

BOHEMIA NUGGET

BOHEMIA NUGGET PUBLISHING COMPANY.

Wm. B. Root, Editor and Manager.

Entered at the postoffice at Cottage Grove, Oregon as second class mail matter.

SUBSCRIPTION RATES.

6 months.....\$1.00
1 year.....\$1.50
18 months.....\$2.00
If paid in advance.

WEDNESDAY, JULY 5, 1905

Senator Mitchell Guilty

The Federal jury at 11 o'clock Monday night brought in a verdict of "guilty" after 7½ hours deliberations. They made a recommendation for mercy. The case will be taken to the supreme court at once.

BOHEMIA MINING DISTRICT
(Continued from first page.)

are made of two or more minerals, the association and condition of these minerals determining the kind of rock. Minerals are determined by their form of crystallization, color, cleavage, refraction, polarization, hardness, specific gravity, streak, luster, and chemical composition. All minerals may be determined by applying some or all of these tests. There are a very few exceptions in forms of crystallizations known as pseudomorphs. Changes of crystalline forms or replacement of certain bases by others sometimes occurs through heat of metamorphism, this is called paramorphic change, and is important in the study of rocks like these under discussion, i. e., pyroxene is altered to horn blende, etc.

Minerals are classified as acid, basic, and ultra basic, depending upon the combined quantity of the silica present. The free quartz in rock is not considered in determining its acidity. Rocks are classified as non-crystalline, etc. I will not go further into the general description of rocks as this will suffice, and this paper is already getting too long.

GEOLOGY BOHEMIA MINING DISTRICT.

The country rock of this district is comprised of the soda-lime felspar, oligoclase, and basic horn blende, no biotite is present, little glass to none in the base, color from light to dark grey, fracture uneven, from microscopic to large crystals, little to no orthoclase or sanidin, replacing oligoclase, in other places more orthoclase, and glass in base. Rarely spherophytic approaching porphyritic, no quartz as a rule, a little in some places. I classify the rock as Andesite.

Half down on east side of Fairview mountain a little serpentine is apparent, indicating metamorphism, on top of Fairview at lake rock approaches trachyte, in this vicinity in flat seams turquoise is sparingly found, indicating decomposition of trachyte, and assuring the rock to be of eruptive origin, probably near a crater or a source of overflow from below. The veins are large and as a rule very straight. The general strike northwesterly, with constant dips, but varying in different veins; are true fissures and heavily mineralized. In the Crystal vein the deposition occurs in at least 4 distinct periods, first deposition of quartz bearing zinc, copper, lead and iron sulphide with gold.

Second deposit quartz crystallized, with little or no metals. Third deposit, varying minerals containing the metals described, also some antimony and silver, beautiful crystals of cryoberyll, tabular and compound containing the rare metal, glucinum, also wavelite, and the zeolites, providing its igneous origin also hydrated oxides of iron in betroydal crystals were formed, and showing their impressions imbedded in the later crystals. The next deposit came from above and leached imperfectly through the veins. This solution was charged with carbonic acid, decomposed the oligoclase from the country rock, deposited carbonate of lime through that portion of the vein that was pervious. In places the interstices are filled with calcite crystals, some taking the form of dog-tooth spar, and depositing on the top of other crystals of quartz. This acid solution acted on the galena, covering much of it into cerussite, it recrystallizing into beautiful white needle like masses.

The vein proper is silicious, and an important feature in its formation is proven by the absence of lime, except in the area where the carbonate solution filtered. As the chief acid constituent of the country rock is soda lime felspar, and as no lime occurs in the vein the vein could not have been filled from the surface, it was filled from below and from great depths, from

beneath the lime bearing andesite. Notably in the mineral formation of the vein in the absence of sulphates, many phosphates occur, notably also that the zinc was unaltered by subsequent percolation, no carbonate or silicate being present, nor carbonate of copper was formed.

In the Gold Cross vein some apatite and sanidin crystals may be found. This ore is gold ore bearing copper as chalcocopyrite, and sparingly copper carbonate.

ORE TREATMENT.

The ore is susceptible to economic treatment, and with resulting high extraction of metal values. The gold occurs free and amalgamates readily, the lead, copper and zinc, can be saved by proper concentration, with little loss. In my trial run of the Crystal mill a separation of these three base metals was very satisfactorily made. The lead product contained 80 per cent lead, equaling 97 per cent combined sulphide and carbonate of lead, about equally divided. Less than 1 per cent of zinc or copper present in this concentrate after separation.

The zinc concentrate contained 32 per cent zinc, or about 50 per cent zinc sulphide and less than 2 per cent lead. This product was high in silica as the coarse sand mixed with the fine zinc. This difficulty will be overcome by returning the middlings which contain all the coarse sand to the battery for finer crushing and a much higher zinc product will result. The copper product contained less than 10 per cent zinc or lead and contained 8½ per cent copper. The cause of this product being so low in copper was the presence of much fine iron sulphide. This was an exceptionally trying ore to make a copper product on this account. In most ores this concentrate could be easily enriched and will be at the Crystal, for the iron is disseminated through the waste with very little in the ore streaks. When the ore streaks come together forming a sufficient body to mine the ore and waste separately a high grade copper concentrate will result, however these products resulting from my first run would be profitable were it not for the poor transportation facilities and high smelting charges.

ECONOMICS OF DISTRICT.

The commercial end of all enterprises, mining included is paramount. A good mine with a good mill avails nothing if profits do not accrue. The Bohemia District is fissured with a network of veins many of them true fissures, and showing value in various metals, some sufficiently rich ore chutes have been encountered to result in considerable profit. These veins are filled from below and all indications point to the fact that the great ore bodies will be found deeper in proximity to the source of the metal bearing solution. Because a vein has a rich chute at the surface and the ore peters out as depth increases is no criterion to judge a deposit by. If a vein is a fissure, and filled from below the large and rich ore bodies will be deep, a rich ore chute may occur at the surface caused by the oxidizing effect of the air and steam thus hastening the deposition of the metal, or it may occur in zones that were filled and deposited successively, but the major portions of the metaliferous solutions will subside to depths and gradually deposit, this is history. I believe this district is a substantial one and that it will be a great producer after some camps now occupying much attention is forgotten. And that deep mining is the solution of the ores continuity in deposition and increased value. The contour of the district is peculiarly adapted to this mode of development and may generally be carried on by tunnels, but much labor must be expended in such development, as all veins have their barren zones, and large veins will have increased zones of poorer or richer material.

The district is covered with the best of timber, and streams of pure water for milling and power; conditions ideal for mining purposes, with the exception of transportation and smelting. These conditions must improve, the camp is worthy of it. Vast quantities of base ore could be mined profitably if these two difficulties were overcome. It is an awful hardship of a mine when \$20 ore will not pay expenses yet this is the existing case when the value is in base metal. The extension of the railroad from Wildwood through the camp, with switches to each of the mines known at present to contain ore is feasible, and could be accomplished in first class condition including rolling stock, machine shops etc. for \$250,000. A smelter for handling the products could built for \$150,000. With these two enterprises ready for operation, the camp would hum with industry and properties that are there, now looked at askance would soon be dividend payers. Capital is ready to invest in legitimate enterprises when assured of their stability and of moderate

A FOOLISH PLAN



"It is a joy to eat—I welcome my dinner hour. Because I rout indigestion with August Flower"
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"What a foolish plan, when nature could be aided by the use of Green's August Flower, which is nature's own remedy for constipation and all stomach ills."
"August Flower gives new life to the liver and insures healthy stools."
"Two sizes, 25c and 75c. All druggists, Benson's Pharmacy."

profits. If the business men of each county would maintain a Chamber of Commerce and carefully compile statistics each year of the production and possible production of every resource within their respective counties and the State had a similar bureau to receive, examine and publish the reports from the various counties, and see that copies of such reports would fall into the right hands for consideration, railroads would not be so dilatory in coming through and opening up this great state. Such a bureau can only be operated through the business fraternity, and by those who act through patriotism.

A TRIP TO BOHEMIA.

(Continued from page one.)

began and in traveling the Champion basin road we passed the LeRoy, Grizzly, Champion basin and several other mining properties; also the electric plant which supplies the Oregon Securities mill with power. Word had been sent ahead some three miles above the railroad station that three trout hungry men would arrive at 1 o'clock. Mr. Pitcher went to Row river near by and in a short time had the necessary number to supply the table. "Some people say they don't care for mountain trout, well the reason must be they never had Mrs. Pitcher cook them. The only real feeling worth recording that arose in the party while on the trip was caused by the writer having the biggest and finest trout caught for some time, set apart for his special use and benefit which was highly appreciated by him (if not by the other two travelers.)

At five o'clock the city was reached and while the trip was some what lively especially to one who has not sat in a saddle for some time and has to follow Mr. Hard or get left behind it was an enjoyable and instructive trip.

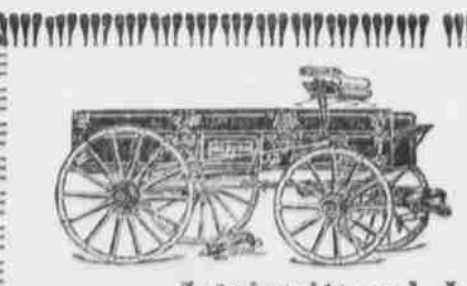
W. B. Root.

C. F. Mitchell, the veteran road builder of Bohemia was in town last week.

Ben Trygstad and wife are located at the Oregon-Colorado mine Bohemia, where he is employed.

Registration of Land Title.

IN THE CIRCUIT COURT OF THE STATE OF OREGON, for the County of Lane.
In the matter of the application of Fred M. Cole and Mary E. Cole to register the title to the Southwest fourth of Southeast quarter and Southeast fourth of Southwest quarter of section 31 in township 20 South, range 3 West of Willamette meridian against:
Arthur M. Sayre, Troy L. Sayre, Russell E. Sayre, Maggie B. Sayre, Haud E. Sayre, Frank Jordan and all whom it may concern. Defendants.
To All Whom It May Concern:
Take notice, that on the 29th day of June, A. D. 1905 an application was filed by said Fred M. Cole and Mary E. Cole in the Circuit Court of Lane County for initial registration of the title to the land above described. Now unless you appear on or before the 5th day of August, A. D. 1905 and show cause why such application shall not be granted, the same will be taken as confessed and a decree will be entered according to the prayer of the application and you will be forever barred from disputing the same.
K. U. LEE,
Clerk.



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