

mine during the year, and are still working in their upper and machine-site levels. The quantity of stone crushed from the commencement or first opening-up of the mine to the 31st March is 10,897 tons, which has yielded 5,857oz. 8dwt. retorted and smelted gold.

In conclusion I am glad to say the mining industry is looking healthy and prosperous, and that, notwithstanding the dry season just passed, the agricultural industry will have little to complain of, the crops throughout the entire district having been fairly good.

The Under-Secretary of Mines, Wellington.

I have, &c.,

JOHN S. HICKSON, Warden.

No. 16.

Mr. Warden WOOD to the UNDER-SECRETARY of MINES.

SIR,—

Warden's Office, Naseby, 8th April, 1887.

I have the honour to forward you herewith statistical returns and annual report for that portion of the Otago Mining District under my supervision.

Macrae's.—There is nothing new to report in connection with mining at this place. Water has been very scarce, which has retarded sluicing operations.

Hyde.—Mining at this place is almost at a standstill. A shaft has been sunk in the deep ground which was subsidized by the county for the purpose of finding a supposed deep lead; but the prospects obtained therefrom were not satisfactory, and the slabs were drawn after sinking to a depth of 130ft. and driving a short distance at the bottom.

Hamilton, Sowburn, and Serpentine.—In the two former places no new finds have been made, nor has there been any change since last report, except the natural changes in the population. At Serpentine a large company has been formed, known as the Golden Gully Quartz-mining Company, to work Turnbull's old reef, that gave such good prospects a few years ago; and, as they seem to be going to work in the right direction, they have every prospect of success.

Naseby.—Very little alteration has taken place in this subdivision of the Mount Ida District. The taking of the Mount Ida Water Trust's race to the east side of the Hogburn has developed the resources of the watershed of the Kyeburn, and confirms the opinion always held, that an extensive auriferous area existed there, which only required water to develop it. The water available from the Trust's race is quite inadequate to supply the requirements when water is plentiful; and in dry seasons, such as the two last summers have been, it is semi-starvation, all the water the Trust has been able to supply its customers with.

The Rough Ridge, on its western slope, has a small population, carrying on quartz-mining in three registered companies; but the work they have at present done may be termed merely prospecting.

St. Bathans, &c.—The only new discovery in this subdivision during the year has been on the western side of Blackstone Hill, about two miles from the township of that name, and six miles from St. Bathans. Two men, with no better appliances than a tub and cradle, obtained 130oz. in seven weeks, having obtained as much as 10oz. in one day; but none of the considerable number attracted by their discovery have done so well. Many of them have pertinaciously stuck to prospecting in the neighbourhood for the last two months, with the result that a large amount of ground has been discovered that will pay for sluicing. The quantity of water, however, available is very limited.

In former reports the large works undertaken in the locality of St. Bathans proper to enable ground to be worked profitably have been commented on—undertakings such as have nowhere else been entered upon by private enterprise. One of these—the Muddy Creek Channel Company—has been finished during the year, and work commenced on the holdings at its head. This channel is four miles in length, 18ft. wide on the bottom at the lower two miles, and 12ft. on the upper portion. The cutting was from a few feet at its lower end to 45ft. at the upper; and in its construction one and a half millions of cubic yards of solid material were removed, and two millions of cubic yards of earth coming from the claims in operation passed along it, it being a condition of the Channel Company's grant that they must put up with everything that came. Eleven years were occupied in its construction, and the cost has been £12,000, exclusive of interest. The company that first started the work failed five years ago, when two of the water-companies—namely, the Scandinavian and United M. and E.—holding the largest areas of ground to be benefited jointly purchased and carried the work to a successful conclusion. This channel is said to open up ground that will last for twenty-five or thirty years, and without it the large area of country on the eastern slope of the spur of Mount St. Bathans which divides the St. Bathans workings would now be abandoned. In the progress of this work £600 was obtained as subsidy from the County Council, and £1,000 from the Government.

The workings on the western side of the spur, an auriferous area of about 130 acres known locally as the St. Bathans Basin, are for five-sixths of their circumference bounded by hills. The new Deep Level Channel Company, to work this area, is progressing slowly, owing to a succession of unfavourable seasons for water. This channel will be a mile and a half long, of which a mile is nearly completed; and, though the deepest ground remains to be dealt with, the owners are sanguine that their worst difficulties are over. Those difficulties arose chiefly through the great quantity of stones that have been encountered in traversing the low terrace near Dunstan Creek, in what must have been at one time the bed of the creek; but it is expected that 10 or 12 chains further will see the last of the stones. This channel has been four years under construction, and is 12ft. wide in the bottom, with stone walls 3ft. high, coped with sod and scrub. It will give the lessees of the auriferous area a fall to work 70ft. below the present level of their tail-races. It is being carried up in an open cutting, and a large water-race owned by the constructors carries water to remove the material. The grade is low—only 1 in 100; but the white-drift formation—that