

nothing is visible to the naked eye. On another occasion we sent five small lumps to Reefton, and Mr. Fenton found gold in every one of them, and recommended us to further prospect the discovery.

"In February last a tunnel was driven right into the formation. The tunnel was 4ft. 6in. by 6ft. 6in.; at every 3ft. of driving 12lb. of stone was taken and tried. The tunnel was driven for a distance of 40ft. and nine of these trials of 12lb. each were made, and in every case gold was obtained. In order to get a good all-round average the results of the nine trials were cupelled and run into one button of gold, with the gratifying result that it yielded 4dwt. 4gr. of gold; whilst the tailings contained another 2½dwt., or equal to 6dwt. 16gr. per ton. The process adopted was by quicksilver amalgamation of the ordinary character, with but very primitive appliances at command. This mode of dealing with the stone proves that the gold is free, and does not require either the Cassel process or chlorination to extract it; hence the probabilities of making such a huge mass pay well, for it must be borne in mind that there are simply millions of tons of stuff to operate on, which could be broken down for a mere nominal cost, probably less than one shilling per ton. The gold is very fine, and will require careful treatment; but recent amalgamation-pans and intelligent battery management ought to be sufficiently understood to make the undertaking a success."

OTAGO DISTRICT.

The Otago District may be said to contain the largest area of auriferous drifts of any district in the colony, but the high elevation at which a large portion of this area is situate precludes its being worked. Not only is it covered with snow from about four to six months of the year, but there is very little water available at high elevations to carry on hydraulic-slucing operations; and it is only by working the ground by this method that it can be made remunerative. Even in the low grounds in the Manuherikia Valley, Maniototo, and Shotover, and even in the Clutha Valley, there is generally about from one to two months of the year that sluicing operations cannot be carried on for frost; but those who have claims in Campbell's and Potter's Gully—near the top of the Old Man Range—the Nevis, Mount Criffel, and Mount Burster, have a long period during the winter months when they cannot do any work. It may be fairly stated that the whole of the gold in Otago is got, on an average, during ten months of the year. The rainfall in this district, especially on the goldfields, is much less than in any other goldfield in the colony; and while there may be a plentiful supply of water to carry on sluicing operations on the West Coast, the supply in Otago is very limited. The miners, therefore, in this district have two elements which enter into the question of their earnings—namely, the frost and snow in winter, and the severity of rain in summer.

Maerewhenua.

There are considerable areas of auriferous drifts in this locality, but the present quantity of water on the field is very limited, and can only be used by a small population. None of the ground here is sufficiently rich to pay for working from shafts or tunnels. It is only by washing it away in a wholesale manner that the miners can make fair wages. It may be termed good sluicing-ground, where any one can make good wages with a plentiful supply of water. The Mountain-hut Race Company have had about twelve men employed in constructing a water-race from one of the branches of the Maerewhenua River for the last fifteen or sixteen months, and have about seven miles of it completed. Its total length is said to be about fifteen miles, which leaves eight miles yet to construct; and in this distance the north branch of the Maerewhenua River has to be crossed by either a flume or iron-piping. The elevation at which this race is being constructed will command the whole, or nearly so, of the auriferous ground on the west side of the Maerewhenua River; but it is doubtful if a large supply can be got except in wet weather. The only chance of bringing in a fair supply of water for this field at a reasonable cost is from the Kakanui River, but it would require a good amount of capital to do this. The Maerewhenua River is a very small stream, even below the diggings, in dry weather; and when the water is lifted from any of its branches, at—say ten miles above the diggings, and leakage and evaporation are considered, there can be but very little in dry seasons that the Mountain-hut Race Company can get to work their ground. This is a field that will last for many years; and it is one where the miners can always employ their spare time in cultivating small patches of ground, and the large area of a mining reserve affords an opportunity for each miner to have some cows.

Waipori.

There are only a few miners employed in this locality outside those employed in claims held by companies. The most of the shallow ground has been worked that was found to be payable, and it now requires a fair amount of capital to enter into mining ventures to bring them to a successful issue; hence large areas of the flat have been taken up, and are being made remunerative for working by using dredges.

Waipori Amalgamated Deep Lead Company.—This company was formed about two years ago, and purchased the ground held at that time by Messrs. O'Brien Brothers on the Deep Lead, which is a deep gut of ground between the Lammerlaw Creek and the Waipori Flat, and at one time has been the bed of the Lammerlaw Creek; but through some change that has taken place, either by a slip from the side of the gorge through which the water flowed, damming up the creek, or by some other cause, the gut got completely filled up and caused the creek to go down in its present channel. The gut referred to is about 80ft. deep in places, and about from 25ft. to 30ft. wide in the bottom, having the schist rock shelving up on each side on a batter of from $\frac{3}{4}$ to 1 to 1 to 1. The whole of the gut is filled up with drift-wash, but the richest portion of the auriferous drift is near the bottom. It was formerly worked by O'Brien Brothers for many years, who made very good wages by hauling the wash-drift upon an incline tramway and washing it. The present company were so satisfied with the prospects they got, that they purchased some water-races in the locality, and worked this ground by a hydraulic elevator. The whole of the ground in this gut is now worked