

slightly; the timbers are repaired as required. The brick stopping is still crushing, and the ash stopping is continued when necessary. An iron manhole-door in the roof at brick stopping enables ready access to the heated portion. A thermometer record is duly kept. (18/12/1901): Air at intake, 19,980 cubic feet per minute. McDougall's section being gradually robbed back to the drum. Mr. Broome estimates that fully two-thirds of the seam, which averages 30 ft. in thickness, is being won. Return airways, with the exception of the No. 1 heading section, all in good order. Traces of gas in pot-holes, No. 4 dip section, and at the top of No. 2 heading, north section. Air good throughout the mine, which is in good working-order. The new deflector safety-lamps (maker, Richard Johnston) are giving excellent results. They are strongly made, give an excellent light with best oil, and are very sensitive in the presence of CH_4 .

Castle Hill Mine, Castle Hill (G. H. Broome, manager).—(18/3/1901): Air excellent and the mine in good order. I found a little gas at the face of the north back level. No. 4 rise, 6 ft. seam. Every precaution is being taken; air conducted to the face, and only safety-lamps used. Whatever the cause may be, it is noticed that gas "bleeds" more freely from workings in this mine advancing north than from the south workings. (11/7/1901): Air at intake, 30,000 cubic feet per minute. The main dip-incline face is 14 chains from No. 1 landing. The new seam (25 ft.) is being developed. Gas having been reported, only safety-lamps are used. A jacky pit, 42 ft. deep, for communication between the main incline and the new seam is almost completed. When finished, the main body of the air-current will sweep direct from the intake up the pit and through the new-seam workings. Meanwhile compressed air is used for ventilating this section of work. I found traces of gas at the south-level face. Report-books to date. (28/8/1901): Air at intake, 26,255 cubic feet per minute, with only half a fire on at one side of the furnace. The jacky pit is 42 ft. deep, 11 ft. by 4 ft. 6 in. in the clear; divided into three compartments—two for lowering coal and one for ladder-way. Coal from new seam is to be lowered down the jacky pit, the bottom of which is 1 chain from the main haulage incline. The ventilation is largely in excess of requirements, but owing to the advancing levels and headings making a little gas the men use safety-lamps. No work is now being done in the 6 ft. seam, and the levels are stopped off. North and south levels in the 11 ft. seam are driven 20 chains on each side of the main incline in readiness for winter-trade demands. Report-books and plan to date. (25/10/1901): Air excellent throughout the mine. An excess of air sweeping through the working-places, and, although the new seam is being opened up, I was unable to find a trace of gas in any of the faces. This is very satisfactory, and a practical illustration of the efficiency of adequate ventilation in the removal of gas from the workings. I examined the return airways and standing-places already opened up, and found all clear of gas and in good order. (19/12/1901): Air at intake, 24,000 cubic feet per minute. The main-incline extension is now completed, the water-lodgment finished, and preparations are being made for the extension of the endless-rope-haulage system to the bottom at $10\frac{1}{2}$ chains from No. 1 landing. Air well conducted to all the working-faces by stentons and brattice where required. Report-books well kept, and plan to date. The mine is in a very satisfactory state; plant, roadways, and airways in good condition; development-work well advanced and in readiness for a greatly increased output.

McCormack's Old Mine (Castle Hill No. 1).—(17/12/1901): The mine-mouth has been filled in, no smoke is escaping, and the fire is now damped down.

Mainholm Mine, Waipahi (Frederick Lischner, owner).—(8/1/1901): Opencast working. Seam 20 ft. in thickness. This pit is worked in a systematic way. An area 3 chains by 1 chain, stripped in advance of coal-face. A new 8-horse-power portable Marshall engine and boiler is being placed in position to drive a 6 in. centrifugal pump for unwatering the pit in wet weather or in time of flood.

Taratu Mine, Kaitangata (H. H. Fraser, owner).—(17/12/1901): Prop seam. Coal for private use only being won. Places all standing in good order. A company has been formed to work the field. Coal is known to outcrop in many places on the property. A railway is being brought in six miles from Lovell's Flat Railway-station. The formation is almost completed, and the coal is expected to be on the market early in the coming year.

Lakeside Pit, Kaitangata (James Landells, owner).—(17/12/1901): The old mine is now abandoned. A new drive is in 10 yards in an outcrop of coal on the side of a gully. Like Fraser's property, several seams of coal are known to crop out at various places, and coal can be obtained almost anywhere near to the surface.

Wangaroa Mine, Kaitangata (James Smith, owner).—(17/12/1901): Mr. Smith has leased the mine to Alexander Forrest, who is working by himself. The drives are narrow and all standing in good order. From indications at level-face a fault is not far away. The seam is 9 ft. thick, with a dip of 1 in 12 to the north-east. The Bruce County Council has erected a toll-bar on the main road near the outlet from the mine. The toll-keeper is instructed to charge 5s. for every load of coal passing the toll-gate, which effectually bars Forrest from sending coal to Kaitangata Township, and, as the demand from farmers on the coast is limited, the trade of the mine is likely to be restricted.

Early Bank Pit, Milton.—(20/12/1901): Nothing doing here now, and the mine-mouth has fallen in.

CENTRAL OTAGO.

Coal Creek Collieries Company, Coal Creek (Isaac Watson, permit).—(31/5/1901): Opencast workings. Face, 70 ft. 20 ft. of good coal. Overburden well trimmed back. An old low level opened up thirteen years ago is being cleaned out, and a water-channel is being brought up for drainage. The manager has made a good substantial job of the entrance to this level, the idea being to use the level as a permanent roadway after completion. Five men employed. (21/8/1901): The development of this pit is going on slowly; some coal is being taken out of the opencast, but the stripping is becoming too heavy for the work to be remunerative. The old drainage level has