

If the northern end of the Atlantic was so occupied with ice as this theory requires, the effects ought to be similar on the west coast of Europe and the east coast of America, which on this view form the left and right banks of the same great valley. I restrict my argument for the present, on the American side, to the country lying east of the Appalachians, but I hope at some future time to show that a similar explanation of the glacial phenomena west of that range is not improbable; this I cannot do now, as the preliminary steps of the discussion would occupy a greater length than the whole of this paper.

Owing to the influence of the Gulf Stream the ice occupying the bed of the Atlantic would probably extend much farther on the American side than on the European. Flowing down there—much influenced by the shape of the ocean bed, still more by the areas of greatest precipitation as affected by the advance of the ice itself, and not necessarily, nor even probably, thickest next the coast line and south of Cape Cod mostly distant from it—the ice, I think, reached so far at least as the 37th parallel of latitude. I suppose that the mass of ice had been increasing as it advanced southward, in consequence of the enormously greater precipitation not having yet been counterbalanced by the also increased waste from liquefaction, and that it flowed in upon the American coast somewhere south of Chesapeake Bay, and blocked up the eastern drainage as far as that point. Thus I think was produced the submergence of all the lower parts of the country. To what height the flood reached I have not information to guide me, but the water must have been deep to permit the tranquil deposition of the brown clays that cover much of the country, and the flotation of icebergs from the north, bearing the great rocks that were thus distributed over the land. I have found no evidence in North America of any great debacle, and the waters do not appear ever to have been suddenly and tumultuously discharged. In consequence, there has not been there the same mixing together of remains of different ages as occurred with us when the middle sands and gravels were spread out, and the relation of the beds containing the relics of pre-diluvial man and the pre-diluvial mammals to the other glacial deposits is more clearly defined. The more gradual and interrupted subsidence of the water is, however, marked by a series of terraces in the valleys. Excepting for this, the parallel between the series of events that occurred in the Glacial period, in Western Europe and North-eastern America, is complete. There is the same evidence of the advance