

lated with great rapidity, and much faster than I think it could have been formed by the disintegration of the standing coal, or the further decomposition of slack heaps in the old workings. Moreover, had it ever previously formed with the same rapidity it could hardly have escaped detection. Mr. Binns was in the old workings with Hodge on 28th January, and though he reported, and for very sound reasons, the mine to be in a dangerous condition *if gas were to accumulate*, he yet found no gas. This was after the workings had been standing for months; six weeks later he finds that the gas has accumulated so as to be easily found, and in about two weeks time only. This, therefore, to my mind, raises a strong presumption that the first appearance of gas in the old workings was sudden and in large quantity, and that it came, and is still coming, from a "blower" that has broken out in some part of the old workings, and as an indirect consequence of Shore's workings. If this view is correct, neither poor Hodge, nor anyone else could have foreseen that it was necessary to take unusual precautions. I did not form this opinion till after the inquest had closed; but I expressed it freely on the ground to several persons, and have no hesitation in placing it at your service, if it will in any way clear Hodge's memory of culpable carelessness of the lives of those under him.

I am, &c.,  
JAMES HECTOR.

#### THE KAITANGATA DISASTER.

(To the Editor of the *Morning Herald*.)

SIR,—

Dunedin, 19th March, 1879.

With your permission I would like to say a few words on the correspondence appearing in your journal to-day *re* the Kaitangata explosion, although with considerable reluctance, feeling myself much in the position of a schoolboy finding fault with the doings of his schoolmaster. As to the origin of the correspondence, and the end it is supposed to serve, I will say nothing further than that I have doubts as to the honesty of purpose. How can Mr. Ritchie speak so lightly of the *trifling* quantity of gas found in the new workings, when we find that before gas was ever found or known to exist in our shaft, Mr. Jarvie was seriously burned, and his mining companions were being repeatedly, morning after morning, sent home because they could not work on account of the fire-damp? He also speaks of the considerable quantity of fire-damp met with in our shaft; but I challenge Mr. Ritchie, or any other gentleman, to find fire-damp in our coal workings. That our shaft gives off gas I don't deny, I never tried to hide the existence of such. But if our shaft and workings were full of gas to the pit-mouth, it could not contain one cubic foot to five that was found in the upper mine during the time the men were being sent home, and that, too, before gas was known to exist in our mine. Yet it is only a trifling quantity! Besides, we find the Company had ordered safety lamps, barometer, and anemometer, two months before coal was tapped in our shaft. Yet the gas all comes from the under mine.

Again, as a proof of the non-existence of gas in the old workings, we are told a party of gentlemen examined them on December 25 last—from *top to bottom*, bear in mind. That the same parties went into the extremity of the old level with *naked lights*, and found no gas. Of that I have little doubt; but then they were travelling in the main air-way. If they had struck out from the level into any of the inside rise headings, the result perhaps would have been different. Further, to have examined the old workings from top to bottom would have required the services of a ladder or pole 25 feet long, which, fortunately for them, they did not possess.

Let us ponder a moment over this so-called third theory advanced as the cause of the sad catastrophe, and which now, for the first time, has been made public—viz., that the gas came from the under mine. Take for granted that the coal to the dip of the Kaitangata Railway and Coal Company's mine generated more gas than that where they were working—a circumstance yet to be proved—although Dr. Hector sets it down as proved by myself being burned. Our drive was not within 100 feet of tapping the coal, and had been idle for seven weeks. The quantity of gas accumulated was so small that if it had been an ordinary-sized drive it would have scarcely been felt. That the drainage of the ground by our shaft would cause free communication through the fault) which it must have done if the theory is correct) is something new to me at least, or any authority it has been my good fortune to consult. The supposition generally is, that where an extensive fault was found to exist it always acted as a barrier to gas or water; and that it does so there is abundance of proof in almost every mining district, Kaitangata not excepted. Take Mr. Ritchie's own words—"No gas was seen in the old workings previous to their being abandoned; also, the growth of water was comparatively small. But when they tapped the coal, through the fault existing between the old and new working, they had an increased supply of water, and a *trifling* quantity of fire-damp." Yet, here is our mine to the dip of the old workings, distant about 500 yards horizontal measurement, and about 450 below their level, backed by the supposed existence of a heavy fault draining the water from the upper mine and supplying in return fire-damp! And yet the old workings to the dip of the new, with only a few feet between them, drained neither water nor gas! But allow me to inform your correspondents that the drainage of the upper mine by our shaft is a pure fabrication, clearly proved by the water being still lodged in the dip workings of the said mine, of which I personally had ample proof during my late explorations of the mine in search of the body of A. Hodge. Further, we had no cessation of pumping during the interval that elapsed between the tapping of coal in our shaft and the explosion, the only stoppage being after the explosion for seventy-four hours, and even then the ventilation was not blocked in our shaft. Mr. Twinning never was in the old workings prior to, nor since the explosion, and being one of the others referred to with myself, I am enabled to state we were not so far into the rise workings as where Mr. Binns, along with Mr. Irvine and myself, found the gas, and consequently could not say whether gas existed in that part of the mine on our previous visit. Again, Mr. Binns is reported to have examined the old workings on January 28, and found no gas. But, according to Mr. Binns' own showing, he was only at the bottom of the second heading, or main airway, he not being inclined to go further without a safety lamp. But, Mr. Editor, supposing our colliery to be such a vast