\*
WILL BUY used car if in good condition and reasonable. Address Box "B," care of Tidings. 56-4
WANTED—To care for children by the hour. Miss Hamilton. Phone 263-B. 56-2\*

TOILET ARTICLES Everything a woman needs in Toilette Articles is to be found here, and at prices that will please you. Boncilla Beautifier Tube... \$1.10 Jar... \$1.50 Cold Cream... 75c Vanishing Cream... 75c Face Powder... 75c Mineralava Mineralava Beauty Cream \$2.00 Mineralava Face Finish \$1.50

HOLIDAY GREETINGS CHRISTMAS CARDS Place your order early for Engraved Holiday Greetings and secure choice of selections. McNair Bros. The Rexall Store

Investigate our Ideal Arcola HOT WATER HEATING SYSTEM for Small or Large Houses Our New Line of Heating Stoves Are Now In Provost Bros.

W. A. SHELL BARBER Safety blades resharpened like new. Single bit, 30c doz. Double bit, 60c doz. Children's Work A Specialty

FOR SALE—Winter apples at \$1 per box. Bring your boxes. W. L. Moore, Bellevue. 44-6\*
FOR SALE—Goat milk. Address P. O. Box 463. 32-1mo\*
FOR SALE—Modern six room plastered bungalow, chicken house, woodshed, garage, three large lots, fruit, berries, etc. Price, \$2650, with terms. Inquire Fourth St. Barber Shop or 283 B St. 41-mo

Cutlery Sale Pocket Knives, \$2.50 values... \$1.19 Scissors, \$2.00 values—Sale Price... .96 Scissors, \$1.50 values—Sale Price... .83 Scissors, \$1.00 values—Sale Price... .49 While They Last—Get Busy! SIMPSON'S HARDWARE 37-39 North Main St. Phone 208

It Pays to Pause occasionally to get one's bearings; particularly is it desirable that the would-be investor take no plunge in the dark that might mean the dissipation of his savings. The Citizens Bank of Ashland Ashland, Oregon

WRIGLEY'S P-K CHEWING GUM. This new sugar-coated gum delights young and old. It "melts in your mouth" and the gum in the center remains to aid digestion, brighten teeth and soothe mouth and throat. There are the other WRIGLEY friends to choose from, too: WRIGLEY'S SPEARMINT, WRIGLEY'S DOUBLEMINT, WRIGLEY'S JUICY FRUIT.

Try the Classified Columns.

Good Insurance We have not gone out of business! This Agency was established in 1883 and has been built up with the idea of protecting the people of Ashland and vicinity with SOUND INSURANCE. Billings Agency Established 1883 Real Estate and Real Insurance ASHLAND, OREGON Phone 211 41 E Main St.