

LOCAL AND PERSONAL

Have Taffy Pull—

A number of young folks from the Christian Bible school gathered at the D. N. Davis home on the Boulevard Saturday night and enjoyed a good time together pulling taffy. There were about 20 young people present, and all were inclined to lengthen the evening in order to continue the fun.

Fresh fish, oysters, crabs, chickens, rabbits. Call Tel. 104. Ashland Fish and Poultry Market. 186tf

Returns from Visit—

Mrs. C. B. Haney has returned from an extended visit with her daughter, Mrs. Bessie Buchanan, of Clarkston, Or. Mrs. Buchanan plans to come to Ashland later to spend the summer with her folks, who reside east of the city.

Dew Drop Inn for waffles, lunches, hot meals, sandwiches and salads. 204tf

Visits Relatives Here—

Lester Carl, of Rogue River, was visiting relatives in this vicinity last week.

Helman's White Sulphur Plunge and Baths open for the season Saturday, April 29th. 200-6

Will Teach in Eastern Oregon—

Prof. Erceel Hedrick, of the Central Point school, visited with his folks on B street a few days ago. Prof. Hedrick, after having taught three years at Central Point, expects to go to eastern Oregon next year, much to the regret of his Central Point friends.

Fine Oak Refrigerators at Ice-Holder's New and Second Hand Store, 389 E. Main. 199-1mo\*

Buy New Car—

Warren E. Cook, clerk at the White House grocery, has purchased a new Overland four touring car.

Special! Yakima Notted Gem potatoes, \$2.00 per hundred pounds. Detrick's Groceries. We sell for less. 196tf

Here from Medford—

A. W. Walker, of the Walker Auto company, of Medford, was in the city Monday.

The famous Victor 10 inch record has been reduced from 85 cents to 75 cents. Three thousand to select from at Rose Brothers. 152tf

Missionary Meeting Friday—

The Women's Missionary society will hold an all-day meeting at the Christian church next Friday, from 10 to 4 o'clock. All ladies will be gladly welcome. Some good speakers from down the valley will be present to address the meeting.

Lawn mowers put in first class order. We call for and deliver. Fixit Shop, Beaver Block. Phone 183-R. 192tf

Fishing in the Rogue—

Reinhard Krugel and Floyd Place made a trip to the Ament dam Sunday and spent some time fishing, the result being a few nice ones.

Special! Yakima Notted Gem Potatoes, \$2.00 per hundred pounds. Detrick's Groceries. We sell for less. 196tf

Birth of Girl Announced—

Word has reached Ashland of the birth of an eight pound baby girl to Mr. and Mrs. Carl Baehell, of Driggs, Ida., on April 28. Mr. Baehell is well known in Ashland, being the only son of Mr. and Mrs. H. H. Baehell, of Iowa street, and who lived here prior to his marriage.

If you have blankets, lace curtains, etc., give the new Home Electric Laundry a trial. Phone 180. 199-eod-1mo

Returns from Hospital—

Mrs. Ed Reames came home from the Granite City hospital last week, after a serious operation. Her many friends hope that she may now fully recover from her former trouble.

If you are particular, try the new Home Electric Laundry. Phone 180. 198-eod-1mo

Child's Face Is Cut—

The youngest daughter of Charles Christian, of the Square Deal grocery, was quite seriously injured in an auto accident Friday evening. The child's face was lacerated, but she is reported as doing nicely at present, following treatment by a surgeon.

HOMESTEADS

I have a big snap in good land near here. Can locate you where you will make good money. E. T. Staples, Ashland, Ore. 190tf

RADIO

THINGS BEGINNERS MUST LEARN FIRST

Explanation of Terms Used in Radio and of Its Basic Principles.

Due to the great interest taken in radio since broadcasting stations have been started, many radio terms are seen and heard that may be unfamiliar to the novice. Some of the most commonly used terms are explained and defined below.

Like light, heat and sound, radio energy is propagated in the form of a wave motion. Every one is familiar with the wave motion set up on the surface of a still body of water by the dropping of a stone into it.

Every time a point on the surface of the waves goes through a complete set of motions and starts to repeat those motions the wave is said to have gone through a cycle.

The number of complete cycles gone through per second is the frequency.

The human ear is responsive to sound frequencies up to a few thousand cycles per second but is not capable of responding to the higher frequencies encountered in radio. Arbitrarily a frequency of less than 10,000 cycles has been called an audible frequency—one which can be heard—and frequencies above 10,000 cycles, radio or inaudible frequencies—because they cannot be heard by the human ear.

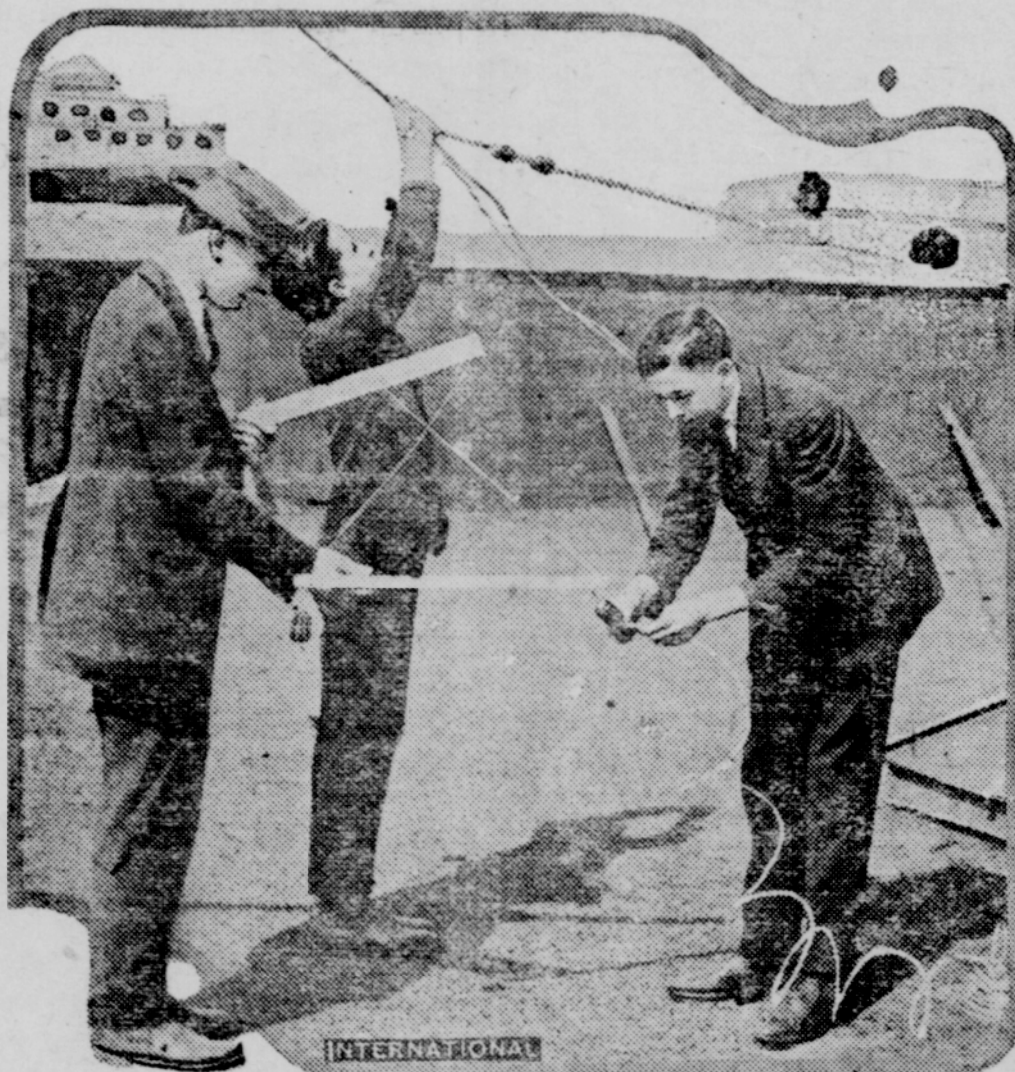
The particular type of wave which propagates radio energy is an electromagnetic wave. All of us have seen bits of iron and steel attracted by the little toy magnets made up in the form of horseshoes. This attraction of the magnet for the bits of iron and steel showed the existence of a magnetic

The high-frequency current is known as the carrier-wave and its function is to radiate into space in the form of electro-magnetic waves and by its variation in amplitude carry with it the variation in the tone at the transmitting station.

It is the frequency of the carrier-wave that determines the wave-length on which a radiophone station is transmitted. By experiment it has been found that electro-magnetic waves travel at the same velocity that light waves travel, that is, 186,000 miles per second. Wave-length is the distance between any two similar points on two successive waves; for example, the distance from crest to crest of any two successive waves in the same direction, measured in meters, a unit of length equal approximately to one and one-tenth yards. Converting 186,000 miles to meters, the equivalent is 300,000,000 meters. The length of an electro-magnetic wave is equal then to 300,000,000 divided by the frequency. Suppose a station was transmitting on a wave-length of 300 meters. The frequency of the carrier-wave would be approximately 835,000 cycles.

Just as a violinist tunes his instrument, that is, makes a certain string emit a note of higher or lower pitch, or, technically speaking, a sound wave of higher or lower frequency, by adjusting the tension on the string, so may the electrical constants of the antenna circuit of a radiophone transmitter be changed in order to have the station emit a carrier-wave of a different frequency.

If a tuning fork having a natural period corresponding to middle C be placed near a violinist who is playing, the fork will vibrate when the musician plays middle C, but all other times it will remain quiescent. This phenomenon of the tuning fork vibrating whenever the musician plays the corresponding note on the violin is known as mechanical resonance. If a radio receiver be adjusted so that electrically its natural period of vibration will be 835,000 cycles (300 meters wave-length) every time a station transmits on a wave-length of 300 meters, current will be set up in the receiver by



Amateur Radio Operators Erecting Aerial on the Roof.

field about the tips of the magnet and this same kind of a field propagates the electro-magnetic force, except that unlike the toy magnet, its power comes off in the form of wavy motions. This electro-magnetic force propagates radio energy in all directions.

The medium that transmits the electro-magnetic waves is the same medium that transmits light—the ether. This medium is supposed to fill all space, even that occupied by fluids and solids. Little is known about its properties.

In radio it is more common to speak of wave length than frequency. The wave length of any wave motion is the distance between any two successive crests in the same direction. The wave length depends upon the frequency. If the frequency is high the wave length is short. On the other hand if the frequency is low the wave length is long. Numerically the wave length is equal to the distance traveled by the wave in one second divided by the frequency. Suppose, for example, that it were desired to know the wave length of an electro-magnetic wave having a frequency of 835,000 cycles. Electro-magnetic waves travel at the same speed as do light waves, that is, 186,000 miles per second. Dividing the 186,000 by 835,000 the wave length would be 223 miles or 393 yards. In radio work it is measured in meters. A meter is equal to approximately 1.1 yards. Converting 393 yards into meters the wave length would be 396 divided by 1.1 or 360 meters. This is the wave length on which KDKA operates. It also means that the electro-magnetic waves sent out from this station have a frequency of 835,000 cycles.

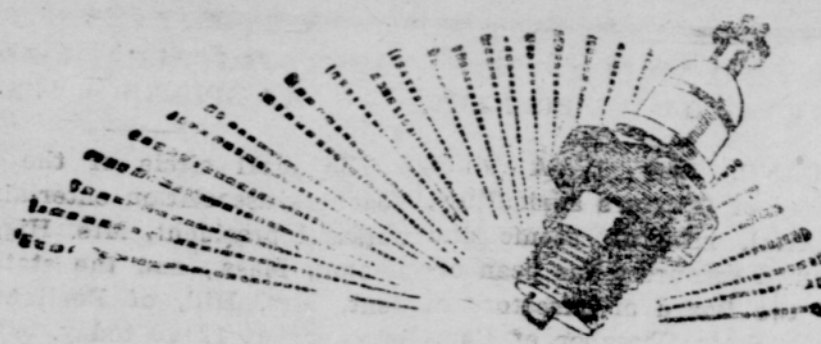
FUNDAMENTAL PRINCIPLES

In a radiophone transmitter there are two requirements that must be fulfilled. First, there must be a source of high-frequency current, say, between 15,000 and 1,500,000 cycles so connected to an antenna and ground system that energy in the form of electro-magnetic waves will be radiated. Second, there must be some method of controlling it so that the variations in the amplitude of the high-frequency current will be directly proportional to the voice or music to be transmitted.

How One Editor Uses Radio.

The editor of a paper in an isolated town in the northwest is using the radio in a most ingenious and effective way. An amateur radio friend in a big city 50 miles away buys the latest editions of the city papers as soon as they are off the press, reads the best news into his transmitter, and a typist in the country office copies the news as it comes in over the office receiver. The editor, through this ingenious plan, is always "First With the Latest" in his home town.

Civilization depends upon trees—don't let them burn.



Every atom of Red Crown mixes with air FOR POWER

"The gasoline of quality" is 100% POWER. It is refined to vaporize thoroughly. Every atom of it mixes in the carburetor with from 12 to 16 times its volume of air for POWER. With "Red Crown" you get ready starting—rapid acceleration—greater mileage—a continuous stream of power.

Run your car on "Red Crown" and nothing else, and you won't have to bother with carburetor adjustments. It is uniform in quality wherever and whenever you buy it.

Fill at the Red Crown sign—at Service Stations and garages and at other dealers.

STANDARD OIL COMPANY (California)



Nuff Sed.

By Buck Brush



Ain't it just a feller's luck to meet his best girl with his mouth so chuck full of candy that he can't speak?

And don't it make a feller mad when he has her out walking and his blooming garter comes loose and his sock begins to come down; or sometime when you go to see her, all dressed up in your best clothes, and new oxfords, and a lookin' spick and span, and then when you are least expecting it, you go and stub your toe on some fool snag, just as she is coming out to meet you, and then trip yourself trying to regain your balance.

Or have you ever tried to show off in front of the girls by walking out over the creek on a slippery log and then go and lose your balance and fall in.

Don't it make you rave, though, when the groceries come and mom's away, and you open each package, expecting to find bananas or oranges or cookies, and then there ain't nothin' but spuds and beans. It would make a preacher swear.

CARELESS SMOKERS CAUSE MANY FOREST FIRES

WASHINGTON, May 2—Twenty per cent of all the forest fires started by man in the national forests of the west during 1921, were caused by careless tobacco smokers, according to figures compiled by the forest

service, United States department of agriculture. In Oregon, California, Arizona and New-Mexico, one out of every four forest fires due to human agencies was started by burning cigarettes, cigars, matches or pipe-burns carelessly thrown aside by smokers while in the woods. In other parts of the west the percentage of smokers fires ranged from 12 to 18 per cent. The total number of forest fires on the western national forests during the past season was 5131, of which number 1444 were caused by lightning, 732 by smokers, and 2955 by other human agencies.

Forests are years in growing, but they burn quickly. Fight the forest fire fiend.

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BUSINESS AND PROFESSIONAL

One cent the word each time.

STOLEN

STOLEN—From in front of Lyric theater, Flying Merkel single bar boy's bicycle, "L. D." carved on seat. Reward for information leading to recovery, 196 Factory St. Phone 392-Y. 201-6

FOR RENT.

FOR RENT—Lithia garage. E. F. Smith. 192tf

FOR RENT—160 acres, Cherry Creek, Klamath county, Oregon; cultivated and pasture lands; best woven wire fencing; irrigation water; small buildings, etc. Rent paid by improving place for year or term of years. Excellent terms to right party. Write J. P. Rose, 133 Lathrop street, Madison, Wis. 198-12

FOR RENT—Three room furnished apartment. Phone 414-R or call 488 North Main. 203-2

POLITICAL ANNOUNCEMENTS

FOR COUNTY COMMISSIONER—Thos. H. Simpson, of Ashland, authorizes his announcement as a candidate for the nomination for the office of County Commissioner of Jackson County, subject to the decision of the Republican voters of said county, at the primary election, May 19th, 1922.

FOR COUNTY COMMISSIONER—George Alford, of Phoenix, announces himself as a candidate on the Republican ticket, for County Commissioner of Jackson County, Oregon, subject to the decision of the Republican voters of said county, at the primary election, May 19th, 1922.

PHYSICIANS.

DR. ERNEST A. WOODS—Practice limited to eye, ear, nose and throat. Office hours, 10 to 12 and 2 to 5. Swedeburg Bldg., Ashland, Ore. 73-tf

DR. J. J. EMMENS—Physician and Surgeon. Practice limited to eye, ear, nose and throat. Glasses supplied. Oculist and aurist for S. F. R. R. Offices, M. F. and H. Bldg., Medford, Ore. Phone 567

DR. MATTIE B. SHAW—Special attention to mothers and children. Internal secretions and endocrine glands. Res. and office, 108 Pioneer avenue. Telephone 28. Office hours, 11 to 12 a. m.; 2 to 6 p. m.

DR. SHAW—Eye, ear, nose, throat specialist; glasses fitted. Office at residence, Pioneer Ave., morning and by appointment. Phone 28.

CHIROPRACTORS.

DR. MAUD INGERSOLL HAWLEY—Visiting Chiropractic Physician. Neuritis cases a specialty. Phone 118-J. Treatment given only in your own home.

PLUMBING

H. R. ADAMS—Plumbing, Contracting and day work. 248 Fifth St., phone 166-J. 100tf

CONVALESCENT HOME

CONVALESCENT HOME—Facing Lithia park—cottages plan. Milk diet and other Nature cures. Mrs. W. M. Barber. Free consultations 2 to 4. 153 Granite St. Phone 412-R. 192-1mo

TRANSFER AND EXPRESS.

FOR prompt and careful service, auto trucks or horse drays, call Whittle Transfer Co. Phone 117. Office, 89 Oak street near Hotel Ashland. 56tf

L. I. POWELL—GENERAL TRANSFER—Good team and motor-trucks. Good service at a reasonable price. Phone 83.

TRANSFER AND EXPRESS—Wood—transfer and storage, general hauling, household goods and long distance hauling a specialty. Expert crating and packing; satisfaction guaranteed. A. G. Adams, office 240 Third St. Phone 460. 184-1mo

WANTED.

WANTED—Odd jobs and lawn work. Phone 468-L. 200-1mo\*

APARTMENTS

FOR RENT—Furnished apartment. Close in. Modern conveniences. Adults only. Inquire 166 Hargadine St. or phone 122. 182tf

FOR SALE.

FOR SALE—Five room house, with bath and pantry, four lots, corner Eighth and B streets. Inquire 139 Second. 182tf

FOR SALE—Reasonable, good seven room plastered house. Call at 128 Nob Hill street, or phone 354-Y. 198-tf

FOR SALE—Eight room house, two and a half lots, some furniture, some fruit. Terms. Call 248 Fifth St. 199tf

FOR SALE—Four room house, two and a half lots, house nearing completion. Terms. Call 248 Fifth St. 199tf

FOR SALE—One Ridd automatic gas water heater, large size, Nelda Cafe. 200tf

FOR SALE—One combination gas and coal range, Majestic, Nelda Cafe. 200tf

FOR SALE—Four room house, two lots, fruit and berries, nice garden in. Near hospital. \$1100. Inquire 516 Elizabeth St. 204-3

FOR SALE—Five room modern bungalow, two blocks from Main St., slightly location. Address P. O. Box 126. 204-3

FOR SALE—Dry tier wood, oak, alder and pine. Phone 1F5. A. R. Brown. 204-1

FOR SALE—Modern bungalow, four rooms, bath, pantry, large screened porch, small strawberry and blackberry patch. Price \$900 cash or \$1000 terms. Will sell furniture. Call 140 South Pioneer. 203-3\*

REAL ESTATE

We have a very fine 10 acre tract, well improved, located within the city limits of Ashland, and with advantage of city water, that is being offered for a short time at a low price and is well worth investigating if you are looking for something of that kind. A good share of the place is in bearing orchard, fine varieties and excellent quality. The price is \$4500. We also have some one-acre tracts that we consider good bargains at the price asked. Any one of them will make a good home and furnish a large amount of produce for the man who will give them attention. Prices will vary from \$1300 to \$1800. Now is the time to secure these properties.

Education in Ireland. The national system of education was introduced into Ireland in 1831 to take the place of the Society for the Education of the Poor. Prior to the establishment of the national system the schools had been conducted by the churches as non-pay schools, or were conducted by charitable societies, with the help of grants from the government.

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Before sending away your order, come and see Pell's new carload of fencing. Every variety—barbed wire to fancy yard fencing—He guarantees to beat catalogue prices.

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