

THE BEND BULLETIN

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

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From Klamath via Prineville 7 p. m. daily
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LEAVE BEND.
For Shaniko via Prineville 6 a. m. daily
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POST OFFICE HOURS.—Week days, 8 a. m. to 5 p. m.; Sundays, from 11 a. m. to 12 m., and half hour after arrival of all mails from railroad reaching Bend before 9 p. m.

TELEPHONE OFFICE HOURS.—Week days, from 8 a. m. to 10 p. m.; Sundays and holidays, from 8 a. m. to 12 noon, and from 5 p. m. to 10 p. m.

FRIDAY, OCTOBER 12, 1926.

NEW METHODS

When agriculture is discussed in the upper Deschutes valley, irrigation is the chief topic of conversation—how water should be applied, when and in what amounts to produce the best crops. This is natural and as it should be. Men are invariably most interested in those occupations with which their daily lives are filled, and it is not strange that people in this region should be interested in irrigation when so many thousand acres of fertile land are being made productive through the work of the big irrigation companies operating hereabouts. Irrigation will always play an important part in the lives of the inhabitants of the upper Deschutes valley and should receive much study.

However, there are many hundreds of acres in this vast part of Oregon lying east of the Cascade range that can never be irrigated, for want of water and because the land lies higher than any irrigation canal could be built—you can not make water run up hill with any degree of practical success. For such lands, fertile and vast in extent, much promise is found in the results that are being obtained through modern methods of dry farming. A method of soil culture is now being widely advertised and discussed, known as the Campbell method, whereby the hot, barren desert in other states has been converted into great grain fields, orchards, vineyards and happy homes. This method, given a proper trial, will produce similar results on the fast-disappearing "desert" lands of Eastern Oregon.

On another page of this issue will be found an account telling how a farmer near Madras employed the Campbell principles of cultivation and thereby more than doubled the yield per acre on a 40-acre tract. This same result can be produced elsewhere and there is no doubt but that the yield on the dry farms between Bend and Prineville could be greatly increased by a little extra work in line with Campbell's teachings.

J. J. Hill says that the hope of perpetuating the American government lies in a better and more scientific treatment of the soil—in better agriculture. If this is true it is important that methods whereby crop yields are doubled and tripled should be carefully studied and applied. A writer in the Century magazine says:

"As a class farmers are the most conservative men in the world. Most of those who left Eastern farms to build new homes in the Western land of promise argue that the methods their fathers and grandfathers employed must necessarily be the best methods, regardless of conditions that differ as widely as the antipodes. Full of bigotry and prejudice they set their faces like flint against what they term 'new fangled notions.' It has been observed that those who have been in the West for many years

can only rarely be persuaded to give dry farming a trial. They will not even read dry farming literature, or visit a model farm or an agricultural experiment station to inspect the results obtained by rational methods.

"Newcomers in the West, however, are nearly always willing to learn and profit by the experience of others and the younger element among the farmers hail dry farming as the dawn of a new era."

This prejudice against "new fangled notions" should be eradicated by all men, whether farmers, professional men or merchants. And we do not believe it will be found to any great extent among that class of farmers now settling Central Oregon. Reports are frequently heard these days stating that the Campbell method will be tried by many next year. This is a proper spirit.

To adequately explain and demonstrate these better methods of agriculture there should be established model farms. There is a great work for the state and national governments along this line—a work that is a duty. In no way can money be invested where the return will be of greater or more lasting benefit than in establishing model farms.

Few studies possess as much interest as the study of the soil, and but few will give greater return than that study. This interest should be augmented by substantial aid from the state and national governments.

Roosevelt says control the trusts. Rockefeller says that recent attacks against the corporations and the exposures of corruption are bad, very bad. It destroys opportunity for the enterprising young man and damages trade. How sad it is that the young man of today is being denied the splendid opportunity to enrich himself by corrupting men in high and low stations, in destroying competition, and in struggling out all competition by methods that smother all that is good out of a man. And what a pity it is to injure trade—the piling up of dollars and cents—and in its place establish a purer national life and higher ideals. Great is Diana of the Ephesians.

Every day lumber is hauled away from the mills at Bend to erect buildings throughout this country that has been called worthless by the knockers. But you hear less and less of this knocking as the days go by. Knocking can not stand before the splendid crops of this season.

That New Court House.

The fact that our county court is advertising for bids for a new court house building in spite of the vigorous protests of a large majority of the taxpayers of the county, but emphasizes the often stated fact that the court doesn't care what the rest of the taxpayers of the county want and don't want, so long as it is clear that Prineville wants this new court house. That attitude on the part of the county court for the past few years is what gave it the nick name of the "City Council of Prineville."

During the past spring the county court attempted to railroad through a contract for a new court house, but this plan was nipped in the bud by its discovery, and an injunction suit brought by interested taxpayers of the county to prevent the deal from going through. The injunction was, at a hearing before Judge Bradshaw, made permanent, perpetually enjoining the county court from entering into any contract for the construction of a court house or any portion of it, whereby an indebtedness of to exceed \$5,000 would be incurred. Those who are familiar with the present status of the county's finances know that no contract for a new court house or any part of it can be entered into this year without a violation of the injunction. Their only alternative is to keep up the present high rate of taxation, with a tax roll about double that of last year, in order to raise money to carry out their schemes for a new court house next year. It remains to be seen whether the taxpayers of the county will timely submit to this plan, or whether the county court will be permitted to avoid by indirection, the very evident intent of the restraining order of the circuit court.

Chickens for Sale.

I have for sale some pure bred Barred Plymouth Rock here; also some spring chickens, fine for table use. Can deliver at Bend if desired. Mag. C. B. ALLEN, Bend, Oregon.

Problems That Confront The Irrigator.

Some Conditions Which Affect The Duty of Water.

The ordinary irrigation channel receives much more water from the stream than it delivers to the irrigated fields. Porous soil and a high summer temperature cause losses in conveyance in the main canals, seldom less than 10 per cent and rising occasionally to over 50 per cent of the total volume diverted. The flow, after it is turned out of the main canal into laterals, is subjected to a still further reduction in volume from the same cause, so that in stating the quantity of water used on a tract of land it is important to locate definitely the place of measurement. When the irrigation stream is measured as it crosses the highest boundary of a field there is practically no loss in conveyance. When, however, the water is measured at the point of diversion from the natural channel, all losses due to seepage, evaporation, and leakage are included, and this shows a much larger quantity used.

Rainfall, midsummer temperatures and the length of the irrigation period all modify the quantity of water required. In Montana all three conditions are favorable from the standpoint of the economical use of the water supply. The average annual precipitation over the cultivated portions of the state is over 14 inches, and a large part of this occurs in April, May and June, when farmers need moisture most to start their crops. In the Gallatin Valley in particular the rainfall during these three spring months is fully equal to one irrigation, and forms about 30 per cent of the average amount of water received by fields under careful irrigation. The evaporation is likewise low during the time when the water is applied. The average weekly evaporation from a water surface at Bozeman, Mont., for the past four years has been 0.94 inch for the months of May, June, July and August—much less than it is in the more southerly and warmer portions of the arid region. For the same reason the period during which water can be used is comparatively short. In some parts of the state irrigation water is applied in April and May, but, taken as a whole, the ordinary crops receive the greater part of the season's supply from May 15 to August 15. The average length of the irrigation period in Montana does not exceed 100 days.

Water can seldom be economically used on a one-crop farm. This is particularly true of the cereals. If one's holding is all planted to wheat, for example, a large flow may be required for a short period, but when the needs for this one crop are supplied the owner may have no further use for the irrigation stream. In growing alfalfa, or any other leguminous crop, under irrigation it is possible to get a higher duty out of the water supply, for the reason that two or three crops may be grown on the same field in one season. A farmer who is entitled to the continuous use of one cubic foot per second for 80 acres may thus be able to supply water to three crops of alfalfa at the same cost as to one crop of wheat. In doing this he may use more than three times the amount of water, but, assuming that he pays season rates, the cost would not differ.

It is only on the diversified farm that a continuous stream can be utilized to the fullest extent. When a dozen different crops are grown on an 80-acre farm the proper time to irrigate is seldom the same for any two, and so it is possible to keep a small stream flowing continuously on first one and then another of the subdivisions.

On account of the large size of the average farm and the plentiful supply of water, the necessity for time rotation in the delivery of water has not been keenly felt in Montana up to the present. It is only when a scarcity exists that neighbors arrange to use in turn the supply which belongs to, say, three proprietors. In this way each of three farms can secure an effective irrigation head for one out of every three days. As water becomes scarce and of higher value and as the farms become reduced in size this method of diverting

water will gradually become more common.

The subsoils of western lands when first brought under irrigation contain little moisture. The most striking characteristics of these formations are their great depths and the close similarity which exists between the surface and sub-surface layers. Apart from their darker color, due to decayed vegetable matter, there is little to distinguish top soils from bottom soils, and the roots of plants extend to great depth through the latter. On account of these prevailing physical features a large part of the water which is applied for the first few seasons is absorbed. Cases are common in which new land has absorbed in one season a quantity of water which would have covered the surface to a depth of six feet. To claim that this large volume correctly represents the duty for such land is a misrepresentation, because the open space in the sub-soil is gradually filled with water and the ground-water level in time rises nearer the surface. It is a fact, however, that new land requires much more water per acre than old cultivated fields, and crops are likely to suffer if it is not supplied.

Other conditions being similar, less water will be used on a farm which has a good system of ditches and laterals and a well cultivated, even surface. The beginner is not always posted as to the best way to lay out and build farm ditches, and he may not possess sufficient means to properly prepare his field for irrigation. These defects invariably prove quite costly in the end, when measured in waste of water and small yields. In an arid country thorough cultivation serves a double purpose in that it increases the yield and prevents the escape of water into the atmosphere. Grading or leveling the surface is even more important, since it is difficult to apply water to an uneven surface, the growth of crop is not uniform, and the soil in the low places is likely to be damaged by an excess of water.

The time to mature plants differs. Under favorable conditions a crop of alfalfa can be grown in less than 50 days, a crop of barley in something over 100 days, while it may require 150 days to ripen certain varieties of fruit. There is not only a difference in the period of growth, but also in the number of crops grown in one season.

The way in which water is applied is perhaps as important as the quantity used. Some soils bake after being flooded and furrow irrigation must be used for all crops. Other soils are so porous that furrow irrigation is not practicable. In irrigation by flooding, as generally practiced in Montana, care is usually taken to distribute the water during the day, but it is left unattended during the night. Fully 20 per cent of the available supply may be wasted while the irrigator sleeps or is off duty.

It frequently happens that fields which have received large quantities of water produce low yields. This result may be due to one or more of a large number of causes. Chief in importance is the proper cultivation of the soil. It may be regarded as one of the fundamental truths in agriculture that irrigation can not take the place of cultivation. The western irrigator has been slow to recognize this fact, and is still inclined to depend too much on irrigation and too little on cultivation. As a rule, in Montana the largest and most profitable yields are obtained from the use of a moderate amount of water. The people of Gallatin Valley, who produce the largest yield of grain in the state, use the least amount of water in irrigation.

Throughout the most productive regions of the state sufficient water is diverted to cover the land watered to depths varying from 3 to 5 feet, but since a large percentage is lost in transit the volume which reaches the fields would not cover them to depths greater than 20 to 40 inches in a season. There are other portions where water is so cheap and plentiful that the owners are careless in its use. They open the head gates and permit a large stream to flow for days at a time without much, if any, attention. Men who use large quantities of water, covering their fields to

depths of from four to five feet every season, are usually the most careless in preparing the land or in cultivating the surface, and the result is without exception a small yield.

That yield does not depend on the amount of water applied is clearly shown by the fact that a field which received over six feet of water in two irrigations produced only 37 bushels per acre, while a field which received in one watering less than seven inches produced 75.5 bushels. The largest yield was 80 1/2 bushels per acre from a field which received 1.04 feet of irrigation water and 0.64 foot of rain water.

The largest yield on eight fields of barley was not obtained from the use of the most water, which was 1.98 feet of irrigation water and 0.42 foot of rain, or 2.40 in all. A field of 87.25 bushels was harvested from the field which received less than 18 inches in both rain and ditch water.

In nine clover fields the largest yield was from the heaviest watering, but, on the other hand, the next largest use of water produced a small crop.

In comparing records of irrigated fields, the conditions under which the crops were grown should be considered. It is extremely important to remember that the crops were grown in different parts of the state, and in many cases under a wide diversity of soil and climate. In view of this fact, the records as given should not be used to base conclusions as to the proper amount of water to use in the raising of these staple crops. They do show, however, that when other conditions are favorable it is possible to obtain a larger crop with a small amount of water.—Government Bulletin No. 172.

Blood Poisoning Sets in Blister.

Miss Ethel Chapman was carrying her left arm in a sling Tuesday, due to a case of blood poisoning in her hand. Sunday and Monday she went horseback riding and in holding the horse, which had just been brought in from the pasture and was rather anxious to go, she blistered a finger on the left hand. Monday evening the hand began to pain her. She consulted Dr. Coe and learned that blood poisoning was just setting in the wound. It is supposed that the dye in the gloves Miss Chapman wore poisoned the wound made by the broken blister.

Gun Play is Out of Date.

We understand that a misunderstanding arose between Dr. Gibson and Raiph Day at Alturas a short time ago over political matters and only for the interference of bystanders a shooting scrape would have resulted, as both were said to have had their guns out.—Lakeview Examiner.

Bids Wanted.

Bids are desired for the erection of the following buildings, contractor to furnish material: One house, bunk house, cook house and barn. Plans and specifications may be seen at R. D. Wickham's office at Bend.

The right to reject any and all bids is reserved. 281f

Reward for Return of Horses.

I will give \$10 reward for the return of either the following mare and her colt or for both to Dr. W. S. Nichol at Bend, Or. The mare weighs about 1000 pounds, has "Circle T" brand on left shoulder, double heart on right shoulder, color dark bay; colt has brand "M" on right shoulder, color brown. J. H. MILLER.

A. H. Grant is confined to the house this week with a touch of la grippe.

Timber Land, Act June 3, 1926.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 27, 1926.

Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1926, 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 land states by act of August 4, 1926.

John F. Lakin

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 291, for the purchase of the sec. 26, T. 12 S., R. 12 E., W. 2.

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 15, 1926.

He names as witnesses: John Sheld, Robert Mancy, Theodore West, Robert Wilson, Rhesor F. Lakin, 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 said 15th day of November, 1926. 87-89 MICHAEL T. NOLAN, Register.

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Florence A. McCann

of Bend, county of Crook, state of Oregon, has this day filed in this office her sworn statement No. 292, for the purchase of the sec. 12, T. 12 S., R. 12 E., W. 2.

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 her claim to said land before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on November 15, 1926.

She names as witnesses: L. D. Hopp, H. McCann, Robert J. McCann, Frank A. Griffin, William H. Morrill, all of Bend, Oregon.

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Affirm O. Ely

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 293, for the purchase of the sec. 21, T. 12 S., R. 12 E., W. 2, and sec. 22, T. 12 S., R. 12 E., W. 2, 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 15, 1926.

He names as witnesses: Richard King, Fred Hannel, Lawrence Reed, and James E. Reed, all of Bend, Oregon.

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Mary E. Caldwell

of Bend, county of Crook, state of Oregon, has this day filed in this office her sworn statement No. 294, for the purchase of the sec. 24, T. 12 S., R. 12 E., W. 2.

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 her claim to said land before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on November 15, 1926.

She names as witnesses: Charles Brock, Joseph S. Harvey, Michael J. Morrison and Samuel C. Caldwell, all of Bend, Oregon.

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Romeyn D. Wickham

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 295, for the purchase of the sec. 25, T. 12 S., R. 12 E., W. 2.

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 15, 1926.

He names as witnesses: Ernest A. Griffin, Carlyle C. Triplett, Thomas W. Triplett, F. C. Case, all of Bend, Oregon.

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Samuel A. Hinkley

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 296, for the purchase of the sec. 26, T. 12 S., R. 12 E., W. 2.

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 15, 1926.

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

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Bert W. Lakin

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 297, for the purchase of the sec. 27, T. 12 S., R. 12 E., W. 2.

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 15, 1926.

He names as witnesses: John Sheld, Robert Mancy, Theodore West, Robert Wilson, Rhesor F. Lakin, 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 said 15th day of November, 1926. 87-89 MICHAEL T. NOLAN, Register.

Boy Wanted.

Bright, industrious boy to learn the printers' trade. Apply at Bulletin office.