

ALLUVIAL AND HYDRAULIC MINING.

This class of mining provides employment to a large number of persons in various parts of the Middle Island, the work extending from Nelson and Marlborough in the north to the southernmost part of Southland.

The auriferous deposits are worked in various ways, from the solitary digger using his cradle or simple sluice-box to the elaborate system of hydraulic sluicing and elevating required in places where extensive bodies of material have to be dislodged—elevated to a considerable height and passed over tables (fitted up to meet local requirements) in order to extract the gold. For this latter method, large quantities of water are brought into requisition, mountain streams being intercepted by races at such elevations as will give the necessary hydrostatic power for the work required, the water being conveyed down to the claims by lines of pipes.

Mining for alluvial gold is carried on in various parts of the Marlborough and Nelson Districts with fairly satisfactory results; but dry weather was responsible for a shortage of water during a portion of the year, and operations were somewhat restricted in consequence.

In the West Coast district several of the properties worked on the hydraulic principle are reported to have yielded very satisfactory returns, and a considerable amount of development-work is in progress. This latter feature is especially noticeable at the Wellington Old Diggings (Buller River), Virgin Flat, and Humphrey's Gully. In connection with the Kumara and Dillmanstown diggings, an additional water-race has been constructed by the Government, which taps the Wainihinihi Stream, and is already proving of benefit to this field.

There are several places where the style of mining practised on the West Coast for many years is destined to give way to newer methods. This is a natural sequence; the rich and easily-worked ground is becoming exhausted, and ordinary digging operations usually become unpayable beyond the depth at which free drainage can take place. Some power then becomes necessary to deal with water and the ground below water-level. Where the conditions are favourable, there is, perhaps, no better method of working than by the system of hydraulic sluicing and elevating; but it is anticipated that extensive areas of flat lands known to be auriferous, but too deep and wet to be worked by hand labour, will be successfully worked by dredges.

Large sums of money were spent by the General Exploration Company in opening up ground and erecting plant at Fairdown and Bendigo, near Westport, but, the results being most unsatisfactory, all work has ceased.

At Ross, the Mount d'Or is the only claim which can be said to be satisfactorily profitable at the present time; but, as dredging is being introduced in the locality, it is expected that the yield of gold will increase.

Small parties of miners, both European and Chinese, continue to find employment in various parts of the district. The beaches near Charleston are still the scene of operations familiarly known as "beach-combing," and Messrs. Powell work the black sand deposit by the hydraulic system with satisfactory results.

The Otago and Southland District contributes very largely, from the working of its auriferous drifts, to the gold returns of the colony, and sluicing and elevating plants of considerable magnitude are to be seen in operation in various places. This is notably the case at Blue Spur, near Lawrence, Roxburgh, St. Bathans, and Round Hill; but the principle is general right through these goldfields, and good representative plants are at work at Deep Stream, Waipori, Waikaia, Nokomai, Naseby, Bald Hill Flat, Matakanui, and the neighbourhood of Lake Wakatipu. At Orepuki and Round Hill the gold is very fine in its character, and at the latter place a most efficient system for catching this fine gold has been adopted. So much attention having been devoted in this district of late to the question of dredging, there has not been much development in respect to hydraulic mining, although in a few instances new installations have been made.