

ings through fissures in the roof. Horse-haulage only has been employed to cope with the output. An Evans three-throw electric pump has been installed, capable of dealing with 200 gallons of water per minute. When first set to work it required to be operated continuously for fifteen hours per day, but the water has now decreased to such an extent that the pump can deal with it in twelve hours. The dip heading is driven approximately 11 chains, and is showing good coal 14 ft. thick at the face. A pair of levels will be turned away on either side of the dip, running east and west, as soon as the present preparations, consisting of installation of electric haulage, are completed. This will doubtless be a very important section as regards output in the very near future. For this reason it is absolutely necessary that the dip headings should be kept well in advance of the general workings, so that some idea can be formed of the extent of coal ahead to cope with future demands. During the year a contract was let to enlarge the main heading through the fault. The distance driven is $4\frac{1}{2}$ chains. At this point it was expected to win the full height of the seam, but expectations were not realized, and further driving will have to be done.

Workshops; surface works: During the year new workshops, consisting of blacksmiths', carpenters', and engineers' shops, have been erected, and all necessary machinery installed. These will obviously prove of economic value, as previous to the installation all repair-work had to be sent to Greymouth. Near the end of the year a 100-horse-power electric generating plant was installed to provide power for haulage and surplus power for pumping in the dip section. Heating has been a source of considerable annoyance, several fires having broken out. These have not been confined to any particular part of the mine, but have occurred throughout the whole of the workings. The probable explanation of these outbreaks is that the roof overlying the bottom seam is of a very soft clayey nature, and when this is dropped to enable the top seam of coal to be won, it carries with it a quantity of coal which has been left to form the roof in the first workings. So completely does this clay form, as it were, a blanket over the coal, that the heat generated cannot escape, and with an increasing temperature a more rapid absorption of oxygen is induced, and the heating soon develops into a fire. The workings are carefully examined in order to detect this heating, and every precaution taken to cope with a fire if it should break out. Ventilation has been maintained, and the Act generally well observed.

North Brunner Colliery (George Smith, mine-manager).—(14/12/11): The output from this mine for the period under review totalled 12,784 tons, being an increase over the previous year's output of 1,862 tons. The output was obtained in the first eight months; during the remainder of the year the mine was closed down. Seventy chains of levels and bords were driven during the year, and it was hoped that as development proceeded a better class of marketable coal would be opened up, but up to the time of closing down the operations proved disappointing. The seam proved to be of a varying thickness, averaging about 5 ft., and of a very soft and friable nature, quite unsuitable for handling in shipments. In August the main level, which has been driven some 6 chains, came against a fault, the same faulting being met with in No. 3 road, while it is thought that No. 4 is through it; but the coal at this point is lying at an abnormal pitch—viz., 1 in 2—and from this it would appear that the disturbance is not yet penetrated. Owing to the market for the North Brunner coal being so dull, it was decided to close down until the return of the general manager from England, the only work that has been done since being the loading of coal for local sale from stock kept in the bins. When operations are again commenced in the mine in all probability they will chiefly be confined to the pushing-forward of the main headings through the faulted ground to prove the extent and quality of the coal on the other side. Ventilation and general safety of the mine are satisfactory.

Loughlan's Mine (owner, R. L. Kearns; R. L. Kearns, manager, by permit).—The main level is continuing in a north-east direction skirting the hill, drivages being holed to the surface for the purpose of ventilation. The coal is in thickness 5 ft., and is lying very steep. This property has been purchased from Mr. Bierworth during the year, and has produced 2,760 tons of coal. The ventilation and general safety of the mine have been well maintained. Preparations are being made during slack times to work the coal lying to the dip of the present workings level, which is driven as low as possible to ensure free drainage. Rules posted and reports up to date. Four men are employed.

Golden Point Mine (R. L. Kearns, owner; R. L. Kearns, permit).—Very little coal has been won from this mine during the year, on account of slackness of trade, the output being only 540 tons. This has been produced almost exclusively from the level, which is running in a north-easterly direction.

Lankey's Creek Mine (Progress Goldfields of New Zealand (Limited), owners; F. Knight, permit).—This mine has produced 2,011½ tons of coal during the year, almost the whole of which was won within the first eight months. A good deal of small coal was filled from the old workings that had been left during previous operations, this being mixed with the round coal. The mine has been practically closed for the latter four months of the year, the owners having decided to construct a tramway about 97 chains along the sideling, so as to more economically supply the Progress and Energetic Mines. The tramway is nearing completion, and operations in the mine will soon be in full swing again. The seam is 8 ft. thick, and of excellent quality, producing a large percentage of round coal.

Watson and Moyle's Coal-mine, Murray Creek (W. Watson, permit).—Operations consist in driving a pair of headings going south, and separated by about 60 ft. with stentons connected for the purpose of ventilation. No. 1 heading has been driven 24 ft. for the year, while No. 2 has been driven approximately 100 ft. A patch of faulted ground was met with, and when driven through the coal was found on the other side. The roof in the mine is very strong and well protected. Natural ventilation is well maintained.