

would not be inconsistent with the amount of declination assigned to the Great Bank.

Hansteen, however, in his map of 1600, imagines the American neutral line to have made a loop, somewhat similar to what existed in the Asiatic one at the close of last century, within which England and France were situated, so that the navigators, in proceeding to America, would cross the American neutral line where it returns upon itself to the southward, and they would thus pass from an easterly to a westerly variation, which could not be in any other part of the American line. It would be a case analogous to an overturn of geological strata, which appear to rest upon each other in the reverse order of their age. It is true that the position of the isogonal lines as laid down by Hansteen would accord very well with Champlain's observations, if the lines were made to run rather more north and south at that point; but the observations upon which he relies for his conclusions are very few in number, and there is some difficulty in imagining the changes by which the map of 1600 could be converted into that of 1700, particularly when we take into consideration the facts ascertained for intermediate periods, such as Bressani's, in whose time the declination in France was $3^{\circ} 30' E.$, the line of no variation, being, as he says, about the Azores, and the westerly variation decreasing, as it does now, as you proceed to the south and west from Newfoundland up the St. Lawrence. Whichever solution of this difficulty we may adopt, there is one fact connected with the localities we are considering which is very remarkable, and which may not be without its significance—that from the earliest observations to the present time there has hardly been any sensible change in the variation in the neighborhood of Cape Breton. It appears to be a true neutral point as far as the secular variation is concerned. Round this point the line of 15° westerly variation has revolved, in the direction of the hands of a watch, through about a quadrant of a circle in about 250 years; its direction having been in Champlain's time nearly S.S.W. and N.N.E., and at present, W.N.W. and E.S.E. About the close