belief in a submergence of the country and the abrasion of its surface by floating ice was adopted in its stead and stoutly upheld.

But the iceberg hypothesis has long been abandoned. Geologists were reluctantly, and against all their previous speculations, driven to confess that, after all, Scotland, with the greater part of England and probably the whole of Ireland, must have been swathed in one vast wintry mantle of snow and ice. This thick icy envelope, ceaselessly pressing down towards the sea, must have had a constant grinding movement far grander in its geological results than that of any mere valley-glacier. A glacier wears down only the sides and bottom of the valley in which it flows; but the great ice-sheet, covering the length and breadth of the country, and allowing the underlying rocks to be seen only in occasional inland peaks, and during summer in a narrow interrupted strip along the sea-coast, could not but produce an abrasion of the whole surface vastly greater than that of any local glacier.

It is still possible approximately to estimate at least the minimum thickness which the ice-sheet reached in some of the Scottish valleys. Thus, in Loch Fyne, both sides of the valley are smoothed and striated; nay, the whole of the land between that inlet and the western sea, on the one side, and Loch Long and the Firth of Clyde on the other, bears evidence of vast abrasion. The hill-tops at a height of 1800 feet above Loch Fyne are marked with striæ that run parallel with the valley like those at a lower level. The greatest depth of the loch is 624 feet, and as the whole sides and bottom were probably striated in the same way and by the same agent, the ice was probably more than 2500 feet thick. Maclaren many years ago traced striæ up to heights of more than 2000 feet in the