

quantity is smuggled out of the Colony in order to evade the high duty; whilst amongst alluvial miners especially, a practice of hoarding their gold is very prevalent, with the idea, no doubt, in many cases, of shipping it quietly away without troubling H. M. Customs.

The tables appended, No. 1, No. 2, No. 2 A, and No. 2 B, show the revenue of the gold fields, and the gold duty collected in the several provinces for the years 1870 and 1871 and the first quarter of 1872, respectively; and also the revenue collected in the several mining districts for the same periods, as brought to charge in the Public Accounts. Nos. 3 and 4 form a comparative Return of the Revenue during the years 1870 and 1871, showing the increase or decrease under each head of revenue, and in respect of each district, respectively. These returns will be found exceedingly valuable in estimating not only the value of our gold fields to the State, but in the consideration of the elements of the special taxation at present levied upon the mining industry. This, inclusive of the gold duty, amounted in the year ending 31st December, 1871, to the gross sum of £153,577 16s. 10d., or about £5 12s. 6d. per head upon every working miner.

The slight falling off in the revenue and in the amount of gold raised in the Provinces of Otago and Nelson, and in the County of Westland, during the year 1871 as compared with 1870, may be accounted for by the exceptionally dry summer, which seriously impeded, from want of water, all sluicing operations for many months.

#### SILVER.

During the year 1871, 80,372 ounces of silver, valued at £23,145, were exported from Auckland; and during the March quarter of 1872, 18,683 ounces, valued at £4,900; making the total export of this metal from the Colony up to 31st March, 1872, 147,142 ozs. 2 dwts., valued at £42,418. This has been exclusively the produce of the Hauraki gold field (Thames), where the gold is found so heavily alloyed with silver as to render the latter, after separation, so considerable an item of export; as I have quoted.

#### MINING POPULATION.

The mean number of miners employed during the year ending 31st March, 1872, was 27,376; they may be classed as follows:—Alluvial—European, 16,847; Chinese, 3,701. Quartz—European, 6,828. *Vide* Tables 12 and 13. By the Census taken 27th February, 1871, the total population of the gold fields was, so far as can be ascertained by the enumeration according to Electoral Districts, 52,067, of this number 14,779 were females, thus leaving, exclusive of miners, 9,912 persons engaged in business, or male children.

The Chinese miners are nearly all at present located in the Province of Otago, and would appear by the Returns to confine themselves entirely to alluvial mining. They thoroughly understand the value of associated labor and capital, and have proved themselves able to work profitably ground which offered no inducement to European parties. The Colony, beyond the duty upon the gold which they may export through the Custom House, obtains little or no advantage from the sojourn upon the gold fields of these foreigners, who are essentially not colonists; who, without exception leave for their own country, when they have realised a competence, carrying with them the precious metal which they have raised under the protection of our laws, and at the expense of future generations.

Dividing the value of the total quantity of gold exported, amongst the mean number of miners employed in alluvial and quartz mining, it appears that in the year 1871, the average was per man £101 16s 5½d. This mode of estimating the productiveness of gold fields is, as Mr. Brough Smythe, Secretary of Mines in Victoria, remarks in a recent report for Parliament, obviously the only method which admits of a fair comparison of the productiveness of one gold field with another, and is now invariably adopted in the Pacific States of the American Republic. The result by no means pretends to afford anything approaching an average of the individual earnings of the miners, but simply indicates the measure of success which has attended mining operations generally; whether due to well applied labor and skill, or to the comparative richness of the deposits, cannot exactly be ascertained. Upon a similar calculation the average earnings per man upon the Victorian Gold Fields, where the miners employed during the year 1871, numbered 58,111, was £81 0s 6½d, leaving a balance in favor of New Zealand of £20 15s 1d.

#### WATER RACES, &c.

There are within the Colony 3,595 miles of Water Races, carrying 7,056 sluice heads, constructed at an estimated cost of £711,386; but even this seemingly large supply is not nearly sufficient to meet the pressing demands of the present workings, either alluvial or quartz. It will be seen by reference to the Wardens' reports that in many districts, in the Province of Otago and County of Westland, mining operations were entirely suspended for two or three months during the last summer, from the want of water. Table No. 16, shows approximately the number, description and value of the water races, tail races, dams, and reservoirs, within the gold fields, arranged according to the several mining districts.

#### MACHINERY.

The number of engines employed upon 31st March, 1872, in quartz mining was as follows:—

Number.	Horse-power.	Number of Stamp Heads.
127	2618	1170

Of these 86 are worked by steam, the remainder by water power; turbine wheels being extensively used. A very complete Table of all the quartz crushing machinery upon the Thames gold fields with sketch