

gold per week of 140 hours having been recovered by several of the dredges on different occasions. The majority of the claims had been reliably prospected prior to expenditure on dredges. Several properties are now being prospected with a view to their being taken up for dredging if proved payable.

Argyle Hydraulic Sluicing Company, Winding Creek (J. Stewart, Manager).—During the year all sluicing operations were suspended and a dredge, to be worked by water-power, is being erected on the claim.

Winding Creek Hydraulic Sluicing Claim, Waikaia.—This property has been purchased by the Round Hill Gold-mining Company, Southland.

Gow's Creek, Waikaia.—There are a few fossickers in this locality.

Upper Waikaia and Whitecombe Districts.—There are a few small claimholders scattered over this district.

Gore.

Alluvial mining in and around this district is confined to dredging. There are two dredges on the Mataura River, near Gore, one of which is at work. The total number of dredges on the Waikaka dredging-field is twenty-nine, of which number twenty-seven are in active operation, with payable results.

Three new dredges were brought into the district and erected during the year. Powerful up-to-date machines are being placed on this field, special attention being paid to providing large bucket-capacity with good delivery. This was rendered necessary by the heavy nature of the clay overlying the auriferous washdirt.

Ibbotson's dredge is at work on the Chatton Mining Reserve.

In the Charlton Valley five dredges have operated during the year successfully. As in the Waikaka field the heavy clay overlying the auriferous washdirt—sometimes to a depth of 10 ft.—hinders rapid working of the ground, and is no doubt responsible for loss of gold.

There are five dredges operating in the Waimumu Valley, with satisfactory results. One dredge has been idle throughout the year, and one has been removed from the locality.

Round Hill.

Round Hill Gold-mining Company (A. Reynolds, General Manager; F. Hart, Mine-manager).—Operations are being steadily conducted. Heavy preliminary works having been successfully overcome, the several claims are now fairly well opened out, and the company has recently been placed on the dividend-paying list. A large paddock of about 8 acres has been sunk in the flat and the Ourawera Stream forced over on to worked ground, thus liberating an area on the southern side of the stream of about 60 acres of virgin ground, which is all available to the present plant. There are two elevators in the paddock, No. 1 elevating 67 ft. 6 in., main ripple run doubled, 70 ft. in length from tip-box, discharging on to side tables doubled, each 26 ft. by 18 ft.; forty-eight mats, twenty-four on each side, six pens, and four mats to a pen; then 36 ft. of tail ripples. No 2 elevating 68 ft. 6 in. The tables are a duplicate of No. 1, except that the double run of ripples from tip-box to side tables is 130 ft. in length. At each lift there are a double set of pipes used as pump or dirt pipes alternately as the water suits. The pipes are expanded from 13 in. diameter at the bottom to 15 in. to 18 in. at the top, and were made in the blacksmith's shop on the ground. Elevator jet 4 in. diameter working at 120 lb. pressure. A new service pipe-line, 70 chains in length, has been laid down, 42 chains 27 in. diameter, and the balance, 28 chains 26 in. diameter, leading from Port's race to the Ourawera. The claim is in good working-order and improving, there being more room in the paddock for tailings-dump. The old bed of the Ourawera Stream is bared and the shaft of the Sludge Gold-mining Company is exposed to view, containing steam pumping-pipes and dredge bucket-ladder of an abortive attempt to win the precious metal by that method with the aid of steam. Average depth of ground, 40 ft.; quantity of material treated for the year, 522,720 cubic yards; average value of ground worked, £1,000 per acre; value of gold, £4 per ounce; cost of winning gold, £2 17s. 6d. per ounce; cost per yard in wages, including maintenance of water-races, repairs to plant, working-expenses, management, and salaries, 2d. per cubic yard.

Sketches by Mr. A. Reynolds showing improved hydraulic elevator "T" piece with centre deflector; also elevator throat-liner as adopted and used by the Round Hill Mining Company, and described in my report. (See page 81 C.—3, 1904.)

