

Big Beach. In addition to these dredges the company constructed a water-race from the different creeks coming out of the range running from Arthur's Point to Arrowtown. This water-race was constructed to bring in a sufficient quantity of water to work a hydraulic elevator at the lower end of the Gorge leading into Arthur's Point. This part of the bed of the Shotover River contained an extensively rich deposit of auriferous wash-drift in the early days, and the place where the company proposes to work by a hydraulic elevator is close into the side of the range on the Miller's Flat side where a long slip has come down at some period previous to gold being discovered in this river-bed, and covered up a considerable portion of what had originally been the bed of the Shotover River, and, no doubt, if this can be worked there is a great possibility of large returns of gold being obtained from this ground. The present supply of water, however, is not sufficient to work the ground on the hydraulic elevating-system. This company has been for many years carrying on dredging operations, and, although some of the ground has been operated on more than once with the dredges, there still appears to be about as good returns from them as formerly. According to the last annual balance-sheet of this company the value of the gold obtained was £15,717 3s. 3d. In reference to the elevating plant the chairman stated that 10,666 cubic yards of material had been moved, from which 291oz. 2dwt. 21gr. gold had been obtained, being equal to 13·1gr. gold to the cubic yard. Since commencing dredging operations this company has got gold to the value of £62,641 12s. 7d., out of which dividends have been paid to the shareholders amounting to £14,793 15s., being about 25 per cent. of the gross yield of gold; in addition to this about £7,000 had been paid for plant. The value of the coal consumed was £9,155 13s. 9d., while £22,319 10s. 2d. had been expended in wages. This shows that some of the dredging companies pay extremely well, and are the means of giving a large amount of employment to men dependent on gold-mining operations for a livelihood.

Sandhills Company.—This company is now working about two miles and a half further up the river than the place where the dynamo is placed. For a long time the dredge was working in very poor ground, and had to be got up above a rocky boulder-bar in the river-bed to a place where the valley and bed of the river widens out. At the time of my visit, in the end of April last, this dredge was working on very good ground, but a good deal of breakage had taken place during the time of shifting it up over the rocky shallow bar referred to, which will take a good deal of the profits of working to put again in good repair. Judging from the sample of gold being obtained, which was of a coarse shotty character—and for three days' dredging about 15oz. gold was obtained—there should be a good future before this company. Owing to the high elevation at which these works are carried on, all dredging operations have to be suspended during the winter months on account of the frost, water-power being required to generate the electricity for working the plant.

In regard to the dredging operations on the Otago goldfields there are a large number of dredges at work in different places of which there is no information available; and at the present time there are several new dredges being constructed to work on the Clutha and Kawarau Rivers. Every place where there is a deposit of auriferous wash with water to contend with, and not sufficient fall to admit of the ground being worked in the ordinary manner by hydraulic sluicing, is now being taken up in dredging claims. All that is wanted is plenty of water in the ground to keep the dredge afloat.

WEST COAST.

Dredging has not proved so great a success on the West Coast as it has done in Otago. Most of the dredges now at work are not well fitted with appliances, and some of the early dredges were not constructed on a principle to break the material there was to deal with. The Ball dredge first introduced was only a toy, and the Wellman dredges, which were put on to the Saltwater Beach and the Saltwater Creek, both proved failures to deal with the character of gold found on the sea-beach; and the same can be said in reference to the Von Schmidt dredge, which was constructed to work Gillespie's Beach. The latter dredge is being fitted up with the ordinary buckets, and from the experience previously gained it is to be hoped that the washing appliances will be such as will deal satisfactorily with the fine gold found at this place. The dredging appliances at Taylor Company's Claim on the North Beach, near Greymouth, is merely a Priestman grab, which lifts the material. The top portion is removed and stacked in the worked-out paddock, and the bottom layer is lifted and washed on tables erected on the surface, while the water is lifted by a centrifugal cataract of American manufacture, which was formerly fitted up on a pontoon to dredge the sand, but proved an utter failure both here and in the Saltwater Creek near Paroa. The time will come, no doubt, when dredges will be constructed to treat the auriferous sand on the ocean-beaches of the West Coast satisfactorily, and open up a very large field for mining enterprise.

Collingwood Dredge.—A dredge has been placed on the Aorere River,* and is said to be getting very good returns of gold. There are a large quantity of boulders in this river-bed, which it was considered would greatly militate against it being worked by dredges, but so far these boulders have been successfully lifted. There is a considerable quantity of gold contained in the gravels in the bed of this river, and the success attending this dredge has resulted in the whole of the bed being taken up in dredging claims from the river-mouth to the Quartz Ranges.

Cocksparrow Dredge.—This dredge is working in the Buller River about a mile above the junction with the Dee. This dredge has been paying very well during the last six months. For the half-year ending the 24th May last dredging was carried on for 2,278 hours, for a return of 514½oz. gold and 22oz. amalgam. This means that, out of 156 working-days, the dredge had worked equal to 95 days continuously, which would be equal to 5oz. 8dwt. of gold for every twenty-four hours' dredging. The dredging operations have been mostly carried on at the north side of the river, where the depth of the wash-drift varied from 12ft. to 30ft. carrying fine gold; but after working for a considerable time the fine gold gave out, and a run of ground-wash with shotty gold came in as

* This dredge is 64ft. long, with a beam of 24ft., and can dredge to a depth of 18ft., but owing to the number of large boulders there are in the river-bed its lifting capacity is limited to about ten tons per hour; but even with this small capacity about 20oz. of gold is obtained for a week's work.