

Pipeclay Sludge-channel, Bannockburn, Otago.—This channel was first undertaken about seven years ago; but the first company that undertook its construction failed on account of the numerous difficulties to contend against. The present company has been steadily progressing with its construction for the last three years and a half; and, judging from the progress made during last year, it will yet take a considerable time before it is completed. It is about a mile and a half in length, 6ft. wide in the bottom, which is paved with stones, and about 3ft. high on the sides, which are also lined with stones. It is constructed with a grade of 1 in 18, and when completed will be the means of a large area of deep ground being worked. Some dissatisfaction among the miners interested in its construction was expressed when the present company altered the grade to 1 in 21; but this obstacle has been remedied by the company, and the grade made uniform. It may appear at first sight that the time engaged in the construction of this work has been unnecessarily long; but it should be borne in mind that before the tail-race could be made, tailings to a depth of 30ft. and 40ft. had to be sluiced away, as well as the tailings that are coming into the gully from the high terraces that are being worked; also, the nature of the sedimentary rock that had to be cut through in places to get a uniform grade was of such a character that it swelled, causing large slips to take place, and even lifted up the bottom of channel in one place, which had to be several times cut down after the paving had been laid. A subsidy of £698 19s. was authorized for the completion of the work, out of which £402 14s. 4d. have been paid.

Drainage-channel, Ophir, Otago.—This is the continuation of a drainage-channel that was constructed from the Manuherikia River several years ago, to drain the ground then being worked. This channel has been extended for a distance of over a mile further up the flat, and further extension is in course of construction in order to enable the ground to be prospected and worked. The whole of the ground in this locality is excessively wet, and cannot be worked unless by very expensive machinery, or tail-race; the latter is by far the best method of drainage. At the time of my visit in December last several claims were taken up, and were being worked in this flat; but with what success I was unable to ascertain. The principle on which this tail-race is constructed is defective in design, inasmuch that, after making an open ditch, a small culvert, built of rubble-stones, has been constructed in the bottom of it, and afterwards covered over. There are no man-holes left to get into this culvert; neither is the culvert sufficiently large to admit of any person getting in to repair it in the event of it breaking down or silting up. This work is estimated to cost when completed £1,500; of this amount £1,000 was authorized as subsidy, of which £610 13s. 6d. have been paid.

Long Gully Sludge-channel and Maerewhenua Water-supply, Otago.—A channel requires to be constructed to prevent the accumulation of sludge from the mining claims being deposited on Mr. McMaster's land. A subsidy of £100 has been authorized for this work on the principle of £2 for £1, and £1,500 towards a water-supply and tail-race for the district.

AIDS TO PROSPECTING.

Deep-level Tunnel, Reefton, Nelson.—This tunnel is now constructed for 2,100ft. The country through which this tunnel is constructed has now more the appearance of rock where auriferous-quartz lodes may be found. Up to the present this tunnel has been constructed on subsidy principle of £1 for £1; and £2,397 have been paid. There is still a balance of subsidy authorized of £1,081 to continue this work. It is considered that this subsidy will be sufficient to construct the tunnel sufficiently far enough to cut some of the present lines of reef that have been worked near the surface.

Deep-level Tunnel, Boatman's, Nelson.—This tunnel was first undertaken at the expense of six different companies holding ground in the locality, to prove the existence of deep levels or otherwise. Four of these companies have ceased to contribute towards the cost; so that latterly the cost of construction has been borne by the Homeward Bound and Specimen Hill Companies. The tunnel is now sufficiently advanced to cut the line of Welcome Reef, which appears from recent surveys to be going through the Homeward Bound Company's ground; but, taking the strike into account, it must be between 300ft. and 400ft. below the level of this tunnel. The length of tunnel completed is 2,120ft., and the cost of the work up to the present time is about £2,700; of this amount £300 was authorized as subsidy, of which £150 have been paid.

Manuka Flat, Lyell, Nelson.—This is a tunnel to prospect a large area of table-land near the Lyell which is believed to contain rich alluvial leads of gold. It is estimated that a tunnel will require to be driven for a considerable distance before the wash-drift is reached. A subsidy of £500 was authorized towards this work on the principle of £1 for every £1 10s. spent by the company.

Tokatea Gold-mining Company, Coromandel, Auckland.—This company, after working out their upper levels, constructed another adit-level with the anticipation of cutting the reef, as had been done in the upper levels. After constructing the lower adit for 2,888ft. the lode was not met with, and prospecting then had to be carried on to see if the reef had been totally cut out, or thrown on one side. A subsidy of £350 was authorized for this work on the principle of £1 for £1, and £42 6s. 6d. have been paid.

Tuapeka Prospecting Association, Otago.—This association, after prospecting in various parts of the district, sunk a shaft on Weatherstone's Flat for the purpose of prospecting for the deep lead of cement that was worked by the Weatherstone Company; but they have not been