

In Victoria the average earnings per man for the year 1877 of her 38,005 miners is given in the mineral statistics of that colony at £82 6s. 1½d., or a difference of £15 in favor of the New Zealand miner. This is not labourer's wages at the present rate of 8s. per day of eight hours; but, considering the vicissitudes of the mining industry, and that it is an occupation of prizes and blanks, it is a very high general average.

The falling off of 1,211 in the number of miners during the year has taken place entirely in Westland, where the decrease is actually 1,260*; but the total decrease for the colony is less on account of a slight increase in the returns from Auckland. The great falling off in Westland is due to Kumara being much overdone in the rush which took place there in August, 1876. In Mr. Warden Price's reports of this and the previous year, it is stated that a number of persons, as is usual in such cases, betook themselves temporarily to mining in the excitement of the rush, and soon afterwards relinquished it for their homes and ordinary occupations.

ALLUVIAL MINING, AND MACHINERY EMPLOYED.

Corresponding to the decrease in the number of miners, there is a decrease in the number of toms and sluice-boxes, the implements more particularly of what may be termed manual alluvial mining; but, in hydraulic alluvial mining, the statistics of this year keep well up with those of the previous year. The magnitude of these hydraulic operations and their importance is clearly brought out by a reference to Table 12, which shows approximately that there are some 3,795 water-races, of an aggregate length of 5,230 miles, carrying a total of 7,276 sluice-heads of water. The cost of these works, with their attendant tail-races, dams, and reservoirs, is estimated in round numbers at £850,000. They have all been executed by private enterprise, and the boldness and skill displayed in some of the greater works, while they compel admiration, leave also regret that so much good work should soon become comparatively useless, for it is inevitable that the auriferous earths must get worked out, and alluvial mining become less productive after a time. There are, however, as will be gleaned from the Wardens' reports, still extensive areas awaiting treatment by wholesale process of ground-sluicing.

QUARTZ-MINING.

The future of the mining industry will very much depend on the success of the crushing of the quartz, cement, or other matrix of the gold. There has been a very marked increase in the machinery applied to this purpose during the year. The stamp-heads engaged crushing cement have increased from 187 to 225; this increase is mainly due to the very active operations going on at the famous Blue Spur, Tuapeka District, Otago, from which Mr. Warden Carew reports a greater quantity of gold has been taken during the past twelve months than for any similar period before. Fresh deposits of cement or conglomerate have been opened up in adjacent localities, and, with the great facilities which now exist of getting machinery and all necessary material on to the ground, it would appear as though mining has taken a fresh departure in the Tuapeka District. In the machinery employed in quartz crushing the increase for the colony has been, from 63 steam engines with an aggregate horse-power of 1,776 horses, to 83 steam engines, with an aggregate horse-power of 2,157 horses, and from 1,344 stampers to 1,366; and the number of men engaged in quartz-mining has increased from 2,558 to 2,882. With regard to the localities where quartz-mining is principally carried on, viz.—Thames, Auckland; Reefton, Nelson South-West Mining District; and Cromwell and Macetown, Otago—it may be said of the Thames that, although the yield averaged 9,000 oz. per month for the year ending 31st March, 1878, yet, as it is only from two or three mines, and will not maintain the annual yield of former years, it has become very desirable that fresh discoveries should be made, so as to retain the population now settled there. A proposal has been made to drive a tunnel two miles long through the country behind the present mines. This would cut across the lines of all the known auriferous lodes. Sufficient evidence has been collected to warrant the belief that this work would very likely prove successful in its object if undertaken by a powerful company.

Mr. Warden Shaw's report shows that the average monthly yield of quartz crushed at Reefton is a little over 3,000 oz., and the average yield per ton of quartz crushed, 17 dwts.; an average which has been maintained very closely for the two previous years as well. As pointed out by Mr. Shaw, this is a much higher average than Victoria, which, for the year 1877, was 9 dwt. 9 gr.; and, for the six years ending 1877, an average of 11 dwts. (*see* Mr. Couchman's Mineral Statistics, Victoria.) The same authority gives the miner's wage in Victoria at from £2 2s. to £2. 10s. per week; at Reefton the wage is £3 10s. per week, and generally throughout New Zealand it is from £2 10s. to £3 10s. per week. With these rates, and great cost of transit to such places as Reefton and Macetown, the quartz to pay should not yield under half an ounce to the ton. The country as it gets opened up will bring more stone within the paying limit. At Reefton there is the great advantage of an unlimited supply of growing timber at the mines, from which to draw supplies. This advantage is denied to the Macetown mines, and, as will be seen from Mr. Stratford's report, the cost of props at 1s. per foot is almost prohibitory of the use of timber. There is plenty quite near,

* By comparing the returns for 1877 and 1878 the decrease in Westland would appear to be greater than 1,260; but the return of miners at No Town, which was shown last year under Westland, is placed this year under Nelson.