

Mr. MYLNE's Second Report.

Edinburgh, 30th September 1783.

To the Magistrates and Justices of Peace for the County of Northumberland,
&c. &c.

Gentlemen,

A PAPER has been transmitted to me by Mr. Davidson, Clerk of the Peace, which contains a proposition from Mr. Errington to pay a certain sum (to be fixed hereafter) in lieu of rebuilding Hexham Bridge; and he requests me, by directions of Mr. Aynsley, the Chairman, to send my full sentiments thereon, to be laid before your meeting of the 8th October next.

As it will be convenient for me to attend you at the said meeting, I apprehend it is not necessary to say much on this occasion; other than stating a few words on some matters of fact, which require to be ascertained, before any one can judge with certainty and precision. Another reason requires me to be the more concise at present, as in the event of not agreeing with Mr. Errington, and the subject being discussed at law, every previous animadversion would in that event be ill timed and premature.

The ground work of the proposal, and the propriety of the reasoning which it contains, depend upon the following matters:

1st, It states that the agreement was to build according to a specific plan.

2dly, To do that under the direction of Mr. Smeaton.

3dly, That it was completely finished according to such plan, and under such direction. And

Lastly, That he was confined to such specific plan; which was not only a plan of the superstructure, but also of the foundation part; and of the manner in which such foundation was to be laid.

On the first head, it will appear, that all the foundations were, by the plan annexed to the articles of agreement, to have been laid full five feet below the water line, in masonry or timber framed work; and the two abutments, and the two piers next the abut-

ments, are proposed to be piled in such manner as shall appear necessary on opening the ground.

In all other respects whatsoever, either as to the quantity or quality of the piling under these parts so mentioned, and under any part of the other eight piers, or of any manner whatsoever of laying all or any of the foundations, the plan does not hold forth any specific manner of laying the foundation ; but on the other hand, leaves all these particulars to the judgment and adoption of the contracting party.

On the second head, the agreement entered into on the proposals of Mr. Errington and his agents, was certainly to put the whole under the direction of Mr. Smeaton ; and the act of parliament which followed thereupon, confirms it to a certainty not to be shaken. The reference thus to be held to the judgment of Mr. Smeaton, was in no points more evidently necessary than in the manner of laying the foundations, which were not specified at all, as well as in many other things impossible to be contained in drawings, written agreements, or in acts of parliament. But, in the unfortunate event of things, I conceive, the operation of Mr. Smeaton's directions in all matters not specified as above mentioned, he was led astray, and that his directions were not followed. Proceedings which were easy in their nature, were followed up with a fatal rapidity, that laid the seeds of ruin ; and the guard works, which were added, on after consideration, and the experience of the shallowness of the foundations, were not executed consistently with the correctness and good sense of his orders.

His directions I conceive to have been clear and sufficient if they had been fulfilled ; his candour will not allow him to say thus much ; a commendable regard to others engaged in the executive branch, suppresses what ought to be said : but I who feel for the character and reputation of so great an artist, and every man so peculiarly situate as he is, must be permitted to say, that the purport and effect of his directions were not executed, and of course, that he was deceived.

On the third head, it is necessary to state that the foundations were not laid according to the plan, so far as the specification thereof went. To begin at the north end, the buttment is not so deep as shewn by the drawing by two feet ; the first pier by three feet five inches, the second pier by two feet four inches, the third pier by two feet eleven inches, the fourth pier by seven inches, the fifth pier was ten inches more in depth than the plan, the sixth pier was in like manner eleven inches, the seventh was also six inches, the eighth pier is two feet short of its depth ; and the south buttment is two feet in like manner less than it ought to be.

From this statement, founded on the best evidence I could procure, the bridge was not built according to the design agreed on where it could have been ; and that the directions given were not followed literally and effectively.

On the last head, I have sufficiently shewn that the specification of the plan did not confine the bridge in manner of laying the foundations, nor in the shape and extent of the works. Anything might have been done under the agreement, which a more intimate knowledge of the bed of the river, and the experience of the works themselves, gave, during the time of the execution : in fact, it is shewn, that the parts specified were altered and modified to suit the manner adopted for the execution.

The conclusion, therefore, naturally draws me to end with saying, that no argument can be reasonably built on the idea of being confined to a specific plan agreed for, or executed in those parts, to wit, the foundations, on which this question depends. And I am thoroughly convinced that if Mr. Smeaton, possessed as he is of so much strength of judgment and variety of resources, were to view the work and examine its present state, with a view to its repair, he could with satisfaction to himself undertake to reconstruct the bridge according to the agreement, with the same expectancy of permanent durability as he had at first setting off with this undertaking.

What remains to be said will come better into the discussion which is proposed to be held at your intended meeting ; until which time, I remain,

Gentlemen,

Your very humble and much obliged servant,

ROBERT MYLNE.

OBSERVATIONS on Two Reports of Robert Mylne Esq. concerning Hexham Bridge, by J. SMEATON, Civil Engineer.

THERE are so many points contained in the two reports of Mr. Mylne, of the 24th April and the 30th September 1783, in which I entirely differ with that gentleman in opinion, that to make the proper observations upon the whole, would draw me out to a length that in the present state of things I would wish to avoid. I shall therefore content myself

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