I.—4A.

5. That the residents of Seddonville and surrounding districts depend, in a very large degree, upon the working of the coal-mines for their support, and it is a matter of pressing concern to them that every reasonable means shall be taken, and every practical and adequate method adopted to subdue the Cardiff fire and save the coal-measures of the locality from destruction.

6. Should the inquiry prayed for by us be granted, reliable evidence will be forthcoming to prove that official negligence, delay, and incompetence have been the contributing causes which have prevented the subduing of the fire in its early stages, and that the same causes are operating at the present time to render the work now in progress not only futile, but absolutely destructive.

7. We sincerely trust that, in the interests of the colony generally, and of the people of this district in particular, your honourable House will grant the inquiry prayed for on the above

grounds.

And your petitioners will ever pray, &c.

TIMOTHY CORBY, Contractor, and 58 others.

## Mr. J. Hayes to the Under-Secretary, Mines Department.

Westport, 30th June, 1900.

Re fire at Westport-Cardiff Colliery: Confirming my telegram of the 25th instant, I arrived at Seddonville that morning, went over the Westport-Cardiff Colliery property with Messrs. Dixon (Granity) and Tennent, Inspector of Mines, and discussed the position with them.

To make my remarks quite clear, it is necessary to revert to the early history of the fire. The rough tracing attached will help to elucidate matters.

The fire was first discovered about the end of January last, some four months or thereabouts after work was stopped at the colliery. Mr. Tennent was informed of it on a Sunday, and went out immediately to assist the company in taking what steps were possible to get the fire under control. He was subsequently joined by Mr. J. Dixon, Mining Engineer to the Westport Coal Company at Granity. Fire was found between the main haulage-road and the worked-out ground in the Hector Block; and I understand the conditions were such as to entirely preclude the possibility of sealing off the fire anywhere within reasonable distance of the locality in which it was found. Owing to the intense heat and smoke which ascended the air-shaft, very great difficulty was experienced in getting this blocked off by filling in, and, although it would have been very desirable to have got a stopping erected at or near the place marked 4 on tracing, this, I understand, could not be accomplished at the time, and it became necessary to fall back to 1. second stopping was erected at 2 in the tunnel near the Bow-string Bridge.

The effect sought was to shut off the supply of air to the fire, and so allow of the carbonic acid gas (black-damp) given off—(a) by the fire, and (b) naturally from the strata—to accumulate, and so act as an extinguisher. Black-damp will not support combustion. This is the general practice all over the world for dealing with mine-fires of this class. For obvious reasons flooding is seldom resorted to unless the conditions are such that the workings cannot be effectively sealed in any

other way.

I visited the West Coast about the end of February last, and went to the Westport-Cardiff Colliery in company with Mr. Tennent to see how matters stood in relation to this fire. At this time the company were in possession. On going over to the cliffs near the bridge (Hector Block) an examination of the ground there showed me that, in the event of falls of roof occurring in the worked-out ground near the outcrop-conditions likely to be brought about by the great heat in the mine—air-vents would be made to the surface. Owing to the roof material being a strong sandy rock, it was not likely that such vents (if once made) would close up, as might be the case in a soft or clayey ground. They would therefore act as feeders of air to the fire, and probably rouse it from a smouldering to a fierce state within the area affected by the fresh-air supply.

These conditions being so different to those generally met with in deep workings (where sealing off the air for some months is usually effective), the question of erecting a dam at the entrance at 1 was forced upon me. The object of this dam was to allow the mine-water to accumulate, so as to reduce the area available to the fire. The rising water would also force

the accumulated black-damp on to the fire, and so help to extinguish it.

On mentioning my views to Mr. Tennent, I found he had already recognised the same possibilities, and had arranged with the company for the erection of a strong log stopping which would form a dam. On returning to the mine entrance we selected a site for this dam, and instructed the company's underground foreman, Mr. A. Mitchell, as to the method we wished to

be adopted in order to insure a good job.

Instead of placing this in Mitchell's hands, it appears the company let the work by contract to Peter Martin, a carpenter at the colliery. Mitchell informs me that he was employed with Martin at this work, and that a good base was obtained by cutting down to solid ground, but that, as the erection of the stopping was approaching completion, Martin cut a log in two to save himself the trouble of fitting it properly in a single length. A weak place was thus made, which had to be tightened up with wedges. The dam stopping was erected some 6 ft. back from the light stopping which had previously been put in by Messrs. Dixon and Tennent to cut the air off the fire. The space between the two stoppings was filled with clay. An iron pipe was also fitted, by which the mine-water could be led away during the erection of the log-dam stopping, and was subsequently plugged up to allow the water to rise. (The clay obtainable is not at all good for puddle-work; it lacks body.)

It appears quite evident that this stopping (after being made tight) acted very well for a time, but the efficiency of any dam in this position was found to be minimised by the discovery of an old subsidence at 5 on tracing, which acted as an outlet for the accumulated water after it had risen