

consequence of the drainage being very heavy in the dip-workings. It is now proposed to put in a tunnel to the old vertical seam, where there is known to be some solid coal. (20/6/96): A dip-drive is now down to the coal-seam, which is being followed to the south. The width of bord is from 5 ft. to 6 ft., and height about 7 ft. A deal of the coal is very much crushed and faulted.

*Crow and Anderson's Pit, Bannockburn.*—(18/9/96): I went down the dip-drive and examined a little of the workings, but did not find any one there. The indications were that no work had been done at the mine for some days, perhaps weeks.

*Cooper's Slaughteryard Pit, Kawarau Bank, Cromwell.*—This is an old pit, reopened lately by Cooper. The seam is about 4 ft. thick, and dips at a steep angle to the south-west. The contour of the seam is being followed northward. The openings in the Kawarau river-bank are a little above flood-level. I understand the coal-seam is very much faulted in the terrace going north.

*Mrs. Cowan's Pit, Gibbston.*—(28/1/96): At the spot where Cowan was killed the face of the hill is now being stripped to the coal by the use of water from time to time when a sufficient supply is available, which is not often the case. The depth of stripping is great, but, being fine, loose stuff is easily washed away. The opening that was being made at the time of my previous visit to reach the coal at a very low level down the hill below the old workings is still being proceeded with by sluicing the surface off instead of continuing the tunnel as at first started. I fear that sluicing the surface off the coal at this particular place will be a failure, in consequence of the broken nature of the country. All the face of the hill is a series of landslips, most places having a steep gradient. All the coal is very much crushed, and has to be bagged on the spot in order to reach the market in a saleable size.

#### SOUTHLAND.

*William Kirk's Pit, Waikoikoi.*—(26/10/96): This is merely an opening in the face of a terrace which is composed of bands of sand and layers of sticks, apparently the remains of an old manuka swamp. There is, however, a seam of lignite from 3 ft. to 4 ft. thick at the bottom, which is hewn out for home use only.

*C. O'Hagan, Pukerau.*—(26/10/96): All the working-places were examined and found in good order. The floor of the pit continues to dip slightly in the direction the bords are being advanced, and is now 2 ft. below the outlet drain, and, of course, some of the mine drainage flows inward, and has to be bailed out with buckets, which have now in places to be carried some little distance to the drain. The roof throughout the mine is in splendid order.

*Dudley's Pit, Pukerau.*—(26/10/96): The coal is still being got by stripping, which averages about 12 ft., all heavy clay. The coal-face, which is 16 ft. thick, was hidden from view with a fall of clay at the time of my visit. The late heavy rains have very much contributed to the discomfort of all the miners owning open pits in this district.

*Heffernan's Mine, Gore.*—(23/10/96): Since my visit last year stripping has been discontinued, and a tunnel in the coal has lately been started; its direction is to the northward. There appears to be 5 ft. of coal left overhead for a roof. The tunnel is not far in yet, and it is not too wide at the start.

*Gutschlag's Mine, Gore.*—(23/10/96): The place being opened at the time of my visit last year is not now being worked. Another place has been opened where the coal appears to be about 8 ft. thick, and the depth of stripping the same. I did not find any one there.

*R. Smith's Pit, Bark Hill, Gore.*—(27/10/96): This is a small pit on Mr. Smith's farm close to his house, where he hews out coal for his own use. The stripping is very shallow.

*Sarginson's Pit, Gore.*—(27/10/96): The old pit, from which the coal has lately been taken, is shallow, on very flat land, and at the time of my visit was filled with water to the surface. No work will be done in the pit for a month or more, at which time there will be a greater demand for coal.

*Zoffman's New Pit, Gore.*—(23/10/96): This new opening is quite close to, and on the north side of, some old workings—now a lagoon—on the west side of and close to Lettzi's pit. The seam is 7 ft. thick, and only from 3 ft. to 5 ft. from the surface; it is being followed to the westward. No great amount of work has yet been done. The seam dips rapidly to the north, but is not followed to the water-level.

*Stark's Mine, Gore.*—(23/10/96): The working-places are being extended southward, following the contour of the dip, and at no great distance from the outcrop. The bords are generally about 14 ft. wide, and probably 12 ft. high, leaving from 3 ft. to 5 ft. of coal overhead for a roof, no part of which has yet caved in or shown any indication of weakness. The working-places are dry, and the only drainage to be pumped from the mine comes into it from the surface at the opening or outcrop. The small engine works the pump four hours per day, and is no trouble. The air is good all through the mine.

*Joseph Smyth, Gore.*—(23/10/96): The working-places are going southward, where the height of coal taken out is about 14 ft., leaving from 6 ft. to 8 ft. overhead for a roof. The bords are about 12 ft. wide, leaving substantial pillars between. The workings are very dry, and the air is good throughout the mine.

*R. Smyth's Pit, Gore.*—(23/10/96): This opencast is partly filled by a landslip. On the south-west side of the pit there is a little clean coal exposed, but it is very thin. There appears to have been very little work done in the pit during the past year.

*Burgess and Egan (McKinnon's Mine), Gore.*—(23/10/96): After the new pit (opencast) was well opened a drive was put in northward 8 ft. or 9 ft. high in the coal, leaving from 5 ft. to 6 ft. of coal overhead for a roof. This main heading is being extended on the contour of the seam. The working-place is dry and comfortable to work in. I am pleased to find a Denniston Hill collier in charge of the mining.

*Irvine Brothers' Mine, Knapdale.*—(20/10/96): The new pit is now fairly opened by an adit in