

Ten thousand years ago the Falls were, he infers, at Queenston ; and the grounds on which he reasons are exactly those on which one would infer that a labourer who had cut a ditch two hundred yards long at the rate of ten yards per day, and was still at work without pause or intermission, had begun to cut it just twenty days previous. A reverend anti-geologist takes up Sir Charles ;\* and, after denouncing the calculation as “a stab at the Christian religion,” seeing it involves the assertion that the “Falls were actually at Queenston four thousand years before the creation of the world according to Moses,” he brings certain facts, adduced both by other writers and Sir Charles himself, to bear on the calculation, such as the fact that the deep trench through which the Niagara runs is much narrower in its lower than in its upper reaches, and that the river must have performed its work of excavation when the breadth was less, at a greatly quicker rate than now. And thus the work of excavating

of his opponents regarding it. What he really says (see his “Principles,” second edition, 1832) is what follows :—“If the ratio of recession had never exceeded fifty yards in forty years, it must have required nearly ten thousand years for the excavation of the whole ravine ; but no probable conjecture can be offered as to the quantity of time consumed in such an operation, because the retrograde movement may have been much more rapid when the whole current was confined within a space not exceeding a fourth or fifth of that which the Falls now occupy.” In the eighth edition of the same work, however, published in 1850, after he had examined the Falls, there occurs the following re-statement of the case :—“After the most careful inquiries I was able to make during my visit to the spot in 1841–42, I came to the conclusion that the average [recession] of one foot a-year would be a much more probable conjecture than that of one and a quarter yards. In that case it would have required *thirty-five thousand years* for the retreat of the Falls from the escarpment of Queenston to their present site. It seems by no means improbable that such a result would be no exaggeration of the truth, although we cannot assume that the retrograde movement has been uniform. At some points it may have receded much faster than at present ; but in general its progress was probably slower, because the cataract, when it began to recede, must have been nearly twice its present height.”

\* “Scottish Christian Herald,” 1838, vol. iii. p. 766.