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CHARLES D. ROWE, EDITOR

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FRIDAY, OCTOBER 18, 1907.

Another Deep Well for Agency Plains.

Drilling on a new deep well for Agency Plains began last Monday morning at the ranch of N. H. Pinkerton, three miles from Madras, the drilling being done by Bennett & Penbrooke of The Dalles, says the Pioneer. They have no limit as to depth, but have a contract to get water, and as their drill has a capacity of 2000 feet in depth, there is no doubt that this contract means a new well for Agency Plains.

The contract stipulates that \$2 per foot shall be paid if water is secured. No water, no pay.

HARRIMAN GETTING BUSY.

(Continued from page 1.)

pleting the survey on the Oregon Eastern. There are about 50 men employed in the party with Engineer Breck in charge of the preliminary work, Engineer Wolfen in charge of the permanent survey, while Mr. Griffith has supervision of the entire work. The dispatch says these men will locate the final survey through Central Oregon. They will undoubtedly work north on the line which Engineer Graham and his crew ran through these parts a little less than two years ago.

It is said that the Mason Construction Company has been urged to complete the grade through the marshes south of Klamath Falls as rapidly as possible, and they are getting on additional machinery in order to do so. Other contractors are straining every nerve to get additional teams and men and get their portion of the grading finished.

OPPOSE NEW RULES.

(Continued from page 1.)

land board have suspended the rules until Oct. 29 and it is said that they will never be adopted. Another good work was done by these men. The board were prevailed upon to adopt a rule to govern their further deliberations whereby no proposed rule touching on irrigation matters will hereafter be adopted until copies of it have been submitted both to the settlers and the irrigation company officials for criticism.

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- Blackberries—Lawton, Merser-cun, and Rathburn.
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- Logan Berries.
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- Strawberries—Clark's Seedling, the famous Hood River. 31th For prices, etc. address, L. D. WINST, Bend, Oregon.
- There's NEWS in The Bulletin.

Problems That Confront The Irrigator.

Humus in the Soil.

In the agricultural literature of today we often see the word "humus" and it may be of interest to learn what is meant by this term. The farmer of this state should be interested in learning what this important soil constituent does when in the soil, and how it may be kept at its present concentration.

In most soils one may see parts of plants, which can be recognized as such, while other parts of the plant have decayed to such an extent that they have lost their plant structure, and have undergone a chemical change. This latter form of organic matter is called humus; or in other words, humus is decayed organic matter.

The humus of the virgin soil has been formed by the natural vegetation growing year after year and dying down, later becoming incorporated with the soil. Plant roots also play an important part in the formation of humus. They penetrate the soil from ten to eighteen inches and a great number of these die each year and slowly decay, and in this way form humus. When one realizes how the humus has been formed, it is easy to see that the humus content of the arid soils of America would be low as compared with that of the soils in humid regions. In the latter parts, vegetation has grown luxuriantly, while in the former it was sparse and scrubby.

Having learned in a general way what humus is, we shall now consider what effect it has upon the soil. Every farmer understands that a soil, in order to be in a good state of tilth, must be granular; that it, it must pulverize readily on being worked. At the Illinois experiment station it was found that soils comparatively rich in humus, crumbled on drying, after being wet and frozen, while soils poor in humus broke up into hard lumps like an adobe. Besides improving the tilth of soil, humus increases its water holding capacity. The humus makes the soil more like a sponge, filling in between the soil particles and keeping the moisture from percolating through the soil; and also holding the moisture from escaping by means of evaporation. This is very well illustrated by an experiment which was carried on in England. Two plots were taken; one was kept with a large per cent of humus; the other with a very small per cent. Otherwise the two plots were treated the same. Determinations of the water contents of the two soils were made after a heavy rain. In the soil containing a large per cent of humus there was 60.2 per cent of moisture, while in the other there was 29.9 per cent. Besides having more water, just after the rain, the soil rich in humus would hold the water for a greater length of time. The humus containing soil may be compared to a ladder, between each rung of which there is some obstacle which impairs the speed of the climber. The

water uses the soil particles much in the same way as a man uses a ladder; it passes from grain to grain just as the man would pass from rung to rung.

The humus containing soil is warmer than that having no humus. In some experiments it is as much as five degrees warmer. When it is remembered that the nitrification of the soil is carried on more rapidly at temperatures of from 90 to 100 degrees than at a lower temperature, it is seen that this is of no slight importance.

Since the humus of the soil is of such great importance, one should strive to keep at least as much in the soil as we find in the virgin soil. The way to do this is to return to the land all the manure produced on the land. The progressive farmer no more allows the manure to waste than he wastes his butter, eggs or any other farm products. This soil humus is of so much importance that we can say with W. E. Sherlock: "In short get humus branded on your mind. The man who understands the importance of humus and sets about to increase the supply of humus in the soil becomes but a little lower than the Creator in the creation of soils. To the western and southwestern farmer let me say if you would maintain the fertility of your already fertile soils, see to it that the supply of humus is maintained." This can well be said to all farmers, see that your soil is in as good a condition for your children as it was when you obtained it. Do not be always taking from it and giving nothing in return. For as sure as you do, the day will come when no more can be taken, and the soil will be nonproductive. I believe that the statement of Prof. Hopkins is true: "If he who makes two blades of grass grow where but one grew before is a public benefactor, then he who reduces the fertility of the soil so that but one ear of corn grows where two grew before is a public curse."—J. E. Greaves, in Desert Farmer.

A Real Cracking Good Farmer.

I once asked a farm hand how his employer succeeded in doing so well when he only worked 10 hours a day. "It's all in the management. I think he is the best manager I ever saw. The work goes on as steady as a clock on this place. There seems to be no rush at any time, but I know that I am doing better work and more of it on this farm than I ever did in my life. He has every implement fixed to do the best work it can do, and I tell you it is a great satisfaction to work with them. Then he is the best stock feeder I know. He feeds just enough to keep them even. They are not as fat as butter in winter and poor as crows in summer. When at work they have full feed, and when they stop the feed is cut down at once. He seems to have more sense about these things than anybody I ever met. The fact is, he is a real cracking good farmer."—Ex.

Of Practical Interest to Women.

Our regular writer on fashions discusses in the November number of the New Idea Woman's Magazine the subject of fall and winter suits, giving an account of the materials, colors and trimmings in this important department of dress which will be in vogue during the winter of 1907-1908. The Thanksgiving season is a difficult one for the housekeeper, but the articles on Thanksgiving pies and tarts, the turkey and the day after, which tells of the use of leftovers when the great feast has come and gone, will make her burdens less. Those who entertain will find "After-Dinner Fun for Thanksgiving Day," "A Progressive Marble Contest," "A Bride's Party," and some "Stunts," brimful of suggestions. "How to Manage Parlor Lectures" contains much practical advice toward a lucrative vocation, and the "New Education in Music" gives an interesting outline of work for a social club. Our regular departments, which every reader looks forward to from month to month, are unusually good for November.

Juniper Wood Shipped East.

A. H. Lippman is very busy getting out 10,000 pieces of juniper to be used for the manufacture of novelties such as combs, backs of brushes, etc., for a factory in Hoboken, New Jersey.—Journal.

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The CENTRAL OREGON LIVR STOCK AND AGRICULTURAL ASSOCIATION has postponed the dates of its fair to be held at Prineville, from Oct. 15-16-17-18-19, '07 to

Oct. 24-25-26-28-29, '07

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