

there was a cascade at Queenston of moderate height, which fell directly into the sea. The uppermost limestone and subjacent slate (8 and 7, fig. 4. p. 37.) being exposed, the cataract commenced its retrograde course, while the lower beds in the escarpment (from 6 to 1) were still protected from waste by remaining submerged. A second fall would in due time be caused by the continued rise of the land and the exposure of the hard beds (6 and 4), constituting what is called the Clinton group, together with the soft and easily undermined red shale (3), on which they repose. Finally, a third cascade would in all likelihood be produced by the rise of another hard mass, the quartzose sandstone (2, fig. 4.) resting on very destructible red shale (1). Three falls, one above the other, very similar in their geological and geographical position to those actually seen on the river Genesee at Rochester, would thus be formed. The recession of the uppermost must have been gradually retarded by the thickening of the incumbent limestone (No. 8, fig. 4), in proportion as the Falls sawed their way southwards. By this means the second cataract, which would not suffer the same retardation, might overtake it, and the two united would then be retarded by the large quantity of rock to be removed, until the lowest fall would come up to them, and then the whole would be united into one.

The principal events enumerated in the above retrospect, comprising the submergence and re-emergence of the Canadian lake district and valley of the St. Lawrence, the deposition of freshwater strata, and the gradual erosion of a ravine seven miles long, are all so modern in the earth's history as to belong to a period when the marine, the fluvial, and terrestrial