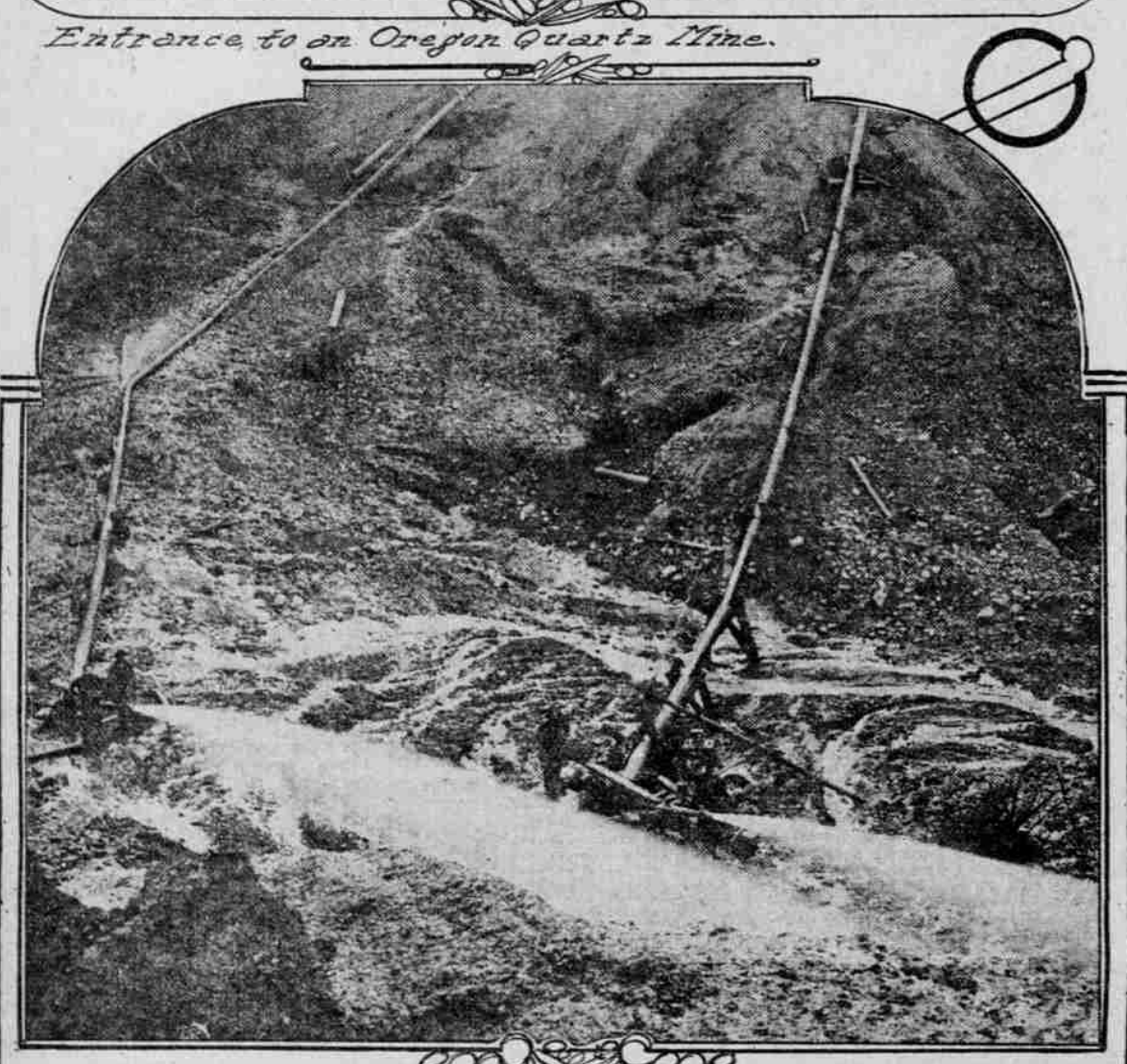
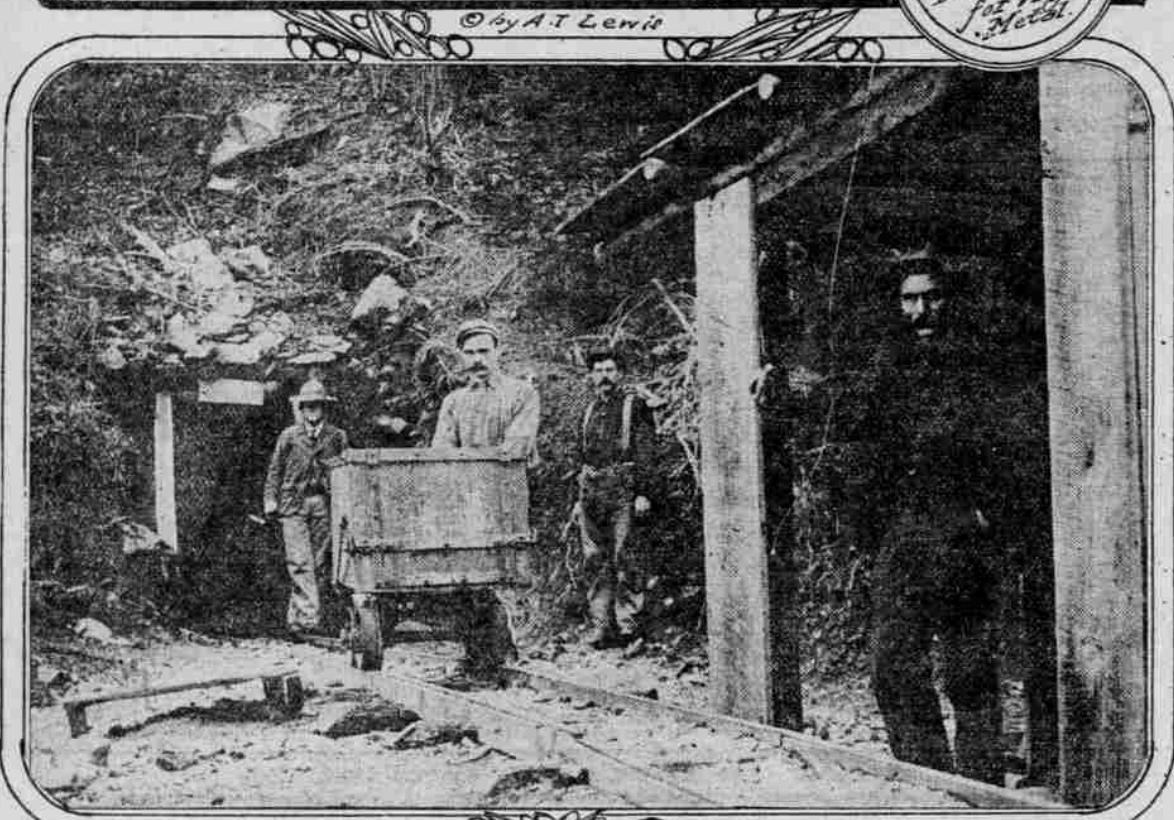
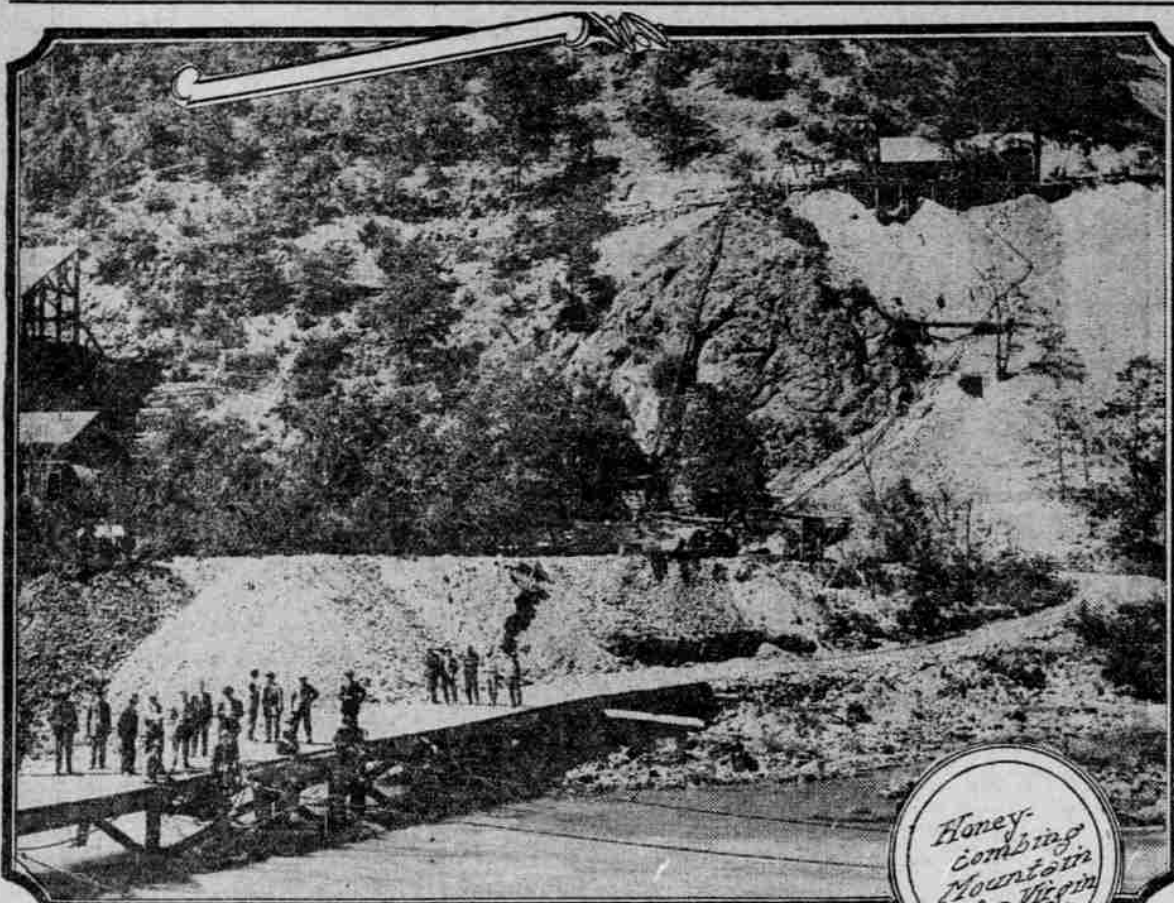


OREGON HAS GREAT MINERAL WEALTH AND 1913 PRODUCTION WILL SHOW LARGE GAIN

In 1911, Latest Figures Available, Total Output Was \$3,229,682—New Properties Are Being Developed and Precious Metals Mined Will Be Doubled This Year.



tains a little iridium, iridomine and gold, besides some remaining black sand. The platinum content of the crude sands varies considerably, the average in this country being about 70 per cent.

The entire output of crude platinum in the United States is recovered from placer mines in Oregon and California, which also produce gold. In Oregon the quantity recovered in 1911 was 117 ounces, having a reported value of \$3465. The production in 1910 was 23 troy ounces valued at \$1121. The ocean beaches in Coos and Curry Counties yielded 50 ounces. The remainder came mainly from placer mines in Josephine County near Kerby.

The production of sand and gravel in 1911 was 1,438,504 cubic yards having a value of \$684,417 as compared with 1,145,965 yards the previous year with a value of \$625,405. Of this amount 894,535 yards were sand valued at \$153,397. With the exception of 4025 yards coming from Klamath County all of the sand produced in Oregon came from points along the Willamette River by far the greatest amount coming from near Portland. Multnomah County alone produced 871,587 yards of sand valued at \$134,226. The total amount of gravel produced in the state was 541,969 yards valued at \$501,110. Multnomah County produced 453,867 yards with a value of \$223,351.

The reports of production to the State Bureau of Mines are confidential.

FRUIT CROP SETS RECORD.

Although the prices for some kinds of fruit, notably apples, were below those of former years, the crop of 1912 was the most valuable recorded in Oregon. The yield of nearly all kinds of fruits was large and the market active. The value of Oregon's fruit crop for a number of years is as follows:

1909...	\$1,455,130	1910...	\$6,682,500
1908...	2,413,500	1911...	10,000,000
1907...	3,256,900	1912...	7,107,900

so that when there are less than three producers in any particular industry the production in that industry must be combined with another. Bearing this in mind and summing up the mineral production of Oregon in 1911 we have the following:

Brick, tile, clay and pottery...	\$1,120,337
Gold, silver, copper and platinum...	702,251
Sand and gravel...	625,405
Granite and sandstone...	382,594
Coal...	108,023
Limestone, lime and marble...	28,910
Mineral waters...	18,000
Total ...	\$3,229,682

For the year 1912 we will not begin the collection of statistics of production until after the first of the year and the work will probably not be completed until September because the producers fail to report when first called upon. However, general estimates based on the conditions prevailing this year can be given with some degree of confidence.

The consumption of clay products in the state enormously exceeds the supply. It is to be expected then that the production of these products will maintain their usual increase. The cheaper fuel oils from Southern California being available in our state have also a stimulating effect upon the brick, tile and pottery industry.

The sand and gravel industry along the Willamette River is constantly on

MILLIONS SPENT FOR EDUCATION.

Following is a record of the state school funds in Oregon over a series of years:

1900.....	\$2,587,604.33
1906.....	4,120,747.69
1908.....	5,239,700.00
1910.....	6,035,454.35
1912.....	6,260,659.99

the increase and it is expected that 1912's production will exceed to some extent that of 1911.

It is probable that the production of granite in 1912 will not be materially different from the preceding year.

The production of the precious metals for the current year will probably not exceed that of 1911, but it can confidently be expected that the production for 1912 will be materially increased. A number of properties in the state, especially in the eastern part, have been developing for the past few years and have now reached the stage of production. I believe that the precious metal production in 1912 will be at least double that of either 1911 or 1910.

O-W.R.&N. Reduces Distance to Spokane

Improvements in Main Line Will Cut Off 54 Miles and Make Possible 10-Hour Schedule.

WHEN the improvements on the O-W. R. & N. Company's main line between Portland and Spokane are completed the distance between those two points will be reduced 54 miles and a 10-hour schedule will be possible.

The most difficult portion of the work already has been completed. This is the change of line in Marshall Canyon between Spokane and the Snake River. While this project in itself was not so difficult as many pieces of road built in the Northwest in the last few years, it involved, besides the change of line, improvements for both the Northern Pacific and the North Bank tracks, which are in the same narrow gorge with the O-W. R. & N. property. The contracting firm of Flagg & Standifer, of Portland, did the work.

A new bridge across the Snake River at Ayer Junction also is included in this project, besides considerable straightening of track and reduction of grades between the Snake River and Marshall Canyon. Contractors have been at work at various times within the year on nearly all parts of this project.

Meanwhile much money is being spent in improving the O-W. R. & N. main line between Portland and Umatilla. Eventually all this piece of road will be double-tracked. While the second set of rails is being put in position attention also is being given to curvature and grades. Many pieces of track put down years ago will be torn up and the old roadbeds abandoned. New and safer roadways will be provided. Much distance will be cut off in the elimination of curves and energy will be saved locomotives of the future by removing grades.

These various improvements will make the O-W. R. & N. road equal to any in the country and will make the new distance between Portland and Spokane 368 miles—giving the Harriman system the shortest line between the two cities. The distance over the road having the next shortest line is 371.5 miles.

The improvements between Spokane and the Snake River, including two new bridges over the Spokane River in the City of Spokane, will cost approximately \$8,000,000. Additional improvements along the Columbia River will cost \$2,000,000. All this work will be finished in 1913. New train schedules then will be adopted.

Between Spokane and Marenco, Wash., a distance of 60 miles, the road will be used jointly by the O-W. R. & N. Company and the Milwaukee system. The new depot to be built in Spokane this year will be occupied by both roads.

ALL PRODUCTS OF TEMPERATE ZONE THRIVE ON OREGON'S FERTILE FARMS

Corn, Flax, Onions, Potatoes Among Minor Crops That Are Receiving Attention—Bee Culture Gives Promise of Development in Certain Districts.



OREGON is a state of varied industries, varied resources and varied products.

While the state holds pre-eminence as a lumber, fruit, grain, fish, wool, hops, cheese and livestock producer, in its attention to some of the minor products it hopes, also, to derive future prosperity.

One of the industries that holds much future promise is bee culture. Many farmers have installed bees on their property in the last few years, and the investment has given them flattering returns. In sections where alfalfa is grown heavy crops of honey have been the rule. Central Oregon and the territory east of the Cascade Mountains seem to be especially adapted to this purpose. The honey exported from the state in 1912 exceeded 50 carloads, it is estimated.

Oregon ranks seventh among the states of the Union in the number of sheep of shearing age, and holds first place in the average weight of its fleece, which is eight and a half pounds. The state has nearly 2,500,000 sheep, and the total clip last year had a valuation of \$2,550,000. The value of the sheep at \$4 a head is considerably in excess of \$10,000,000.

Angora goats are a valuable factor in the development of the state. They serve a two-fold purpose. The yield of mohair in 1912 exceeded 1,250,000 pounds, and is valued at \$375,000. The crop is growing every year. The second purpose of these animals is in clearing the land. They eat and clean up the waste and underbrush, which also acts as a preventive of forest fires.

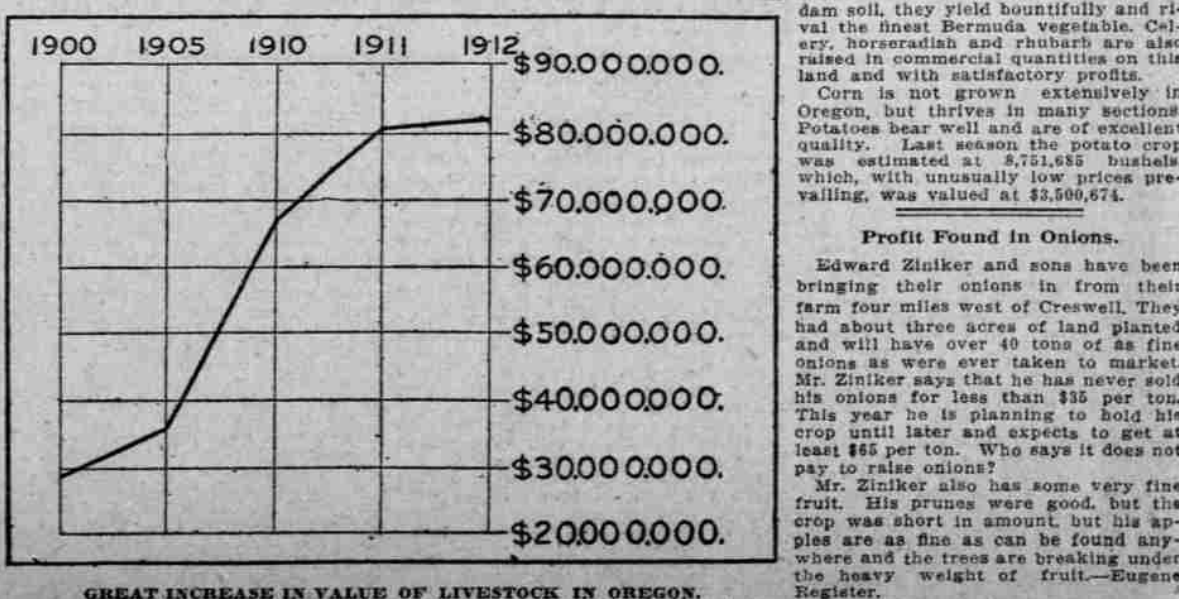
Within the last few years flax-growing has been introduced in the state with success. The soil and climate of the state are readily adapted to this industry, which promises soon to become one of the leading agricultural products.

Oregon produces about 40 per cent of the hops grown in the United States. The state has more than 23,000 acres in bearing vines, and in 1912 produced about 120,000 bales of hops, which, at an average of 180 pounds to the bale, amounted to 21,600 pounds. The average price paid was 20 cents a pound.

While apples and the various deciduous fruits have served to make Oregon famous, grape production is receiving much attention now. Many vines will come into bearing in 1913. Oregon ranks seventh as a grape-producing state.

Onions are becoming one of the leading products in certain sections. On the rich bottom land, known as beaverdam soil, they yield beautifully and rival the finest Bermuda vegetable. Celery, horseradish and rhubarb are also raised in commercial quantities on this land and with satisfactory profits.

Corn is not grown extensively in Oregon, but thrives in many sections. Potatoes bear well and are of excellent quality. Last season the potato crop was estimated at 8,721,435 bushels, which, with unusually low prices prevailing, was valued at \$3,500,674.



By H. M. Parks, Director Oregon State Bureau of Mines.

As was anticipated in our last year's report, the mineral production of Oregon for 1911 differed little from that of 1910, the total mineral output in 1911 being \$3,229,682. The two items showing material decrease are the stone and the coal industries. The amount of street paving was considerably less and on this account the amount of crushed stone used was much lessened. The coal output in 1911 from the Coos Bay district was about one-half of that of 1910. This is probably due to the influence of the cheaper fuel oils which have been developed in such large amounts in Southern California. The other items of mineral production in the state are nearly the same as in 1910.

The industry which leads all others is clay and clay products. The value of brick, tile, pottery and clay produced in the state in 1911 was \$1,120,337. This increase in production of more than 12 per cent moves Oregon to the 27th state in rank of production. There are 63 plants in the state manufacturing clay products. The average price, at the works, of common brick a thousand during the year was \$8.95

and that of front brick \$26.42. There were 730 tons of fire clay mined and sold, having a value of \$6927.

The next item of importance according to value of production is the precious metals, including gold, silver, copper and platinum. This amounted to \$702,251.

There were produced 34,353 tons of ore in 1911 as compared with \$2,132 tons in 1910, showing some increase in the tonnage although the total value is not increased. There was an increase in the value of silver produced in the state from \$19,428 in 1910 to \$23,967 in 1911. Of the silver 34,011 fine ounces were derived from siliceous ores and 9993 ounces from copper ores and the rest of the total of 45,221 ounces was obtained from placer mines. The copper ore shipped to smelters amounts to 4205 tons, having a copper content of 93,136 pounds and valued at \$11,946, thus making an average of 22.2 pounds of copper a ton of ore shipped. The average recovery of gold and silver from the copper ores was \$2.32 a ton.

Baker County led in gold production, with an output of \$388,786, of which \$372,504 was derived from 74,558 tons of siliceous ore and from tailings. Josephine County produced \$89,352 in

gold, of which \$88,567 came from placer mines. Of the silver production of 45,221 ounces, over two-thirds came from Baker County. Copper yielded the greater part of the 10,436 ounces of silver credited to Josephine County, which also produced about 90 per cent of the 1911 output of copper in Oregon.

The combined output of gold from Southwestern Oregon in 1911 was \$188,971, of which \$123,008 was placer gold. The mines of Northeastern Oregon produced \$444,426 in gold in 1911, of which the placer yield was \$45,256 and the deep-mines yield \$399,170. The placers of this region showed an increase of \$4444. There were 40 deep mines and 136 placers operated in Oregon in 1911. Of the placer mines 88 were hydraulic, three dredging, nine drifting and 39 sluicing properties.

The production of crude platinum in the United States increased somewhat in 1911, this increase being undoubtedly due to the high prices paid for the metal. The production reported in 1911 was 623 troy ounces, an increase of 238 ounces compared with the output of 1910. The average price paid per ounce of crude platinum sand was \$28.87 compared with \$24.38 in 1910. The crude platinum sand generally con-