

TALKS OF OREGON SOILS

James Withycombe, director of the state experiment station, has issued the following interview on the soils of western Oregon:

"A scientific and practical study of soils is an extremely interesting subject. All wealth comes from the land, hence the soil is the foundation of human happiness and civilization. Soils have their origin in rock, and the character of a soil is largely determined by the class of rock from which it originated. The soils of the Willamette valley are sedimentary or alluvial, slightly transposed through movements from the mountain slopes.

"The Willamette valley at one time was an inland sea which ultimately broke its mountain barriers where Oregon City now stands, hence the soils of practically the whole valley are of sedimentary formation. This is shown by the evidences of former marine life found scattered throughout this area. In the northern portion of the valley the soil is very deep, fully 100 feet. "Alluvial soils are generally well supplied with plant food and are usually either clay, silt or sandy loam. The two former are fertile, that is, the plant food is well conserved. The sedimentary soils are usually good, and should be particularly well adapted to fruit culture, provided they have sufficient depth.

The classification of soils is more or less arbitrary. The valley soils, however, are usually classed under five divisions, namely: Clay, which is a soil containing more than 35 percent of clay, and more than 60 per cent of silt and clay; clay loam, a soil containing 25 to 35 per cent of clay and 25 to 55 per cent of silt; loam, 15 to 25 per cent clay, less than 55 per cent silt and more than 50 per cent of silt and clay; sandy loam, 5 to 15 per cent clay and 10 to 35 per cent silt, more than 20 per cent or less than 50 per cent of silt and clay, and more than 20 per cent of fine gravel, coarse sand and medium sand. "Then we have the so-called shot land of the hill region. The red soils which are very common in this district derive their coloring material from the oxidation of the natural iron compounds of the soil. These red soils are all well drained. The simple fact of the red color indicates this, for unless air circulated through these soils this coloring could not have taken place.

"The value of soils was based formerly almost upon the chemical analysis. This, however, was found to be unreliable, as it is practically impossible to determine by chemical means the amount of total fertility of the land that is available. Recent investigations have shown that biological and physical examinations of the soils are highly necessary. For example, formerly it was supposed that a soil was merely a lifeless, mechanical substance, now we find that it is teeming with micro-organic life and that these organisms are exceedingly valuable in the work of liberating plant food.

"There are recognized by chemists some 80 chemical elements, or simple substances, but out of these there are only 12 to 14 that have any economic value in plant production, and really only four are what are known as 'critical elements' of plant food, namely, nitrogen, potash, phosphorus and lime. Nitrogen in the form of nitrates is an exceedingly elusive element and is constantly finding means of escape and in order to maintain the supply in an orchard, for example, cover crops should be grown, particularly those of the legume type, so that nitrogen can be brought from the atmosphere.

"Soils may be rich in plant food, but unless proper cultural methods are employed it may not be available, and slight mistakes in the handling of soil may be very disastrous to production. If soils are worked too wet, for example, or tramped when wet in the winter by stock the physical character of the soil may be changed and crop production greatly diminished. There are a number of important factors which should be observed in the treatment of soils: air, water, temperature, etc., should be considered.

"A soil is in the best condition when mellow and has perhaps about 15 to 20 per cent of moisture. This can be attained by proper methods of cultivation. A soil rich in organic matter will retain moisture much better than a soil poor in organic matter, hence it is important to see that the normal amount of organic matter is always present in the soil, particularly in an orchard soil, where it is very important to conserve the moisture for the latter part of the season when the fruit is ripening.

"Much of the land in western Oregon should be drained in order to put it in the best physical condition. Soils that are water-logged are usually sour, and sometimes this condition is responsible for what is known as denitrification, that is, changing available forms of nitrogen to unavailable, thus losing this valuable element of plant food. One reason why alfalfa does not grow better in western Oregon is due to the acidity of the soil destroying the nitrogen-gathering bacteria necessary for the best development of this plant.

"Despite the fact, however, that western Oregon soils are rich these plant foods should be conserved and

when a crop is removed some return should be made to the land so as to keep up production. Perhaps the one weakness in western farming, or, in fact, in American farming, is the want of proper attention to the conservation of plant food. It should be the ambition of every orchardist and every farmer to improve the quality of his soil rather than to deplete it. In fact, it is a duty we owe to posterity to leave our farms in a better condition than when they came into our possession."

MR. BRUND NOW FIRE CHIEF.

Appointed By Mayor Abrams to Succeed Thos. Parker.

Four of the six members of the city council being absent from the city last Monday night Mayor Abrams appointed Andrew Brund chief of the fire department to succeed Thos. Parker, resigned, and adjourned the session until next Monday evening. The appointment of Mr. Brund was in response to a petition, largely signed by members of the two companies, and reads as follows, being addressed to the mayor and council:

"In so far as Fire Chief Parker has resigned and the office of fire chief is vacant, we the undersigned firemen of Rescue Hose Company of the city of Cottage Grove, do hereby respectfully petition your honorable body to appoint Mr. Andrew Brund to the office of fire chief.

And we do further respectfully petition that citizens of Cottage Grove be vested with police power during a fire so that they can protect the regular firemen from outside interference. It is a harder task for the firemen to put up with outside interference than it is to fight a fire.

WOLVES KILL CATTLE.

Professional Hunter Sent Into Timber to Slaughter Them.

So numerous are the wolves in the Crater national forest that a hunter has been employed to get on their trails and kill them off, says the Mail-Tribune. Stockmen are complaining of losing many cows, calves and hogs, while many deer are being slaughtered by the animals. W. R. Hammersley, a hunter employed by the forestry officials, whose headquarters are at Lakeview, has arrived to undertake the hunt. He came at the request of M. L. Erickson, supervisor of the local forest.

Cattlemen have been complaining for some time of the activity of the wolves. M. L. Hanley states that he has lost no less than 20 head of stock this season due to the presence of the wolves. Russ Moore states that he has also lost a number of hogs, aside from eight or ten head of cattle. Never before, declare the cattlemen have wolves been as bold or as numerous. According to M. L. Erickson, over 100 head of cattle last year were killed by wolves and that this number will be exceeded this year. Rangers have succeeded in killing two of the animals, but traps and not guns are needed, as the wolf is a very hard animal to approach and shoot.

NEW MERCANTILE FIRM.

Umphrey & Mackin Succeeds Umphreys.

This week Umphrey's store changes its firm name to Umphrey & Mackin. Mr. Mackin the new member of the firm was formerly engaged in the mercantile business in Wisconsin and for some time past has been connected with S. E. F. Young & Son of Albany, Ore. Mr. and Mrs. Mackin come highly recommended to us. They are now awaiting the arrival of their household goods from the east and expect to be located here in a few days. Umphrey & Mackin will enlarge their store this month and new lines of men's furnishings and shoes will be added. The grocery and dry goods departments are also to be enlarged.

County Court is Liberal.

Upon the request of the Eugene, Springfield, Junction City and Florence commercial bodies the county court has appropriated \$500 for a Lane county exhibit at the Omaha Land Show and \$250 for insurance of a pamphlet descriptive of Lane county and its resources for advertisement of the county abroad. The pamphlet will be prepared by a committee of one from Eugene, Cottage Grove, Springfield, Junction City, Creswell and Florence, and submitted to the county court before being printed.

Sex is Disclosed.

Word has reached Cottage Grove that the "woman" with the long plaid cloak who a few weeks ago solicited subscriptions to The Leader has turned out to be a man, and has been arrested in Southern Oregon. The individual remained in this city about two weeks, and during that time was quite a conspicuous figure on the streets.

Horse Thief Sentenced.

E. L. Rowan, who was arrested in this city several weeks ago by Officer Pitcher charged with having stolen a horse and buggy at Medford, has been sentenced to serve from one to ten years in the state penitentiary for the offense. Rowan, when arraigned, pleaded guilty.



REV. W. A. ELKINS

Who will, on October 1, conclude his four-years' pastorate of the Cottage Grove Christian church to accept the pastorate of the Christian church of Lebanon. His successor has not been selected, as yet.

CLUB PLANS BANQUET.

Commercial Organization Will Entertain at Early Date.

The Commercial club convened in regular session Monday evening, with an attendance larger than for several months. The club membership has gradually decreased during the summer months, as is customary, and there being need of additional members in order to properly maintain the organization, it was decided to give a banquet at an early date and at that time make an attempt to bring into the fold a sufficient number of citizens to place the institution on a sound financial basis. There were a number of speakers, and all appeared to be enthusiastic for the future success of the club, and it is probable that within the ensuing two months there will be a large increase in its membership enrollment.

The banquet and entertainment is in the hands of the board of trustees and will be held at an early date, when invitations to some 150 citizens will be extended.

LANE GETS THREE SCHOOLS.

Number Operated Under Union District Plan Now Doubled.

Three new farmers' high schools, under the union district plan, will be opened in Lane county this fall, doubling the number of union high schools, in which Lane county is the pioneer. Union District No. 4, with the school at Elmira, is composed of ten districts, containing property valued at nearly \$1,000,000. Five new districts at Crow have combined, with a school building at the town of Crow. District No. 6 will have a building at Walthamville, on the McKenzie. Three districts have combined for this school. Claude C. Downing, of Ashland, University of Oregon '10, will teach at Union High school No. 1, at Pleasant Hill, the cradle of education in Lane county. Union District No. 2 is at Lorane and county high school No. 3 is maintained by School District No. 2, Central.

Policeman Narrowly Escapes.

Dr. C. W. Lowe, well-known in Cottage Grove, he having made monthly visits here for the past nineteen years, had a live burglar experience at his home in Portland. Some one residing near the doctor's residence telephoned police headquarters that a burglar had placed a ladder at the window of the doctor's house and entered it. Patrolman Evans was sent to look after it, and went to the house by the back way, seeing a man rummaging in a desk. It was the doctor himself who had been locked out and had climbed to the window. He heard Evans and got his revolver, putting his light out and drawing a bead on the policeman, when fortunately he called "Doctor," and was heard or there might have been a dead policeman. Evans also had his revolver drawn on the doctor. They shook hands and congratulated each other on their narrow escape.

Fights Freight Rate.

The Southern Pacific wants shippers at points between San Francisco and Portland to pay a higher freight rate than is collected for the haul to the terminal in order that it may make up alleged losses through the necessity of meeting water competition to the northern city. A delegation of railroad attorneys headed by C. W. Durbin, appeared before United States Interstate Commerce Commissioner Frank Lane in the district court at San Francisco and presented reasons for requesting authorization of a higher rate. The application is being fought by all towns along the line, particularly by Medford and Roseburg.

Notice to the Public.

Having left my bed and board without just cause or provocation, I hereby notify all persons not to give my wife, Laura H. Bosley credit on my account as I will not be responsible for any indebtedness incurred by her after this date. Dated August 18, 1911. 2t. D. C. BOSLEY.

ATTENTION!

Beginning September 1st for 10 days we will offer 500 pairs of Men's, Women's, Boys' Girls' and Children's Shoes at unheard of low prices.

- 20 pairs men's low shoes values to \$4. Sale price \$1 a pair
- 25 pairs women's and children's Oxfords values to \$3.50. Sale price \$1 a pair
- 100 pairs women's shoes, lace and button, values to \$5. Sale price \$2 a pair
- Women's and children's white canvas Oxfords, your choice for 25 cents a pair
- 10 pairs men's 16-in high top Cruiser shoes regular price \$5. Sale price \$3 a pair
- 25 pairs men's heavy work shoes values to \$3.50. Sale price \$1.50 a pair.
- 100 pairs children's school shoes regular price \$2 to \$2.50. Sale price \$1.50
- 25 pairs at 75 cents a pair and many others at prices that cannot fail to interest you. Come early and get the bargains.

This sale will last for 10 days and is for cash only. Come and see. Don't forget the time and place. September 1-To-day.

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Fall Samples

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Domestic and Foreign Woolens

Now ready for your inspection.

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Fit, Style and Workmanship Guaranteed.

Also Clothes Steam-cleaned and Pressed in a First-Class Manner.

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Courteous Treatment
Prompt and Reasonable
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TRAVELING MEN A SPECIALTY

WYNNE & WOODS

Bee Supplies

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SCHOOL SUITS

AT REDUCED PRICES

We have a special assortment of Boys' Clothing at prices within reach of everyone. There is no reason why your boy should not have a new school suit at these low prices:

- \$5.50 and \$6.00 values for - \$3.50
- \$5.00 values for - \$2.50
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