

On area 155,* for example, there are four shafts on the Tudor lode, and three shafts on the north lead, the breadth of the area being 150 feet. On area 102, there are three shafts on the Tudor, and three on the north lode, the same on areas 164 and 102. On the property of one company there are eight shafts on the north lead, in the space of 450 feet, and nine shafts on the Tudor lode within the same distance. The lodes being but 60 feet apart, two main shafts, with suitable hoisting and pumping machinery, and cross galleries, would have been ample, and the saving in labour and time would have greatly reduced the cost of mining the quartz.

A remarkable instance of want of foresight, in a most important department of mining economies, is presented in the construction of one of the largest steam crushing mills at Waverley, and this is but a fair illustration of inattention to important details, which are common in the Nova Scotia mining districts. The site selected for this mill is so low that the tailings, as they leave the mill, are now required to be hoisted by a revolving wheel, furnished with buckets, to a sluice, where they have an opportunity of escaping over the accumulated heaps near the mill, but without any attempt at concentration, or saving any of the gold which they undoubtedly contain. This is equivalent to employing power, machinery and labour, to get rid of 1 dwt. 16½ grains of gold per ton. A buddle, to concentrate the tailings and save the gold, could have been constructed at far less cost than the present ingenious contrivance to hoist the tailings out of the way.

The reasons why failure and collapse, in place of continued prosperity, has characterised some mining properties in Waverley, and indeed throughout Nova Scotia, I have already officially stated to be as follows:—

1. The absorption of all returns to pay large dividends.
2. The small size of some of the properties.
3. Insufficient working capital at the outset.
4. A uniform neglect in preserving records and plans in detail of the works.
5. Inadequate machinery and appliances to save gold.
6. The want of labour-saving machinery.
7. Ignorance respecting mining operations, the "gold-streak," or "chimneys," or "pipes," or zone of auriferous quartz.
8. General neglect of the contract and tribute system.
9. And, as a necessary result of the foregoing, the frequent incompetency of some of the so-called managers.

VIII.—MINING STATISTICS.

The following tables have been kindly supplied by the Commissioners of Mines at Halifax, and they have all the seal of the office attached to them. A glance at these tables will show that the gold yield from quartz of some of the Nova Scotia districts is in excess of the average of gold-mining countries generally. Tables are also given of the yield of certain mines in each district, from which some ideas may be formed of the productiveness of the quartz, and of the extent to which the returns might be increased if the same economy in mining, skill in manipulation, and eagerness to adopt improvements existed in Nova Scotia which are now common in Australia and California. The decrease in the general annual average at Sherbrooke is due to the cessation of the process of culling the quartz, which was to a large extent common in the infancy of mining in Nova Scotia. At the present time, not only in the quartz of the lode crushed, but also some inches of the adjoining slate, and at Musquodoboit, and Isaacs Harbour, broad bands, from 14 to 20 feet of mixed slate and quartz, are crushed with returns shown in tables.

* A mining area in Nova Scotia is 150 feet on the lode, by 250 at right angles to it. The original course of area lines is established by the Government District Surveyor.
Vide report on the Waverley Gold District.

SHERBROOKE GOLD DISTRICT.

Statement of Quartz crushed, and Gold obtained from the Sherbrooke Gold District, during the years 1863 to 1869 inclusive, together with the average and maximum yield of Gold per ton, as shown by the Quarterly Returns rendered the Department of Mines.

| Year. | Quartz raised. | Gold obtained. | | | | Average yield. | Maximum yield. | | |
|------------|----------------|----------------|----|----|----|----------------|----------------|----|----|
| 1863 | 3,454 | 3,304 | 14 | 12 | .. | 12 | 0 | 0 | |
| 1864* | 1,909 | 2,611 | 0 | 22 | .. | 20 | 0 | 0 | |
| 1865 | 2,637 | 3,137 | 9 | 5 | .. | 8 | 3 | 0 | |
| 1866 | 2,684 | 5,157 | 14 | 17 | 1 | 22 | 0 | 16 | 6 |
| 1867 | 5,809 | 8,522 | 8 | 11 | 1 | 9 | 8 | 11 | 13 |
| 3 mos. do. | 2,376 | 2,708 | 8 | 18 | 1 | 9 | 19 | 5 | 0 |
| 1868 | 8,880 | 7,070 | 0 | 5 | 0 | 16 | 0 | 12 | 15 |
| 1869 | 11,590 | 5,516 | 11 | 16 | 0 | 9 | 15 | 6 | 9 |
| Total.. | 39,249 | 38,058 | 14 | 10 | 0 | 19 | 9 | 20 | 0 |

* Nine months to September 30.

In 1862 there was obtained 2,023 ounces (as near as could be ascertained).

Statement of labour performed on areas 650, 651, 652, 680, 681, 682, block 3, Sherbrooke District, the property of the Wellington Gold Mining Company, during the years 1863 to 1869 inclusive, and results.

| Days. | Date. | Quartz crushed. | | Yield of Gold. | | |
|--------|-----------------|-----------------|-------|----------------|------|------|
| | | tons. | cwts. | oz. | dwt. | grs. |
| 1,800 | 1863. Dec. 31.. | 149 | 16 | 222 | 15 | 2 |
| 500 | 1864. Mar. 31.. | 32 | 15 | 95 | 10 | 22 |
| 300 | June 30.. | 40 | 4 | 71 | 5 | 5 |
| 780 | Sept. 30.. | 16 | 1 | 39 | 12 | 2 |
| 666 | Dec. 31.. | 13 | 0 | 27 | 10 | 2 |
| 459 | 1865. Mar. 31.. | 18 | 19 | 13 | 11 | 16 |
| 710 | June 30.. | 109 | 0 | 107 | 17 | 19 |
| 737 | Sept. 30.. | 107 | 0 | 428 | 15 | 0 |
| 1,297 | Dec. 31.. | 285 | 18 | 766 | 15 | 2 |
| 1,400 | 1866. Mar. 31.. | 219 | 10 | 298 | 0 | 12 |
| 1,214 | June 30.. | 409 | 14 | 991 | 6 | 3 |
| 700 | Sept. 30.. | 389 | 0 | 871 | 18 | 22 |
| 1,650 | Dec. 31.. | 266 | 18 | 864 | 4 | 15 |
| 3,000 | 1867. Mar. 31.. | 400 | 0 | 940 | 0 | 0 |
| 3,004 | June 30.. | 465 | 0 | 631 | 0 | 0 |
| 2,800 | Sept. 30.. | 335 | 10 | 314 | 14 | 0 |
| 2,000 | Dec. 31.. | 312 | 10 | 507 | 0 | 0 |
| 3,600 | 1868. Mar. 31.. | 596 | 10 | 1,061 | 18 | 6 |
| 4,600 | June 30.. | 550 | 16 | 456 | 11 | 16 |
| 3,510 | Sept. 30.. | 814 | 12 | 644 | 5 | 0 |
| 3,500 | Dec. 31.. | 448 | 12 | 515 | 11 | 10 |
| 4,000 | 1869. Mar. 31.. | 682 | 0 | 600 | 0 | 12 |
| 4,000 | June 30.. | 1,059 | 0 | 794 | 3 | 5 |
| 3,244 | Sept. 30.. | 731 | 10 | 281 | 2 | 18 |
| 3,800 | Dec. 31.. | 500 | 17 | 666 | 17 | 0 |
| 53,301 | .. | 8,984 | 12 | 12,215 | 13 | 7 |

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