

former for the care exercised by them and the latter for their judicious display of practical knowledge. The "Scheile" exhaust-fan installed on the new ventilating-shaft has fully maintained ventilating requirements of the Dundee solid working. This shaft, from its central position, has also been utilised to connect the compressed-air pipe-main directly with the active working length. The friction of pipe-main is thus greatly lessened.

Kiwi district is being further developed by hand-labour. Ventilation and other working conditions are good.

The deviation to junction the Ironbridge haulage-road with the Coalbrookdale main line has a completed length of 24 chains. The principal works included comprise 5 chains of rock tunnelling and two steel-girder bridges which span the southern branch of the Waimangaroa River. This altered route maintains satisfactory results, while the underground haulage engine and boiler, which were formerly a source of danger from spontaneous heating, are now in absolute disuse.

Continuation of the haulage dipwards into the active centre of Dundee working was further extended 21 chains during the Christmas holidays. These alterations and extensions establish a permanent and economic haulage system, calculated to thoroughly exhaust this section of the property and cut off all subsidiary machinery formerly in use.

New Deviation of Main Haulage-line: The tunnelled section of the present main haulage-line having become partly endangered by slide movement between Burnett's face and the Brake-head, it was decided to build a more reliable outlet on the surface to enable the output of the mines to be permanently maintained without risk. These works, now actively pushed, will, when completed, comprise a total length of 120 chains. This includes 6 chains of tunnelling 10 ft. by 6 ft. in the clear, rising on a gradient of 1 in 5 from near the loading-terminal. Leading outward from the tunnel (now holed) a series of heavy cuttings, met with in crossing the plateau, are nearing completion, while the line grading down the cliff to meet with the level of the Brake-head terminal is passed over iron trestle and girder bridging 340 ft. in length on a falling gradient of 1 in 5. This work is also practically finished, and it is expected that the whole scheme will be operative some time during 1904.

Shots Fired: Mr. Dixon kindly furnishes the following: According to the official record kept at the collieries there were 54,895 shots fired during 1903. This total, calculated on the gross tonnage, gives an average yield of 4.77 tons per shot, and proportioned to the working-days is an average of 206.4 shots per day. Miss-shots were in the ratio of 1 in every 359, and comparing the percentage of miss-shots against the large number of separate shots fired the results may be taken as satisfactory evidence of the care exercised in the performance of the work. In addition to the foregoing there were used for other work, principally the construction of the new surface tram-line, 9,600 lb. of gelignite and 180 boxes of detonators.

Prosecutions: There were nine prosecutions at Dennistoun J.P. Court for breaches of "The Coal-mines, Act, 1891." (1.) Attempting to withdraw a charge where nitro-compounds were used: fined 10s. and costs. (2.) Trespassing on the rope-road while the rope was in motion: fined 10s. and costs. (3.) Two miners charged with holing without sprags: fined 5s. each and costs. (4.) Five workmen charged with trespassing on rope-road when rope was in motion: three dismissed with a caution, and two fined 6s. each and costs.

*Coal Creek Coal-mine, Buller Road* (Geo. Walker, lessee).—(31/10/1903): Regarding the working of this mine there is little change of importance to note, other than that the brothers Fleming, who work this property on behalf of the lessee, make special effort to keep roadways and working-faces in an efficient state of safety. They produce a superior coal suitable for steaming and household purposes. In the early development of the new mine the adit was intersected by a peculiarly formed fault-line, which shortly afterwards changed its course in favour of the level without effecting any particular change in the working.

*Whitecliffs Coal-mine, Buller Road* (Job Lines, owner).—(31/10/1903): This property is worked by one man, chiefly to supply steaming-coal for the Old Diggings dredge. The quality is softer than that of Coal Creek coal, and it is not so much sought after. The working is securely timbered.

*Flaxbush Coal-mine*.—(9/6/1903): Owing to the soft character of this thin and highly inclined coal-seam it is suited only for steaming, and is chiefly used on the Buller dredges. The in-by working having become nearly exhausted, a new face was recently opened from the adit, and will meet all requirements and provide a better trucking-road. From the special care taken to timber the ground efficiently the miners are able to exhaust the coal-seam without loss. Air is kept continuously on the face from the open outcrop.

*Langford*.—Nothing further has been done at this mine.

*Bourke's Creek Coal-mine, Reefton* (owners, Cairns and McLever).—(5/10/1903: Driving east and west from the bottom of the dip inclined rock tunnel comprises the chief centre of operations. The old creek-bed having unfortunately intercepted further extension westward, it was decided to pick out a few pillars near the old mine-mouth which were formerly abandoned. However, conditions eastward are more favourable, for the thinning and troubled coal met with in the upper level does not appear to affect the bottom, as the seam is opening out well with usual thickness and quality.

*Archer's Freehold, Caplestone* (F. W. Archer, owner).—(30/9/1903): The output from this mine has considerably increased, owing chiefly to the extra demand for steaming-coal made by the recently built dredges on the Boatman's Creek. The adit line having recently been cut off by a large fault-line near the boundary of the holding, operations are confined to the removal of pillars from the fault direct to the outcrop. Air is well maintained. The Crown-land leasehold lately acquired by Archer is not now working.

*Coghlan's Freehold, Caplestone* (J. Coghlan, owner).—(30/9/1903): This adit level is also cut off by a strongly defined fault-line. The coal won was taken from rising on the outcrop.