geological textbook by Alonzo Gray and C. B. Adams.[1] The submergence indicated by the fossiliferous clays in the valley of Lake Champlain was placed at 400 feet above the present sea level. New England and New Brunswick are regarded as having then formed a large island, separated from the mainland of New York by a strait, "which extended from the valley of the St Lawrence through the valley of Lake Champlain, of the Champlain canal and of the Hudson river. The summit level of the canal indicates the most shallow part of this strait which had a depth of about 125 feet."

Ebenezer Emmons[2] speaks of the "clays of Champlain and Albany" as marine and of the "connection by water of the Gulf of St Lawrence and the bay of New York." "New England and a part of New York were an island separated from the central part of New York by a narrow strait."

Mr Upham[3] in 1892 advanced the idea that at the close of the last glacial epoch the Hudson valley formed a glacial lake bounded on the north by the barrier of the ice sheet during the retreat from the basin of Lake Champlain and the St Lawrence valley. The barrier of this lake on the south was thought to have been due to an elevation of the present mouth of the Hudson which afterward sank beneath sea level. The subsidence of this coast is still going on, and the submerged channel of the Hudson has been mapped by the United States Coast and Geodetic Survey. The absence of marine fossils from the postglacial beds of the Hudson valley is taken as evidence that this valley has not been occupied by the sea either as an estuary or a strait at higher levels than the present since the ice age.

DeGeer[4] believed that the Catskill delta was formed at a time when New England and the contiguous portions of Canada were made an island by a strait on the west and the enlarged gulf on the north.

From a rapid review of several localities he constructed a chart of isobases of equal change of level. In the Hudson and Cham-

[1] Gray, Alonzo & Adams, C. B. Elements of Geology. N. Y. 1853. p.160–61.

[2] Manual of Geology. Phila. 1860. p.247–48.

[3] Bost. Soc. Nat. Hist. Proc. 1892. 25:335.

[4] Bost. Soc. Nat. Hist. Proc. 1892. 25:335.