

NELSON CREEK WATER-RACE.

The construction of this water-race was commenced in April, 1874, and completed in the beginning of 1878; a good number of the bridges and flumes have accordingly been up for sixteen years. These are all now in a greatly-decayed state. The understructure of the low flumes and small bridges can easily be replaced, and many of these have been repaired so that they will last for several years; but there are several large arch braced bridges across deep gulches from 120ft. to 175ft. deep, having spans of from 140ft. to 150ft.; and also understrutted bridges of from 70ft. to 90ft. spans, which cannot well be repaired, and would have to be replaced either by a new structure or by siphons; in most of the places where these bridges are erected there is only the ordinary fall of the race, namely, 8ft. per mile, which would require large siphons to carry the water. Most of the timber used in the construction of the large bridges and flumes is really in such a decayed state that some of them may come down any day. The amount derived from the sales of water is not sufficient to cover the cost of maintenance, neither does the extent of the auriferous-drift terraces and flats that the present water-race commands warrant any large expenditure being made to put this water-race in thorough repair.

The only new ground likely to be opened out is that in the vicinity of Ward's Gully, the lower end of Try-again Terrace, Brian Boru Gully, and the valley of Nelson Creek between Hatter's Terrace and Mr. Drennan's farm; but, with the exception of the latter place, the area of known auriferous-drift-gravel wash is very limited. There is a considerable area of auriferous-drift wash on the terraces on the west side of Nelson Creek, which was partially worked in the early days of the field, and which is likely to pay for hydraulic sluicing; but a portion of this ground would have to be worked on the hydraulic-elevating principle, as there is not sufficient fall for ordinary sluicing. To command this ground about 80 chains of steel-piping would be required, and a trestle bridge to carry the pipes across the bed of Nelson Creek. But before this could be thought of about £13,000 would have to be expended on the main race to replace bridges and flumes, and in substituting siphons in lieu of some of them; but even if this work were done the revenue likely to be derived from the sales of water would not justify the expenditure. The only other ground that the race commands is a large flat on the upper side of Sutherland's Creek (where a little gold was found during the time the race was being constructed), but which has never yet been prospected. If payable drift-wash could be found in this flat a large supply of water could easily be got, as it is on the upper side of all the bridges and large flumes.

The following statement shows the result of working the water-race during last year:—

Month.		Sales of Water.		Expenditure.		Number of Men employed.	Approximate Amount of Gold obtained.	Value of Gold.	
		£	s. d.	£	s. d.		Oz.	£	s. d.
1890.									
April	..	52	1 8	74	2 0	35	119	455	3 6
May	..	42	2 6	77	7 5	36	93	355	14 6
June	..	53	12 6	71	14 0	36	109	416	18 6
July	..	62	3 4	77	8 0	32	99	378	13 6
August	..	59	1 8	74	9 8	34	102	390	3 0
September	..	56	4 2	74	12 0	32	97	371	0 6
October	..	67	10 10	84	7 3	26	81	309	16 6
November	..	5	8 4	72	15 0
December	..	45	6 8	84	8 0	28	78	298	7 0
1891.									
January	..	29	3 4	101	3 0	24	53	202	14 6
February	..	50	0 0	68	14 0	27	68	260	2 0
March	..	47	10 0	78	19 4	26	66	252	9 0
Totals		570	5 0	939	19 8	336*	965	3,691	2 6

* Average number of men employed, 28.

It will be seen from the above statement that the value of sales of water last year was £570 5s., as against £529 18s. 4d. for the previous year; and the expenditure on maintenance was £939 19s. 8d., as against £917 10s. 4d. for the former year. This shows a loss on the working last year of £369 14s. 8d., the loss the previous year being £387 12s. Considering the decayed state of the wooden structures on this water-race it is gratifying to find that the loss on the working last year was less than in the previous year. The value of free water given last year towards assistance in opening out claims and working poor ground was £84 15s., as against £128 15s. for the previous year. The average number of men employed in claims worked with water from the race during last year was twenty-eight, and the approximate amount of gold obtained by them for the year was 965oz., representing a value of £3,691 2s. 6d. Deducting the value of the sales of water from this amount, it leaves £3,120 17s. 6d. as the earnings of the miners employed for the year, which is equal to £2 2s. 10d. a week per man, being 3s. 4d. per week more than the average earnings for the previous year. The total cost of this work has been £90,722 10s. 8d., and the value of the sales of water since it was constructed amount to £17,364 0s. 7d.; while the expenditure on maintenance has amounted to £15,123 0s. 7d. The approximate quantity of gold obtained with water from this race is 32,698oz., representing a value of £125,069 17s.

ARGYLE WATER-RACE.

Previous to the purchase of this water-race the miners and residents in the district petitioned the Government to construct a water-race from the Four-mile Creek to bring a good supply of water on to the field. The Chairman of the Buller County, on behalf of the Council, offered to the Government to pay one-half of the interest on the cost of construction, and at the end of August, 1878, the