

At Slough Creek drifting continues steadily under the efficient management of J. Hopp.

The Cariboo and Yukon Gold Fields, Ltd., is prospecting for the deep channel of Upper Antler Creek near Saw Mill Flat. A tunnel has been driven 150 ft. at a right angle to the creek, and a blind shaft sunk 25 ft. As the tunnel is only 4 ft. above bed-rock at the entrance, it appears that the channel has been found. H. Boursin is in charge during the absence of Mr. Carry, who is in the Yukon country.

The Olsen bucket ladder dredge is working smoothly in pay on Quesnelle river, twenty-one miles above Quesnelle.

At the Waverly hydraulic on Grouse Creek a reservoir is under construction.

The heavy rainfall this summer has made this an unusually prosperous season for the hydraulics.

The Big Valley Creek Mines, Ltd., is to be reorganized and work will soon be resumed.

On a bench on Williams creek, directly opposite Barkerville and overlooking what were formerly the richest pioneer diggings, three Chinamen are taking out on an average of 60 ounces of coarse gold a day, one nugget weighing 35 ounces. They sunk to bed-rock on an old channel, which is 40 feet above the present channel of the creek, and has 8 ft. of gravel above it, and they are now working in a cut 40 ft. wide. This strike has caused a revival of excitement around Barkerville and a number of men have taken to prospecting the upper benches.

The Cariboo Consolidated, which took out about \$87,000 from six weeks' work in its spring run, started its fall run the first of September.

The War Eagle's New Electric Hoisting Plant.

On another page we reproduce photographs taken from a large electrically driven Hoist built for the War Eagle Consolidated Gold Mining and Development Co., of Rossland, B.C. These were taken at the shops of the manufacturers, the James Cooper Manufacturing Co., Limited, Montreal, during the erection of the machine. The Hoist is remarkable in more respects than one, principally that it is the largest Hoist ever built to be operated by electricity, and for this reason alone should receive a good deal of attention from the mining public. It supplies the first link in a new era of power developed in the Kootenay District. The Hoist is designed for a double compartment shaft 3,000 feet in depth, to lift a load of 8 tons on a single line at an average speed of 750 feet per minute. One photograph shows the Hoist from a front view and the other the back view taking in the operating platform. The drums are 72" in diameter by 5 ft. face, and are of the "Cooper" patent friction drum type. As shown in the photograph they are provided with enormous band brakes of the differential clutch type, which are operated from the platform by hand levers with latches working in a yoke with serrated teeth.

The Motor is furnished by the Canadian General Electric Company, and is designed for alternating currents of 2,080 volts. The Motor runs at a speed of 300 revolutions per minute, which is geared down to 160 revolutions per minute on the main driving shaft of the Hoist proper, by means of cut steel gears and pinion. From the main driving shaft the large gears are operated by pinions. The Motor is reversible and acts in the same way as the link motion Hoisting Engine, a further provision being made for stopping the momentum by providing the Motor shaft with a hand friction wheel, which is operated from the platform by means of both a hand and foot lever.

As clearly shown in the illustration, the drums and Motor rest on a heavy box girder bed frame which underlays the whole machine and carries the side frames for the drums and shaft. As partially shown in the photograph the operating platform consists of a system of girders which carry the segments for operating levers. The platform is raised considerably higher than the base to give the operator a clear view of the whole machine. This platform also supports the controller for the Motor and directly in front of the operator is placed two indicators for locating the exact position of the cage in the shaft.

The whole arrangement is well studied out and arranged to be easily operated by the system of hand levers as partly shown in the photograph.

Both drums are loose on the drum shaft and are entirely independent of each other in operation: they may be thrown in and out of gear while the Hoist is in motion, either separately or together, or one drum may be lowering while the other is hoisting, or both drums may be thrown into gear and the Hoist used as a regular reversible Engine; one load being hoisted while the empty cage is being lowered; this arrangement becomes absolutely necessary in mining where work is progressing at a number of different levels. It is perhaps difficult to get a clear idea of the magnitude of the Hoist from a photograph; some idea, however, may be formed of the size, when it is known that the drum shafts are 7" in diameter, the main driving shaft 6" in diameter and the motor shaft 8" in diameter. The whole machine is of very massive design and calculated to stand the heaviest duty. The Hoist weighs, finished, including the electrical apparatus, about 120,000 lbs., or 60 net tons.

The machine was designed and built at the shops of the James Cooper Manufacturing Co., Limited, Montreal, and it says not a little for a Canadian machinery firm to have executed a work of this magnitude.

During the year ending 1st July the mill of the Cariboo Mining, Milling and Smelting Company at Camp McKinny, B.C., crushed 6,770 tons, yielding \$121,270 in bullion, and \$17,943.64 in concentrates. The property is reported to have been acquired by a Toronto Syndicate, who will operate it under title of the Cariboo Consolidated Mining and Milling Co. of British Columbia. The present battery of ten stamps will be doubled.

The Olive Gold Mining Co. is adding a 10 stamp battery, an air compressor and hoisting machinery to its plant. The outlook of this Seine River property is reported very promising.

MISCELLANEOUS.

The North Star mine, near Fort Steele, is sinking a new shaft to be put down 300 ft., and an order for new hoisting machinery has been placed.

A rich strike is reported from the Sullivan group near Fort Steele, B.C.

The Mines Development Trust and Guarantee Company recently issued a preliminary prospectus. It has a capital of \$50,000. The prospectus sets forth: 1. That it will act as custodians of pooled stock for the various companies in British Columbia. 2. Act as general stock transfer agents for the facilitation of prompt disposal of shares. 3. Act as vendors (on commission), to purchasers of mines and mining properties and other industrial enterprises. 4. To acquire by purchase or bond, mineral claims or prospects in British Columbia. 5. To develop the same to a limited extent, and thereafter either sell them or incorporate them into working companies. The prospectus claims that there will be no promotion money or profits to the promoters, and that every subscriber to the stock of the company shall be *pro rata* an owner at first cost. No property can be purchased without the report of its consulting mining engineer having been first made. There are 49,000 shares, which are considered as ordinary, fully paid and non-assessable, and 1,000 shares are issued as debentures in multiples of 50, at 5 per cent. interest. The directors are: A. Marsh, H. Gerdwood, E. M. Ruff and George Parker of Toronto, Ont.; secretary, Chas. E. Benn; consulting mining engineer, Charles Parker of Rossland, B.C. The company has acquired some copper properties in Windemere Division, East Kootenay.

In a recent contribution to the *Engineering and Mining Journal*, on the Lillooet District, B.C., the writer refers to the Golden Cache as follows:—"Early in 1890 the placer miners began to give serious attention to prospecting for quartz veins. A half-breed named Copeland discovered some rich float on Cayoosh Creek, which empties into Fraser River about two miles below the town. This led to the location of the "Golden Cache" group of mines on that creek, which was followed by a stampede resulting in the staking of the entire country. The history of the Golden Cache in 1897 is well known. The Vancouver purchasers from the locator stocked the company at \$500,000 capital, reserving one-half of the stock for themselves. They afterward sold a portion of their holdings for \$185,000 cash to a wealthy Englishman, erected a 10 stamp mill, made a run and cleaned up about \$4 per ton. The usual result followed, the stock dropped from \$2 to 10c. per share, and Cayoosh Creek mines received a black eye. Many of the claims staked and recorded were abandoned and bonds held on some properties forfeited. During the spring of 1898 the Golden Cache mines were started up again, the capacity of the mill increased to 20 stamps, air compressor and drills introduced, and at this writing the interested shareholders and public are anxiously awaiting the results of another mill run to be made soon."

A smelting plant is to be erected shortly on the Van Anda mine, Texada Island, B.C.

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