

but to enable those who have no water to open up the large areas of ground now unoccupied, but known to be payable if water in quantity was available. The Kanieri Lake Water-race Company have done a good deal of work in this connection, but, as a considerable amount of additional capital is required to carry out the undertaking, it may be some time before the work is completed. If completed, the output of gold would be increased in a marked degree, and employment given to hundreds of men. The claims about Kanieri Forks are giving good returns, and their prosperous condition is due to the fact that they have a continuous supply of water from a pipe-line from the Kanieri Race.

What is known as Craig's Claim, situated on the sea end of Brighton Terrace, consists of 460 acres of freehold land. A very large amount of gold was taken out of this ground—over thirty thousand pounds' worth. This property changed hands some time ago, and I am informed by the secretary that the company was registered under the Companies Act, capital £30,000, to be worked by dredges. In the meantime the claim is being worked on tribute. The gold won by them for the twelve months ending the 31st December, 1901, was 335 oz. 7 dwt. 20 gr.; capital called up, 4s. per share on 13,000 shares, £2,600. The intention to work the flats by dredging has been abandoned for the present, and negotiations are now going on to write down the capital to £10,000, and subsequently work the terraces by means of sluicing and driving. Four new tributing parties, consisting of six men each, are now at work driving, with every prospect of making good wages.

Prospecting during the Year.

A considerable amount has been spent on prospecting, mostly under the auspices of the Rimu Miners' Association, and in a lesser degree under the supervision and control of Mr. A. H. Richards, the Assistant Inspector of Mines. The subsidies granted by the Government to and expended by the association have not, so far as we know, shown payable results. From what appears in the papers, we learn that so-many feet of tunnelling has been driven and so-many shafts sunk, that the work has been measured and passed, and the men paid—results nil—but no particulars to guide future prospectors.

On the subsidised tunnels driven by Johnston and Stewart, Seddon's Terrace; Stenhouse and Co., Hauhau; and Roosevelt and Co., Kellett's Terrace, Blue Spur, under the immediate supervision and control of the Assistant Inspector of Mines, who examines and passes the work when properly done, and pays the amount due on the subsidies to the men direct without passing through the hands of the association, which appears to be a grievance with them, but the men who do the work are better pleased—on the above tunnels Mr. Richards reports as follows: In the case of Johnston and Stewart payable gold was struck some time ago through a jump-up from the tunnel, as they are driving under the washdirt. The tunnel is still being driven, and there is every likelihood that it will open up payable ground at the back. Stenhouse and party's tunnel on the Hauhau has been completed. In driving they struck wash that will go from £2 to £2 10s. per week per man; they are at work blocking back. Roosevelt and party, on Kellett's Terrace, Blue Spur, have driven over 1,000 ft. to drain the terrace to the south of the No. 1 Hauhau lead that crosses the Blue Spur Creek. They expect to pick up the two lost leads that were lost where they cross the Blue Spur Creek, with a reasonable hope of success, seeing that the same leads have been found to the north. The party worked on the No. 1 lead, knowing the country well, and, being old and experienced miners, are very hopeful of succeeding in finding the lost leads. If they do succeed the discovery will be one of considerable importance.

It would appear from the meagre return from the expenditure of the prospecting vote that more careful inquiry into the merits of each case should be exercised before recommending grants, and a strict supervision over the work afterwards. Quarterly reports at least of work done, and also full particulars of the nature of the country passed through, with exact return of gold (if any), furnishing a record that may be of use to future prospectors.

Mr. E. W. Spencer, engineer to the Humphrey's Hydraulic Sluicing Company (Limited), has kindly supplied the following particulars of the work done and results obtained during the year: "In the early part of the period under review our energies were concentrated on the race-construction principally, endeavouring to get the race-extension complete to the river. One of the tunnels (No. 16) was the cause of much delay, as very bad ground was encountered, necessitating close timbering for some considerable distance. At the head-works, also, progress was exceedingly slow on account of the heavy nature of the work required to stand against the rush of waters descending the Arahura River in time of flood. The climatic conditions were also very much against us, inasmuch as the men could not put in anything approaching full time, the months of May and June being especially bad, causing a large number of slips, &c., on portions of the race considered as finished. However, early in October I was able to report to London that the water was satisfactorily running over the new portion of the race. Since that date about six men have still been employed repairing any doubtful places, putting in a little timber, cutting by-washes, and generally making things more secure. At the claim considerable alterations have been made, consisting of replacing the 24 in. tail-boxes by 36 in. boxes; gold-saving tables have also been erected, presenting 1,660 square feet of surface for the retention of the fine gold. To insert these tables it was necessary to lift the boxes above the tables 10 ft., so as to give sufficient head-room. The separating-boxes were designed to work with perforated plates 6 ft. by 4 ft. by $\frac{1}{2}$ in., with $\frac{1}{2}$ in. perforations; but these in actual work, using forty heads of water, proved too expensive, lasting only a short period (approximately three months), so they were gradually substituted by cast-iron grizzly bars 3 in. by $1\frac{1}{2}$ in. by 48 in., placed crosswise $\frac{1}{4}$ in. apart. These are effecting a very fair separation of the fine stuff from the coarse gravel, and the pulp as it falls into the separator-box is divided, half going to the right- and half to the left-hand side. The portion flowing from either side is again subdivided into twelve equal parts, flowing over twelve tables, placed in two rows of six each, back to back. The tables have a fall of 6 in. in 4 ft. The surface of the tables, which are planed kauri,