

end in "bold and astonishing glaciers." These lonely channels would frequently reverberate with the falls of ice, and so often would great waves rush along their coasts; numerous icebergs, some as tall as cathedrals, and occasionally loaded with "no inconsiderable blocks of rock," would be stranded on the outlying islets; at intervals violent earthquakes would shoot prodigious masses of ice into the waters below. Lastly, some missionaries, attempting to penetrate a long arm of the sea, would behold the not lofty surrounding mountains sending down their many grand icy streams to the sea-coast, and their progress in the boats would be checked by the innumerable floating icebergs, some small and some great; and this would have occurred on our twenty-second of June, and where the Lake of Geneva is now spread out!<sup>1</sup>

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<sup>1</sup> In the former edition and Appendix, I have given some facts on the transport of erratic bowlders and icebergs in the Antarctic Ocean. This subject has lately been treated excellently by Mr. Hayes, in the *Boston Journal* (vol. iv. p. 426). The author does not appear aware of a case published by me (*Geographical Journal*, vol. ix. p. 528), of a gigantic bowlder imbedded in an iceberg in the Antarctic Ocean, almost certainly one hundred miles distant from any land, and perhaps much more distant. In the Appendix I have discussed at length the probability (at that time hardly thought of) of icebergs, when stranded, grooving and polishing rocks, like glaciers. This is now a very commonly received opinion; and I cannot still avoid the suspicion that it is applicable even to such cases as that of the Jura. Dr. Richardson has assured me that the icebergs of North America push before them pebbles and sand, and leave the submarine rocky flats quite bare: it is hardly possible to doubt that such ledges must be polished and scored in the direction of the set of the prevailing currents. Since writing that Appendix, I have seen in *North Wales* (*London Phil. Mag.*, vol. xxi. p. 180) the adjoining action of glaciers and of floating icebergs.