

approaching the Rapids, where it begins to rush and foam over a rocky and uneven limestone bottom, for the space of nearly a mile, till at length it is thrown down perpendicularly 165 feet at the Falls. Here the river is divided into two sheets of water by an island, the largest cataract being more than a third of a mile broad, the smaller one having a breadth of six hundred feet. When the water has precipitated itself into an unfathomable pool, it rushes with great velocity down the sloping bottom of a narrow chasm, for a distance of seven miles. This ravine varies from 200 to 400 yards in width from cliff to cliff; contrasting, therefore, strongly in its breadth with that of the river above. Its depth is from 200 to 300 feet, and it intersects for about seven miles the table land before described, which terminates suddenly at Queenstown in an escarpment or long line of inland cliff facing northwards, towards Lake Ontario. The Niagara, on reaching the escarpment and issuing from the gorge, enters the flat country, which is so nearly on a level with Lake Ontario, that there is only a fall of about four feet in the seven additional miles which intervene between Queenstown and the shores of that lake.

It has long been the popular belief that the Niagara once flowed in a shallow valley across the whole platform, from the present site of the Falls to the escarpment (called the Queenstown heights), where it is supposed that the cataract was first situated, and that the river has been slowly eating its way backwards through the rocks for the distance of seven miles. This hypothesis naturally suggests itself to every observer, who sees the narrowness of the gorge at its termination, and throughout its whole course, as far up as the Falls, above which point the river expands as before stated. The boundary cliffs of the ravine are usually perpendicular, and in many places undermined on one side by the impetuous stream. The uppermost rock of the table-land at the Falls consists of hard limestone (a member of the Silurian series), about ninety feet thick, beneath which lie soft shales of equal thickness, continually undermined by the action of the spray, which rises from the pool into which so large a body of water is projected, and is driven violently by gusts of wind against the base of the precipice. In consequence of this action, and that of frost, the shale disintegrates and crumbles away, and portions of the incumbent rock overhang 40 feet, and often when unsupported tumble down, so that the Falls do not remain absolutely stationary at the same spot, even for half a century. Accounts have come down to us, from the earliest period of observation, of the frequent destruction of these rocks, and the sudden descent of huge fragments in 1818 and 1828, are said to have shaken the adjacent country like an earthquake. The earliest travellers, Hennepin and Kalm, who in 1678 and 1751 visited the Falls, and published views of them, attest the fact, that the rocks have been suffering from dilapidation for more than a century and a half, and that some slight changes, even in the scenery of the Cataract have been brought about within that time. The idea, therefore, of perpetual and progressive waste is constantly present to the mind of every beholder; and as that part of the chasm, which