

will be able to work on any part, and should put through a great deal of stuff. This is essential to success, because the river bed has become greatly filled up with tailings from former workings, and that waste has all to be lifted before the fertile ground on the original bed of the river is reached.

Float Gold.—It has been found at Charleston that the gold does not all settle in the tail-race, but that on the union of the waters of several tail-races a small percentage, well worth saving, floats away on the stream. This is arrested by a series of blanket-tables placed across stream, like weirs, thereby causing the water to flow over all the tables in succession. The tables are washed in turn, and the gold streamed from the sand, and is caught up by mercury.

Beach Gold.—On the coast line, about two miles north of Charleston, there is a settlement of Shetlanders, who with their families have settled down in comfortable homes along the edge of the forest, and whose working time is divided between small farm cultivation and the washing of the fine gold from the sea sands, which, after certain weathers, are easily got at and found to be highly auriferous. These beach-claims are deemed valuable property, are kept carefully registered, and as much as £250 has been paid for the transfer of the right to work a few square yards of what, to a casual observer, would only appear a flat patch of barren sand and nothing more.

QUARTZ AND CEMENT MINING.

The returns from this class of mining for the twelve months ended 31st March, 1881, are—

	Tons of Quartz Crushed.	Ounces of Gold.
Auckland,—		
Coromandel ..	720	4,960
Thames	32,404	53,154
West Coast,—		
Reefton ...	25,926	17,802
Lyell	6,880	5,675
Marlborough,—		
Havelock ..	600	190
Otago,—		
Cromwell	4,511	3,602
Arrow (Macetown)	4,896	2,254
Skipper's ..	3,752	915
Hindon	766	326
	80,455	88,878 from quartz.
Lawrence	..	25,600 estimated from cement.
		114,478 from quartz and cement.

The number of tons of quartz crushed is 4,000 tons greater than last year, this is entirely due to the Alpine Company's mine, Lyell, which, after a great deal of heavy preparatory work, has been crushing regularly for some time past. In the other districts there has been a slight falling-off. For the last three years the returns from quartz mining have fluctuated very little, the total tons crushed being the same annually within 4,000 tons and the yield of gold within 9,000 oz. These comparisons also bring out the fact that for three years the quartz-crushings of Auckland yielded from 1oz 10dwts. to 1oz 17dwts. per ton, the West Coast from 13dwts. to 18½dwts. per ton, and Otago from 10dwts. to 18½dwts. per ton.

Comparing the quartz-crushings of New Zealand with those of Victoria, and taking the most recent annual returns they are New Zealand, 80,455 tons, 88,878oz. or 1oz. 2dwts. 2grs. per ton, Victoria, 968,883 tons, 466,404oz., or 9dwts. 15grs. per ton.

The average yield of quartz crushed in Victoria for the six years, 1874-80, was half-an-ounce, or 10dwts. per ton on the vast quantity of 5,619,776 tons. In New Zealand, although the average yield of gold has always considerably exceeded an ounce to the ton, yet quartz mining has not made such progress as this statement might suggest. There is plenty of stone, but with the higher price of labour and the difficult nature of much of the country, half-an-ounce to the ton would not pay as in Victoria. The consequence is that stone is left untouched