

prove the lode beyond cutting across the reef in different places on the surface, and driving a short tunnel into the face of the hill. A winze has in one place been sunk to a depth of about 50ft., which carries the same character of stone all the way down. Still, the large amount of stone that is exposed on the surface, the well-defined walls of the reef, give it every appearance of going down to a considerable depth. Its natural situation and close proximity to the railway give it great advantages over many of the lodes that are found in the back country. In several places where the reef has been cut across on the surface it shows a portion of the lode to contain cinnabar, although not of a very rich quality. On the face of the range, before the lode begins to strike across the head of a gully falling into the Te Aroha Flat, the reef seems to branch off in two directions, one following the face of the range, and the other crossing the head of the gully, going southwards; but this is not traced beyond what can be seen on the surface.

About 30 chains to the southward of the southernmost workings, and to the eastward of this lode, there has been found another lode containing a good deal of carbonate of lead, but there is not sufficient work done to prove if this is of any great extent; but if it were traced it may prove to be an offshoot from this main galena lode. The character of the ore here is quite different from that of any yet found in the district, and will require a different mode of treatment to get the whole of the metals the lode contains. One thing is quite certain, it is totally unsuitable for the ordinary battery-process; but if it is proved by the process of treatment adopted in Europe to contain metals to the value of £11 10s. per ton—which is equal to the value of 4oz. 5dw. of gold per ton—a plant can be erected in close proximity to the mine to treat the ore by a proper method.

While stating that I look on this mine as one likely to prove a valuable property, it will require a large capital to develop it. It is not an undertaking for a small company. The mine requires to be prospected on various levels to prove its extent, roads and tramways require to be constructed, and when once the mine is well opened up an efficient plant will be required for the proper treatment of the ore. Indeed, it is questionable if it will not be found more profitable in the early stage of the workings, considering the close proximity of the mine to the railway at Te Aroha, which is about two miles and a half, to assort the ore and forward the best samples to Swansea for treatment, where there is every appliance and workmen specially educated in the various methods of dealing with refractory ores.

TE AROHA DISTRICT.

New Find Company.—This company is the principal one at work on the Te Aroha Goldfield. The mine is situated on the side of the Te Aroha Mountain, about two miles and a half distant from Waiorongomai Township, on what is known as the Buck Reef, which can be traced for over three miles in length. The reef is 20ft. wide in places, but the portion this company find payable for working is from 6ft. to 8ft. wide, next the hanging-wall. They have three shots of gold in this reef. The northern run is about 150ft. in length: this has been stoped out to a depth of 240ft. from the surface for an average of 6ft. in width. The gold here was very regularly distributed through the whole of the stone taken out, and went close on 1oz. of gold to the ton. Some of it went considerably higher than this when it was first discovered on the surface: as much as 2oz. per ton was obtained from the stamping-battery, and the tailings were afterwards treated in berdans, which also gave high returns. A lower level is now in course of construction, and is now in for a distance of 340ft.: when the reef is cut in this level there will be about 90ft. of backs to work on. The southern shot or run is about 130ft. in length. This has been stoped out for a distance of 200ft. from the surface, and yielded in places 2oz. of gold per truck, which is calculated to hold $1\frac{1}{2}$ tons. A winze is sunk down from the lowest level for 20ft., and from this winze eight trucks of quartz was taken, which yielded 15oz. There is about 300ft. between the north and south run, which until recently has been deemed to be too poor for working. Indeed, the company could not make the mine pay, and finally arranged with Messrs. Firth and Clarke to work it on terms. These gentlemen have recently commenced to break out the reef between the northern and southern run, and have found a rich shot of gold. They are taking about 8ft. in width of quartz from the hanging-wall, which contains a large amount of tellurides and free gold: $5\frac{1}{2}$ trucks from this place yielded 75oz. of gold. But the manner in which this reef is worked, although cheaply got at the first, will in the long run be an expensive one: the whole of the reef is stoped out from the surface and left open, so that every shower of rain brings a large amount of water into the workings. I did not go through the whole of the mine, but from what I could learn from the mine-manager (Mr. McLiver) there is no filling done when the quartz is taken out—the ground is merely kept up with timber. There is no doubt that if this mine was systematically opened it would give good returns—the large body of stone containing gold; its situation, where 1,000ft. of backs could be easily obtained by driving in from the side of the hill; its connection with a good tramway leading to one of the most complete crushing-batteries in the colony—although, at the same time, this battery is in itself yet greatly deficient in saving the character of gold that is found in this neighbourhood. In conjunction with this mine the owners are working the Colonist and the May Queen Mines. The run or shot of gold in the Colonist Mine is on the same line of reef as the New Find. It is about 130ft. in length, and has been stoped out for 100ft. from the surface.

The *May Queen Mine* is on a different reef from the New Find and Colonist, being more to the eastward. The reef here is about 6ft. wide. Messrs. Firth and Clarke purchased this mine about two months ago, and are working it in connection with their battery. Previous to the former company disposing of the mine, they sent to the crushing-battery about 200 trucks— $1\frac{1}{2}$ tons—which yielded about 2oz. of gold per truck; but even with this handsome yield the mine could not be made to pay. A winze was sunk on the reef, carrying good gold all the way down; but the water was too much to contend with, and consequently they abandoned it, and commenced to construct a lower level from the side of the range. But, after getting this level in for a distance of 100ft.,