

*Enner Glynn Coal-mine, Nelson.*—(29/6/98): At this mine operations have ceased owing to a gob which originated by the spontaneous combustion of coal slack that was accumulated behind the logging in No. 1 pass. After all efforts to extinguish the fire were ineffective it was decided to raise all movable material to the surface and flood the mine, which was accordingly done. (30/6/98): The water had risen in the shaft to within 50 ft. of the surface when orders were given to batten down and fence off the shafts. (9/1/99): Shafts still battened down, nothing further having been done to reopen the mine.

*Mokihinui Coal-mine.*—Mining operations still continue to be suspended on this property.

*Cardiff Colliery.*—(21/11/98): The output for the year was 60,101 tons, being an increase of 5,821 tons on the preceding year. The coal up to the present has been chiefly mined from the Hector Block, which forms the eastern section of the coalfield, but towards the end of the year it was found necessary to extend the workings across Chasm Creek to the western block, which necessitated the construction of a bridge. The bridge thus adopted has a span of 200 ft., and is built with a rising gradient of 1 in 4. It consists of an inverted parabolic bowstring truss, framed of black-birch timber, rested on two cables, each composed of two 5 in. circumference wire ropes, having a combined breaking-strain of 336 tons, or over six times the dead-weight of the truss. The ropes are securely anchored to timber balks let into the solid sides and bottom of the drives at either side of the creek. At the lower end each rope is attached to a 3·5 in. diameter tension-screw, capable of raising the structure should adjustment be necessary at any time. The depth of the truss at the greatest sag of the cables is 20 ft., and the greatest height above the creek 98 ft. The strain is chiefly borne by the cables, the truss itself being lightly built, sufficiently strong to give rigidity to the structure. From the arrival of the ropes the work of erection occupied six weeks, all the pieces being previously fitted together at the works. The cost of tunnels and approaches on either side of the creek was £1,000. The coal is conveyed over the bridge on a double line of tramway by means of a self-acting endless rope, the speed of which is regulated by a powerful screw-brake. The structure has an imposing appearance in the gorge. It possesses rigidity, and answers the purpose admirably. During the year the company has spent £500 in prospecting this lease by means of borings, headings, and trenching, and have proved the existence of a large area of coal of the finest quality. The works are under the direct supervision of Mr. Broome, mining engineer for the company, who has exercised every precaution for safety to miners and economy in carrying out the various development-works undertaken by him. The provisions of the Act are strictly enforced and carried out. Seven visits were paid. William Bird, stone-drive contractor, sustained a fracture of right leg whilst raising a heavy cap-piece.

*Millerton Colliery.*—(30/11/98): The gross output from this colliery during the year was 87,269 tons, being an increase of 28,028 tons on the preceding year. Of this total, two-thirds was produced from five Leyner's and three Yock's coal-cutting machines of the percussion type, actuated by compressed air. The compressing plant by Leyner (Denver, Colorado) consists of two separate engines of equal volume, each having 17·5 in. diameter steam- and air-cylinders, with 12 in. diameter compound air-cylinder. These compressors are worked alternately as required, one being equal to keep full working pressure on all underground machinery during working-hours. From the practical results of these holing-machines, together with the safe and suitable application of compressed air as a motive-power, also the ventilating of prospecting headings of great lengths on steep gradients, this power has proved a valuable factor in economizing mining operations. Since the introduction of holing-machines they have been confined to the east or dipside of the main haulage-road. This coal being of average hardness makes it suitable for this class of work. With the object of breaking down the coal without the use of explosives two hydraulic cartridges have been imported, and Mr. Brown informs me that he is hopeful of their success. The west or rise-workings are being steadily cut off by a main upthrow fault, the total displacement of which has not yet been determined from any other point of the coalfield. During the year developments have been directed to open out the large coal-basin in the neighbourhood of Mine Creek. Its situation being considerably elevated above the present workings, it was decided to convey the coal down a heading having a gradient of 1 in 3, which will connect the new mine with the present haulage. This heading when completed will exceed 30 chains, a great part of which will be rock-cutting. From reliable information, seven smoke-jackets have been ordered by the Westport Coal Company for the use of the collieries, in case a fire should occur at any of their mines—three for Millerton and four for Denniston collieries. Timbering and spragging are strictly and carefully carried out by the company's officers. Reports and other provisions of the Act up to date. No accidents reported. Air-measurement, 16,500 cubic feet per minute. Four inspections made.

*Coalbrookdale Colliery.*—(23/12/98): This group of mines comprises the Cascade, New Mine, Muncie's, and Big Dip. The three latter are pillar districts. In the Cascade section a 12 ft. downthrow fault that traverses the whole area was met with, together with a thinning of the coal seam, which terminates the workings westward. These faults have done much to retard the progress of this extensive coal area. With the object of cutting and winning the coal at the most central position from the deeper basin behind this downthrow fault, it was found necessary to extend the haulage-road on a deviation from the original line at a given point. This formation of roadway to the deeper coal is completed, and a connection is also made with the drainage-channel. It is anticipated that developments will be extended towards this part of the mine at an early date, in view of meeting the winter demand. As formerly reported, the ventilation system has received careful attention, and separate and direct air-currents sweep the workings. The air-measurement is 28,000 cubic feet per minute. The timbering and spragging are carefully carried out. Muncie's and New Mine: This combined district is confined to the extraction of pillars from the same area. Much depends on the nature of the roof for the safe and profitable extraction of pillars. This district is favourably situated, and the roof is a strong sandstone, and under these conditions,