

coal is being left for a roof. Preparations are being made to open a new seam lately discovered near the surface in a flat gully to the eastward of the present workings. The extent of this seam is not yet known, but there is a considerable body of coal in sight.

131. *W. Reid's Wallace Mine*.—(18/4/93): This is an open pit with 11ft. of stripping, consisting of hard-packed gravel and layers of clay, which is hewn out in narrow strips, leaving the walls nearly vertical. There are 3ft. 6in. of good coal immediately under the gravel, then 1ft. or more of shale, under which there are 9ft. of good coal. Although this pit is some little distance from the Nightcaps Company's mine, it is probably the same seam as the 9ft. and 17ft. now being worked there, showing that 13ft. 6in. of coal has been scoured away by the stream which deposited the gravel now lying on it. The dip of the seam is to the south-east. The little engine keeps the pit dry by pumping two hours every second day.

134. *Orepuki Mine*.—(23/11/93): The engine-plane has not been extended since my last visit. A bore has been started to the south at about 400ft. down from the pit mouth. The depth of coal taken out here is 8ft. from the floor. At 10ft. from the floor there is a 6in. band of kerosene shale, then 5ft. of good coal, then from 7ft. to 8ft. of coal with odd small bands, and on top of this rests the 4ft. of very good kerosene shale. The roof is soft laminated rock. The bottom of the engine-plane is from 90ft. to 100ft. below the surface, and the seam dips east about 1 in 3. An opening has been made in the coal on the north side of the dip, which shows a good floor and roof. Good firewood is so plentiful in this place that there is very little sale for coal, hence the small yearly output from this mine.

140. *Hills Pit, Waikaia*.—(21/10/93): This pit is now well opened, showing 17ft. of coal. The stripping is from 30ft. to 90ft., and similar in every particular to that at the other pits on the same terrace, and the distance the *débris* is sluiced to the river is only 2 chains. The high gravel face appears to be safely sloped back from the bottom. A water-wheel, 6ft. in diameter, drives a pump and lifts the drainage 14ft. from the coal floor. The roof-parting so noticeable in Northcote's mine is remarkably well defined here at 4ft. from the top of the coal, and is, to my mind, a strong inducement to mine it out instead of continuing the very heavy stripping, even though some try that useful agent water, of which there is a scant supply to this face at any time during the year.

141. *Hugh Smith's Pit*.—(8/11/93): This is an old pit, where only a few tons in the year are taken out for home use. There appears to be about 4ft. stripping and the same depth of coal. There is a gold-bearing wash lying on top of the coal, which is carefully collected and washed. There was no one about the pit at the time of my visit.

Matau Mine, Kaitangata.—(5/10/93): This property is situated a short distance below the Kaitangata Township, where, at a level 12ft. or 15ft. above the Clutha River, a tunnel is being driven in an easterly direction, and is now constructed 400ft., which is about half the distance calculated to reach the 5ft. coal seam intended to be operated on. Two small seams of 2ft. each, with a parting of 3ft., have been passed through, standing at a considerable angle, but they are not considered of any value. There are two shifts of two men each doing the work, and they expect to reach the coal in four or five months. The formation passed through is mostly strong conglomerate, somewhat wet in places. Where timber is necessarily used, it is neatly fitted, and evenly placed in position. An air-shaft is now being constructed near the end of the tunnel.

W. Johnston's Pit, Gore.—(14/10/93): This pit is situated on the low flat on East Gore Reserve. A drain of 3 chains in length has been cut into Kirk's pit, to which there is an open drain of considerable length from down the flat. Johnston's pit, however, is not drained to the bottom of the coal. When coal is being taken out to the floor a hand-pump is used. The bottom of the pit could not be seen, but they informed me there were from 10ft. to 12ft. of coal, and a stone band in it. I did not find Johnston, but sent him a form to fill in his output for the year, which form has not been returned.

Springburn Mine, Mount Somers.—(12/1/93): The outcrop of coal is on the hillside, about two miles above Sharpling's sawmill. I saw a tunnel and other indications of some prospecting having been done some time ago. As far as can be judged from surface indications the seam dips into the hill at a steep angle, north-west. Some samples lying on the surface are similar in quality to most of the brown coals found in other districts. There was not enough of the outcrop visible to warrant me in giving an opinion as to whether there is likely to be a fairly payable seam of coal there or not. Although I have not a high opinion of the surface prospects, it is worth a short tunnel that would cut the seam some little distance below the surface, where it might be found solid, and then followed a few yards in order to examine the country it is in. Mining timber is plentiful all round the spot. There is a large body of what appears to be good limestone close to the coal outcrop, where Sharpling and others are thinking of starting lime-burning, if a good seam of coal can be found there. The limestone is laminated similar to that quarried for lime-making at Millburn, in Otago.

ACCIDENTS IN THE OTAGO COALFIELDS.

I have to report as follows on the several accidents which have occurred during the year ending 31st December, 1893:—

1. *Kaitangata Mine* (23rd March).—William Thompson allowed his box to go too far forward before spragging it, was overpowered and got jammed; not serious.

2. *Phillips's Mine, Kurow* (11th April).—Charles Irvine fell down the mine-shaft, and died three days after. The trap-door had worked loose on its frame, and this had not been noticed by Irvine. The door slipped off the frame while Irvine was standing on it.

3. *Kaitangata Mine* (12th July).—William McCoughern got his leg broken while leaving his working-place with his box unspragged. He slipped against a prop, and the box jammed his leg.

4. *Fern Hill Mine* (14th July).—Daniel Knox went into the mine after all the men had left their working-places, and in attempting to come out again he turned a little to the left and got into some old workings where the air was bad. His body was found in a sitting position with a box of matches in his left hand and a match in his right, as if in the act of striking it.

5. *Shag Point Mine* (7th September).—J. McNair was injured slightly by a fall of stone from the roof of the mine.