

About 40 men are placer mining at Rock creek, South Okanagan, and 30 of these will stay in all winter. The average is \$6 per day.

In all 22 car loads of machinery have been shipped to Lytton for the new pumping and dredging plant.

Prospects for Trail creek are very good. The Le Roi is expected to turn out 30 tons of ore a day, averaging \$40 a ton.

The gold output of Kootenay will this year approximate a total of \$200,000, made up as follows:—

| Mining Division. | Gravel.  | Quartz.   |
|------------------|----------|-----------|
| Trail Creek..... |          | \$150,000 |
| Nelson.....      | \$ 8,000 | 20,000    |
| Trout Lake.....  | 2,000    |           |
| Revelstoke.....  | 10,000   |           |
| Fort Steele..... | 10,000   |           |
| Total.....       | \$30,000 | \$170,000 |

The O. K. stamp mill is running on ore that has been culled over three times and yet is found very profitable working.

On December 6th, 1890, Charles Hussey, who owned a five-eighths interest in the Poorman mine and mill, six miles west of Nelson, mortgaged his interest to the Spokane National Bank for \$14,000. The bank shortly afterwards suspended and was placed in charge of a receiver. The mortgage was one of the assets the receiver hoped to realize enough on to enable him to pay off the bank's indebtedness in full. Last month A. L. Davenport, who owned the other three-eighths of the mine and mill, bought the mortgage and the transfer is now on record in the record office at Nelson. By this deal Mr. Davenport secures title to the Poorman mine and mill, and he is now in a position to work the property to the best advantage. At present the mill is running day and night, the water supply being ample. The ore worked is so soft that from twenty to twenty four tons are crushed daily. About 1,000 tons have been run through this year, the returns being satisfactory. The stopping ground, however, is pretty well worked out, for if the drifts were continued much farther they would both come out on the surface, owing to the incline from which the drifts run starting in a ridge or hogback. It is more than likely that a hoist, to be run by a Pelton wheel, will be put on the mine in the spring. If this is done, the mill will be run continuously, as it is the intention to sink on the ore body. — *Tribune*.

The Golden Era Mining Co. is hydraulicing with good results on the North Thompson. The machinery is very simple and comprises two wheels 14 ft. in diam. and of 9 ft. face, driven by the current of the river and set upon either end of a scow. These drive the pump for hydraulicing. It is proposed to build a larger scow than the one at present in use, and employ a single wheel, say 16 feet diameter by 18 feet wide, instead of the two smaller sized ones now used, and this single wheel will give them sufficient hydraulic power for any purpose whatever. The power from the river is so great that one pump will put in 400 miners' inches at an elevation of 150 feet.

Work has been begun on the claims on Granite Creek in the Similkameen district owned by the Stevenson Gold and Platinum Hydraulic Mining Co. Tests on these upper benches have run as high as \$1.50 to the cubic yard, and the whole bank is estimated to average 25 to 35 cents. The gold is coarse. Platinum has also been found and is expected to yield about one-third as much in value as the gold.

The Victoria Placer Mining Co., represented by J. D. Sherwood and J. F. Warner, will spend \$55,000 on developing its claims on the left bank of the Pend d'Orielle. Water will be brought from four miles up the Salmon River in a flume, which will be carried across the Pend d'Orielle on a cable.

A recent dispatch says: "Up to this year British Columbia has owed its reputation as a mining country to the gold output of the Cariboo district; but this year will prove that Kootenay is not only the silver and lead-producing district in British Columbia, but is the greatest gold-producing district of the province as well. The gold output of Cariboo comes from gravel mines, while the Kootenay output is from the quartz mines, and these only meagerly developed. Quartz necessarily gives employment to a large number of men and the industry is a lasting one. The gold output of Kootenay this year will aggregate \$200,000."

The War Eagle is now working about 20 men, sinking two shafts and running a tunnel. The owners will begin ore on 4th instant. The ore yields \$600 in gold and 12½ per cent. copper. Steam power will be obtained from the Le Roi mine and Burleigh drills put in next week. The new shaft will join the tunnel and will be completed in about a week when the bond on the property will be taken up. On the north side the ledge is opening well and is now 6 feet to inches wide. The ore chute is 900 feet long by 9 feet broad and all in sight is ore. Once stoping is started 100 tons a day can be taken out as easily as one ton, and when opened out another 200 feet she will put out 250 tons a day. This property gives every promise of becoming a mine sooner than any other in camp. Everything is being done in a miner-like manner to develop the property to the best and fullest advantage. Mr. Kingsbury, part owner of this property and also of the Poorman mine in the Cour d'Alene, states that he prefers this camp to any other in this province.

A personal visit to the O. K. says the *Miner*, shows the work to be in active progress. The tunnel is in 300 feet and the quartz vein matter cuts it in several places and shows up well at the end of the tunnel. A five stamp mill is in full swing and gives concentrates worth \$500 per ton. The tailings also will be rehandled as considerable gold passes out with them. A jigg machine with copper table has just been put in and will start work next week.

In the I. X. L., adjoining the O. K., stoping is going on in two or three places and ore of the same quality as the O. K. is being taken out, but no plant has yet been put in. The recent survey of these claims by Mr. F. Ritchie throws the line of the I. X. L. over on to the O. K., covering the tunnel for some 40 feet; the two mines are therefore using the same tunnel and the I. X. L. is taking out ore which was thought to have been located by the O. K. people.

At the Le Roi is still going on in the 300 foot level and the ore comes up richer than ever. Burleigh drills will be put in at once and they will ship some 30 tons a day as they have a clear face of 300 to 400 feet of ore to work on and will probably put out between 3,000 and 4,000 tons this winter. It is understood that all this shipment will be made from Trail landing.

Mr. Chas. F. Law, late Commissioner to the World's Fair, contributes the following to that excellently gotten up provincial magazine *The Province*:

"The development now in progress in the district of Cariboo promises to open up a new field for placer miners in the old river channels which are now buried beneath the enormous masses of lava which cover the upper country for many miles. These channels are usually at a much higher elevation than the beds of the modern streams, and whenever cut into and worked have served to supply the present river beds with their auriferous deposits. In many instances the older channels are so completely obscured that it has not been possible to discover their location. Mr. Ross T. Browne, who recently exploited the Victoria Hydraulic properties at Quesnelle Forks, Cariboo district, has developed a system in California for tracing these old channels, which is known as the Forest Hill Divide System, because of the principle first having been successfully applied to the opening of that great property. A late report of the state mining bureau of California refers in detail to the work inaugurated by Mr. Browne as a very remarkable piece of engineering skill, and explains the means by which he was enabled to trace the bed of a phocene river between two mines, five miles apart, and where the veins of the channel were 8,000 feet distant from each other. The earlier drift mining on the great blue leads of California was attended by many costly mistakes which modern engineering science has shown us a way to void; and it is to the accumulated knowledge and ripe experience of such authorities as Mr. Browne and others, that we are enabled to reap all the advantages of such experience in opening up ground in Cariboo district of like character and conditions. It is apparent from observations made in the field during the last season, that we are about to enter on an era of drift mining which will carry us into localities hitherto unexplored. There is a vast district lying west of the Fraser, opposite the mouth of Quesnelle, which is covered by basalt for 100 miles square; and it is to this particular field that I wish to call attention with a view to investigation. The old system of drainage of the Quesnelle river country appears to have crossed the Fraser where the two now meet, and proceeded in a westerly direction towards the coast. It is possible that at that time the upper Fraser river did not then exist, and proof of this appears to have been furnished by the discovery of a great auriferous channel passing to the westward under a cap of basalt 100 feet thick, at an elevation of several hundred feet above the present Fraser system, and crossing the latter at right angles. This channel was found by Dr. Selwyn, director of the Geological Survey many years ago; and the conditions being exactly the same as in California and Australia, he has always been of the opinion that it should be investigated. Mr. Hobson, the well known hydraulic engineer, has exploited much of the ground about Quesnelle, and his California experience has forced him to conclusions which bear out the theory of a westerly drainage of the Quesnelle river system. If it should be proven that this channel continues westward and does not return again to the Fraser river, we will have proved the important fact that the vast broken plains between the Fraser river and the sea coast, which are now covered with lava, have at one time been traversed by a river system containing auriferous gravels, but now hidden from view. The opening up of such a field may lead to prodigious results, as the lateral branches of the greater streams may extend over an immense area. The methods employed in California to trace out these channels and their tributaries can be directly applied to this new field; and it is possible that we may be able to prove a new gold field of greater value than old Cariboo. It will be possible in many instances to trace the older auriferous deposits to quartz veins of a permanent character, and thereby place the mining of gold quartz on a solid basis. When it is considered that the Witwatersrand district in South Africa is only 12 miles in length and is producing thirty millions sterling of gold per annum, it is not unreasonable to assume that our gold fields will prove equally as rich in an area so extensive as that which we possess. The richest gold fields in Australia and California were proven to exist in old channels buried under basalt and other debris, and we may expect similar results from like conditions in this country."

## SILVER LEAD MINING IN BRITISH COLUMBIA.

An extraordinary showing of clean ore is to be seen in one of the stopes in the Slocan Star. Byron White measured eight feet across of clean high-grade galena, without a trace of country rock or zinc or other base metal in it. It is not anywhere near the surface, either.

Since the railway reached Three Forks, the Slocan Star has been shipping ore at the rate of 50 tons per day and this record will be kept up for fully two weeks to come. The ore, like all previous shipments from here is consigned to the Grant-Omaha smelter at Omaha. There are 800 tons to come down from the store-house, with 1,000 tons more from the mine during the winter. At the end of the week the Mountain Chief will resume its 500 ton shipment. Other properties are preparing to ship, including the Alamo, Idaho, Noble Five, Cumberland and Surprise. About 250 tons in all have been forwarded from here during the week, valued at \$25,000. Besides this the Trail creek mines shipped—Le Roi, 30 tons to Everett; Josie, 14 tons to Tacoma; and the Gold Hill 5½ tons, also to Tacoma. These latter shipments were valued at \$2,475. The approximate value of the ores of the district shipped during October was in the neighborhood of \$48,000. The local list stands thus:

|                                    |               |                   |
|------------------------------------|---------------|-------------------|
| Sept. 13, from the Alpha mine..... | 120,000 lbs., | valued at \$6,000 |
| Sept. 17, " " .....                | 180,000 "     | 9,000             |
| Sept. 19, " " .....                | 220,000 "     | 11,000            |
| Sept. 20, " " .....                | 78,130 "      | 3,900             |
| Sept. 21, " " .....                | 178,375 "     | 9,000             |
| Sept. 24, " " .....                | 181,000 "     | 9,100             |
| Sept. 25, " " .....                | 180,000 "     | 9,000             |
| Oct. 1, " " .....                  | 90,000 "      | 4,500             |
| Oct. 9, " " .....                  | 150,000 "     | 7,500             |
| Oct. 15, " " .....                 | 75,000 "      | 3,750             |
| Oct. 25, Mountain Chief .....      | 122,450 "     | 6,150             |
| Nov. 3, Slocan Star .....          | 200,000 "     | 10,000            |
| Nov. 5, " " .....                  | 40,000 "      | 2,000             |
| Nov. 7, " " .....                  | 260,000 "     | 13,000            |

The value is reckoned on the basis of the release manifest of \$100 per ton, but this will be found to be below rather than above the actual worth of the ore.

There are four mines in the Slocan to-day putting out ore that goes over 1,000 ounces to the ton. They are the Antoine, the Nonpareil, the Goodenough and the Reucan. On the Antoine, Jack Thompson and two men have been at work for eight weeks putting out 1,000 ounce ore, and they reckon that they have \$15,000 to \$20,000 worth on the bank. From the Nonpareil thirty sacks of ore, about one ton in all have been brought down to Kaslo for shipment. The ore assayed over four thousand ounces to the ton. — *Continued on page 229.*