## No. 14.

Mr. Warden Keddell to the Under-Secretary for Gold Fields.

Warden's Office, Clyde, 18th May, 1880. S1R.-I have the honor herewith to forward the several statistical returns of the Dunstan division

of the Otago Gold Fields, called for in your circular letter, for the year ending 31st March, 1880; and to submit the following general report of the progress and state of mining matters in the district

during the same period :

The yield of gold, as obtained from the sales made to the various banks, has, to the agreeable surprise of many, exceeded that of last year, amounting to, in round numbers, 40,000 oz., against 32,000. This increase is attributable in a great measure to the handsome returns made by the Cromwell Company's quartz reef, and the yield of the Mountain Race Gold-mining Company's sluicing claim at Tinker's; but the effect on mining enterprise—more especially on those claims worked on the riverbanks—of the disastrous flood of 1878, reported by my predecessor in the last annual report, is still noticeable.

Mining in this district has principally been confined to alluvial workings—chiefly sluicing. I am glad to report, however, that in more than one direction attention has been given to prospecting quartz veins, of which there are many indications, and, I believe, will be followed successfully. The mine of the Cromwell Company is the only advanced claim of this class in this district, and its yield this year has been very satisfactory. For the last two or three months, however, the prospects of the company have received a check-of a temporary character, as I believe. This appears to be owing to a very common fault in the management of quartz mines—i. e., not proceeding with the preliminary or "dead work" in other portions of the mine whilst getting out payable stone at another. They are now sinking, and have reasonable hopes of having soon in view as good stone as that which has yielded the

dividends of last year.

At Cromwell, the Carrick Range Water-race has advanced near to completion; and, as many sluicing claims at Bannockburn and its neighbourhood, where the deep alluvial ground has been found to be of great extent and value, are in a great measure dependent on this company for their water, it

is a fact worthy of notice.

There have also been some small alluvial discoveries made on the Carrick Range, which promise

The smaller river-workings at Cromwell, Clyde, and Alexandra are monopolized chiefly by

Chinese, whose plodding industry adds considerably to the total yield of gold.

The larger sluicing claims on the slopes of the Leaning Rock District, or Dunstan Mountains, at Tinker's, Drybread, and Devonshire, have yielded rich returns. The claim once known as the Blue Duck—now the property of the Mountain Race Gold-mining Company—has been especially fortunate so far as yield is concerned, but unfortunate inasmuch as the last year's labour cost them the lines of two mon-one a shareholder, and the other a wage man. The workings here are very lives of two men—one a shareholder, and the other a wage-man. The workings here are very dangerous, though I am unable to suggest any practicable improvement; and, as a fact, it must be said that the men really work with their lives in their hands. The last accident occurred in their very deep tail-race, and, in consequence of this, very expensive and necessary work is about to be abandoned, and a fresh race—the construction of which will occupy about two years—is to be undertaken. Water is scarce here, and, if the supply was more plentiful, I am satisfied that more men would find employ-

ment, as the area of payable ground is extensive.

In the Waikerikeri Valley extensive alluvial deposits have been discovered, and are being worked, both in the spurs abutting on the valley, and nearer to the true base of the mountain. Judging from the nature of the drift, this appears to be a continuation of the same formation as has been found along the foot of the Dunstan Ranges, at Mount Bathan's, Drybread, Tinker's, and Devonshire; indeed, it would appear to be continuous from the first-named locality to the Clutha River. When the Golden Gate Company have completed their race, good results may be anticipated. Operations are sadly embar rassed by the difficulty of obtaining any outlet for the tailings, owing to the land at the foot of the several gullies having been Crown-granted to a private individual. On this subject I have before reported.

At Teviot, with the exception of a few claims on the terraces at Potter's and Campbell's, mining is

chiefly confined to sluicing on the banks of the Molyneux; and the miners are mostly old residents, some of them the original pioneers of this section of the district. Many have acquired land in the neighbourhood, and have apparently settled down permanently here. One great drawback to the success of these river sluicing claims is the uncertainty of the river-height, great damage constantly occurring to the tail-races through floods. The notice given through the Telegraph Department from Clyde has mitigated this evil materially, by posting a notice daily on the post office at Roxburgh of the state of the river at Clyde, thirty-five miles higher up. This could be improved by substituting Cromwell for Clyde, as at the former place the Kawarau and Molyneux Rivers join, and a notice from there would save three or four hours.

River and creek workings are chiefly found at the Waikaia, Pomahaka, and Campbell's Gully. These workings are very precarious, not alone from their extreme elevation, but because floods are of

constant occurrence, and always entail great loss of time and labour.

Dredging is still carried on here (Teviot) and at Alexandra. Of late, I believe that the three or four dredges at work have been more remunerative than for some years past, and I have reason to

suppose they will increase in number.

Agricultural leases, &c.—At Cromwell there have been eleven applications, for 797 acres; and I have granted nineteen applications, for 1,818 acres, many of them having been made during the previous year, and held over, awaiting survey. I have also had several applications for holdings under the 66th section of "The Mines Act, 1877." At Clyde there were eleven applications for agricultural leases dealt with. At Teviot there were on 31st March fifty-four agricultural leases in existence, covering 8,442 acres, yielding a rental of £1,055 5s. During the year seventeen holders have purchased, and others exchanged under the deferred-payment system.

Settlement generally throughout the district steadily increases, and the unusually fine harvest has