

The by-wash has had nothing done to it during the year, and, as the scour is still going on, means will have to be taken to put a stop to it.

Head-race Tunnel.—During the year about one chain of the main race between the inlet end of the Head-race Tunnel and the little dam has been enlarged and timbered, and about two chains of the upper end of the tunnel has also been enlarged and substantially retimbered. New inlet-gates of much larger carrying capacity, with substantial screws for opening and closing, have been fixed at the tunnel mouth, and a length of 18 chains of tunnel has been lined top, bottom, and sides. These alterations and improvements have increased the carrying-capacity of the tunnel fully 25 per cent. Previously, the tunnel had a carrying-capacity of something less than 100 sluice-heads; its carrying-capacity now exceeds 125 sluice-heads. A new screw has been fixed on the outlet-gate of the little dam, as the old one was not in good condition; and new boxing and gates have been put in at the lower end of the Head-race Tunnel, for the better distribution of the race-water to the several branch races. In case of accident, a new by-wash has been put in between the upper end of the tunnel and the little dam, through which the whole of the race-water can be turned should necessity arise; by this means the race can be thoroughly emptied for the execution of repairs to either tunnel or race.

Catchwater Races, &c.—Catchwater races have been cut, by which a very considerable quantity of water, formerly running to waste, is now carried into the little dam, and full benefit is derived from any temporary heavy showers. The Kapitea Hill Race has been considerably enlarged, and is now capable of carrying seventy-five sluice-heads. Two new by-washes have been constructed, one at the lower end of the Kapitea Hill Race, and the other at Dillmanstown.

The foregoing improvements have rendered the race capable of supplying 25 per cent. more water than formerly; but the demand for water has recently been very small.

The following table will show the result of working the water-race last year, the number of men employed, and the approximate quantity and value of gold obtained by those using water from this supply:—

Month.	Sales of Water.	Cash received for Sales of Water.	Expenditure.	Outstanding Moneys at the end of each Month.	Number of Men employed.	Approximate Amount of Gold obtained.	Value of Gold.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.		Oz.	£ s. d.
1891.							
April	616 5 10	485 7 0	167 13 2	51 4 3	179	1,026	4,001 8 0
May	655 4 11	679 16 6	171 3 9	72 1 9	180	1,255	4,894 10 0
June	542 9 1	621 13 11	140 11 3	50 8 7	179	629	2,453 2 0
July	179 11 11	225 0 3	112 11 8	44 8 9	179	399	1,556 2 0
August	426 16 1	305 16 11	124 5 3	56 8 3	179	527	2,055 6 0
September ..	769 15 5	838 19 11	171 19 3	49 10 0	179	802	3,127 16 0
October	784 13 8	607 1 5	150 17 8	74 1 9	177	1,123	4,379 14 0
November ..	642 4 2	710 7 10	149 18 11	58 6 10	168	1,138	4,438 4 0
December ..	469 10 0	474 10 6	107 16 2	62 13 8	171	842	3,283 16 0
1892.							
January	291 3 9	310 13 7	95 4 10	66 5 6	166	767	2,991 6 0
February ..	543 7 6	490 9 11	82 13 7	85 17 7	162	645	2,515 10 0
March	724 8 8	630 1 6	109 15 5	118 8 7	149	1,086	4,235 8 0
Total	6,645 11 0	6,379 19 3	1,584 10 11	..	172	10,239	39,932 2 0

It will be seen that the sales of water for last year amounted to £6,645 11s., to which must be added the value of water given towards the cost of deviations, £413 3s. 4d., making the total sales of water £7,058 14s. 4d., while the expenditure on maintenance for the same period was £1,584 10s. 11d. Comparing this year's returns with the previous one, in which the sales of water amounted to £6,665 12s. 8d., and adding the value of water given towards the construction of No. 3 Channel or tail-race—£913 18s. 4d.—the total sales amounted to £7,579 11s., the expenditure for the same period being £1,766 4s. 3d.; showing a decrease in the sales last year of £1,520 16s. 8d., and in cost of maintenance of £181 13s. 4d. The actual profit on the working last year was £5,474 3s. 5d. The value of free water given to parties to open out claims was £339 17s. 3d., and for assistance in working poor ground £656 7s. 2d., making a total of £996 4s. 5d. The average number of men employed in claims working with water from this supply last year was 172, while for the previous year the average number employed was 155. The approximate quantity of gold obtained by persons using water from this race last year was 10,239oz., representing a value of £39,932 2s. Deducting the value of the sales of water—namely, £7,058 14s. 4d.—from the value of the gold, it gives the average earnings of the miners as about £191 2s. 6d. per man per annum, or £3 13s. 6d. per week, being 1s. 4d. a man per week less than the earnings for the previous year. The profits on the working for the last year equalled 13·8 per cent. on the total expenditure on construction, which now amounts to £39,636 7s. 1d.

The following summary will show the result of working this water-race for the last nine years: During that period, £65,057 19s. 6d. was derived from sales of water. The value of water given for assistance was £6,575 17s. 1d.; for cost of deviations, £1,898 3s. 9d.; and towards the construction of the No. 3 Channel, or tail-race, £2,406 1s. 2d.; making the total value of water sold and given away amount to £75,939 1s. 6d., while the cost of maintenance for this same period was £13,445 5s. 11d.