THE BEND BULLETIN

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

SUBSCRIPTION RATES:

One year	$1.50
Six months	.80
Three months	.50

(Invariably in advance.)

HOW TO REMIT.

Remit by bank draft, postal money order on Bend, express money order, or registered letter. Make all remittances payable to The Bend Bulletin.

Stage and Mail Schedule.

ARRIVE AT BEND.

From Shaniko via Prineville.....7 p. m. daily
From Lakeview and Silver Lake.....
.....1 a. m. daily except Tues
From Tumalo Mon., Wed., Fri.....4:15 p. m.
From Laidlaw daily except Sunday.....9:30 a. m.

LEAVE BEND.

For Shaniko via Prineville.....6 a. m. daily
For Lakeview and Silver Lake.....
.....7:30 p. m. daily except Sun.
For Tumalo Mon., Wed., and Fri.....10 a. m.
For Laidlaw daily except Sunday.....10 a. m.

POST OFFICE HOURS—Week days, 8 a. m. to 8 p. m. Sundays, from 11 a. m. to 12 m., and half hour after arrival of all mails from railroad reaching Bend before 8 p. m.

TELEPHONE OFFICE HOURS—Week days, from 7:30 a. m. to 9:00 p. m. Sundays and holidays, from 8:00 a. m. to 12 noon, and from 5:00 p. m. to 9:00 p. m.

FRIDAY, OCTOBER 5, 1906.

BETTER AGRICULTURE.

James J. Hill, the great empire builder of the Northwest, in a most remarkable address at the recent Minnesota state fair, pointed out a danger that confronts this republic, a danger that should attract the serious attention of every American. It is the problem of how we shall feed, clothe and supply with labor the vast population that is yearly coming to this country. It has been the experience of former peoples that when thousands of men were hungry and could not obtain work, revolution and anarchy inevitably followed. That is the danger for America.

Basing his deductions on reliable sources of information, Mr. Hill said that by 1950 we will have 200,000,000 people in these United States. It will demand great natural wealth and many industries to supply that vast throng with labor and food. But, with the foolish extravagance that has characterized America in the handling of her natural resources, several of the nation's sources of wealth will soon be exhausted. The four great sources of national wealth are the sea, the forests, mineral products, and the soil. The products from the sea furnish so small a per cent that they may be dropped from the calculations. It is well known that the forests of America will soon be exhausted, and the mineral wealth is also rapidly disappearing. Whence then is to come the wealth and resources that will feed and satisfy 200,000,000 people? It is a question of vital importance—vital at all times but especially so now as it must be solved by the time the child now born is a man grown.

Mr. Hill draws a dark picture. He points in no lame language to our extravagance and utter foolishness in wasting and exhausting our natural resources. But while he portrays possible dire results, he also has a remedy. He maintains that the hope of the country is in its soil. He says:

"Every people is thus reduced in the final appraisal of its estate to reliance upon the soil. This is the sole asset that does not perish, because it contains within itself, if not abused, the possibility of infinite renewal. All the life that exists upon this planet, all the developments of man from his lowest to his highest qualities, rest as firmly and as unreservedly upon the capacities of the soil as does his feet upon the ground beneath him. The soil alone is capable of self-renewal, through the wasting of the rocks, through the agencies of plant life, through its chemical reactions with the liquids and gases within and without it. A self-perpetuating race must rely upon some self-perpetuating means of support. Our one resource, therefor, looking at humanity as something more than the creature of a day, is the productivity of the soil. * * *

"No nation that does not throw its intensest interest and expend the bulk of its force upon the cultivation of the soil can become or remain permanently great."

Present wasteful and insufficient methods of agriculture must be replaced by careful and scientific tilling of the soil. In Great Britain the average wheat yield per acre is 30 bushels; in America 14 bushels. Belguim produces enough home-grown food to supply the wants of 490 people to the square mile. By scientific methods the average crop in France has been increased from 22 to 55 bushels per acre. "These figures," says Mr. Hill, "convict the American farmer of carelessness and want of knowledge, and the economic and political leaders of the people of unfaithfulness to their trust." To meet the requirements of a dense population by supplying it with food and wealth from the soil, scientific methods of farming must be taught and present wasteful methods overcome. This task of educating the people is largely the work of the national and state governments, and Mr. Hill suggests:

"With public interests firmly fixed upon the future, the country in mere self-preservation must give serious attention to the practical occupation of restoring agriculture to its due position in the nation. The government should establish a small model farm on its own land in every rural congressional district, later perhaps in every county in the agricultural states. Let the Department of Agriculture show exactly what can be done on a small tract of land by proper cultivation, moderate fertilizing and due rotation of crops. The sight of the fields and their contrast with those of its neighbors, the knowledge of yields secured and profits possible, would be worth more than all the pamphlets poured out from the government printing office in years. The government ought not to hesitate before the comparatively small expense and labor involved in such a practical encouragement of what is the most important industry of our present and the stay and promise of our future. Disseminate knowledge of farming as it should and must be, instead of maintaining the pitiful bribe of a few free seeds."

Thus with clear and concise logic Mr. Hill sees a great danger and points out an adequate remedy. His call for the establishment of model farms is full to overflowing with common sense. Oregon needs these model farms. Vast areas are being put under cultivation by irrigation and dry farming and the farmer needs and wants instruction. There should be an ample appropriation made by the state for one or more of these places of practical instruction. It is known from reliable sources that the government will make an appropriation for this work equal to the amount donated by any state. It would put its experts on these farms and would experiment and show to the farmers the very best methods of agriculture. In what way can a state get more lasting returns from its money, than by educating its farming population so that the returns from the soil can be doubled and tripled? Central Oregon needs a model farm. The future welfare of our country demands better agricultural methods. Will the state meet its duty in this respect, or will it be found wanting?

One of the handsomest special editions that has ever come to our desk, is the one just issued by the Hood River News-Letter, commemorating that paper's first anniversary. It is full of excellently printed halftones on good book paper, which with the reading matter contained in the edition furnishes a valuable ad. for that enterprising and growing fruit district at and surrounding Hood River.

Horses Indicate the Man.

The kind of horse a man drives and the way he drives them furnishes a pretty good index of the man himself. A nice span of well-kept, well-hooked-up horses attached to a wagon or buggy in good repair indicates, as a rule, a hustling, progressive farmer. A rawboned team, a roped harness, and a rattle trap rig indicate a slovenly farm and a listless farmer.—Pacific Homestead.

Problems That Confront The Irrigator.

NOTE—A number of articles appearing in this department will treat of methods and conditions regarding irrigation in different sections of the West. While it must be remembered that climate, soil, rainfall, length of irrigating period, etc. may differ in some respects from conditions in the upper Deschutes valley, yet the wide-awake irrigator will glean from such articles general information that can be used with profit wherever irrigation is practiced.

Irrigating Alfalfa in Yellowstone Valley, Montana.

Alfalfa being a perennial plant, the annual cost of plowing, cultivating and seeding is saved. There is, however, more urgent need for thorough preparation at the time the crop is put in, since an uneven surface or badly located ditches may materially diminish the yields of every crop for a long period of years. The loss, from any one of these causes, of 100 pounds of alfalfa to the acre at each of three cuttings would amount to $9 per acre in 12 years, but such causes frequently reduce the yield to the extent of half a ton per acre, when the loss in the time named would amount to $108 per acre or about double the present value of alfalfa land.

In preparing a field for alfalfa it is better to plow it in the fall. It is then evenly graded and cultivated in the following spring as early as the ground is sufficiently dry to work and the seed drilled in to a depth of about three inches. The quantity of seed sown in the Yellowstone valley averages about 22 pounds per acre. Many prefer to plow the laterals before seeding and to run the seeder as close as possible to the edge of the ditch. This prevents, for a time at least, the growth of alfalfa in the ditches.

Young plants are tender at first and require moist soil for a seed bed until the roots strike into subsoil that is continually moist. They are also liable to be choked by weeds. This can best be prevented by running a mower over the field with the knife set high. By this process the weeds are cut and make mulch, which prevents the soil from baking. The tops of the spindling alfalfa stems are likewise cut, which causes it to stool out and thicken.

In alfalfa fields the laterals should be located with an engineer's level or by some good substitute. The grade may vary from 0.2 to 0.3 foot per 100 feet, and the laterals may be spaced 75 to 125 feet apart. For a permanent crop of this character it also pays to construct wooden checks and division boxes in the supply ditches. When it is found necessary to divide an irrigation stream into two or three smaller heads a division box is convenient. The cost of a box of this kind is often refunded the first season in the lessening of the labor bill. By the use of a box of this kind a stream may be divided into three parts, in proportions to suit the convenience of the user, or it may be diverted from one course or lateral into another running in a different direction.

Old alfalfa fields in Yellowstone county are irrigated one to four times during the period of growth. Three crops are obtained from the same field in one season, and as a rule each crop is irrigated. One man handles 80 to 125 miner's inches. The laterals are somewhat larger than those found in grain fields and the water is checked by canvas dams. Occasionally one sees a farmer who uses manure for checks, but the large majority use canvas. Water is distributed as in grain fields. The proper time for each irrigation and the proper amount of water to apply are questions that have not been definitely settled. Too little water diminishes the yield and too much injures the soil by bringing up the alkali. Between these two extremes there is usually some middle course which will produce the best results. For the past three years the average amount of water used by the farmers under the big ditch, in Yellowstone county, has been 41 inches in depth over an area aggregating 18,000 acres. This includes all losses of all kinds, but making a liberal allowance for waste there would remain about 30 inches, or 10 inches in depth for each of three irrigations. As to the proper time to irrigate, the first application should be made before the crop begins to suffer. It is too late when the plant shows the effect of drought. As regards the proper time to irrigate the second crop opinions differ, but it is a common practice in Utah to irrigate just after taking off the first crop. The majority claim that on the large farms of the Yellowstone valley it is not practicable to remove a crop in the forenoon and spread water over the surface the same day. These contend that so much time elapses between the cutting of the alfalfa and the irrigation of the stubble that the latter is badly injured and takes a long time to recover after being watered. Those who hold this view prefer to apply the water before the alfalfa crop is cut, allowing sufficient time for the drying out of the soil before cutting.

COST OF IRRIGATING A 40-ACRE ALFALFA FIELD.

Interest on cost of preparing land, at 50 cents per acre	$ 20
Repairing and cleaning out laterals, at 25 cents per acre	10
Cost of water used at $1 per acre	40
Cost of irrigating three times, at $1.25 per acre	50
Total	$ 120
Gross receipts from three cuttings, six tons at $5* per ton	1,200
Gross receipts, less cost of irrigation, on 40 acres	$1,080

*Alfalfa hay, in the Bend country, on a yearly average, will bring about $10 per ton.

Irrigating Barley in Gallatin Valley

The land for a crop of barley in the Gallatin valley, Montana, is usually plowed in the fall just after harvest and is permitted to lie without further cultivation until the following spring. About the first of May the surface is usually dry and it can then be leveled, harrowed, and seeded. In that section the average rainfall for the two months of April and May is nearly 4.5 inches, enough for the needs of the plant until it is five to seven inches above the ground. The barley crop reaches this stage the latter part of June and is then ready for irrigation. Assuming that the head ditch is already constructed and properly cleaned out, the first thing to be done is to mark out the laterals and furrow them out with a ditch plow. The marking out is often omitted, but when done the grade allowed in fields that have been carefully leveled is about 0.5 inch to the rod or, when a 100-foot chain is used, 0.2 foot to 100 feet. The laterals are spaced 60 to 80 feet apart, although the narrower space is to be preferred. Each one connects with the head ditch and is terminated about 50 feet from the lower border of the field. A dammer drawn by one horse follows the ditch and forms the earth checks, which are spaced about 60 feet apart. Canvas dams provide the most convenient check for the head ditch. By their use a stream of 75 to 125 miner's inches is divided between two neighboring laterals and the small areas lying between the supply ditch and the first checks are irrigated. The checks of earth are then broken with a long-handled shovel and the water flows in each lateral until it encounters the next check, where it is held until the next space is irrigated. In this way each of the strips lying immediately below each lateral is watered. A thorough irrigation consists in saturating the soil to a depth of one foot. In some seasons one irrigation will suffice. In dry years two waterjugs usually produce the largest yields. Sometimes the second irrigation is light, only part of the full supply required to saturate the soil being used. A volume of water equal to a depth of six inches spread evenly over the surface is usually sufficient, when there is no waste, for one thorough irrigation. When the land is uneven or not properly leveled or when it is broken up by ravines, there is usually considerable waste and it may require nine to 12 inches in depth over the surface for one irrigation. Seldom more than half the quantity of water is used for a second irrigation. In the Gallatin valley the first irrigation should be applied early in order to have the soil ready for the second application before the heads become too large and heavy. A heavy irrigation applied three weeks before the grain is cut may prove more injurious than beneficial, as the weak stems in the soft soil are not capable of supporting the heads in an upright position. Several days after the last irrigation the laterals are filled in and leveled in order not to obstruct the reaper. This may be done by the use of a small walking plow and two furrows or by means of a special implement containing two disks, which throw the earth to the center and fill the ditch.

COST OF IRRIGATING A 40-ACRE FIELD OF BARLEY.

Leveling, ditching, and checking, at 75c per acre	$ 30 00
Value of water used at $1 per acre	40 00
Applying sufficient water to mature crops, at 85c	34 00
Leveling laterals, at 7c per acre	2 80
Total	$ 106 80
Gross returns from barley, 35 bushels, at 50c	1,160 00
Net returns	$1,053 20

BIG CELEBRATION.

Howard to Dedicate Gold Mines on Monday, Oct. 8.

The extensive reduction works at the Gatewood gold mines have been completed and will be dedicated with a big celebration on the afternoon of Monday, Oct. 8.

The exercises will commence about 2:30 p. m., and will consist of visits to the tunnels, mills and other reduction works; the dedication of the mill with appropriate exercises; a basket picnic and fireworks. A test run of the mill has already been made and the success of the enterprise assured. Gold bullion and concentrates have both been shipped. Those who would like to learn the interesting method of gold ore extraction and reduction should not fail to attend the dedication for thereafter the management will not permit visitors in the mines and mills except on permits and these will be very sparingly given.

No liquors will be allowed at the dedication and all are invited to bring their families.

Redmond Notes.

John Tuck and family returned Friday night from the valley via Shaniko. He is just in time to begin school Monday.

George Woods has sold his grocery stock to Ehert Bros. and has struck west on a hunting trip. Walter stays with the stock and is working for Ehert.

There is some talk of organizing a class in German. Those interested should see V. J. O'Connor at the D. I. & P. Co.'s office.

Milliner Coming.

Miss Jessie McCallister, a milliner of Prineville, will be in Bend on Oct. 16, remaining about two weeks, with a line of milliner goods such as caps, street hats and a few trimmed hats. 27tf

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. 28tf

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.

28-31 J. H. MILLER.

Advertised Letters.

The following is a list of letters remaining uncalled-for in the Bend postoffice October 1, 1906:

Beith, Theil G.	Gladys, C. M.
Chanahon, Minnie	Johnson, July
Dealy, C. H.	Newton, Charles H.

Persons calling for these letters will please say they are advertised.

A. H. GRANT, Postmaster.

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 7, 1906.

Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1878, 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, 1892.

Christina Weider

of Bend, county of Crook, state of Oregon, has this day filed in this office her sworn statement No. 2970, for the purchase of the w½ nw¼, nw¼sw¼ and se¼nw¼ of sec 28, tp 19 s, r 12 e, w m.

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 13, 1906.

She names as witnesses: John Bloss of Sisters, Oregon; Nicholas P. Weider; John O. Fry and Charles Breck, 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 13th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Timber Land, Act June 3, 1878.

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, 1878, 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, 1892.

Florence A. McCann

of Bend, county of Crook, state of Oregon, has this day filed in this office her sworn statement No. 2996, for the purchase of the nw¼ of sec 11, tp 19 s, r 12 e, w m.

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 13, 1906.

She names as witnesses: Lothrop H. McCann, Robert J. McCann, Ernest A. Griffin, William H. Morrill, 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 13th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 19, 1906.

Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1878, 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, 1892.

Arthur G. Ely

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 2995, for the purchase of the s½nw¼, sw¼ne¼ and nw¼se¼ of sec 11, tp 19 s, r 12 e, w m.

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 the 12th day of November, 1906.

He names as witnesses: Richard King, Fred Hunnell, Laverne Reed, and James E. Reed, 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 said 12th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 31, 1906.

Notice is hereby given that in compliance with the provisions of the Act of Congress of June 3, 1878, 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, 1892.

Mary E. Caldwell

of Bend, county of Crook, state of Oregon, has this day filed in this office her sworn statement No. 3001, for the purchase of the se¼nw¼ and s½ ne¼ of sec 14, tp 19 s, r 12 e, w m.

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 13, 1906.

She names as witnesses: Charles Brock, Joseph N. Hunter, Michael J. Morrison and Samuel C. Caldwell, 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 13th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 31, 1906.

Notice is hereby given that in compliance with the provision of the act of Congress of June 3, 1878, 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, 1892.

Romeyn D. Wickham

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 3004, for the purchase of the s½ se¼ and e½sw¼ of sec 26, tp 18 s, r 11 e, w m.

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 the 14th day of November, 1906.

He names as witnesses: Ernest A. Griffin, Carlyle C. Triplett, Thomas W. Triplett, Irling C. Coe, 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 14th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 30, 1906.

Notice is hereby given that in compliance with the provisions of the Act of Congress of June 3, 1878, 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, 1892.

Samuel A. Blakley

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 3014, for the purchase of the n½sw¼ and n½se¼ of sec 26, tp 19 s, r 11 e, w m.

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 14, 1906.

He names as witnesses: Robert Muncy, Charles Brock, William Brock, Judd Hand, 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 said 14th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 27, 1906.

Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1878, 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, 1892.

Bert W. Lakin

of Bend, county of Crook, state of Oregon, has this day filed in this office his sworn statement No. 3011, for the purchase of the se¼ of sec 32, tp 19 s, r 13 e, w m.

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 13, 1906.

He names as witnesses: John Reidl, Robert Muncy, Theodore Tweet, Robert Wilson, Eleanor 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 13th day of November, 1906.

87-89 MICHAEL T. NOLAN, Register.

Boy Wanted.

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