

Big River District.

Big River (Area, 37 acres 3 roods; owners, Big River Gold-mining Company).—The operations in this mine for the past year have consisted of the following works: The block of stone sunk on in No. 5 level to a depth of 60 ft. was stoped out, and a large amount of prospecting was done in No. 6 level, without any success. Prospecting operations were then started between these two levels, and an intermediate level was driven on a good reef-track for 150 ft., bunches of gold-bearing stone being occasionally met with. This drive was then stopped, and a cross-cut put in at a point showing good indications; and after 8 ft. had been driven the reef was found and driven on for 48 ft., averaging from 8 ft. to 10 ft. in width. This proved to be the end of the stone, and since that time stoping in the block has been carried on. The width of the reef in the stopes will average 6 ft., and the stone is of a highly payable quality. A winze has been sunk on the reef to a depth of 28 ft., and driving has been commenced from a second intermediate level to connect with this winze. From this last point to No. 6 level there is 60 ft. vertical, and it is intended to prove the reef to this level. So far there is every indication that the block will also live above No. 5 level, and operations will shortly be started to prove if this is so. In the upper levels prospecting is in progress in No. 1 intermediate, with good indications, and there is a strong probability that the rich reef formerly worked in No. 1 level will be picked up again here. The company shut down the cyanide plant in July last, and disposed of the remaining tailings to Mr. C. Ansley, who finished the heap in December last. Since then all tailings produced have been stacked for future treatment. During the year the company have crushed 730 tons of quartz, which yielded 1,355 oz. 5 dwt. of gold, valued at £5,491 3s. 10d.; and from 3,734 tons of tailings, by cyanide, 823 oz. 1 dwt. 11 gr., valued at £2,212 3s. 7d.

Snowy Creek.

A considerable amount of prospecting has been done on this ground, on a reef which cropped out near the creek; a winze has been sunk to a depth of 118 ft. The reef averages about 2 ft. in width, and the quartz broken out was of a favourable character. To provide capital for the erection of machinery a new company has been formed with a capital of £12,000. Contracts are now in progress for sinking main shaft 110 ft. in depth (9 ft. 6 in. by 4 ft.), and constructing a water-race 70 chains in length to carry twelve Government heads of water delivered at a vertical height of 63 ft. above the proposed machine-site. The main shaft is to be sunk 155 ft. west of the reef in the winze.

GREY DISTRICT.

Paparoa Range District.

Croesus Mine (Area, 100 acres; owners, the Croesus Gold-mining Company, Limited; mine-manager, Thomas Crabb).—Development work here has been steadily carried on at this mine during the past year, the adit having been driven to a length of 450 ft., of which 300 ft. is on the reef. There is now a ten-head stamper-battery erected, the stamps being 850 lb. in weight, and a berdan. An aerial tramway has been erected a distance of a mile and a half for the conveyance of the quartz from the mine to the storage-bin at the battery. The erection of the aerial tramway has been a work of considerable difficulty, owing to the precipitous nature of the country, all the material having to be carried by hand to the site for a considerable distance. The motive-power is obtained from the water-race from the creek. The company's engineer (Mr. H. W. Young) has carried out the whole work efficiently. The yield of gold has been 589 oz., valued at £4 2s. per ounce, from 750 tons of stone, an average of 16 dwt. per ton. Some forty wages-men were employed, besides those engaged on the contract for the tramway, &c. The difficulties encountered in opening up a mine at such an altitude are described in the following extracts from the *Greymouth Star* :—

"After many months of strenuous exertion by the management and of tedious expectation by the shareholders, the Croesus Company's plant, machinery, and mine are at last in working-order, and crushing has begun. The difficulties in the transport of materials due to the absence of tracks, together with the exceptionally bad weather prevalent during the last year, have greatly hindered the progress and enhanced the cost of all works, but, on the other hand, mine-developments have justified sanguine expectations. The mine is accessible from Greymouth by railway to Ngahere Station, and thence by coach to Blackball Township, three miles distant. From Blackball the county bridle-track, with Mr. Perotti's tramway thereon, extends to the Roaring Meg Sluicing-claim, about eight miles distant. Here a steep, rugged, unformed bush foot-track ascends the mountain, and was the only way up until the recent partial completion of the Paparoa bridle-track made horse traffic possible. This bridle-track begins near the Roaring Meg Claim, and ascends the mountains with regular and fairly easy gradients. At an elevation of about 150 ft. above the main Paparoa ridge, and 4,000 ft. above sea-level, rises a prominent landmark now known as the 'Croesus Knob,' nearly in the centre of the company's 100-acre special claim, and through which the Croesus reef has been traced. Here the watershed on the south-east slopes steeply down to the Upper Blackball Creek, and on the north-west to the tributaries of the Ten-mile Creek. All of these creeks have proved to contain gold sluiced down from the Paparoa Range.

"The Croesus reef was discovered by Mr. Harry Neilson, who followed traces of gold from the Ten-mile Creek tributary until he found its source in the lode, and the gold visible in it. The out-cropping stone was first cut and tested at close intervals for a distance of 460 ft., and traced for a further length of 250 ft., a winze being sunk near the middle of the proven stone. Then at a level about 100 ft. below that of the average outcrop, giving about 170 ft. of backs, No. 1 adit-tunnel was driven for 130 ft., crosscutting the lode which was followed in No. 1 level for over 250 ft., where the present place looks well. From No. 1 level an uprise winze has been carried to the surface for ventilation, and also passes and other work ready for stoping out have been made. The stone throughout continues good, varying from 18 in. to 6 ft. in thickness. The transit of all timber required for mine-work had formerly to be laboriously carried up to the summit at a great expense,