

OREGON WATERS UNIFORMLY GOOD FOR IRRIGATION

A report on the quality of the surface waters of Oregon, just issued by the United States geological survey, contains much information that will be valuable not only to municipalities and to manufacturers already in Oregon, but to those who may contemplate locating industrial establishments within the state, and also to irrigation engineers, water-softeners, filter manufacturers and others to whom the chemical composition of water supplies is a matter of importance. This document embodies the results of the first comprehensive study of the surface waters of Oregon, and, with its companion documents on Washington (water supply paper 339) and California (water supply paper 237) forms a fund of invaluable information regarding the composition of surface waters along the Pacific coast.

Cooperation With State

In July, 1911, the director of the federal survey contracted with the state engineer for a co-operative study to determine the chemical composition of the waters of Oregon, and this study was carried on during the rest of that year and in 1912. Daily samples of water were collected for a year from more than twenty stations on the principal rivers, and these were analyzed by Walton Van Winkle, the author of the report, in a laboratory which was placed at his disposal through the courtesy of Willamette university. Besides these regular serial examinations analyses were made of samples of water from several other rivers, nearly all the important lakes and certain mineral springs of the state.

Waters Desirable for Use

The results of these tests show that the surface waters of Oregon are in general soft and free from harmful mineral constituents, comparing favorably in these respects with the best surface waters of New England, northern New York and northern Wisconsin, enormous quantities of which are used in all kinds of manufacturing. Many of the Oregon waters are even less highly colored than much water which is used in the east without trouble in paper mills, bleacheries and dye works. The river waters of western Oregon are soft, do not require treatment for use in boilers and would not cause corrosion under most conditions of use. Those of eastern Oregon are not uniform in character; the waters of Chewaucan, Deschutes, Grande Ronde and Willamette rivers are soft, but those of Crooked, John Day, Owyhee, Powder, Silvies, Snake and Umatilla rivers are hard and need softening for best results in boiler practice.

The slight mineralization and the small amount of incrustants found in waters flowing through the arid portions of the state are surprising. In these respects they differ greatly from the desert waters of California.

Excellent for Irrigation

All the river waters of the state that were examined are excellent for irrigation and could be used almost indefinitely without causing an injurious accumulation of alkali due to their dissolved matter. All the lake waters of the southeastern part of the state are characterized by the presence of black alkali or sodium carbonate and some are not suitable for irrigation, though others may be used if proper precautions are taken to prevent undue accumulation of alkali.

Several lake beds in southeastern Oregon have been looked upon as possible sources of salt, potassium, soda and other commercial salts. The report contains reliable analyses of most of these salines and discusses their commercial possibilities.

Columbia Low in Minerals

Columbia river, which forms part of the northern boundary of Oregon, is one of the great rivers of the world, draining an area of nearly 240,000 square miles. Its water at Cascade Locks, the lowest practical sampling point above tide water, carries an average of only 97 parts per million of dissolved matter and 40 parts of suspended matter. It is lower in dissolved mineral content than any other great artery of the United States, being superior in this respect to the Mississippi, the Rio Grande, the Colorado and the St. Lawrence, and carrying less suspended matter or silt than any other river except the St. Lawrence, which drains the immense sedimentation reservoirs of the Great Lakes.

The basaltic character of the rocks in the Columbia river basin and the heavy rainfall on its high mountain tributaries are the chief reasons why its water carries so little mineral matter. Yet in spite of this relatively small proportion the discharge of the stream is so great that it carries annually into the Pacific ocean

about thirty million tons of mineral matter.

Copies of this report, which has been published as water supply paper 363, can be obtained free until the edition is exhausted by application to the director United States Geological Survey, Washington, D. C.

BELGIANS GO ON STRIKE: WON'T WORK WITH GERMANS

LONDON, Oct. 22, 3:50 a. m.—A fortnight ago hundreds of Belgian postal clerks struck declining to work longer with the Germans, says the Daily Mail's correspondent who has just returned from Brussels.

"On the same day all the post boxes were placarded with a German poster telling the people to call for their letters. Hundreds of Germans have been imported to take the place of the strikers.

"All the grounds at the palace of Laeken, one of King Albert's summer residences, are occupied by troops, but the palace itself was occupied only for three days by the officers. During their occupancy, however, much damage was done, to the pictures in the palace. The officers had dinners brought in from the hotel and paid for them with bills that were signed with a rubber stamp belonging to King Albert which was taken from the king's desk.

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To Republicans of Jackson County

In a nation normally republican, and overwhelmingly republican so far as our state, county and city are concerned, we have a democratic president, a democratic senate and house of representatives and a democratic governor. Our county judge and our prosecuting attorney are democrats and in our city the mayor, recorder, treasurer, attorney, police judge and most of the police force are also democrats.

Under such political control our taxes are the highest they have ever been. We have a corporation tax, an inheritance tax, an income tax, a so-called "war tax" which is really an EXTRAORDINARY TAX, not to mention the usual state, county and city taxes, and not forgetting special assessments and extravagant county and state expenditures. Our property is assessed high and our rate of taxation has been advanced. IT HAD TO BE to meet the enormous expenditures of an extravagant democratic administration.

Yet in the face of these humiliating facts the democrats have the effrontery to ask republicans to vote for George Chamberlain, (the political trimmer whose carelessness and neglect of duty lost to Oregon about FIVE MILLION DOLLARS) rather than for R. A. Booth, a pioneer in the development of Oregon industries who has caused more than TEN MILLION DOLLARS to be brought into Oregon and spent in the development of her natural resources. Is there a man in Jackson county, no matter what be his financial standing or political faith, who would not welcome men of Booth's type to develop the resources of Southern Oregon as he has developed the resources of Lane and Douglas counties? No! Men like Booth build up the community in which they operate.

The democrats seek to turn republican votes to Chamberlain with the absurd argument that his experience in Washington entitles him to six years more—six years more in which

HUNDRED PERCENT GAIN IN OUTPUT OF OREGON GOLD

The value of the gold produced in Oregon reached \$1,627,710 in 1913. This is an increase of more than 100 per cent over the value for 1912, according to a statement just issued from figures compiled by the United States Geological Survey in co-operation with the state of Oregon. Oregon's output of gold products for 1913, exclusive of pottery, is valued at \$771,795, compared with \$734,226 in 1912. The production of sand and gravel increased from 1,067,634 tons in 1912 to 1,144,132 tons in 1913 but decreased somewhat in value. The value of the stone produced, however, increased from \$268,002 to \$357,498. There was a slight increase in the production of coal, from \$41,627 tons, valued at \$116,124, in 1913. Other mineral products of the state are copper, gems, gypsum, lead, lime, mineral waters, platinum, and silver. The total value of the mineral products of the state increased from \$2,533,549 in 1912 to \$3,562,919 in 1913.

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AUSTRIA AND HUNGARY SHORT ON MEAT SUPPLIES

VENICE, via Paris, Oct. 22, 1:50 a. m.—Austria and Hungary are confronted with a serious shortage in their meat supplies, according to information received here. Although prices in Vienna and Budapest have risen considerably during the past fortnight the livestock offered in both these markets has been far below the quantity required for the normal consumption of the population. The situation is further aggravated by the necessity of providing meat for the troops in the field.

The fact that higher prices have

failed to attract larger supplies of livestock to the markets, is taken to indicate that the total stock of cattle within the dual monarchy is inadequate to meet the present extraordinary demand for meat. Since there is no immediate likelihood of being able to increase imports of cattle the situation is regarded as serious.

German Warships Off Falsterbo

LONDON, Oct. 22, 2:45 a. m.—A German fleet is reported off Falsterbo, Sweden, on the Baltic sea by the Copenhagen correspondent of the Daily Telegraph.

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HOPE ANEW FOR THE ALLIED FORCES

LONDON, Oct. 22, 2:43 a. m.—In a dispatch dated "Behind the allies' left wing," the Daily Mail's correspondent says he hears the Germans are on the point of evacuating Bruges. He declared the situation is daily improving for the allies.

"The Germans' 'channel army'—the correspondent adds, "stands indefinitely between the coast and Lille and it cannot be long before the enemy is crumpled and its forces hurled back into Germany."

A dispatch to the Daily Chronicle from the Belgian frontier says:

"The theatrical excursion of the German army to the North Sea has reached an inglorious conclusion. The attempted coast raid to Calais has completely failed.

"Ostend has been evacuated by the Germans. Their retreat is being closely followed up by the allies."

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Are you going to win one of the seven Beautiful Pianos or any of the fourteen valuable premiums that are to be given away by THE ALCO?



This is a chance of a lifetime to win one of these beautiful premiums absolutely free.

This contest will run four months, beginning October 21, ending February 21.

Besides the pianos, there will be four monthly prizes and ten weekly prizes. The weeklies starting on third week of contest.

If you are not already a candidate, clip the coupon here-with, which entitles you to 2000 votes, and bring to our store. Only one nominating coupon for each candidate.

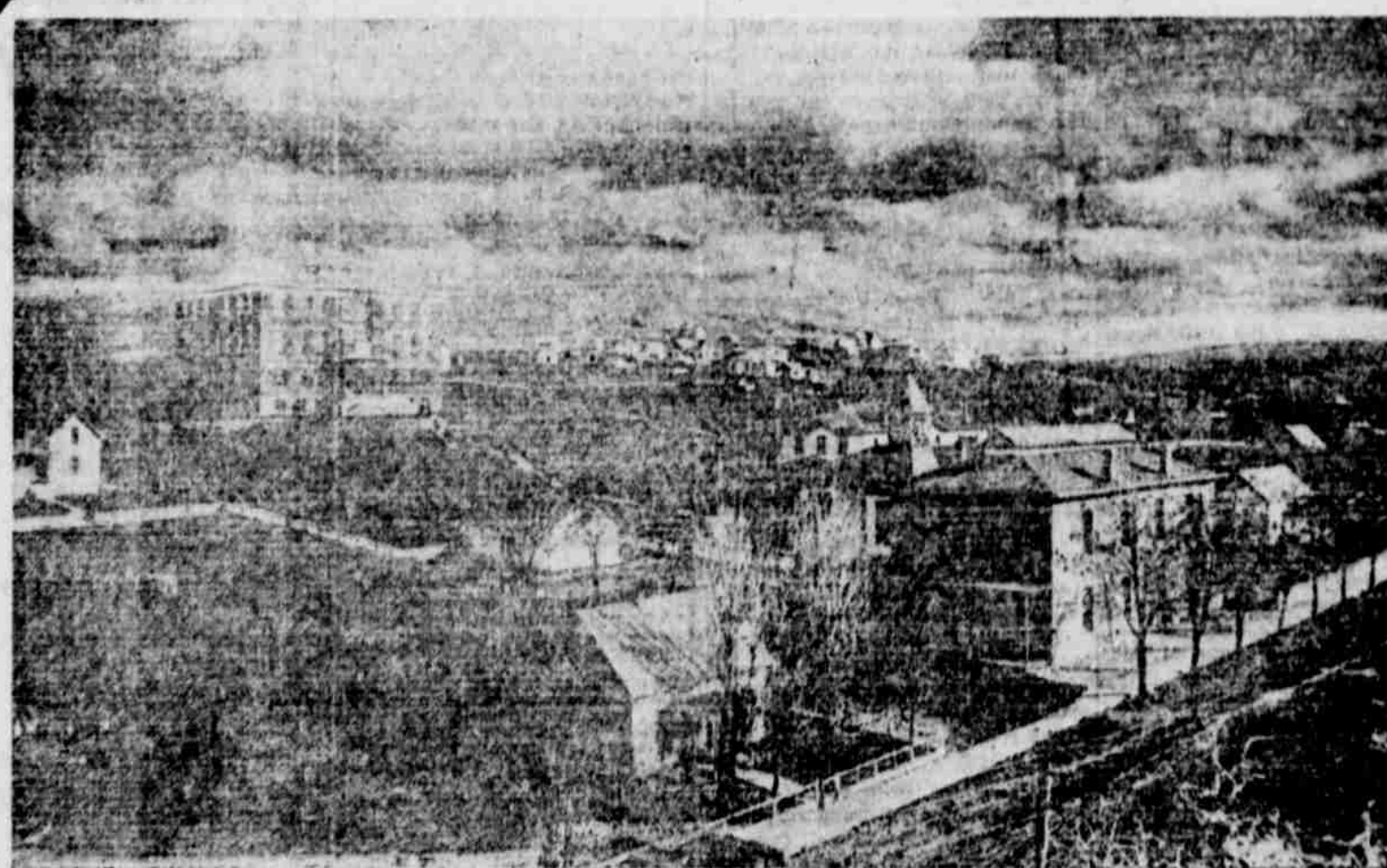
NOMINATING COUPON

This coupon presented at our store entitles you to nomination as a candidate and 2000 votes.

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There will be a vote given for every penny purchase and to the person receiving the highest number of votes will be awarded a handsome piano. For further particulars call at the store.

THE ALCO Corner Main and Central



BUILDINGS AND GROUNDS, EASTERN OREGON STATE NORMAL SCHOOL

BE JUST TO EASTERN OREGON

Although embracing about two-thirds of the state's area, Eastern Oregon now has no state school of any character. Restore to it the Eastern Oregon State Normal School by voting

316 X YES

Cast your ballots for the cause of education, for the betterment of the public school system, for the better training of Oregon's young men and women who wish to become teachers. It will add but a feather's weight to the burden of your taxes.

ONE FORTIETH OF A MILL

or two and one-half cents annually on every thousand dollars assessed valuation, as provided in the millage tax bill referred to the people by the Legislative Assembly, will restore to the state's use the Eastern Oregon Normal's plant at Weston, consisting of one main building, two dormitories, a president's cottage, and 10 acres of ground.

Eastern Oregon needs this school. Oregon needs it, and also needs the Southern Oregon Normal at Ashland. Three normal schools are none too many for this great commonwealth.

Reflect that if you pay taxes on \$2500, the permanent and adequate maintenance of the Eastern Oregon Normal will cost you but five cents each year.

(Paid advertisement, authorized by E. D. Watts, William MacKenzie, S. A. Barnes, E. O. DeMoss, Clark Wood.)

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