

THE BEND BULLETIN

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

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FRIDAY, AUGUST 10, 1906

Evidently Mr. J. O. Johnston intends to capture a share of that export apple trade that the Hood River people have been boasting about this season. His decision to plant 500 acres to nothing but export apples—apples of exceptional keeping qualities—means much for the future reputation of the upper Deschutes valley as a fruit country.

The good record made by the Bend country last year as a farming country is being duplicated this season with even better results. The skeptical are being converted when they stand before waving grain and green alfalfa fields. George L. Simmons has a field of oats that promises about 65 bushels to the acre, and there are many other fields hereabouts that will yield a handsome return.

The two boys who were "out for a good time" and who in having it killed a harmless old tinker at Latham last Sunday, are now tasting the bitterness of their folly. The cries of the dying old man haunt them night and day, and the awful fear of the murderer clutches them with all its terror.

Joe Howard's Change of Base. Joe Howard, the well-known cattle man of Central Oregon, was a guest at the Grand hotel in San Francisco at the time of the earthquake. The bed in which he was sleeping was thrown across the room and he awoke in time to dodge a dresser coming from the other direction.

more. He writes that there is more money in that business just now than in Oregon cattle and he is going extensively into it. Mrs. Howard is at Corvallis looking after one son who is still at the state agricultural college, from which institution all the other children have been graduated.

Watch Us Grow in Impudence.

There is a little town over on the desert called Bend. It has a library association and a library. The impudence of some of these upstarts in putting on airs to get ahead of older towns like those on Coos Bay is enough to make us ashamed of ourselves.—Coos Bay Harbor.

And Still They Come.

TACOMA, Wash., Aug. 6.—Articles of incorporation were filed today by J. C. Donnelly and Arvid Rydstrom for the Southern Extension Railway Company to build a railroad from a point on the left bank of the Columbia river, near the mouth of the Deschutes river, through the valley of that river to a point near Madras, thence to Bend, Or., with a branch to Prineville, Or. The capitalization is \$1,750,000. Considerable speculation exists as to the parties behind the move. Donnelly is a well-known hotel man here, and Rydstrom is a prominent contractor.—Portland Telegram.

Oregon Weather.

PORTLAND, Aug. 7.—The drought continues in all parts of the state, the only precipitations reported being light showers in some of the coast countries and in the Power river valley in the Blue mountains. In the Willamette valley and coast counties the forenoons were generally cool and cloudy and the afternoons warm and clear. In the remaining portions of the state, both the mornings and afternoons were generally clear. There has been an increase in the number of forest fires and the atmosphere, in consequence, is becoming somewhat smoky, although, except in the immediate neighborhood of the fires, the smoke is not dense. The mean temperature averaged about normal, and the week was considerably cooler than the preceding one. In southern Oregon the mornings were usually cool, and the afternoon temperature averaged nearly three degrees above normal. In the counties east of the Cascade mountains both the night and the day temperature averaged slightly over a degree above normal. The prevailing winds were northwesterly.

HAS THE RIGHT IDEA.

Experienced Fruit Grower Commends L. D. Wiest's Recent Article.

L. D. Wiest is in receipt of a letter from the publisher of "Better Fruit," a magazine devoted to fruit culture, in which they emphasize the importance of planting nothing but the best fruit stock—stock that produces fruit that demands the highest prices. Mr. Wiest laid stress on this same point in his recent article in The Bulletin. The letter reads:

Hood River, Oregon, Aug. 5, 1906.—Dear Sir: We have read with great interest your article on "Problems That Confront the Irrigator" in The Bulletin of July 27, and wish to assure you that you have the fruit business in the West sized up just about right, and especially in regard to selecting varieties for commercial orchards.

We have sent you today a sample copy of our new magazine "Better Fruit," hoping that you may find time to look through its columns very carefully and hope that you will appreciate the value of the contents to the fruit growers. Hood River has made great progress in the selecting of varieties, packing and marketing of their fruits and through our magazine "Better Fruit" we wish to give our experience and help fruit growers in other localities to do likewise, as we feel that the more better fruit is grown and the less poor fruit is on the market the better the prices will be for everybody. Yours truly,

BETTER FRUIT PUBLISHING CO.

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Problems That Confront The Irrigator.

Pointers for Alfalfa Growers.

Alfalfa is grown in Nevada with from one to 22 irrigations in a season. It is stated that in the Humboldt river valley the crop is irrigated from one to eight times; that the lands receiving one, two and three irrigations have given practically the same yields of hay, or yields greater than those obtained from other lands irrigated six, seven and eight times; and that the highest yields were from lands irrigated four or five times.

In the Truckee valley the common practice is to give alfalfa 10 or 12 irrigations, though some men irrigate less and others as many as 22 times. The character of the soil will in many cases account for differences in the number of irrigations required by a crop. Much of the valley soil is so gravelly and porous that it does not hold water well and therefore requires more frequent irrigation than a closer, more compact soil.

The character of the land upon the station farm (experiment station) is such as to indicate that it would require the maximum amount of water to grow a crop, and here good results were had from seven irrigations. In fact, an originally poor stand of alfalfa has been much improved by using less water than was used by the former owner of the land.

TOO MUCH WATER.

Mr. Stannard's report suggests what the station experience indicates, that an excessive use of water is not only unnecessary, but is detrimental to the crop. Alfalfa is a plant that thrives best in warm soil and atmosphere. The water of mountain streams is always cold. The too early and too frequent applications of water keep the soil cold and thus retard the growth of the plant. These conditions that check the growth of alfalfa stimulate the growth of the less desirable shallow-rooted grasses, which are then said to "run out" the alfalfa.

TWO METHODS OF IRRIGATING.

Two methods are used in the cultivation of alfalfa—the so-called flooding method, where the land is flooded by means of parallel ditches extending across the field 40 or 60 feet apart, and the more extensively used furrow method.

The furrow method finds favor because it makes possible the irrigation of land that could not be flooded on account of its rough and uneven character. Many fields that have been producing hay or pasture for years have never been plowed because they are so stony. Many more might profitably be leveled and irrigated by a less wasteful method. By this method the water is carried over the land from the distributing ditches, or laterals, by means of shallow furrows from two to four inches deep and from 20 to 40 inches apart. These furrows are generally made at right angles to the head ditch, but often a more desirable fall is secured by running them at a different angle. The aim is usually to lay out the furrows so as to secure the least fall. In irrigating, the water must run through the furrows until the spaces between them are thoroughly soaked, and this is where the apparent waste of water comes in. The fact that the land between the furrows is not flooded and subsequently baked by the sun is a theoretical advantage of furrow irrigation over flooding, but the difference in crop yield does not always uphold the theory. One great inconvenience is the necessity of having to drive over the furrows in cutting and hauling the crop.

HOMEMADE MACHINERY.

The furrows are made by machines built for the purpose. These machines are not on the market, but are usually constructed by local blacksmiths, directed by the ranchers themselves. Old mowing machines furnish the main parts, such as wheels, tongue, levers, seat, etc. In alfalfa fields the furrows are permanent but need to be opened up, or "furrowed out," every spring before irrigation begins, this being done with the same machine used in making them. After re-furrowing the ground is rolled. It is much more difficult to get the water over the ground the first time in the spring than at later irrigations,

because it is necessary to see that every furrow is clear, that the water may run unobstructed from the head ditch on the one side of field to the waste ditch on the other. It is clear, then, that the amount of water one man can handle has its limit. After the first irrigation this will depend on the size and shape of the field, the contour of the land, and the degree of economy practiced. Water should not be allowed to run to waste after the ground has been thoroughly soaked, nor should it be allowed to stand long on the field. On the station farm in the irrigation of a 33-acre field of alfalfa a stream of about 2.5 cubic feet per second was generally used. The field was irrigated three times for each of the two hay crops and once for the pasture crop that followed. The first irrigation was May 15. The cost of irrigation for the season was about \$2 per acre.

GRAIN.

There seems to be the same excessive use of water in the growing of grain as with alfalfa. It is easy to overirrigate grain when it is young. The results upon the station farm the past season were fairly satisfactory from three and four irrigations. Wheat yielded 46 and 48 bushels per acre and oats from 65 to 75 bushels per acre—yields above the average results of common practice. The first irrigation was May 27, before which many fields in the valley had been watered two or three times.

The furrow method is used almost exclusively in the irrigation of grain. Here it is more essential that the space between the furrows should not be flooded than in the case of alfalfa, because the young grain does not always make sufficient growth to shade the ground before the first irrigation. Last spring the grain upon the station farm practically covered the ground when first watered. After the grain is sufficiently grown to be in danger of lodging, it should not be irrigated when the wind blows.

To facilitate handling the water it is best to run a smaller ditch or furrow parallel with the head ditch, into which water is turned at convenient intervals from the head ditch, these intervals to be determined by the number of furrows that can be filled by the head of water in use. Making and breaking dams in the head ditch and making and closing breaks in its bank are not in keeping with the best irrigation practice. In permanently laid-out fields the ditches should be provided with boxes or with "back flows" for the control of the water. When water is first turned onto the land the flow from the first box should be so regulated by raising or lowering the gate that the flow will fill the desired furrows and so on down the ditch until the water is all in use.

PROPER PREPARATION OF LAND.

The clearing of sagebrush from land and the work of preparing it for crop is done largely in the fall and early winter in the Bend region. At the time of clearing, a proper system of ditches and laterals should be planned. Consequently any suggestions along this line are now timely for the man who expects to irrigate next season.

After land has been cleared of brush the most important requirement is a thorough grading of the land to be watered. The freer from humps and depressions the surface of the ground the more uniformly will water flow over it. The injurious effects of attempting to spread water over uneven surfaces are soon apparent. Water settles in the low ground, waterlogging the soil and drowning out the plant life, while an insufficient supply reaches the higher elevations, leaving the crops to burn up. When once the surface is properly graded one man can apply the water to every part of a field with greater rapidity and effectiveness than two or three men can irrigate a like area where the slopes are rough and uneven. Grading should usually be done after the laterals have been made, as it will be found that less grading will be required than in reducing a whole farm to a uniform slope. Too much stress can not be put upon the importance of grading the surface of the field between the laterals at the outset. The improvement is a permanent one, and the

time and labor spent will be repaid many fold.

HOW TO LEVEL A FIELD.

The ordinary means employed for leveling the surfaces of fields is deep plowing, followed by harrowing, after which the use of a grader or drag will reduce the humps and leave the excess soil in the depressions. On some of the larger farms common road scrapers are used. On other farms ordinary railroad rails and drags of homemade design are used.

In building laterals the first thing to be considered is the lay of the land over which the water must be made to flow. Judging the true slope of the ground by the naked eye is very uncertain; for even the most experienced are often deceived as to whether the surface of the land rises or falls in a given direction. Where possible, every system of laterals should be laid out with an engineer's level and a contour map made of the whole area. In lieu of the services of a surveyor the irrigator may lay out his own laterals, using one of the many types of homemade leveling devices. The average grade for field laterals should vary from one-half inch to one inch per rod, depending upon the nature of the soil.

No special devices are manufactured and put upon the market for building laterals, and farmers have been obliged to depend upon their own ingenuity. The following device was constructed to simplify the work of excavating ditches. Two steel-beam plows, one with a right and the other with a left share, were placed side by side and their beams riveted together. The shares of the plow were spread to give the furrows a width of two feet on the bottom. The rear ends of the shares were rounded instead of being drawn to the usual point. Above the moldboards of the plows and riveted to them were placed the right and left moldboards of old alfalfa plows. The handles bolted to the lower moldboards were spread wider than in the ordinary plow and were braced to the beams. The beams running side by side were bent apart toward the end, affording an opening wide enough to insert a 4x4 inch timber two feet long, which is bolted in place and on which the devices are fastened.

LAYING OUT LATERALS.

In laying out a system of laterals to serve a farm of, for instance, 160 acres, it is important for the future saving of money and labor to run the main lateral along the highest portion of the farm, in order to command the greatest irrigable area. This sounds so reasonable it seems scarcely necessary to mention it, yet, unfortunately many an inexperienced irrigator upon taking up a new tract of land may see in the area of his farm certain broad fields of gently sloping ground so pleasing to the eye that his very first impulse is to run a lateral from the nearest point in the main canal to the choicest piece of ground, altogether overlooking or not duly considering the worth of less favorable ground, thereby leaving excellent pieces of ground high and dry above his main lateral. When the time comes in which he finds it will be profitable to expand the cultivated portion of his farm and to put every square foot under irrigation, then, instead of supplying the fields he wishes to water from his main ditch (perhaps passing nearby), he discovers the necessity of going to his original source of supply and building another ditch, often paralleling his main laterals, but on higher ground. If the original laterals had been properly located, instead of being obliged to build a new main ditch large enough to carry a sufficient supply for his whole farm, he could have simply extended sublaterals from the main laterals already commanding his farm and proceed to reclaim whatever part he wished of the unbroken area.

In Wyoming and northern Colorado many an irrigator can be found who realizes the advantage of having his laterals laid out with a surveyor's level, in order that when the time comes to construct his ditches they may command the greatest area at the least cost and be permanent. The most emphatic advice given by old irrigators is, "See that your laterals are laid out to the best advantage at the outset and that your fields are thoroughly graded." The old adage that "Work once well done is twice done" can be applied with no stronger significance than in preparing fields for irrigation.—Government Bulletin No. 145.

OUR LANGUAGE.

The Words a Man Uses and the Words He Might Employ.

How many words are possible? Starting from the four and twenty alphabetic sounds, Leibnitz calculated the combinations at 620,448,701,723,230,739,360,000. But many of these combinations would be unpronounceable even in Welsh. In Chinese every syllable is a separate word.

Does man's stock of words grow richer or poorer with time? M. Moncaim foresees an ever higher intellectual density for the race in the future. "Our fathers," he says, "did not know the thousandth part of our vocabulary, which is very copious." Certainly the New Dictionary is a much larger work than Johnson's, and we doubt not that primitive man talked less than an M. P. does, though even he had his pulvers and congresses. But if any one were to take down the talk of an average modern undergraduate or society girl we doubt if it would be found to contain more than 250 vocabularies, where an educated Elizabethan or Caroline would have employed several thousand. Nothing is more striking in the old prose writers than the rich variety and imaginative picturesqueness of their language. Not only are we lacking in concrete imagination and ashamed to go afield out of the beaten track of speech, but phrases which were when first devised forcible and strong have through long currency lost their edge. Three-fourths of the expressions we use have ceased to be effective metaphors and become conventional and lifeless.—London Saturday Review.

ALCOHOL IN BREAD.

Enough to Give One About Four Pints of Whisky a Year.

"You consume four pints of whisky a year," said the amateur chemist. "Now, don't be angry or shocked. I know that you're a strict teetotaler, but just the same I know that you've absorbed that much alcohol. How? Well, simply by eating bread." "It has long been known that the fermentation of bread caused the formation of alcohol, but it was supposed that it passed from the dough during the process of baking. Several scientists have proved that bread, when ready for eating, contains an average of 300 per cent of alcohol to the loaf. You must remember that in many countries strong liquors are brewed from bread. Kvass, the mild Russian beer, is brewed from brown bread. "Now, if you eat 400 loaves of bread every year you must perforce have assimilated twenty ounces of alcohol, which equals four pints of rye whisky. "In ten years," concluded the amateur chemist impressively, "you have eaten 4,000 loaves of bread, and in that number of loaves is about 200 ounces of alcohol, or the equivalent to nineteen quarts of whisky. Think of the stupor you have been on for the last ten years, and you never know enough to complain of a big head in the morning."—New York Press.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, January 2, 1906. Notice is hereby given that in compliance with the provisions of the Act of Congress of June 30, 1878, entitled "An Act to set the sale of timber lands in the States of California, Oregon, Nevada, and Washington Territory," as extended by all the public land laws by act of August 4, 1904, Charles H. Erickson, of Bend, county of Crook, State of Oregon, has this day filed in this office his sworn statement No. 477, for the purchase of the sec. 24, T. 12 S., R. 10 E., W. 9 S.

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 for said land before the County Clerk at Prineville, Oregon, on the 4th day of October, 1906.

He names as witnesses Mattie Hutchins, of Bend, Oregon, and Robert L. McCreary, of Prineville, Oregon.

NOTICE FOR PUBLICATION.

Department of the Interior, U. S. Land Office, The Dalles, Oregon, July 26, 1906.

Notice is hereby given that Charles A. Spanghour, of Bend, Oregon, has filed, pursuant to his application to make final commutation proof in support of his claim, No. H. E. No. 1436 made April 26, 1905, for the sec. 4, sec. 15, T. 12 S., R. 10 E., W. 9 S.

And that said proof will be made before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on September 11th, 1906.

He names the following witnesses to prove his continuous residence upon and cultivation of said land, viz:

William P. Browning and Robert A. Ford, of Tualuma, Oregon; John Ross, of Sisters, Oregon; and Carlyle C. Trippitt, of Bend, Oregon.

MICHAEL T. NOLAN, Register.

= REWARD! = The undersigned will pay \$10.00 for the detection and conviction of any person who in any way willfully injures or destroys its lines in Crook County. THE DESCHUTES TELEPHONE CO.