

THE BEND BULLETIN

For every man a square deal, no less and no more.

SUBSCRIPTION RATES:

One year... Six months... Three months...

HOW TO REMIT.

Remit by bank draft, postal money order on Bend, express money order, or registered letter.

Stage and Mail Schedule.

ARRIVE AT BEND. From Shaniko via Prineville... From Lakeview and Silver Lake... From Tumalo Tues, Thurs and Sat...

FRIDAY, SEPTEMBER 21, 1906.

WHERE LIES THE "SHAME?"

The Prineville Review, in speaking of "the shame of Oregon" due to the land fraud exposures, says:

"THE PUBLIC WOULD NEVER HAVE KNOWN it was injured by any of the defendants except Pater had it not been for Hitchcock and the Oregonian."

"The public would never have known!" Does the Review mean to imply that the shame of a rascally deed consists only in being caught in the act?

This silly ranting by some of Oregon's papers against the government's land fraud prosecutions is disgusting and in itself is a cause for shame.

THE DEEP WELL DRILL.

The coming of deep well drilling machines into Central Oregon is a matter of no little significance. They will undoubtedly play an important part in the development of this vast inland empire.

Never before has this country been given a thorough test as to the possibility of getting water by deep drilling. The machines were lacking, hence the wells were not drilled.

For 23 long, weary years this man has hauled all the water used on his ranch. What a task and what an expense! And all that

time of labor and discomforts there was an exhaustless supply of pure, cold water only 350 feet beneath him.

What has been done at Madras can be done in other parts of the upper Deschutes valley. In the mountains to the south and west of Bend there are hundreds of lakes and flowing streams. There are but few of these that do not lose a large amount of their water through seepage into the open, porous lava rock.

Government geological surveyors, after investigations in Oregon, announced their belief that water could be found hereabouts at a reasonable depth, with a possibility of striking an artesian flow. This matter is to be tested by individuals connected with the D. I. & P. Co.

The result of further tests with these deep drilling machines will be watched with interest.

PATER now announces that he will write a book while in jail, telling minutely the story of the land frauds in which he has played an important part for the last 25 years.

Whereas, The intelligent conservation of soil moisture will promote an increased duty of water under projects already developed and its extension to additional lands adjacent thereto, and Whereas, The same principles will enable successful cultivation by dry farming of immense areas, the tillage of which is now precarious or impracticable.

Tried to Pass Worthless Check. Dick Garrett was arrested at Madras on Thursday of last week on a warrant out of Judge Brook's court, charging him with trying to pass a worthless check.

Never before has this country been given a thorough test as to the possibility of getting water by deep drilling. The machines were lacking, hence the wells were not drilled.

Full blood white Plymouth Rock cockerels; your choice, \$2.00 each. 26-29 E. F. BATES, Bend, Or.

Problems That Confront The Irrigator.

The Fertility of the Soil.

(Continued from last week.)

We now come to an explanation of that peculiar provision in the corking over of the root—that is, we know that plants do emit organic substances which are deleterious to themselves, and we know this, that as soon as the absorbing portion of the root ceases to be absorbed the plant covers itself with that impenetrable cork, apparently so as to prevent the absorption of its own effluvia.

I should say that the soil ought to take care of the excrement of plants. It is its business to do so. It is its proper function. Whether it does this through the agencies of bacteria, whether it is due to the abnormal absorptive power of the soil or to direct oxidation, we do not know.

It is our experience that black soils are generally more productive than the light colored soils, as you see in your well-drained black bottoms. Black prairie soils are generally very productive.

Ordinarily a soil to which organic matter has been added should, if its condition is favorable to plant growth, convert the most of that organic matter into humus. It is preserved. The humus formation is the natural method of the proper sanitation of the soil.

What the soil needs is something to remove or change these toxic substances. The substances are all more or less easily changed, easily broken down, easily destroyed, and it is our belief that fertilizer applications in many cases act in much the same way that manure and cowpeas do in changing these toxic substances, namely, in affecting them in some way so as to purify the soil.

We have here a small pot holding a pound of soil, of which I shall explain the use later, in which we grew plants for a short time, and if we grow six wheat plants in the soil for three weeks, and immediately grow six other wheat plants in the same soil we get about half the yield or half the size of the first plants.

These principles I have laid down give a plausible reason for the rotation of crops. If there are

plant food according to the old idea. It ought to be possible to supply sufficient food for the next crop, for our laboratories have sufficient phosphoric acid, nitrates, etc., so that we can furnish fertilizers for the pound of soil. It is possible to put in all the food the plant needs; but when we have introduced all the plant food that may be required by the second crop, and a great deal more, we do not increase in that soil, which I have in this pot, the growth of the second crop after another crop of the same kind has just been removed.

There is no doubt that fertilizers do act as plant food in many cases, that stable manure and green crops, through the salts they contain, may act as plant food, but we have proof that a large part of the favorable action of cowpeas and of manure is due to the organic matter itself and the changes it causes in the soil.

The organic matter of manure and green manure, being easily convertible into humus, seems to purify the soil, scour it out, clean it—seems to remove or change the toxic organic substances left by the preceding crop.

What the soil needs is something to remove or change these toxic substances. The substances are all more or less easily changed, easily broken down, easily destroyed, and it is our belief that fertilizer applications in many cases act in much the same way that manure and cowpeas do in changing these toxic substances, namely, in affecting them in some way so as to purify the soil.

In seeking an explanation of some of the principles of soil fertility, we found that the soil moisture of our different soils, whether they were fertile or whether they were poor, had essentially the same amount of phosphoric acid, potash, and nitrates.

These principles I have laid down give a plausible reason for the rotation of crops. If there are

toxic substances thrown off by plants which the soil is not in a condition to remove or change at once, we try to hasten it by cultivation, by aeration, by oxidation. In many of our systems of rotation, especially in Europe, the need of fallowing or resting the soil is recognized. When the soil is allowed to lie fallow almost invariably beneficial results are seen.

In other experiments of Lawes and Gilbert they have maintained for fifty years a yield of about 30 bushels of wheat continuously on the same soil where a complete fertilizer has been used.

Mr. Dewberry. What was the rotation? Professor Whitney. It was a four year rotation of wheat, roots, barley, clover or beans or fallow, with wheat every four years.

AN IMPORTANT CONTEST.

(Continued from page 1.)

Attorney Myers in the attempt to show that Dillon was appearing as a blind and that he was acting in the interests of the Northern Pacific. Part of his evidence to prove this was given by Mrs. H. C. Ellis, who testified that the affidavit introduced by Dillon setting forth his claims had been dictated by Attorney Scooby, she having typewritten the affidavit for Dillon.

Commissioner Ellis states that this was probably the longest contest, with more evidence introduced, of any ever heard in the county. The feature that makes this land especially desirable is the falls in the Deschutes river at that point, known as Dillon Falls.

Rev. H. P. Fleece, the "Cowboy Preacher," has been in Bend this week holding services in the church and canvassing for a family register and marriage certificate.

Rev. Fleece, in his sermons, gets far away from the established customs of present day preaching. To many his methods are unique and startling, but he undoubtedly does a large amount of good.

Buy on Credit! this \$60 Machine for \$25. It is a high-arm, drop head, ball bearing, lock-stitch, double feed, self-threading shuttle; has automatic bobbin winder and other latest improvements. This is the NEWEST MACHINE. It is the same machine agents are selling you for \$60. All attachments go with each machine. Sold for only \$1 each and \$1 monthly. Write today for free literature and showing you how to buy on easy payments—our new credit plan. Govarts Furniture Company 172-173 First St., PORTLAND, OR.

GREAT SOUTHERN IS COMING

Extension Will Be Completed to Bend Next Year.

Surveyors will shortly commence cross-sectioning the proposed extension of the Great Southern railroad from Dufur to Tygh, a distance of 30 miles. The line is in operation from The Dalles to Dufur, 30 miles, but the plan is to push it through to Bend.

The officials of the line expect to have the extension completed next year. They report that every warehouse on the road is filled to overflowing with grain, and much of it is being piled in the open, as the facilities are inadequate.

Old Firm Dissolved.

The old established firm of Wurzweller & Thomson has been dissolved. The interests of A. Thomson and Arthur Hedges have been bought by Wurzweller & Co., who will continue the business at the old stand. It was on August 27, 1897, when Wurzweller & Thomson bought out M. Sichel & Co., and three years later, on July 1, 1900, Arthur Hedges purchased an interest in the firm.

Timber Land, Act June 3, 1905.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon. July 17, 1906. Notice is hereby given that in compliance with the provisions of the Act of Congress of June 3, 1905, entitled "An act for the sale of timber lands in the States of California, Oregon, Nevada, and Washington Territory," as extended to all the public lands states by Act of August 4, 1894.

Phineas A. McCann of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 204 for the purchase of the NW 1/4 of sec. 12, T. 18 N., R. 12 E., W. 20.

And will offer proof to show that the land sought is more valuable for its timber or stone than for agricultural purposes, and to establish his claim to said land before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on November 12, 1906.

He names as witnesses: Ludwig H. McCann, Robert J. McCann, Ernest A. Griffin, William H. Stead, all of Bend, Oregon.

Any and all persons claiming adversely the above described lands are requested to file their claims in this office on or before the 15th day of November, 1906.

97-99 MICHAEL T. NOLAN, Register.

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Arthur J. Ely of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 206 for the purchase of the NW 1/4, NW 1/4, and NW 1/4 of sec. 12, T. 18 N., R. 12 E., W. 20.

And will offer proof to show that the land sought is more valuable for its timber or stone than for agricultural purposes, and to establish his claim to said land before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on November 12, 1906.

He names as witnesses: Richard King, Fred Hunsell, Lorenzo H. Ford, and James E. Reed, all of Bend, Oregon.

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He names as witnesses: Ernest A. Griffin, Carlisle C. Tripitt, Thomas W. Tripitt, (Using U. S. Office, all of Bend, Oregon).

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Samuel A. Haskley of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 204 for the purchase of the NW 1/4, NW 1/4, and NW 1/4 of sec. 12, T. 18 N., R. 12 E., W. 20.

And will offer proof to show that the land sought is more valuable for its timber or stone than for agricultural purposes, and to establish his claim to said land before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on November 12, 1906.

He names as witnesses: Robert Muncy, Charles Brock, William Brock, John Stead, all of Bend, Oregon.

Any and all persons claiming adversely the above described lands are requested to file their claims in this office on or before the 15th day of November, 1906.

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