

is but little doubt that a large area of payable sluicing-ground will be commanded by this main tail-race, and as soon as it is completed branch tail-races will be constructed to connect with the various claims, and sluicing operations on a fairly large scale commenced. Many of the claims in the vicinity have recently been the subject of considerable litigation in the Warden's Court, and some of the cases are still unsettled. This has been the cause of much delay in the construction of the Main Tail-race.

There is a fair hope that a considerable revival in mining matters in the Waimea district will be the result of the completion of this work, as there is little doubt of the payable character of the ground, which would have been worked long ago if the natural facilities for working had been favourable.

KELLY'S TERRACE DRAINAGE TUNNEL.

The Kelly's Terrace drainage tunnel has been driven a distance of about 1,200 ft. The proposed length of the tunnel is 6,600 ft., and good gold has been got in the vicinity of its terminating point, but the quantity of water that had to be contended with caused the ground to be abandoned for several years past. There is no intention of sluicing through this tunnel, it is for drainage purposes only, and the fall is only sufficient to carry off the water, as the lower it is at its upper terminating point the more effective it will be in draining the ground proposed to be worked. The contractors are at present driving an inclined branch tunnel to a gully about 70 ft. from the present face, as they consider it will be more economical to discharge the material by that outlet than run it to the present tip, a distance of about 1,500 ft. As the country through which this tunnel passes is all auriferous, it is probable that payable gold may be struck before the proposed termination is reached.

KUMARA RACE.

The total sales of water during the year from this race amounted to £3,502 17s., and the expenditure for maintenance for the same period was £1,786 15s. 9d., leaving a credit balance of £1,716 1s. 3d. The average number of miners using water during the year from this race was 87·83, and the approximate quantity of gold obtained by them was 5,455 oz., having a value of £21,264 10s. The sales of water amount to £603 14s. 3d. less than during the preceding year, and the yield of gold is 590 oz. less, having a value of £2,301. The reason the sales of water amount to less than during the preceding year is that the price of water was reduced from £2 per sluice-head per week to £1 10s., from 1st June, 1896, so that there was only two months of the year at the higher rate. Although the price was reduced 25 per cent., the sales of water, counting from the 1st June, show a decrease of only 15·25 per cent., and, taking the whole year, a decrease of only 14·69 per cent.

The decrease in the quantity of gold obtained is due to the increasing poorness of the ground being sluiced away. There is no doubt the best of the sluicing-ground, so far as at present known, has been worked, and the number of really good claims now being worked on the field are very few. There is, however, a very large area of ground still unworked that, with improved and more economical methods of working, will pay wages, and extensive sluicing operations will be carried on here for many years to come, even if no new discoveries are made.

Besides the sales of water above referred to, water to the value of £479 3s. was supplied to claims having a succession of poor washings; and water to the value of £133 17s. 6d. was given towards the construction of No. 4 main tail-race. In all cases where assistance was given to poor claims full inquiries were made as to the necessity for so doing, and in most cases, if assistance had not been given, the claims would have been abandoned. When water was plentiful and running to waste down the creeks extra quantities were supplied to the claims using water and to parties prospecting. A considerable quantity of water was also supplied to the trustees of No. 5 main tail-race to sluice away pug and supply two water-wheels.

The total quantity of water supplied from the race during the year had a value of £4,115 17s. 6d., exclusive of water for flushing the channels, washing-down water, water for fire purposes, leakage, and waste.

For ten working-days during the year no water for sluicing was supplied from the race, and for fifty working-days there was no water for the channels, owing to long spells of dry weather. Besides the above, the miners observed five holidays during the year.

One claim was worked out during the year, and one was abandoned, as it was considered too poor.

Water was lost over the dams on sixty separate days, and during that time the total quantity of water lost would have given a full supply to the field for sixty-eight days and a half if it could have been made use of.

A new race for supplying water to No. 4 main tail-race was constructed, at a cost of £106 9s. 3d. and it acts well, and will require no expenditure for repairs.

A considerable amount has been expended on replacing the 30 in. steel syphons, and the removal of them to the proposed new position would reduce the expenditure on the maintenance of the race very considerably.

RAISING BYWASH AT LOOP-LINE DAM.

Authority has been received to carry out the proposed alterations to the bywash at the Loop-line dam, which will have the effect of increasing the capacity of the reservoir to a very considerable extent. I feel certain that the embankments will safely stand the proposed raising of the level of the water in the dam, and that when the work is completed the loss from scarcity of water will be materially reduced. The proposed catchwater-race should also be carried out, as that would still further improve the supply.