

*Achilles Mine* (Area, 125 acres).—This mine is situated at Bullendale, near the head of Skipper's Creek, on the western slopes of Mount Aurum, from which emerge the richest gold-bearing streams in New Zealand. From the bottom of the shaft, which is 150 ft. deep, starts No. 2 level, with which the lower levels are connected by a perfectly true grade. Up this grade the quartz is hauled in trucks by an engine worked by compressed air, the trucks containing 5 cwt. each, and is sent to the surface, where the quartz is emptied into self-delivering paddocks, whence it goes in trucks holding 25 cwt. to the battery, where all the fine stuff is sifted out on grizzlies, the coarse lumps being reduced by rock-breakers; thence it passes into automatic feeders, which pay the quartz, now reduced to a uniform size, into the mortar-boxes. The automatic feeders have now been in use for twenty-five years, and have given perfect satisfaction. Thus the quartz is conveyed from the face of the mine where it was first broken out to the battery without being handled oftener than at the initial filling into the first trucks. At No. 2 level the lines of lodes have converged so much that they are only 105 ft. apart, so that the work of looking for any missing portion is reduced to one-half of what it was at the low-level adit, 120 ft. above No. 2 level. Now, to carry out the argument: At No. 4 level, 184 ft. below No. 2 level, the distance is only 68 ft. between the converging lodes, and in place of the middle lode, which has so far not been located at this level, there is a body of phyllitic rock that carries payable gold for a distance that has not yet been correctly defined. If the three lines of lodes continue to converge at the same ratio they will unite at a level about 90 ft. below No. 5 level. The present exploitations in the Achilles Mine are chiefly confined to No. 5 level, and are of so encouraging a nature that the chief energies of the management and plant are directed to their development. As stated, this level has reached the depth of 1,200 ft. below the highest outcrop of the lode on the hill sideling above it. It is connected by two winzes 160 ft. apart with No. 2 level, which in its turn is connected with the surface by the present vertical working-shaft 150 ft. deep. A grade already spoken of leads down from No. 2 to No. 5 level, and is fitted with a double line of rails for the ascending and descending trucks. These connections provide the most perfect ventilation that could be desired, as well as all the other necessary conveniences of access, so that it may be pronounced to be in full working-order. The two winzes are in course of being connected. The stone now being attacked had a width of 7 ft. at No. 4 level; but at a depth of 83 ft.—that is, at No. 5 level—it had widened out to 13 ft., the whole of which is sent to the mill. The new shaft, when completed, will be 600 ft. deep from the surface to the bottom of the mine, and will give every convenience in the future working of the mine. It will be 12 ft. by 4 ft., divided into three compartments of 4 ft. by 4 ft. each in the clear. The Achilles stone has been pretty free from pyrites so far, but as greater depths are reached they are increasing in quantity, and may be found to be impregnated with gold when still greater depths are reached. The new race from the left-hand branch of Skipper's Creek will give 400 ft. of pressure, and will be applied directly, instead of employing it for the purpose of generating electric power, as is done at present. The new race is nearing completion, and is expected to be available for motive-power before winter. It will have the effect of very considerably reducing the working-expenses, and will insure a greater degree of efficiency in the work done. The race will be applied to a Pelton wheel, and the present air-compressor at the shaft may be done away with. Hauling and pumping will then be directly done from the mouth of the shaft. The electric power will be held in reserve for the extremes of weather and other emergencies. The Achilles Goldfields Company was registered in 1893, and up to the present date 7,181 oz. of gold have been produced, valued at £27,500. Out of the time of its existence there must be deducted eight months during which repairs were carried on. During the year 5,453 tons of stone was crushed, giving a return by amalgamation of 4,413 oz. Seventy men were employed.

*Cornubia Mine, Skipper's Creek* (Area, 30 acres).—No work was carried on during the year, owing to liens registered in Court, and the men cannot now be found. Mr. F. Evans, the owner of the mine, says, "This is an instance of the easy manner in which miners can close up a claim. I have dealt with all liens of those men who could be got at, but others cannot be got at, and I cannot see any way that the claim can be relieved."

*Leviathan Mine*.—This claim is situated near the Shotover River. The outcrop of the quartz is 1,000 ft. above the Shotover. Another reef is located on the opposite side, higher up the gully. An adit has been driven 350 ft. to cut the Crystal reef. No record has been sent in of any crushing from this mine for the year.

The *Sandhills Claim*, of 20 acres, has been lately taken up, and is now under protection.

*Lawrence Brothers' Mine, Bannockburn*.—Operations are still steadily conducted in this mine; 876 tons of stone was crushed, for a return of 346 oz. of gold, valued at £3 17s. per ounce. Five men were employed.

*Cromwell Mine, Bendigo* (Area, 137 acres).—Three levels were opened; depths, 115 ft., 420 ft., 520 ft. A leader lode, varying from 1 ft. to 4 ft. wide, composed of clay, slate, and quartz, enclosed within hard walls, was discovered. Driving levels and stoping; nearly the whole work was done for prospecting. The pumping and winding machinery is driven by water-power; 30-horse power in use. The battery of twenty stamps is driven by water; 10-horse power in use. The air-compressor and rock-drills are not in use. The stamps weigh 7 cwt.; and there are four berdans, but only one was used during last year. During the year 650 tons of stone was crushed, yielding 262 oz. of gold. Twenty men were employed.

*McCabe and Sons' Mine*.—During the last twelve months the owners have been driving a tunnel on a line of reef on the Carrick Range, about four miles from Bannockburn, known as the Young Australian, which yielded good returns about twenty years ago, but was abandoned at that time through meeting with a large quantity of water. The level now being put in is 90 ft. below old workings, and the lode underlies 3 ft. in 1 ft. This will give about 270 ft. of backs. The level is in 300 ft., and it is expected to cut the reef in 300 ft. more. A small mill of two stamps and Pelton wheel is sufficient to deal with 21 tons of quartz per week. The cost of driving the tunnel is about £1 per foot. Two men are employed.