

Western Railway would be nearly as easily constructed as the lines in the prairies of the west, and that its cost would therefore bear something like a proportion to the cost of those Western Railways, but such turned out not to be the case, as will appear from the following extract from a Report made in June, 1853, by the then Engineer of the Company, viz. :

"From a pretty large experience, both professionally and as a contractor on 'public works, I had supposed myself familiar with many hard and difficult points of 'execution, but I am fully satisfied that with the exception of rock excavation, more 'difficult obstacles and inveterate, and extended in their character, are seldom found even 'on as extended lines as the Great Western, than are encountered between Niagara Falls 'and Windsor.'

"In proof of this it may be remarked that the original design of the line to keep on the high grounds, 300 to 400 feet above the level of Lake Ontario, was changed, and it was determined that the line should strike the Lower Lake at Hamilton. To accomplish this, the line is brought gradually down the side of what is termed the mountain which forms, it is supposed, the original boundary of Lake Ontario. The works on this part of the line are very heavy indeed, as appears from a return of the cost of the first 18 miles from Niagara Falls, this portion without land, rolling stock, or any charge but the mere cost of the line itself, has reached the large sum of £17,900 currency per mile. This brings the line to the level of Hamilton, where extensive station grounds, with large water frontage, have been secured (about 30 acres), which were once covered with water and have now been filled in with earth, from Hamilton the line rises about 800 feet above the level of Lake Ontario, and for about 30 miles has very heavy work indeed.

"The cost of 24 miles of the line from Hamilton Westward, again exclusive of land, Rolling Stock, &c., has reached £21,500 currency per mile.

"*The contracts before alluded to and under which the line has principally been 'constructed, must now be explained, first premising that in their general features they 'are similar to most railway contracts in America, upon the model of which 'they were framed by Engineers and others who have been concerned in the construction 'of railways in that country. These contracts are wholly dissimilar to English contracts 'they specify no defined sum which the works are to be constructed for, but the price 'is fixed in this way. They contained clauses which provide that the different kinds 'of work shall be executed at certain prices per yard, no word being said about the 'whole quantity or gross number of yards comprised in each Contract, for instance, 'the contract runs thus:

" For indurated earth ()	cents per yard, measured in excavation.
" Common "	" " " "
" Hard fan "	" " " "
" Rock "	" " " "
" Masonry	dollars per yard
" Brickwork	" " "
" Bridging	" " 1000 ft. B. M.

'and so on for all the different kinds of work which the contractor may have to execute on forming the part of the line let to him.* The paying of different prices for different kinds of earth is obviously a bad one, because disputes almost impossible of a clear and satisfactory solution invariably arise as to the exact quantities of the different kinds of material, but it must be at once obvious that the only proper guide with such contracts as to the whole cost of the line must entirely depend upon accurate measurements of the quantity of work to be performed.

"After the Engineer's Report of September, 1852, before referred to, a change took place in the Engineering Department, and in June, 1853, the then Engineer

*—** This portion only is quoted by the Commissioners in their paper dated 26th January, 1869.