report he shows that mining companies formed in London are handicapped to a great extent with a large yearly expenditure on the London office, and unless a company is carrying on very large operations or working very rich ground, they cannot expect to even pay a fair percentage on the capital invested. He states, "I have arranged with the banks that the directors shall again take preference shares in lieu of their fees, amounting for the year to £1,250." It will be seen from this that the directors' fees alone are equal to nearly 1½ per cent. on a capital of £87,595.

A local company were, at the time of my visit, laying down a line of pipes on the right-hand side of the terrace facing Gabriel's Gully, looking up towards the Blue Spur. They have leased the Phœnix water-race, and extended it round the side of the range to a point directly above the place where their claim is situated in the bed of Gabriel's Gully, where it is intended to work the ground with an hydraulic elevator. The pipes are 15in. in diameter at the upper end and 13in. at the lower, and they will have about 278ft. of head on the elevating nozzle. There is another party of miners working a claim adjoining the ground belonging to this local company by sluicing it with water from the bed of the gully, and are said to be making the ground pay by this means.

At Munroe's side of the Blue Spur, Kitto and party are working the upper portion of the cement near the top of the hill by hydraulic-sluicing; they get any spare water the Blue Spur Company have to carry on their operations. As the Blue Spur Consolidated Company have the most of the water-races, properties, and water-rights in this locality, they hold the key to all the available ground, which is valueless to anyone without a good supply of water.

Clutha Valley.

Island Block Company.—This company has not been successful with their operations last year. The gold was traced from near the bank of the river for a considerable distance across the flat, towards the main road from Lawrence to Roxburgh, but this was left and a new opening was made near the main road and towards the high land which had at one time formed an island. Since this new opening has been made the quantity of gold obtained has been very little for the amount of material operated on. According to the annual report of the meeting of the company in London, on the 16th of December last, the time given that sluicing operations were carried on for the past year was 6,610 hours, or about 275 days' continuous working, and the gold produced amounted to 2,045oz., representing a value of £7,700; adding this to the value of the gold for the year previous, it makes £12,000 that has been obtained from the claim. The manager, Mr. C. E. Rawlins, informed me that the actual cost of working the ground was about 1½d. per cubic yard, and that the elevator was lifting about 75 cubic yards per hour to a height of 50ft. The quantity of water used to lift this quantity of material being eleven sluice-heads, having a head of about 630ft., and three sluice-heads are used for sluicing the material down to the intake end of the elevator. Eleven sluice-heads of water from an elevation of 630ft. would give 787·5-horse power theoretically; and to lift fourteen sluice-heads of water and 75 cubic yards of material per hour, or 1¼ cubic yards per minute, to a height of 50ft. would require 86·5-horse power theoretically. That is disregarding any allowance for friction. This would show that 701-horse power is absorbed in friction; but, judging from former experiments made with the power required to work hydraulic-elevators and those made by Mr. H. Jackson, manager of the Gabriel's Gully Sluicing Company, the full head of water could not have been used. According to data supplied me by Mr. Jackson, the quantity of water used for lifting gave about 25 per cent. of its theoretical power, whereas this only gave about 11 per cent.

Taking the quantity of material lifted per hour as 75 cubic yards and 6,610 hour's work, would make 495,750 cubic yards of material operated on for 2,045oz. of gold. This is equal to a yield of 1·98 grains of gold to the cubic yard.

The chairman of directors, in referring to the finances of the company, stated: "There was an indebtedness to the bank of over £3,000. If this amount were increased a lien would have to be given over the property. The amount of sluicing done by the company during the past year amounts, practically, to twenty-one hours per day, or 6,610 hours. The result was 2,045oz. of gold, representing over £7,700 in value, making, with the gold of the previous year, £12,000 worth obtained from the Island Block. There was an actual balance, after paying all expenses, of £1,736, but, as nothing had been written off for depreciation, it was deemed inadvisable to pay dividends. There was, in addition, a dead weight of £6,400—the balance of expenditure brought forward, which ought to be materially reduced before contemplating the payment of a dividend. Work in the past had been carried on in a narrow part of the river-bed, and as much as 87oz. of gold had been obtained in forty-seven hours. After passing through this narrow portion of the river it widened out into a very considerable flat, and therefore the trouble has been, during the past few months, in trying to follow the actual river-bed. The working during the past two months has resulted in finding 140oz. of gold after having to remove a top burden of something like 50ft. A telegram from Mr. Rawlins announced this yield of 140oz. at an expenditure of 70 per cent."

At the time of my visit the company was laying down a new 15in. main, and had constructed a new reservoir in the valley of the Fruid Burn of sufficient capacity to hold twelve sluice-heads of water for six weeks. The new main and the old one is connected together on the flat with a new main 22in. in diameter. As soon as this new main is completed the company intend to work two hydraulic elevators, and commence with one at the place where the gold was traced to. Indeed, it seems strange that the gold was not followed up instead of opening out afresh further ahead; but the manager states that he expected to get a rich auriferous deposit at the bend where the new workings are situate. The company employs twenty-one men.

In my last annual report sketches of a hydraulic elevator, which were supplied me by Mr. Rene Proust, of the Island Block Company, were published. My attention has since been directed by Messrs. Cuff and Graham, of Christchurch, agents for Mr. Joshua Hendy, machine-works, San