

The dimensions of the so-called "South vein" have not yet been determined, as it reaches below present operations.

The method of extracting this hard ore is as follows: At intervals of 60', levels are run out from the vertical or hoisting shaft until the ore is reached. A tunnel is cut along the length of the lens, clinging to either hanging or foot wall as the case may be. Raises are then made every fifty feet to the above level or nearly so, a back of fifteen feet being left to make tramping safe. Through this back a small hole is cut to let down timber, also for the purposes of ventilation, etc. When first cut, these raises are nine feet in diameter and are afterwards widened until the dividing pillar is as thin as is consistent with safety, say 15' in the average.

The next step is, in many ways, modified by the width of the lens, but it suffices to say that the stope is carried across the width of the vein, the shift boss using his own discretion as to the method employed. Finally, however, the stopes or raises are filled up with rock, leaving a timber tunnel for the passage of trams on the level below. Mills are also built and rock filled in around them, a process which will be described more fully later. The pillars are then mined out and the places where they were filled in with rock. In this way all the ore is secured.

The "Haematite," so-called, is mined by the "square set" system, which consists of taking out slice after slice of the ore, the length and breadth of the "pocket," and in its place putting timber in the form of skeleton cubes, the sides of which measure eight feet. These cubes or "square-sets," as they are called, are put in one at a time, just enough ore being taken out to allow the erection of a single square-set. The pocket is worked from bottom upward, thus securing the advantage of gravity for the removal of the ore. All the ore is sent down by means of improvised chutes made of lagging.

The mine is at present 850' deep and the shaft is still being sunk to tap the south vein. There are at present thirteen levels, twelve of which open on to the shaft. The 4th, 5th, 6th, 7th and 8th levels have all been mined out even to the pillars. On the lower levels, tunnelling and raising are being carried on, while on the first three levels, the "robbing of the pillars" is not yet completed.

There are two other shafts, besides the one above mentioned. These are used for ventilation and shooting down the rock used for filling. These shafts, one of which is inclined, reach only to the second level. From there on, the rock is sent to the lower levels by means of mills.

For the most part, the "Hard Ore" justifies its name and is hard and compact, but occasionally it is of a slaty structure or full of cracks and fissures. In such places it is necessary to use drift

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