

three years in consequence of the rage for interests in dredging ventures, the result being that dredges have been put on ground for which they were not suited.

Going up country from the confluence of the Manuherikia with the Clutha River at Alexandra, dredging is almost the only class of mining until the junction of the Clutha and Kawarau Rivers at Cromwell is reached. Continuing up the Clutha River, some alluvial workings are met with at Lowburn, and very good returns are reported. Mining here is confined to small parties, and in several instances underground workings in the auriferous drift are resorted to. A few miners are employed sluicing in the locality of Luggate, and others are scattered about Lake Wanaka, at Criffel, and up the Cardrona Valley, but no extensive work is being done.

Near Cromwell a fairly large claim is being worked adjacent to the northern bank of the Kawarau River by a party of Chinese, and several Chinamen manage to make a living in the district. There are no fresh developments to note at Bannockburn, the extent of sluicing operations being governed by the amount of head-water available. At Nevis hydraulic sluicing and elevating gives remunerative employment to two or three parties.

Some particulars were given in my report of last year respecting the new hydraulic plant for working the Arrow Flat at Arrowtown. This has been got to work. Operations have been continued at the Arrow Falls Claim, where a lot of dead-work has to be effected. Small parties are engaged in sluicing and digging further up the Arrow River, and on its tributary creeks.

On the Shotover River some hydraulic mining has been in progress at Big Beach; the deep claims of Messrs. Davis, Mr. R. Johnson, and the Skipper's Sluicing Company (Limited), have also been worked. A number of river-bed claims are now being very successfully worked by the system first adopted on this river by Messrs. A. Smith and Sons near Skipper's Point. This consists of a hydraulic jet-pump elevator, which was illustrated and fully described in the annual report of 1899, a photograph also appearing in the report of last year. Fairly extensive sluicing operations are being carried on at Moonlight, Moke Creek.

Hydraulic sluicing and elevating has recently been commenced at Glenorchy (Lake Wakatipu), and sluicing is also being carried on a few miles up the Rees River.

At Nokomai the ground held by the Nokomai Gold-mining Company (Limited), (formerly the claims of Messrs. Sew Hoy and Kum Poy, now taken over by the company), are being worked by hydraulic sluicing and elevating on an extensive scale. I understand the Lion Gold-mining Company have also got to work, after spending a considerable sum in the construction of water-races, &c., which has given employment to several men during the last four years. Owing to the severe frosts the claims here are necessarily idle during a portion of the winter. Much of the gold in this locality is nuggety, but I am of opinion that better appliances than any I have seen here are required to catch the fine gold.

Following the course of the Clutha River down country from Alexandra, hydraulic workings at Bald Hill Flat are the first of any importance. Alluvial mining has been profitably carried on here for a number of years, and during the period under review three hydraulic sluicing and elevating plants have been in operation, also two ground-sluicing claims. A dredge has also been under construction. Near Coal Creek Flat the Pleasant Valley Company work by hydraulic sluicing and elevating, and several small parties are engaged in ground-sluicing operations. The largest plant in the locality is that of the Roxburgh Amalgamated Mining and Sluicing Company (Limited). At this company's claim the thickness of ground to be moved is considerable, and, as the overburden is of a light character, it is stripped off the auriferous wash by ground-sluicing; the latter is then sluiced by water from nozzles under heavy pressure, and elevated to the sluice-boxes. From twenty to twenty-four men are employed; work is usually carried on by three shifts. To promote efficiency and safety powerful electric lights are used for night-work.

For several miles below Roxburgh there are now no claims worked on the hydraulic principle, the nearest being that of the Golden Run Company at Miller's Flat, where the method of hydraulic sluicing and elevating has proved a satisfactory and profitable method of working. This company has had a large dredge under construction during the year.

At Island Block hydraulic mining is being carried on by a Dunedin syndicate, by whom the claim and plant was purchased from the Island Block Extended Gold-mining Company. I have been informed by members of the syndicate that the question of working the flat by electrically driven dredges is under consideration. From Island Block to Beaumont a few miners are engaged on a small scale.

The Champion Gold-mining Company's claim at Beaumont has provided employment for about a dozen men, hydraulic sluicing and elevating being the method of work. The feasibility of working a portion of the claim by a dredge to be driven by hydraulic power has recently engaged the attention of the directors.

Lawrence is the business centre of a fairly large field of alluvial mining. In the immediate neighbourhood are the extensive hydraulic workings of the Blue Spur and Gabriel's Gully Consolidated Gold Company (Limited). In respect to this company's operations the general manager has furnished some particulars, from which I am enabled to give the following information: The season, owing to a prolonged winter, with only a limited snowfall, was a poor one as regards water-supply. This, together with the collapse of two of the company's dams, and also of the main drain, has reduced the amount of sluicing as compared with previous years (the latter features also tending to the dislocation of operations for a time), with the natural result that a diminished output of gold for the year has been produced at an increased cost—viz., a total of 75·88 per cent. of the value of gold won, as against a total cost of 42·82 per cent. for the previous year, the quantities, values, and expenditure being—1,878·8 oz., £7,448 17s. 5d., and £5,651 0s. 4d. respectively, as against a return of 2,753·3 oz., value £10,875 10s. 8d., obtained by an expenditure of £5,310 for the preceding twelve months. The plant, general features of the deposit, &c., have been fully described in previous reports.