

generator, direct-connected with a Belliss and Morcom simple condensing-engine, the set running at 600 revolutions per minute. A motor-generator set is installed in the power-house, to light the general plant and operate a number of direct-current motors about the storage-bins. This set consists of a 100-kilowatt, direct-current, 280-volt, flat compound generator, direct-connected to a British-Thompson-Houston three-phase, 6,600-volt, 150-horse-power motor, running at 705 revolutions per minute. The main switchboard has eight panels and three blank panels for further extension. The direct-current voltmeter for the motor-generator set is mounted on the extreme left panel; the synchronising indicator and exciting voltmeter, together with Tirrell regulator, on the extreme right panel. Added to these there are two small auxiliary panels, one for the control of a 40-kilowatt, 6,600-volt primary, 230-volt secondary transformer, and the second panel for the control of a 75-kilowatt, 6,600-volt primary, 230-volt secondary transformer. The switchboard is adequately fenced off. Sub-stations: Direct current is supplied from three sub-stations to run the locomotives and mine machinery, including coal-cutters and ventilating-fans. The trolly-wire in use is General Electric Company's grooved No. 0000 throughout, and in parallel therewith is a stranded cable of 600,000 mils. This wire is bare outside the mine, but covered inside, while the feeder-cable is tied to the trolly about every 150 ft., and the height of trolly-wire above tram-rail is 7 ft. 8 in. Over a total length of five miles transmission-line there are nine transpositions.

*Millerton Colliery* (owners, Westport Coal Company (Limited); William Dunn, local manager).—(3/12/08): Throughout the varied developments of this extensive colliery, efficiency is maintained in accordance with the rapidly increasing demands, whilst safety to life and property receive careful attention. Including engine-coal, the gross tonnage raised was 322,631 tons, being the largest yet recorded, an increase of 19,517 tons 19 cwt. on the preceding year.

Mine Creek and Mangatini sections: Outside the ordinary and general routine of solid and pillar operations, developments have been unimportant, attention having been directed to complete the more important works in connection with the Mangatini section of the lease. These extensive works are now completed, and, notwithstanding the large expenditure incurred to develop and equip this property with modern and economic labour-saving appliances in haulage, coal-cutting machinery, &c., the field so far developed affords exceptional promise in thickness, hardness, and quality of seam, while the natural stratigraphical features of the field furnish factors favourable to the general working-conditions of the mine. With regard to additional mechanical power, provision has been made at the central power-station, situated at Mine Creek, where two Babcock boilers are being erected, together with a powerful dynamo for lighting purposes, which will eventually supply a motor-driven Sirocco fan, calculated to maintain a ventilating-capacity of 150,000 cub. ft. of air per minute, at a 3 in. water gauge. Meantime, Mangatini section is temporarily ventilated by an induced-draft Sirocco fan, driven by direct-coupled engine, actuated by compressed air.

New Tunnel district: With the object of effecting the safety and extended operations of the coal-field, mining was suspended (in the above-named district) and a contract let in June last to continue the main rock tunnel a further distance of 50 chains, on a rising gradient of 1 in 10, to connect with the Mine Creek working, and finally abolish the heavy graded road (1 in 3) known as Mine Creek Jig. Driving is continuous (three shifts) from both ends (Sundays excepted), with very satisfactory progress, while the stratum is a hard, compact, grey granite. Contract time to complete is eighteen months, but, according to the average rate of driving, a holing is not expected to exceed sixteen months. This route, when completed, will form the main entrance to the mine, both as a haulage and travelling road. In this driving, water and ventilation are amply provided.

A fatal accident occurred to John Moloney (miner) by fall of stone in the No. 14 district of pillars.

Prosecutions under the Coal-mines Act: W. Arthur—Charge, false entry in report-book; fined £2. W. Arthur (same person)—Riding on truck; fined £1. W. Arthur (same person)—Charge of drunkenness; withdrawn. C. Moyle—Two charges—drunkenness in mine, fined £1; riding in truck, fined £1. V. Curran—Two charges—drunkenness in mine, fined £1; riding in truck, fined £1. H. Smith—Three charges—riding in truck, fined 10s.; trespass in mine, fined 10s.; drunkenness in mine, withdrawn. D. Hill—Three charges—riding in truck, fined 10s.; trespass in mine, fined 10s.; drunkenness, withdrawn. Five boys were convicted and discharged for throwing stones in sheds.

*Dennistown Collieries* (owners, Westport Coal Company (Limited); J. Brown, local manager).—(9/12/08): Notwithstanding that mining operations were exclusively confined to single-shifting over the whole system, the gross tonnage lowered down the inclines for shipment, 294,760 tons, was the highest yet recorded for any similar period on single shift. The general developments continue to be kept well in advance of the growing requirements. In the earlier history of this property extensive areas were left standing on pillars, which, for various reasons were only partly extracted. This condition has happily given place to more modern practice, and a more exhaustive and proportionate extraction is now being effected.

Coalbrookdale Mine: The sections of the Cascade areas have developed beyond anticipations, while the thickness and quality of the seam are practically unequalled. The output is chiefly produced by coal-cutting machines. Regarding the ordinary working-conditions, there is little of importance to note. Munsie's section: All solid working to the dip has been exhausted to a given point, from which the management intends to forewin the remaining portion from the upper levels of Cascade dip section: this system will provide free drainage, and a more direct ventilation and haulage. East Cascade pillars still stand intact, extraction awaiting completion of the winning-roads now pushed from the main haulage. The main drive (stone) now being driven, 10 ft. by 7 ft. in the clear, to exploit the Waratea portion of the lease, has made satisfactory progress, and is calculated to connect with the workings on the right-hand side of Cascade during the current year. On completion of this drive, endless-rope haulage will be installed to win the right-hand coal, while the remaining portion of the drive will be completed to its terminal point in the lease.