

Evans and Son (two men's ground) have brought in a water-race from the Waimeamea Creek to work their claim by ground-sluicing.

Two other claims (two men's ground each) are also worked by ground-sluicing.

Weston's claim (two men's ground) is also worked by ground-sluicing; but, as the wash on the bottom is getting below the level of the tail-race, a wooden box is used for elevating the wash for $7\frac{1}{2}$ ft.

Several other parties are working in the district, and McLean's claim is being sluiced by a party of twenty Chinese.

Two or three parties are working driving for the wash in the vicinity of the coal-mine.

The wash being generally of no great thickness, and covered by from 20 ft. to 40 ft. of stripping, there is no doubt a considerable area of ground that will yet be worked in this district; but, on account of the difficulty in getting a sufficient quantity of water, a large number of men cannot be profitably employed.

Southern Beaches and Waiau.

Fortrose.—A few men are working on the beaches and sandhills north of Fortrose. The results are not likely to be promising, the stripping being too heavy and the wash poor.

Waiau River.—About twenty miles up the river, near Blackmount Station, a Dunedin company propose to build a dredge. A few prospectors are working opposite Clifden, where the new suspension-bridge will shortly be erected. North of the Waiau there are several sluicing claims taken up, and in some cases the holders are bringing in water. One of the races will be some twenty miles in length.

Waiau Beach Hydraulic Elevating Company.—Operations are being vigorously carried on in this company's mine, and the prospects appear to be extremely promising. It is hoped that the enterprise of the company will meet with its reward.

Stewart Island.

Pegasus.—Desultory prospecting operations have been carried on during the year at Pegasus. A few prospectors are searching for gold and tin.

DREDGING.

The interest evinced in dredging operations continues with unabated vigour. Claims have been taken up not only in the rivers, but in the terraces and flats adjacent thereto, and also in alluvial flats where the depth of the ground had hitherto been the chief obstacle to the auriferous wash being worked by other methods.

Dredging operations are now being conducted in the stream of swift-flowing rivers, such as the Clutha, Kawarau, and Molyneux; and in the lesser rivers, such as the Kyeburn, Manuherikia, Tuapeka, and Glenore; as well as in smaller streams and old river deposits. The depth from which material is elevated being from 25 ft. to 30 ft. in the rivers, and various depths from 6 ft. to 35 ft. in other places, it will be seen that dredges of differently modified construction are required for the changed circumstances that occur in different localities.

It has now been clearly demonstrated that dredges can be successfully handled in places where the water-supply is limited. A large paddock is first excavated to contain water sufficient to float the dredge. Operations are then commenced by working one side of the basin. The gravel, after being washed, is discharged behind the dredge, either by an ordinary flume, or when depth increases the larger stones are conveyed by an elevating process and stacked a considerable distance from the stern of the dredge. The finer gravel only is allowed to be discharged without being elevated. The work done enlarges the basin in which the dredge floats, thus giving more room for future movements, and should the water become thickened by continuous use there is in most places a small stream or creek within reasonable distance from which water is run into the pool in which the dredge floats. Prior to being worked by the dredge an area of 5 or 6 acres presents an ordinary level appearance, and after being worked, although perhaps not level, is in such a state that it could be harrowed and grass-sown, if necessary. It thus follows that in working gravels by this process no very great damage is done to the land, and the streams are not polluted to any extent, nor filled up with gravel, as in the case of ordinary sluicing, the whole of the material being raised, washed, and again deposited with very little eventual surface change.

The marked advantage in dredging compared with sluicing or other methods is that it enables quantities of material to be first elevated and afterwards deposited at a less cost than has so far been possible by any mechanical process in use, except in places where ample water-power can be applied.

In dredging in river-beds attention is being further directed to extending operations by working the gravel in the banks above water-level. There are many claims taken up that have an apparent large quantity of material to work on, but, so far, no effort has been made to ascertain the possible quantity of gold that may exist in the gravels. In order, therefore, to enable a fair estimate of the value contained in the ground to be made the owners should cause sufficient exploring work to be done for that purpose before commencing to build expensive dredges, there being a general tendency to incur expense in providing for the treatment and handling of the material, whilst at the same time the quantity and value have not been determined in a practical way.

As much of the ground suitable for dredging is what is generally designated wet ground, a certain amount of expense must be incurred to sink prospecting-shafts, whether by hand or by the aid of steam- or water-power. It appears to me that, for the purpose of testing the gravels by sinking when the water is heavy, it would be of great advantage to use a steam-pump of the Tangye or any other suitable make, and I would point out to those interested that co-operation on the part of various claimholders would be to the best advantage. A suitable plant could be procured at a reasonable cost, conveyed to the ground, and, as very little trouble is attendant on the erection or working of the pumps, they could be in use in a day or two. The size of shaft being determined, all suitable timber should be prepared and in readiness. Work could then be gone on with in sinking, the gravel from different floors—say, every 3 ft.—being separately stacked on the surface. This gravel could be washed, and the total quantity in each section or floor ascertained, and when the