

that they are endeavoring to shift the responsibility for the efficiency of the coffer dams from the quarter where the contract distinctly provides that it shall rest.

I have the honor to be, Sir, your obedient servant,

W. G. THOMPSON.

JOHN PAGE, Esq., Chief Engineer of Canals, Ottawa.

OTTAWA, 27th July, 1880.

GENTLEMEN,—Your letter of the 19th instant was duly received, and in reply I am directed to inform you that after considering the various statements made in it and in your previous letters on the same subject, and, at the same time, keeping in view the facts that the nature of the material forming the river bed at the site of the Aqueduct does not in any way differ from what it was fully ascertained to be before the works were commenced, and that no alteration of the depth, extent or character of the foundation has been made, or is calculated to be made, this Department sees no reason to alter in any way the letter addressed to you on the 12th June last, or to interfere with any of the conditions of the contract entered into for the construction of the Aqueduct.

I have the honor to be, Gentlemen, your obedient servant,

A. P. BRADLEY, Acting Secretary.

MESSRS. HUNTER, MURRAY & CLEVELAND, St. Catharines, Ont.

#### RAILWAYS AND CANALS.

St. CATHARINES, 24th August, 1880.

SIR,—We have the honor to acknowledge the receipt of your letter of the 27th ultimo, and are glad to find that no exceptions are taken to any other statements in our letter of the 19th July, but that relating to the nature of the material in the foundations of the Aqueduct. If this "does not differ in any way from what it was fully ascertained to be, before the works were commenced," the logical inference is that the sliding of the canal bank was anticipated, though unfortunately for us, not provided for, because in April, 1879, we were ordered to flood our excavation pit in order to save the canal bank, and we were not permitted to unwater the pit and resume excavation until October, thus losing the whole of the masonry season of 1879. By the specification we were to have the masonry of the four southern arches carried up to medium high water in that year (1879). As there is no certainty that any masonry can be laid before the close of the season this year, we think we were justified in proposing that the order of construction laid down in the specification should be modified so as to reduce the risks due to a treacherous foundation, and shorten the time required to construct the work.

We have, therefore, proposed that the first section of the coffer-dam should embrace four arches instead of three; that one dam instead of two should be used, but that the three southern arches should be constructed before the fourth is commenced, as provided for by the specification. We do not propose to block the water-way of the Welland River to any greater extent than the specification does. The only difference is that the specification assumes that the second or additional dam for the fourth arch can be put in and removed in the interval between the freshet seasons—that is, "after the spring freshet has passed off" and before another can arrive—but by far the heaviest freshet we have known was that which took place in September, 1878, just before we closed our dam for the first time. From the developments of the foundation, we believe that it is impossible to guarantee the completion of the second section before a freshet may have to be dealt with; and also that there will be less risk in getting in these four arches with one dam than with two, because the south abutment and the three southern arches can be got in without coming in dangerous proximity to the northern line of dam; and this work completed will materially aid in securing that portion of the dam while putting in the fourth arch.