

from working their mines without creating a reserve fund to further develop their properties militates greatly against mining, and in some instances this has been the means of companies going into liquidation, as when money was required for prospecting works the shareholders were not in a position to pay calls.

#### ALLUVIAL MINING.

I now come to that system of mining by which was produced about 66 per cent. of the gold obtained last year, and under this head I class hydraulic-sluicing and dredging. In alluvial mining, in the strict sense of the term, it will be found there is only a very small percentage of the gold obtained from shafts and tunnels, the greater portion having come from hydraulic-sluicing claims. Both on the west coast of the Middle Island and in Otago there are large deposits of auriferous drifts which can be made to give very good returns for working wherever a good supply of water is available. Over thirty-two years have passed since gold was first discovered in the alluvial drifts, and only a comparatively small area of ground has yet been worked. As year by year passes by, fresh ground is being opened up wherever water can be made available. A great deal may yet be done in the conservation of water; and the number of men who can be employed profitably on the goldfields in working the alluvial drifts is only limited by the quantity of water available for carrying on hydraulic-sluicing operations, and the mechanical appliances for working the drifts. Alluvial mining in the early days required no expensive outfit to make it a profitable undertaking. The different creek-beds, which had been the natural ground-sluices of the country, only required cleaning up, as the sand, gravel, and soil that for many ages had been regularly washed away by freshes and floods left the heavy metallic particles lying on the beaches, and in the crevices of the rocks in the beds of the streams, requiring only to be collected and gathered together by the hand of man. But now these well-known shallow placers or workings are getting exhausted, and large streams of water have to be conveyed in artificial ditches for long distances in order to sluice away the ground in the same manner as was done by natural causes before gold was discovered. These artificial works require in many instances a considerable amount of capital to be expended upon them before alluvial mining speculations can reasonably be expected to return interest on the money invested. It is worthy of consideration, particularly along the low level land adjoining the rivers in Otago, whether it is possible, by means of electric power transmitted from the higher levels, to utilise the same in driving pumping machinery, so as to raise water to work these flats, which are well known to be payable if sluiced. I will now refer to some of the principal workings:—

#### MAHAKIPAWA.

Very little gold was obtained from Mahakipawa last year owing to the wet season. Most of the shallow ground at the head of the creek being worked out, the workings are now confined to the lower end of the creek and flat. Some of the claims contain rich auriferous wash-drift; but, reckoning the time the miners lose owing to floods and inadequate machinery for pumping the water, there was not sufficient gold obtained to give those interested in the claims anything like wages. This is not to be wondered at, seeing that the whole of the claims were flooded for about ten months last year. It is thought that the lead of gold will be traced down through Mr. Cullen's freehold; but, before the ground can be advantageously worked, far larger pumps will have to be procured to contend with the water.

#### WEST COAST.

The West Coast may be termed the largest alluvial mining field in the colony. It is all less or more auriferous, and, taking the number of miners employed and the value of gold obtained by them, their earnings will compare favourably with the earnings of those employed in any other industry in the colony. During last year there was about 74,617oz. of gold obtained from the alluvial workings, representing a value of £301,523. A very large portion of the West Coast has never yet been prospected. Indeed, very little is known as to its auriferous character south of Ross, beyond the fact that some very rich leads of gold have been found on the sea-beaches all along the coast-line, some of these sea-beach leads extending a good distance inland, which shows that a considerable time has elapsed since they were formed; and gold of a coarse nuggety character has been found near the Abbey Rocks, about 140 miles south of Ross. There is a large stretch of country here having no roads or tracks, with the exception of a main road, which is now partially constructed through to Jackson's Bay.