

pressure of about 30lb. per square inch. But Mr. Williams was very anxious to keep a few men in an old portion of the mine marked ST on plan, and I consented to this on condition that proper means of escape were provided.

This so far concludes the subject. It will naturally be a somewhat costly chapter in the history of the colliery, but will also, I hope, be the means of avoiding what might have been an awful calamity.

I desire to add that Mr. Williams afforded me every facility in making the survey and inquiry, and that he expressed his willingness to do anything requisite.

The Public Works Department have been good enough to undertake a marine survey, which will be of great service. It is, however, not yet commenced.

I have, &c.,

GEORGE J. BINNS,

Inspector of Mines.

20th March, 1883.

D.—EXTRACT from Mr. BINNS'S ANNUAL REPORT of 26th May, 1883.

37. *Shag Point Colliery, Palmerston.*—In the first place, I shall describe the condition of the mine during 1882, and will then deal with a question that has occupied a great deal of attention during the present year. The openings have been opened out partly below high-water mark in the dip-drive, and partly in a lower seam at the shaft. In the former work no bore-holes were taken in advance, and as the rock might contain fissures it seemed advisable. I spoke to Mr. Williams about this on the 25th April. On the 5th September the air in the dip would have been good had it not been too much scattered. An apprehension had arisen among the men that the sea might break in, and in consequence the south end was very heavily timbered. At the shaft there was no fence. The staging also requires a handrail. The air was bad in some places. On the 30th September the anemometer would not turn in the north intake to the pit-workings, though the place was only 29½ feet area. Eight men were on this side. The return also failed to give any revolutions, though only 21½ feet in area. In fact, the air generally was very bad; subsequently this was explained by the fact that the engineer had one of the up-cast doors off, and had not reported it.

During 1883 I have spent a great deal of time at this mine. On the 24th January the air was badly guided in the dip, the bottom bord on the south side having an intake of 1,500 cubic feet per minute by the proper air-way. Mr. Williams had in September pointed out that the plan was inaccurate, but at this visit I was astonished to find that the pillars were in many cases utterly inadequate, one (shown on plan 20 feet) being only 6 feet, while the bords were immensely wider than the plan would indicate. On the other hand, some of the places marked were non-existent. One pillar on the north side was 1 foot 6 inches in thickness. The power under which this part of the field is worked is a license from the Government. This license is revocable at will, and I suggested that the licensees should be informed that the mine was to be worked to the satisfaction of a Government official. Having this duty placed in my hands, the first step was to have an accurate plan made, and Mr. Twining made a very accurate survey and plan for the department. The result was to convince me that, unless grave risk was to be run, it would be absolutely necessary to close the whole of these workings. The danger was not only to the twenty men working in the dip, but to twenty-four more in the rise workings of the shaft, into which there was communication by a drive in the upper seam. The cover of the submarine area was 99 to 160 feet, the average thickness of thirty pillars, not counting those contiguous to the main roads, was 10·296 feet, and the average of thirty-five bords was 13·79 feet. Thus, nearly 57 per cent. of the coal was got without reckoning bolt holes. The roof is bad, and I did not consider it safe, so was obliged to take steps which, and the reason for which, were detailed in my report dated the 20th March, 1883, to the Commissioner of Crown Lands, Otago. The future operations of this company, if below the sea, will be carried on under not less than 180 feet of cover (excepting road-ways), which may be driven under not less than 100 feet, and on an approved system. Dams are to be put in between the subaqueous area and the shaft workings. These are now being constructed, and the submarine work is stopped. These operations of the department have been carried on independently of the Act, in compliance with which this report is written, but they have the same object, and therefore, although a somewhat detailed report on this subject has been already sent in, I have recurred to the subject.

One fatal accident has occurred this year at Shag Point, and has been investigated by Mr. Cox. Through delay in delivering the letters I did not hear of the man's death until the day after he was buried, and, as Mr. Cox was to be at Shag Point on the day following, I left the inquiry in his able hands. Mr. A. W. D. Bell, of the Public Works Department, has just finished a very complete marine survey of Shag Point. This plan, which is very detailed, shows that the sea-bottom has a gradual slope, and is free from holes. My thanks are due to the Public Works Department and to Mr. Bell.

E.—Mr. G. J. BINNS to the MANAGER, Shag Point Coal Company.

SIR,— Office of Inspector of Mines, Otago, Dunedin, 20th March, 1883.

I have the honour, referring to our conversation of yesterday, to request that you will at once proceed to put substantial dams between the old dip-workings and the shaft. The dams to be 10 feet long, built of kauri logs and tightly wedged; the whole to be securely bedded in concrete, which must be let into the solid measures.

You have already, I presume, stopped all work (except that necessary for getting out material), as arranged, in the dip subaqueous area. The old bords on the west side of the E.P. will be continued as agreed, provided that an outlet is made 2½ chains at least above the present one, and fitted with ladders. The bolt-holes will in no case be more than 33 yards apart.