

TOPOGRAPHICAL NOTICES.

Niagara Falls Suspension Bridge.—The Great Western Railway commences at this celebrated Bridge, built by Roblin for the especial purpose of railway transit. We can here only give a brief statistical account of the stupendous work of art, and will venture but a rough outline of the yet more stupendous work of nature, the Falls of Niagara close by.

The magnificent hanging bridge by which Niagara is spanned for the two-fold purpose of a railroad and a common roadway, one above the other was completed and opened to the public in October 1855, the length of span is 322 feet, its height above the water is 255 feet, it is capable of sustaining the enormous weight of 18,720 tons, yet the ordinary weight of a full passenger train is only about 200 tons! Its elegance and solidity reflect the greatest credit on the Engineer, Mr. Roblin.

Niagara Falls,—or as the Indians term it, *O-ni-au-ga-rah*, "*The Thunder of Water*," are situated on the Niagara River, which commences at Lake Erie, and discharges the waters of the great upper lakes, Superior, Michigan, Huron, and Erie, which contain nearly half the fresh water on the surface of the globe, into Lake Ontario. Niagara River, as it flows from Lake Erie, is about three-fourths of a mile wide, and has for three miles a rapid current, and then becomes smooth and placid till within one mile of the Falls. In its course, the river embraces numerous islands, among them Navy Island, famous during the Canadian Rebellion, in 1837, having been for a time occupied by the insurgents, headed by William L. McKenzio. A mile above the Falls commence the Rapids, which have a descent of about 57 feet, forming white crested breakers and a dashing and foaming torrent. The whole mighty river comes rushing over the brow of a hill, and as you look up it seems coming down to overwhelm you, and so it rushes on, whirling, boiling, dancing, sparkling along with a fearful impatience, rather than overwhelming fury; rejoicing as if escaped from bondage rather than raging in angry might—wildly, magnificently beautiful! The confusion is appalling; but as delirium often leaves the human patient just before his death, so does this water previous to its fall completely recover its tranquil character, and thus for the last hundred yards it approaches its fate with that dignity, serenity, and resignation which attend it to the very edge of the Cataract, and which faithfully accompany it in its descent. An able writer and great traveller remarks, that "the four grandest and most magnificent natural phenomena which it has been my lot to observe have been, Mount Etna in a state of eruption, the glaciers of Switzerland; a thunder storm in the Indian Ocean, and the Falls of Niagara; but in my opinion the last is by many degrees the most sublime and a fully grand of all four."

The height of the fall is 160 feet, and it is estimated that more than a hundred millions of tons of water per hour are precipitated into the confused cauldron beneath, with a solemn and tremendous roar, ordinarily heard from 5 to 20 miles, but has in some instances been heard at Toronto, 45 miles distant; and yet at the City on the American shore, near the Cataract, there is little to give notice of its awful proximity.

The distance around the Horse Shoe Fall, on the Canada side, is 144 rods; directly across is 74 rods. Goat Island divides the river into two parts, and forms the Ameri-