

*Quartz-mines.*—I regret that I cannot report very favourably with respect to the success of quartz-mining during the past year.

The Achilles Gold-mine (Limited), at Skipper's, has been steadily working during the year under the management of Mr. J. F. Donnal, but has not met with the success which has in the past attended its operations. Indeed, it seems probable that, owing to the poorness of the returns, the mine may be compelled to temporarily suspend operations.

The Shotover Quartz-mining Company, under the management of Mr. J. E. Davis, has been doing some good work during the year, and quite recently a payable lode has been struck which promises profitable work during the coming year.

At Macetown the Glenrock Company still continues to work steadily on, but the returns, though fair, are hardly commensurate with the labour and capital expended.

*Sluicing.*—Sluicing is still carried on to a considerable extent in this sub-district. On the Shotover River the Skipper's Sluicing Company have opened out a large area of ground, and very encouraging returns have been obtained. Much delay and loss have, however, been caused by the occasional blocking of the tunnel, which serves the purpose of a tail-race for carrying away the water used in sluicing the ground. A lamentable accident occurred in this mine in December last, by which the manager and two men lost their lives.

Messrs. Davis, R. Johnson, and Stevenson, who each hold and work sluicing claims at Skipper's, have done a good deal of opening-out during the year, and have received payable returns from their respective claims.

Messrs. Collier, Smith and Sons, Rogers, Peat, and Schusted hold and work hydraulic claims in the Shotover, and under the improved system of "hydraulicking" which has been adopted have obtained more satisfactory results than the somewhat primitive processes hitherto in use have afforded.

Messrs. Lee and party, who have purchased Monk and McInnes's claim at the Sandhills, have been laying an expensive line of piping and erecting an extensive plant for more systematically working the claim on a larger scale than hitherto attempted. As the ground is known to be highly auriferous, there is every probability of their undertaking proving a success.

The Arrow Flat Company, working a hydraulic-sluicing claim in the river-bed close to Arrowtown, have had a great deal of trouble with their water-race. They have tried several places on the claim, but with very poor results, not being able to reach the bottom. Operations have recently been suspended. The Arrow Falls Company have worked with great energy, and have accomplished a very large amount of work for comparatively unremunerative returns, but the proprietors are confident of success in the near future.

The Big Beach Hydraulic-sluicing Claim in the Shotover River has been worked by tributers. I do not know what gold has been obtained, but I understand the result has been satisfactory to the tributers. At the Twelve-mile Creek, on Lake Wakatipu, Reid and party have put a large hydraulic plant on their claim, and have done a great amount of work in opening out the ground and preparing it for commencing to sluice. Their prospects are very encouraging.

#### CARDRONA SUB-DISTRICT.

There is very little mining being carried on in this locality. A few parties of men are engaged occasionally in sluicing near the Cardrona River, but their earnings are not large. This district has long been regarded as a most hopeful field for dredging, and several companies were formed with the object of providing dredges to work the valley. Two dredges have been completed—the Rolling Stone and the White Star. The former of these was working for some months, but the returns were disappointing. Operations are at present discontinued and the dredge is closed down. The White Star has only recently begun to work, but the prospects are encouraging, and payable returns are confidently anticipated. Several other dredges are in various stages of construction, but it will be some time before they are at work. The erection of these dredges has proceeded very slowly, the machinery and materials having to be carted over long distances.

The dredging-ground at Cardrona consists of a wide flat valley, the entire bed of which is covered with silt and gravel, over which the Cardrona Creek (an inconsiderable stream except in times of flood) flows in a straggling channel. The stream is amply sufficient to supply the dam in which the dredge works, but it is too small to otherwise float the dredge. The method of dredging is therefore of the kind adopted in working ordinary alluvial flats—a method which necessarily places the dredge at a great disadvantage as compared with the deep-river dredges, which can be easily moved from one portion of the claim to another if the place chosen for the commencement of operations proves unfavourable.

An impression seems to prevail that the dredges built, or in course of construction, will hardly prove capable of testing with absolute certainty the auriferous nature or otherwise of the ground, the silt in many places being too deep to be removed by these dredges as at present equipped.

#### CROMWELL SUB-DISTRICT.

The gradual decrease of alluvial mining referred to in previous reports still continues, and, although a few parties and some individual miners still continue at work in certain localities—notably Nevis, Bannockburn, Quartz Reef Point, and Lindis—the returns have been gradually diminishing, and the industry is surely, though slowly, dying.

Dredging, on the other hand, is steadily assuming larger proportions, as will be seen by a reference to the accompanying statistical sheets, where it is shown that there are now twenty-three dredges actually employed in this sub-district as against twelve for last year, the total value thereof being £149,000 as against £78,000, and the ascertained output of gold being 20,790 oz. as against 17,344 oz. for last year. Although the output of gold does not appear to have increased in due proportion to the increased number of dredges, it must be borne in mind that, with one or two exceptions, no extraordinarily large returns have been obtained, but that the yield has been more evenly