

The ground between this range and what is known as Sandy's Hill, which now forms the valley of the Kapitea Creek, has at one time, to all appearances, been either the outlet of the Arahura River, or some other river carrying a large body of water, as the "Old man" drifts have been partially denuded for a great width in this valley, and a large body of more recent drift containing auriferous deposits now covers the valley to a considerable depth. The gravels in these recent drifts show by their rounded boulders and stones that their deposition in that place was due to the action of a running stream, and the large quantity of granite boulders amongst the drift shows that it came from the mountain range. The gold found here has in all probability come rather from a concentration of the morainic material, and partly from a concentration of the "Old man" or "Maori" bottom, which has been scooped out and carried away. This is further exemplified at the upper end of the Little Kapitea Creek, where the water has cut through the range there and flowed down the Waimea Creek, the gold found in that creek being principally derived from the denudation of the "Old man" or "Maori" bottom and the different high-level leads of gold running parallel that were formed at some remote period by the action of the sea. Lower down this valley the remains of the same material as found in the Hau-Hau lead have been partially denuded, and a valley near where this was deposited contained very rich auriferous wash.

On the face of the range between the saddle leading into the valley of the Waimea and the end of the range of the Kapitea Creek, also in every little gully which has been cut out of this range, a considerable quantity of gold has been found. A few years ago a shaft to a depth of about 200ft. was sunk in the flat at Callaghan's by Hindman and party, and payable wash-drift was obtained. The owners were so satisfied with the prospect that they constructed a tail-race some 3,000ft. in length from Kapitea Creek in order to work this ground. Since then other parties have constructed branch races from this tail-race; but no further discoveries of ground of a payable character has been found in this neighbourhood. There is, however, a large area on the flat covered with recent gravels, where some men are now at work sluicing on the edge of the terrace facing Little Kapitea Creek, but the water-supply being very limited they are unable to carry on mining operations on anything like an extensive scale.

During last year the Government extension of a branch from the Waimea Water-race to near Callaghan's was continued, and at the present time all the ditching is completed, and a siphon which leads the water from one range to the other, across the saddle at the Hokitika-Greenstone Road, is expected to be finished in about three months. As soon as this work is completed it is said that all the water available will be utilised to work the claims in this valley.

Waimea and Stafford.

The ground in the vicinity of Goldsborough and Stafford, especially on the south side, which the water from the Government race commands, has been worked for such a distance back into the range that, owing to the large quantity of tailings which has been deposited in the bed of the Waimea Creek, there is now very little fall to be got for sluice-boxes, and men have to be employed at the tail-boxes to keep them clear. This of itself adds considerably to the expense of working these small claims, and when it is combined with the inadequate fall in the boxes and the method adopted for working the claims, considering also the antiquated method of working the face by using the water from a canvas hose, adopted in many of the claims, the quantity of material sent away is not sufficient to prove remunerative.

It is questionable whether there is not equally as much gold in the bottom layer of wash-drift as formerly worked; but there is a much greater depth of material on the top with comparatively little gold in it to be run away, with much less fall than they had in former years, consequently the yield of gold from the claims would necessarily be correspondingly less, and in proportion to the area of the bottom laid bare. Very little working has yet been done in the upper end of this valley leading towards the saddle, where the water from the Arahura River had cut through the range and flowed down this valley. One party here has for the last two or three years been driving out the ground from a shaft, and has found it payable for working by this means.

Recently the miners have combined to construct a tail-race through the range into the other branch of the Waimea Creek, where there will be a sufficient fall to carry away the tailings, and to work the upper portion of this flat by hydraulic sluicing. A subsidy has been granted by the Government towards the construction of this tail-race, and when the latter is completed a large area of ground will be opened up which will afford employment for a considerable number of men. This flat would, no doubt, have been worked years ago had there been water available to sluice it; but it is only recently, however, that the Callaghan's branch of the Waimea Race has been constructed from the pipe-line to the end of the terrace on the south side of the Waimea Valley. A branch race from here will have to be extended for a distance of about a mile down the side of the range towards Goldsborough, to command this ground, while the siphon for the other branch to Callaghan's is now in course of construction.

Taking into consideration the amount of money which has been expended in procuring a water-supply for this part of the district, it is almost imperative, in order to maintain the mining population, that branches should, from time to time, be extended from this supply so as to command new ground and thus get a sale for the water. The capital invested in the construction of these branches will be recouped with interest from revenue derived by the sale of water from the race. There is also a considerable amount of auriferous drift on the terraces on the north side of Waimea Creek, between Goldsborough and Stafford, but here the supply of water is so limited that very little of the ground can be worked in a satisfactory manner.

The only mining operation of any extent at present carried on in this locality is that of Batchelor and party, who are working a claim on the terraces to the south of Stafford, using bucket-elevators, driven by an overshot water-wheel, to lift the tailings. During last year they worked a considerable area of ground by sluicing the materials into a well in a paddock, from which