long, and from 7ft. to 8ft. thick, and yields about 5dwt. to the ton. There are two shifts of four men each, and they manage to keep the battery of twelve stampers going full time. There are in all fifteen men employed in and about the mine and battery. I found the workings in fairly good order, and the air good. The mining timber is a costly item in the working of the mine; it has all to be packed on horses a distance of about four miles over a very uneven and, in places, dangerous, track. The mine is worked all the year round, but the battery is generally idle about three months in the year. The old turbine water-wheel has been removed and a Pelton put up in its stead. The whole of the battery plant has had a general overhaul, and is reported to be now in good order. The quantity of stone crushed runs from 60 to 70 tons per week. There is stone in the face of the main-level tunnel, which is driven nearly 1,000ft., and I understand it is intended shortly to further extend this tunnel to prospect the back country in line of reef.

The Frankton Beach Dredge (9th May, 1891).—Up to the time of my visit this dredge has worked about 200 yards up the stream by 50ft. wide from the starting-point, and the yield so far was satisfactory—namely, £800 in three months. The dredge was not working on the day of my visit, owing to the breakage of a valve-spindle, but it is expected to be in working-order in a few days. The manager states that the plant has worked most satisfactorily since the first day of starting, and that 50 tons of sand is lifted every hour. The actual dredging is equal to twenty hours in the twenty-four, and the consumption of coal for the same time is equal to about 3 tons.

Six-mile Beach Dredge, Waikawa District (9th July, 1891).—This dredge is 60ft. by 40ft., with 32ft. washing-tables on each side. The engine is one of Davey and Paxman's compound twenty-five-horse power. The centrifugal pump (Williams's) has 3½ft. runners, and the casing is 6ft. high from the bed-plate. The discharge-pipe is 15in. in diameter, and the suction-pipe 13in., capable of discharging ten Government heads of water. The pump weighs 7 tons, and is driven by two belts. Some very large stones are sometimes carried through the pump. I saw one myself which weighed 78lb., and I think from its shape must have nearly fitted the pipe. This is a proof of what these pumps are capable of doing where there is heavy wash. At the time of my visit the pump was lifting the wash from a depth of 14ft. from the surface of the water; this depth was slightly below the sea low-tide level. The dredge is capable of lifting and washing 40 tons per hour, and uses a little over one cord of wood per shift. It is nearly all rata wood used. There are ten men employed on and about the mine, divided into three shifts. There are four wood-cutters, and one carter, but these are not fully employed, as they could cut and deliver more than the engine could consume. There is a dynamo in the dredge, but it was not used at the time of my visit. The company constructed a large reservoir within 5 chains of where the dredge is now working, which is capable of holding three months' water without any inflow. The bottom of the reservoir is high enough to discharge its water into the dredge-pond, which is above high-water mark, and keeps her up to the required level. The stripping is all fine sand, and the bottom is paved with heavy water-worn stones, which are firmly lying on a bed of peat. No gold is supposed to be below the peat-bed. This plant is the most complete of its kind in Otago. Mr. Welman was at the claim at the time of my visit, and very kindly explained in detail all the working-parts of his pump and crane. Attached to the latter is an ingenious piece of mechanism which works a sleeve, to which is attached some strong iron tines. This sleeve is made to revolve at will, and loosen the hard packed gravel at bottom. It tears the hard peat bottom to pieces, the pump at the same time sending it up to be washed. Mr. Welman intends to make some alterations in the condenser, with a view to saving fuel. Mr. Duncan Dundan, the manager, takes a lively interest in all the mechanical improvements being made by Mr. Welman, and appears to be familiar with machinery. The pump travels 250 revolutions per minute, the engine 112 revolutions, and the amalgamating-engine from 300 to 400 revolutions per minute while pumping. The dredge started work in April last. The gold is so fine that it has been carefully estimated to require ten thousand specks to weigh a grain.

Waipapa Dredge Company (10th August, 1891).—This claim is on the sea-beach, a few miles west of the Six-mile Company, and only a few chains from high-water mark. At the time of my visit all work was suspended, awaiting the arrival of a larger pump, which is on the way out from England, and will arrive shortly. This plant started operations in February, 1889, and during the first six months' work obtained only 60oz. of gold, but between that time and the following September the yield was 1,000oz. Work was then stopped till the arrival of the new pump. The ground to be worked is parallel to the beach, and from 5 to 6 chains from the sea. The engine is one of David Paxman's, and twenty-horse power. The gold-saving tables are lengthwise with the dredge, and 12ft. wide on each side. The plant all through is very similar to that at the Six-mile. It is calculated to have the plant in full work on the 1st September Mr. Brunton is the manager.

Lake Brunton Dredging Company (10th August, 1891).—This plant is a fac-simile of the Six-mile plant. The washing-tables, however, are laid lengthwise with the dredge, and the *débris* is being emptied from behind and at the sides in open boxes to a convenient distance away. The depth dredged is about 8ft. from the surface of the water on which the dredge is floating, and the bottom, I imagine, is about the level of low tide. The bottom on which the gold-bearing wash rests is also a hard peat, and the wash is heavy; stones of 60lb. are thrown on the washing-tables. The sea is not more than 3 chains from the dredge. The dredge-pond is kept full by a flow of water from Lake Brunton, which is not more than 10 chains from the work. In winter-time the men work one shift of ten hours, and in summer two shifts of eight hours each. The fine quality of the gold is similar to that got on the Six-mile Claim. All the plant appears to do its work well.

Otara Dredging Company (10th August, 1891).—The dredge is about completed, and the engine, boiler, and pumps are being fixed in position. This plant differs very much from the others visited in this district. The boiler is multitubular without a carriage. The pump is one of Gwynn's centrifugals, of 3ft. runner, and about 2in. wide. The engine is also Gwynn's make. I do not think the boiler will generate enough steam to do the work required of it, and I am almost certain the pump will prove a failure. The pump and its appliances are not likely to continue working more than