

At the same time the high grounds of the Lyonnais, Beaujolais, and Auvergne (lat.  $45^{\circ}$  S.) had their glaciers. Others flourished on the Iberian table-land, at least as far south as the basin of the Douro (lat.  $41^{\circ}$ ). Eastward in corresponding latitudes glacier relics become scantier and disappear. The Vosges possessed a group of glaciers which have left behind them some beautifully perfect moraines. Less extensive were those of the Black Forest, Sudetengebirge, and Carpathians. No trace of glaciation has been detected in the Balkans. A similar relation between snowfall and glaciation is traceable in North America, but there it is the eastern area which supported the massive ice-sheets, while the western plateaus and mountain-ranges, which were probably then, as now, comparatively arid, had only valley-glaciers.

That the ice in its march across the land striated even the hardest rocks by means of the sand and stones which it pressed against them, is a proof that, to some extent at least, the terrestrial surface must have been at this time abraded and lowered in level. How far this erosion proceeded, or, in other words, how much of the undoubtedly enormous denudation everywhere visible over the glaciated parts of Europe is attributable to the actual work of land-ice, is a problem which may never be even approximately solved. There seems good ground for the belief that a thick cover of rotted rock—the result of ages of previous subaerial waste—lay over the surface, and that the “glacial deposits” consist in great measure of this material, moved and reassorted by ice and water (pp. 597, 724). The land, as above remarked, had the same general features of mountain, valley and plain as it has now, even before the ice settled down upon it. But the prominences reached by the ice were rounded off and