

lated by me in 1870 and 1871 was but a return, fortified by a great accumulation of stratigraphical and lithological evidence, to the old conclusion that the Green Mountain range represents an anticlinal axis of primitive schists, as shown by Amos Eaton in his engraved sections published in 1824, and again in 1832, and constantly maintained and taught by him and by Ebenezer Emmons.

Having thus disposed of the question of the age and structure of the Green Mountain range we come to the more particular history of the uncrystalline sediments, of the vicinity of Quebec, as seen in the sections of Sillery, the island of Orleans and Pointe Levis. Whether referred to the Second or later to the First Graywacke, whether called Hudson-River group or Quebec group, the apparent succession, as described by Logan in this typical region, was assumed to be the true one. The massive and apparently overlying sandstone of Sillery was declared to be the newest and the Levis division the oldest of this great series of strata. From many years of careful study of this vicinity, and of other out-crops of the same rocks elsewhere, I was however led to an opposite conclusion, which so far as I am aware was first set forth in 1872, when it was said: "If, as I am disposed to believe, the southeastward-dipping series of the older strata near Quebec exhibits the northwest side of an overturned and eroded anticlinal, in which the normal order of the strata is inverted, then the Lauzon and Sillery divisions which there appear to overlie the Levis limestones and shales are older rocks, occupying the position of the Potsdam, or of still lower members of the Cambrian." Billings in a private communication to me in 1876, a little while before his death, expressed his approval of my view, which was in accordance with his paleontological studies.

The same view was again set forth in a note on The Quebec group in Geology, read before the Boston Society of Natural History, October, 1876. (Proc. xix pp. 2-4.) Therein it was explained that the series of rocks to which Logan had given that name near the city of Quebec have a measured thickness of over 5000 feet and dip at a high angle to the southeast. "The whole was described by Logan as having originally occupied a position *conformably* beneath the Trenton limestone of the vicinity, and as having been brought to the surface by a great break and uplift of the strata. The speaker however showed