I.—9_A.

the line of railway to be constructed, and supplied information obtained from these borings to intending contractors to guide them in making up the amounts of their tenders, is incorrect, as, in fact, no borings were made on any part of the ground on which the works included in this contract were to be carried out, nor were any borings shown or noted on the contract drawings or referred to in the specification, in neither of which is there any description of the nature of the ground, or any guarantee given of the character of the material to be dealt with in excavating for the tunnel, which was constructed to the exact line and levels shown on the contract drawings, no alteration or deviation in either the alignment or levels of the railway at the tunnel having been made in carrying out the works in the contract. That the contractors assumed that the ground through which the tunnel was to be excavated would be soft is shown by the price in their tender for tunnel-excavation, which price is much too low for excavating a tunnel through rock or any other hard material.

84

4. As before stated, there are no descriptions or details given in the specification that can be taken as expressing a guarantee of the nature of the ground through which the tunnel was to be excavated; but the appearance and character of the country on the surface indicated that the tunnel would go through fairly solid and firm ground; and this proved to be correct in the main, as the material throughout nearly the whole length of the drive was so hard in places that most of it had to be shot out, though it was not anticipated that this hard material would

slack away and become merely mud when taken out and exposed to the air or weather.

5. This refers to a trial survey for the railway (which was made about two years previous to the line on which the contract was let, being surveyed, set out on the ground, and the contract plans prepared), therefore had nothing to do with Messrs. McLean's contract, the trial survey-line not being adhered to in locating the line for the contract. A single boring was made on this trial line, but it was not in any part of the ground on which the contract works were to be executed. It was not referred to in the specification, nor shown on the contract plans; consequently, if intending contractors assumed that the ground to be excavated for the tunnel would be the same throughout as that at this bore they did so at their own risk, as they must have known that the bore was not on the line of works to be contracted for, consequently could not be depended upon to indicate the character of the ground at the site of their works with any degree of accuracy.

6. Relative to this, it is only necessary to repeat that no borings were made on the line of works contracted for—borings were not quoted or referred to in the contract documents; so that there are no valid grounds for the contractors' repeated assertion that borings were misleading to

them in making up their contract.

7. The circumstances were, I think, as stated by the petitioners, that after excavating and lining about eight chains of the south end of the tunnel a different class of ground was come upon, which required to be more closely timbered to support the ground until the lining could be got in.

8. When the ground became too heavy for the ordinary 14 in. tunnel lining it became necessary to increase the thickness of the brickwork in the walls and arch, and put a brick invert in the bottom, the contract drawings providing for a heavier section of lining with an invert to be used in soft ground; the remainder of the lining of the tunnel was carried out on a modified plan of this

heavier section.

9. At one portion of the tunnel excavations there was a considerable quantity of water in the ground, which gave the contractors a lot of trouble, as it tended to soften the material in the cutting and increased the difficulty of timbering and lining; and on the 20th January, 1893, a portion of the drive collapsed, bringing down with it a short (5 ft. 6 in.) length of the brickwork of the arch that had just been put in, and was therefore not in a fit state to support a heavy pressure owing to the

cement mortar not having had time to set.

10. The collapse of the tunnel at this place, I consider, resulted from several causes, for most of which the contractors' mode of working was principally responsible. In the first place, the tunnel had been excavated and lined up to a part where the ground was of the heaviest character, and required the work of excavating, timbering, and lining to be carried on quickly and continuously, so as to keep the ground supported and allow it no time to settle down as the tunnelling advanced until the permanent lining was in or firm ground was reached; but, instead of doing so, the contractors knocked off work in the tunnel on the 19th December for the Christmas holidays, and did not resume it again until the 9th January—three weeks' stoppage—during which time the ground at the end of the drive was becoming disintegrated and saturated with water, so as to cause a settling-down of the superincumbent material and very heavy pressure on to the timber and brickwork; consequently, when they had put in a short length-5ft. 6 in.-of the lining, and were getting in the timbering for the next length, a considerable settlement was taking place, which brought a heavy pressure on the crown-bars, causing them to sag in the middle, and the back ends of these bars, resting on the brickwork of the recently-built arch, tended to drag it forward, loosening the green brickwork and destroying its stability, so that it gave way, letting down the ends of the bars and the mass of loose saturated ground above them into the tunnel-drive.

Relative to the statement regarding the action of Mr. Witheridge, and the allegation that such action caused the damage to the works described, it may be pointed out that Mr. Witheridge was the Inspector appointed by the Government to supervise the works on the contract, and in that capacity had nothing to do with directing the contractors as to the manner in which they should conduct their temporary works, and, being an experienced Inspector on contracts, was very unlikely to interfere with the contractors in the manner described, except to prevent them from building the temporary timber-sills into the permanent brickwork of the tunnel, which it was clearly his duty and perfectly right for him to do; but, as a matter of fact, the particular sill the taking out of which the contractors say caused all the damage was not taken out, but was built in not-

withstanding the protest of the Inspector.