also that which is broken down in the glory hole. The two tunnels and the glory hole are connected by a shaft 105 feet deep.

Running in about the same direction, but standing nearly vertical, is a 5-ft. vein which cuts the main ore body and continues down beneath it. This is termed by the miners the "gouge" vein because of its soft nature. It is extremely rich in places and specimens showing free gold are often met with: assays from it frequently run into the thousands when picked samples are tested. Its average grade is between $60 and $75 to the ton.

On the Sunnyside claim, belonging to the Yale Mining Co. (the name under which the owners of the Nickel Plate group have incorporated), two tunnels have been driven on separate veins, one of which was discovered in making a rock cut for the tramway, the graders unknowingly using a rich grade of ore to make the road-bed. The Sunnyside leads are somewhat smaller than the big Nickel Plate vein, though the ore is said to be slightly richer. The vein filling differs from the Nickel Plate in being of a more calcareous nature.

The Copper Cliff and Mound, purchased by the Yale Mining Co. in 1902 for $52,000, have large showings of ore averaging about $10 in gold and copper which have been exposed by open cuts. The possession of these two claims, like the Exchange and Iron Duke fractions adjoining, for which $30,000 was paid, became necessary to the company because of their position. In order to treat the vast quantities of ore which the work of the past few years has placed in sight, the company commenced the construction of a forty-stamp mill and cyanide plant, near the junction of Twenty-Mile Creek with the Similkameen River, during the winter of 1902-3. This plant has recently been completed and is now in operation. It is driven by water taken from Twenty-Mile Creek by a three-mile flume capable of carrying 800 miner's inches. The fall from the penstock to the mill is 260 feet, and to the compressor plant at the creek bottom, 400 feet.

The ore is transferred from the mine—about 4,500 feet above the mill—by means of a three-mile gravity and electric tram. At the head of the gravity portion of the line, which is almost half-way between the mine and the mill, an ore bin capable of holding 700 tons has been built, into which the ore is dumped when hauled from the mine by the electric motor cars. It is then loaded into skips holding five tons each and sent to a station above the mill. From this point it is run through a chute to the crushers. The first is a 10x20 crusher which crushes to 2 inches, and the second is 6x20 and crushes to half this size. Both crushers are of the Farrell type and made by the Jenckes Machine Co. The crushed ore is carried by a belt conveyor to a second conveyor running at right angles which distributes the ore along the bin. This bin holds 1,700 tons.

A three-foot Cassel water wheel supplies power for running the conveyors and rock crushers. Through automatic Challenge feeders the ore is fed to the batteries. The pulp runs over 12-ft plates and onto 6-ft. Frue vanners, of which there are 16, the concentrates being delivered to a bin below the vanner floor, while the balance of the tailings go to the cyaniding tanks. A 9-ft. Pelton wheel furnishes power for the batteries and a 24-in. wheel for the vanners.

The cyanide plant is the largest in the province, and is under the superintendence of Mr. A. H. Brown, who has had experience in treating the arsenical ores mined in Hastings County, Ontario. The tanks are 34 feet in diameter, 6 and 10 feet deep. There are 12 leaching tanks, 6 slime tanks, and 3 gold tanks.

One side of a forty-drill compressor is being installed below the mill with which to supply compressed air to the mine, and in the same building an electric dynamo is located. It is a 100-k.w. auternator with revolving field and supplies a 3-phase alternating current at a pressure of 2,200 volts. A sub-station at the head of the gravity tram line contains a motor-generator set which converts a 2,000 alternating 3-phase current into a 550-volt direct current for electric tram use.

The tunnels are wired and lighted with electricity, a red light system being used to show when the current is on the trolly wires. There are two telephone lines, one for operating the gravity tram, and the other for private use between the mill offices and the mine. In addition to lighting all its own buildings, the company furnishes the business places of Hedley requiring them, with electric lights at very reasonable rates.

Large and comfortable offices have been built near the mill, also warehouses, a blacksmith shop, a carpenter shop, and an assay office. It is reported to be the intention of the company to shortly enlarge its mill by adding another 60 stamps and a smelter will probably be erected about the same time. Concentrates will be made at the rate of 15 tons or so a day by the stamps now dropping.

The Dominion Government recently arranged to give the company a long lease on a portion of the Indian reserve between the stamp mill and the Similkameen River containing 145 acres. It is stipulated that this land shall be used only for mill and smelter purposes.

The only other company that has operated in Camp Hedley is the Kingston Mining Co., owning the Kingston claim on the west side of the Nickel Plate Mountain. On this property a tunnel has been driven 100 feet on the hanging wall of a 30-ft. vein whose outcrop can be followed between 300 and 400 feet. It is mineralized with chalcopyrite and arsenical iron which assays between $15 and $20 to the ton. The Kingston Mining Co. have suspended operations for the present owing to lack of funds.

Above the Kingston and adjoining it are the Rollo and War Cloud claims belonging to P. Scott and R. Boeing. These claims have similar showings to the Kingston, exposed mainly by open cutting, and carrying about the same values.

The Climax and I. X. L. claims are located in the same vicinity and belong to Geo. Cahill, J. F. Campbell and M. K. Rodgers. On the I. X. L. a 3-ft. vein has been stripped for 300 feet which runs $40 in gold.

Below the Kingston are the Toronto and Galena claims owned by P. Scott, on which a large body of ore