

14th February, 21st March : Reports 12, 13 attached.

These last reports explain themselves.

That the fire or fires have done irreparable damage to the mine-workings there can be no doubt, as two explosions or blasts have occurred. These have no doubt been due to the rapid evolution of gases caused by the destructive distillation of the area of coal on fire. The effect of these explosions or blasts would be to blow out timber-work supporting roadways, thus causing large falls of the roof. That these falls have occurred is amply verified by stoppage of ventilation, and on engine haulage-road by the fact that the engine was unable, though under full steam, to move haulage-rope, which had to be cut at a point about 6 chains from mouth of tunnel.

Future Recommendations.

We consider the Bridge section area (from which all plant is at present being removed, a contract to do this having been let by the company after fire was discovered) is of little use as a workable section. There is now no road to it; the cost of making a new one would not be warranted as the amount of coal is small, and the section troubled and bounded on all sides by faults.

Hector Block.—From survey-books we find that splitting and robbing of pillars commenced July, 1897, and continued till January, 1898, and from information gleaned we understand it was customary, upon a rush for coal, to fill all loose coal upon sides of pillars up till quite recently. This was, in fact, carried on to such an extent that, in the opinion of the Inspector of Mines and others, it left the Hector Block valueless as a coal-producing area.

This leaves as a probable workable area only that block of unworked coal between North Section and Hector Block. The area of this block might be anything between 10 and 15 acres. Regarding the quality of coal we are unable to speak, as we could not examine it. From information we are led to believe it would make a fair steam coal.

To enable this area to be worked we would recommend that after a time the shaft marked C. on tracing be cleaned out and an effort made to establish ventilation between shaft and entrance of mine. If this is managed the dam and stoppings erected at point marked A. to be removed, and a stopping placed at or about points marked B. or N. When this is done this block should be available for immediate working.

Extinguishing Fire.

To put in a new watertight dam at A. we consider would be an unnecessary expense. The difference in level between points A. and F., the mine exit, is 65 ft., and to reach seat of fire would require a further 30 ft., making a total vertical rise of over 90 ft. from dam at point A.

At point marked X. on tracing there is a subsidence on surface due to extraction of coal pillars. At this point the surface is 40 ft. above point A. and we are informed that in dip-workings on opposite side of haulage-road the coal has been extracted close to surface. We are confident, should water be dammed at point A., before it would drown out fire it would burst through the surface at point marked X., if not on dip side. Were it possible to get a dam put in at B. or N. we would recommend the erection of one there, as the water would rise well in workings before it would break through to surface (method of getting in to B. has been shown before) and another watertight dam would require to be put in at F. At present the drive behind dam, at point marked A., is full of black-damp, which is a good extinguisher of fire and does not cause same damage to workings that water does.

The present method of dealing with surface outbreak at Chasm Creek, between K. and H., is : A 2 in. pipe has been laid from a creek on Bridge section across bridge to above tunnel; a 20 ft. piece of canvas hose with nozzle is attached to this, and for eight hours per day, from 8 a.m. to 4.30 p.m., one man is in charge playing the water upon the fiercest flames. From 4.30 p.m. till 8 a.m. no one is in charge, and the water during that time is allowed to run on one spot.

We must certainly condemn the above system of working. The water-supply is inadequate, and what is available is not being used to advantage. We would recommend that a 4 in. or larger line of pipes for main column be laid from source of supply to end of bridge at mine exit; a T-piece with 2 in. branches be then connected to the column, and the present 2 in. pipes be laid along face of cliff on both sides, extending altogether from H. to L. At intervals in this line 2 in. T-pieces be placed, so that hose could be attached along line at different points. Two men to be in constant attendance, each working a nozzle. If water-supply ample, at some of T-pieces water to be allowed to run free to worst points.

The following materials would be required :—From 200 ft. to 250 ft. of 2½ in. canvas hose (the length of main column is about 1,000 ft.); one reducing T-piece from main column to 2 in. branches; six 2 in. T-couplings. This, with the assistance of covering up, which will result by falls from terrace, caused by subsidence of strata due to fire, will, in our opinion, quench the surface outbreaks, but it must be borne in mind that, though the surface outbreaks are subdued, there is a very large area of fire underground, which will take a long time to cool, and if after the surface is quenched it is neglected, the probability is that a fresh outburst will take place. We, therefore, think it necessary that a competent man be left in charge, with power to employ extra hands if there is danger from a fresh outburst on surface.

In conclusion, if the department carry out the above recommendations, we would urge that they appoint a thoroughly competent man, who has had experience of underground fires, to supervise the work, as the building of these dams should not be left to others than a person with this qualification.

Cave Area.

We consider that to report upon this area would take at least one week, but, being anxious to give our report on present position of mine, we deem it better to leave this part for a future report,