

that on such deviated line of tunnel any class of country different to that found by the borings on the first proposed line would be met with, and the specifications relative to such tunnel showed that the Government were satisfied that the same class of country would be encountered as was ascertained to exist by the borings on the first originally proposed line.

6. That it was found subsequently, as hereinafter appears, in the prosecution and carrying out of the works of the contract, that the class of country in which the tunnel passed onwards from 8 chains from its commencement was not the same class as that shown by the borings on the first originally proposed line, and the borings therefore were misleading both to your petitioners and to the Government.

7. That after your petitioners had driven 8 chains or thereabouts of the tunnel, which brought the work to about 2 chains distant from the point of the boring on the first originally proposed line, your petitioners found the sand-rock gave way to hard clay, which required timbering closely to keep it up.

8. That after your petitioners had driven 3 or 4 chains into this country, and bricking up as specified, they noticed the foundations coming in, and immediately advised the Resident Engineer of the same, whereupon he altered the design of the tunnel from a tunnel on firm ground to another class of tunnel by modifying the sections shown in the drawings by the addition of another ring of bricks to the arch and side-walls, making them 18 in. thick, and putting a 14 in. invert under it and the portion showing weakness, being that portion of the tunnel already constructed through the clay.

9. That, owing to the proximity of the sand-rock on the east side of the tunnel, which your petitioners carried alongside of them all the way, sometimes touching it and at others being only a few feet distant from it, the clay-ground frequently became heavily saturated with water, and on the 20th day of January, 1893, the length of brickwork broke in, letting down the timbers placed ahead by your petitioners, and filling the length that was then nearly ready for bricking.

10. That such fall or breakdown of the tunnel arose from two causes: First, because the brickwork was not of sufficient strength to carry the bars that were necessary to support the earth above while the excavation was advancing; secondly, because Mr. Witheridge, the Government overseer, much against your petitioners' judgment, and in spite of your petitioners' remonstrances, insisted on the removal of the miner's sills, which supported the timbers, instead of leaving them in, as is usually done in heavy ground of this description, until the length was bricked up. Mr. Witheridge objected to your petitioners leaving the ends of the sills in the brickwork, and your petitioners then offered to cut the ends off the sills, thus keeping the sills clear of the brickwork, yet at the same time continuing to sustain the weight on the timbers. Mr. Witheridge again objected, saying that he would not have the sill or sole-plate that supports the legs of the main sill left in the bottom of the invert, notwithstanding that your petitioners offered to take it out immediately the length was bricked, filling in the recess with concrete. Mr. Witheridge asserted that the brickwork was strong enough to support the whole weight, and, much against your petitioners' judgment, your petitioners were compelled to depend on the brickwork entirely to support the ends of the bars. The consequence was, as your petitioners feared, the collapse already described.

11. That your petitioners had up to this point been carrying on the construction of the tunnel from the point where clay-ground was first met with in the manner described and laid down by F. W. Sims on "Practical Tunnelling," a standard authority on this class of work, and throughout whilst clay or soft ground was encountered your petitioners continued the carrying-on of such construction in manner laid down by such authority.

12. That the timbers placed in such tunnel by your petitioners were of adequate strength, and the collapse occurred entirely through the brickwork not being of sufficient stability to sustain the weight thrown upon it.

13. That the effect of the collapse was to disturb the ground right through to the surface, 100 ft., and the water coming from the sand-rock into the clay-ground through which the tunnel had been driven made the earth of the consistency of mortar, and your petitioners were unable for some considerable time, and then only after the expenditure of much labour and exhaustive experiments as hereinafter shown, to drive through the remainder of the tunnel.

14. That your petitioners, immediately after such collapse, brought the same under the notice of the Resident Engineer, and appealed to the Hon. the Minister for Public Works to favourably consider your petitioners' position, and to pay your petitioners the cost of tunnelling in soft ground at actual cost price, and not at the schedule rates mentioned in your petitioners' tender, as such rates were based by your petitioners only on the supposition that the tunnel would prove to be one in firm ground, a supposition held in common, as previously stated, both by the Government and your petitioners.

15. That as your petitioners received no reply from the Hon. the Minister for Public Works, and obtained no relief or adequate concessions from the Resident Engineer, one of your petitioners (Murdoch McLean) proceeded to Wellington and interviewed the Hon. the Minister for Public Works on the position, when the Hon. the Minister stated that, as the contract was an incomplete one, and still subsisting, no concession could then be made, and that your petitioners could not be relieved from the further prosecution of the contract, but that if the contract was completed by your petitioners the Government would, on its completion, meet your petitioners with equity and justice.

16. That your petitioners then endeavoured for some months to make further progress in the work, but after the expenditure of about £2,000 your petitioners found that they had not made any progress whatever, as the earth kept coming in on your petitioners as fast as any was removed, and your petitioners then proceeded to make exhaustive and expensive experiments for the purpose of diverting the water that flowed into and saturated the clay-ground, which difficulty until surmounted was an absolute barrier to any further progress of the works.