

this primitive mode of working, men are still earning good wages. O'Brien Brothers for the last year made about £274 per man, being a trifle over 5 guineas per week, and Boulton and party stated that the portion of their claim they had yet to work would give from £6 to £8 per week per man.

*Roxburgh.*—This is what was known in the early days as the Teviot goldfield, the working being confined to the beaches of the Clutha River and its banks, and low terraces along the valley. The mining population here is now limited; but there are yet a good many still engaged on the north bank of the river, and several dredges at work dredging the bed of the river. These dredges are all worked by current-paddle-wheels worked by the force of the stream, and some of them are paying very well. There are three parties of miners working the deep ground on the side of the river—viz., Waite and party, Hutton and party, and Woodhouse and party. Each of these parties employs from seven to eight men. The ground they are working being below the level of the river, there is a considerable amount of water to contend with, and they have erected overshot water-wheels, each wheel working two large Californian pumps. They strip paddock after paddock, leaving a drainage tail-race to the well where the Californian pumps are placed; and as soon as the bottom of one paddock is taken up the excavation of the next paddock is thrown into the one that has been previously opened; and so on they continue to work the ground—which is paying them fair wages. Other parties are sluicing on the banks of the river, all of which are satisfied with their claims.

*Campbell's.*—This field is situated at a very high elevation on the opposite side of the Old Man Range from the Clutha River. The men can only work for about eight months in the year. A great many miners, in the early days, that were working on this field, lost their lives in the snow in attempting to cross the Old Man Range to the Clutha Valley. The Government erected snow-poles over the range to enable them to find their way, but these are now nearly destroyed; still, the heaps of stones that were placed round them can in many places yet be seen. Campbell's Gully contained rich deposits when it was first opened, and still supports a limited mining population. Notwithstanding the severity of the winter, some of the miners reside here during the winter months. They have to lay in a stock of provisions, as no supplies can be brought during winter. This gully or creek is one of the tributaries of the Waikaia River, where rich claims are now being worked by Chinamen. I was informed on good authority that from one paddock the Chinamen stripped recently they got 600oz. of gold. An attempt has recently been made by the county to construct a dray-track from the Clutha Valley to Waikaia Bush; but the money at their disposal, which they obtained from the Government, was not sufficient to make it passable. The top of the range being a soft peat-bog, a trench has been cut out of this bog for the drays to get through; but the melting snow converts it into a watercourse. It may be passable during two or three months in midsummer, in dry weather.

*Alexandra.*—*Dredging the Molyneux River.*—A short distance above Alexandra there is a large double-action steam-dredge at work, which has now been employed in dredging the bed of the river for about four years. It was constructed by Messrs. Kincaid and McQueen, of Dunedin, and is well adapted for excavating auriferous drift from the beds of rivers. Indeed, this dredge is the most complete one in the colony, although far from being perfect, that has yet been employed in gold-mining; and, from what I could learn, has been successful in obtaining gold to pay the proprietors for the outlay. Not only is the dredged material lifted, but the whole of it is washed on board. Great credit is due to the manufactures of the dredge, for the ingenious manner in which everything is placed so as to economize labour. There are three men on each shift, and the dredge is kept continually at work day and night, stopping only on Sundays and when it is absolutely necessary to do repairs. After lifting the wash-dirt out of the river, and emptying it into a hopper, the dredged material goes through a revolving screen and is washed on board, the large stones passing behind the dredge in one place, and the fine tailings in another. The following is a description of the dredge: The dredge is 66ft. long, built of iron, having two pontoons, one at each side, extending the whole length of the hull and about 2ft. 6in. clear from the side, so that the total width of the hull and pontoons is 26ft. On the deck of the dredge framing is erected to carry the dredging-shaft, hoppers, and washing-apparatus. There are two sets of buckets and dredging-ladders, one on each side, and which work between the hull and pontoons, and each set can be worked separately or together, as required. The buckets are capable of lifting 150 tons of stuff per hour, dredging to a depth of 25ft. below the level of the water. The dredged material falls into a shoot which carries it into a revolving cylinder, 4ft. in diameter and 6ft. long, made of boiler-plate, and perforated with holes one inch in diameter. This revolving cylinder has a dip or inclination towards the stern of the dredge of 1½ in. to the foot. On the inside of this cylinder short pieces of angle-iron are riveted here and there all round the cylinder, to prevent the stones getting away before they are properly washed. All the fine stuff passes through the perforated holes in the cylinder, and falls on to an inclined screen and thence into ripple-boxes, where the gold is collected, and the tailings are carried away clear of the stern of the dredge. The large stones and coarse gravel that come through the end of the revolving cylinder pass into a shoot at the stern of the dredge, and are deposited in the river. The water for washing purposes is lifted by a centrifugal pump, and is so conveyed that jets are made to play on the screens, thereby washing the stones and coarse gravel, and carrying the gold into the ripple-boxes. The ripples in these boxes are made of bar-