

made of a dam site in this locality, and that an embankment-wall 17ft. high above the bed of the river would dam back the water over an area of one mile square to a depth of 9ft., and that the gorge, being narrow, there would be no difficulty in constructing an embankment to a height of 70ft. or 80ft. at a very small cost. If this is the case, it would be of great importance to the district to have such a reservoir constructed to conserve the water in wet weather so that hydraulic-sluicing operations could be carried on continuously. The difficulty seems to be to get all those interested in the scheme to contribute their fair share of the cost of construction. If the wall or embankment was carried up to a height of 46ft., and the area to be only a mile square, same as stated for a dam 17ft. high, then there would be $5280^2 \times 30 = 836,352,000$ cubic feet, which is equal to a supply of eighty sluice-heads for a hundred and twenty-one days.

The Roxburgh Amalgamated Company constructed the dam wall only about 8ft. high; but this was of very little service, as the first season being very dry weather they had hardly any water. Mr. Perry, who originally introduced the hydraulic-elevating principle at Gabriel's Gully, and at the Hercules Company's ground, is a large shareholder in the latter company, and he is proposing to erect a timber wall on the top of the concrete one constructed by the Roxburgh Company to the height of about 5ft. No doubt such can be done at a small expense; but it must be borne in mind that this system, if adopted, will prevent the dam being raised at any future time, unless the whole of the timber work is removed, and the extra quantity of water gained by raising the dam 5ft. is not sufficient to provide a large enough supply to work poor ground economically.

In regard to the workings of the Roxburgh Amalgamated Company, they use two jet nozzles for elevators, and one small jet for pumping, the head of water on these jets being 550ft.; and at the time of my visit, in January last, the manager expected to be able to work three hydraulic-elevators. The elevating-pipes are 15in. in diameter and have a 9in. throat-piece when new, which wears down to 12in. in diameter. There is a considerable quantity of stones amongst the wash-drift, but not nearly so much as there is in the Hercules Company's ground, which is about one and a half miles further down the river. The company employs on an average about twenty-four men, which takes about 20oz. of gold a week to pay working expenses; and the manager informed me the yield of gold from the claim averages about 200oz. per month, which leaves a good margin of profit for the shareholders. Up to the time of my visit sluicing operations had been only suspended for fourteen days for want of water, but this has been an extremely favourable season for sluicing. During the last year the yield of gold from this company's claim represented a value of £7,464, and the expenditure in connection with their works for same period was £4,080, thus leaving a balance to the good of £3,384. The following is taken from the *Otago Witness* of the 12th May last: "At the commencement of the year there was a balance of £1,281 9s. 9d. to the debit of profit-and-loss account, to which is added the sum of £489 7s. 10d., paid in compensation and costs in connection with the action of the United Hercules Company, and £29 16s. 6d. for witnesses' expenses in an action brought against the company relating to a disputed allocation of shares amongst certain of the vendors. After charging these items, law costs, and the dividend paid in March, there remains to the credit of profit-and-loss account the sum of £893 0s. 7d., out of which the directors recommend that the sum of £200 be applied in reduction of preliminary expenses, and the balance carried forward. As there is a prospect of both elevators being fully employed for the future, the Board hopes to be able shortly to declare another dividend, and pay dividends at regular intervals in future. With a view to the more frequent declaration of dividends, the directors intend to ask the shareholders' assent to a proposal to reduce the present number of shares one-half, increasing the nominal value from 10s. to £1 each. During the twelve months the sum of £730 4s. 9d. has been expended on permanent works and new plant, including the lighting of the claim by electricity."

The Commissioner's Flat Company, referred to in my last report, has gone into liquidation, and the whole of their valuable property, on which they had expended about £8,000 on plant and claim, was sold for about £1,200. It is considered, by those who have a knowledge of the ground in this locality, that this company had a valuable mining property, and that it could have been made to pay handsomely for working with good appliances and economical management.

Mr. Perry, who erected the first hydraulic-elevating plant at Gabriel's Gully, has recently returned from England, from which he brought out some new machinery for mining, which is now in course of erection at the side of the Benger Burn. It is intended to lift the material with a scoop into the sluice-boxes, and pump the water up for sluicing purposes.

At Bald Hill Flat a party of miners have erected a hydraulic-elevator and are working the ground directly at the back of Mr. Kemp's store. The ground has been previously worked, but there not being sufficient fall to sluice it in the ordinary manner, a small hydraulic-elevator was put on the ground; but the quantity of available water in this locality will have to be supplemented before this party can carry on hydraulic working continuously. The plant is very creditably constructed and works satisfactorily, with, it is stated, good results.

There is a considerable area of paying auriferous ground in this locality if there was a plentiful supply of water. There are four water-races now in course of construction, which, when completed, will be capable of supplying about fifteen sluice-heads. The water-race and rights held by the late Commissioner's Flat Company have been purchased by Simmonds and party for £600, who intend to bring the water on to Bald Hill Flat, where they have taken up claims. When all the claims are able to be worked in this locality it is likely to produce a good deal of gold.

Black's.

There are about fifteen or twenty miners still working in this locality, but they are getting very little gold, as the ground is very poor. The drainage tail-race that was constructed a few years ago, and which was expected to open up a large extent of auriferous ground, has not succeeded in accomplishing this object, but the cry still remains the same: "Extend the tail-race, and we will open up a good field." The last extension of this tail-race cost somewhere about £2,300, of which