

half mile or more of pipes, and all requisite cars, buckets, rails, machine and hand tools, etc. Later two auxiliary hoists were obtained from the Jenckes Machine Co., and quite recently a cage, supplied by the Wm. Hamilton Manufacturing Co., was received. With the foregoing plant the mine has been opened up by a two-compartment vertical shaft sunk to a depth of 325 feet and by about 2,000 feet of underground work in drifts, cross-cuts, stations, winzes and upraise. Adding the cross-cutting, etc., done prior to the purchase of the power plant, the underground work done totals about 2,710 feet.

With this much work to its credit and with results in ore bodies exposed that appear to amply warrant the preparation for operations on a much larger scale, the following Ingersoll-Sergeant condensing plant has been ordered: A cross compound Corliss condensing air compressor, with compounded air end and receiver intercooler, the high and low pressure steam cylinders to be 22-inch and 40-inch diameter respectively, the air cylinders to be of the piston inlet type, high and low pressure, 19 $\frac{1}{4}$  inch and 32 $\frac{1}{4}$  inch respectively and 48 inch stroke, the machine to have a capacity of 30 to 40 drills, and to weigh 166,000 lbs; two 66x16 horizontal return tubular boilers, each 100-horse-power for 125 lbs, working pressure, and to have horizontal smoke connection and one stack; a 54x12 air receiver; a feed water heater of sufficient capacity for 350-horse-power boilers; ten E 24 drills; two double-screw and ten single-screw columns with arm and clamp; two iron safety platform cages with safety device and shield roof; two six-foot sheave wheels; 1,500 feet of 1 $\frac{1}{4}$  inch wire rope, and six steel ore cars with McCaskell wheels and axles. Delivery of this plant is contracted to be made within three months. It may be here remarked that the compressor is to be fitted with every device known to mechanical engineering for the economical production of power.

A new hoist is also to be obtained of a capacity sufficient to work the mine down to a depth of 1,500 feet. This has not yet been ordered, but will be shortly. Meanwhile a site for it north of the shaft is being blasted out so that there need be no delay in putting it in position after it shall have been received. The site chosen for the new compressor plant is on Mother Lode Creek about 150 feet below the level of that on which the machinery now in use stands. Economic considerations have influenced the choice of this lower site, the adoption of which will render it unnecessary to so enlarge the main shaft down to the 200-foot level as to provide room for a third compartment in which to place compressed air and steam pipes. As both existing compartments will ere long be required for the two cages that are to be installed it has been decided to run a tunnel from the present 200-foot level of the mine out to the creek, a distance of about 500 feet. A cross-cut has already been driven 100 feet towards the creek, so this can be extended and be made to serve the purpose. As the rock formation will in about 150 feet farther give place to wash the tunnel will cost far less than would the work of enlarging the main shaft. Then there are additional advantages in that the tunnel will drain the mine workings down to the 200-foot level and so obviate pumping above that level, and give increased ventilation, as well as provide a passage way for compressed air and steam pipes to the 200-foot level.

As to work now in progress in the mine—the cage is now about ready for work, so with better hoisting

facilities available drifting and cross-cutting at the 200-foot level has been resumed. The face of the drift is 600 feet north of the shaft. There are several cross-cuts, the latest vein being 154 feet from end to end passing through an ore body 95 feet in width, 80 feet being good ore. Cross-cutting at intervals along this north drift, which has been in ore—much of it of good grade all the way from the shaft, will give a number of faces and stopes from which to mine ore for the Mother Lode smelter, now in course of construction. Drifting north at the 300 foot level is also to be undertaken and when this drift shall have been advanced about 300 feet an upraise to the 200-foot level will be made for ventilation. Later the main shaft will be deepened to the 400-foot level, but this work will not be undertaken until after that mentioned above shall have been got well in hand.

#### ROSSLAND.

(From Our Own Correspondent.)

The mining situation here during the suspension of operations is gradually undergoing the process of evolution, if not revolution. A new system of work will, in all probability, succeed the one which has not been able to prevail. A change has been asked for and it is coming along the lines of the central system.

It is much to be regretted that here as elsewhere those that are pretending to be the workingman's friend are the most indiscreet and are carrying their likes and dislikes too far. A new element has entered into politics—the Canadian populist is here posing as the friend of the workingman and the enemy to capital. In spite of this matters are shaping themselves in the direction of industrial effort and order will shortly be evolved out of chaos.

In a period of depression and gloomy forebodings it may be worth knowing that the preparations for an out-turn of ore continues to be made on an extensive scale. The new War Eagle hoist which was manufactured in Akron, Ohio, by the Webster, Camp & Lane Co. is now installed. The old electric hoist about which there has been so much trouble is discarded, and remains where it was placed until, I suppose, the litigation concerning it is settled. The new hoist is to be worked by steam.

It is 200 h. p. with a double drum, latest post brakes and bond friction and is so constructed that if the skip were to break away it would be stopped by automatic brakes which would be put into action by the unusual speed of the skip. The new ore cars have a capacity of two and a-half tons each and the hoist running for the full twenty-four hours a day could give a daily output of 720 tons, but this quantity represents the maximum. No doubt 500 tons per day can be easily obtained. In other directions there are many evidences of what is to be done in the near future. A mine may be compared with a great ocean steamer that must occasionally be overhauled for repairs.

On the surface of the War Eagle and Centre Star the preparations for the future best indicates what is coming. Thus the folly of expecting a long discontinuance of work is made apparent.

So far the output of the mines, say for the first three months of the present year amount to about 32,000 tons, valued at about \$575,000 gross.

The other morning at the 460-foot level while cutting out a station a body of high grade ore was en-