

JOURNAL OF

Upper



EDUCATION,

Canada.

VOL. XI.

TORONTO: FEBRUARY, 1858.

No. 2.

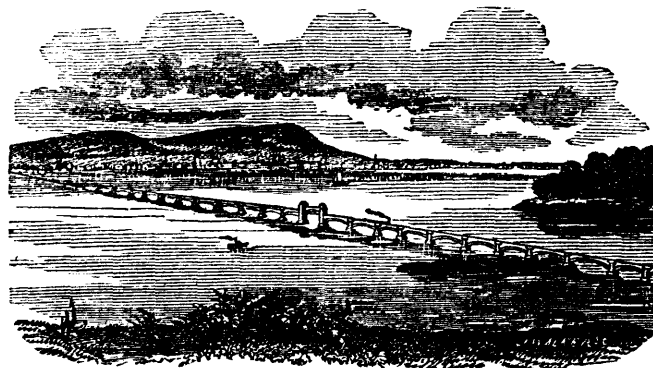
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WE give, in this Number, a bird's-eye view of what has been not inappropriately designated the greatest engineering work of modern times. The Victoria Bridge is tubular, and is built on the principle of the Britannia Bridge, which spans the Menai Straits, near Bangor, in Wales. It will, we believe, be, when finished, the longest bridge in the world—its length, from bank to bank, being only 276 feet less than two miles. The Menai Bridge is 1,880 feet long. The Victoria Bridge is, therefore, nearly five and a half times longer. The place where it crosses the St. Lawrence is about half a mile to the westward of Montreal—a short distance below the Lachine Rapids—and about nine miles from St. Anne's, the place immortalised in "Moore's Canadian Boat Song."



BIRD'S-EYE VIEW OF THE PROPOSED VICTORIA TUBULAR BRIDGE, GRAND TRUNK RAILWAY, MONTREAL.

There will be twenty-four piers, which, with the two abutments, will leave twenty-five spaces or spans for the tubes. The centre span will be 330 feet wide, and each of the other spans will be 242 feet. The width of each of the other piers, except the two at the centre, will be fifteen feet. The two centre piers will each be eighteen feet wide. The difference is very evident in the beautiful model of the bridge, which now forms a prominent object of attraction in the Canadian department of the Crystal Palace, at Sydenham. This model—the length of which is thirty-two feet—has been made, in every part, exactly to scale: it is, therefore, a truthful representation, in miniature, of the actual structure.

The western faces of the piers—that is, those towards the current, which flows here at a rate varying from seven to ten miles an hour—terminate in a sharp-pointed edge, and the fore part of each pier presents two beautifully smooth bevelled off surfaces. They are so shaped in order that the least possible resistance may be offered to the avalanches of ice that come along at the departure of winter, and that would hurl away every impediment, less solid than massive rock, that might be opposed to their progress. For, it should be remembered, that not only is the whole length of the St. Lawrence, from its first receipt of lake

water at Kingston to tidal water at Quebec—a distance of 360 miles—frequently frozen over in winter, but the 2,000 miles of lake and upper river, together with the tributaries of the St. Lawrence (one of which—the Ottawa—has herself tributaries, several of which exceed the Thames in length, depth, and in volume of water), likewise send down their defiant masses, all to aggregate in the immediate vicinity of Montreal. The "piling" of the ice is sometimes as high as thirty, forty, and even fifty feet; and on several occasions great damage has been done by it to the massive stone buildings which line the quays, and form the noble river front for which this city is celebrated.

The stone used in the construction of the piers and abutments is a dense blue limestone, partly obtained from a quarry at Pointe Claire, on the Ottawa, eighteen miles above Mon-