

a conspicuous feature of the low tract of country from Schleswig-Holstein eastward to the Vistula.

In some of the mountain groups of Germany there is evidence that probably at the height of the Ice Age glaciers existed. Reference has already been made to the moraine mounds of the Vosges²⁶ and Black Forest,²⁷ and to the fact that the glaciers of the western hill-groups were more extensive than those to the east. In the Carpathian range, a series of moraines, sometimes inclosing lakes, is distributed in the valleys that radiate from the Hohe Tatra.²⁸ On both sides of the Riesengebirge, moraines occur. At the sources of the Lomnitz, on the southern side, they inclose two lakes at the foot of high recesses and cliffs.²⁹ No certain traces of glaciers appear to have been met with in the eastern part of the Sudeten range, nor in the Erzgebirge or Thuringerwald. Further north, in the Harz, mounds of detritus which resemble moraines have been referred by Kayser to glacier-action.³⁰

France.—As France lay to the south of the northern ice-sheet, the true till or boulder-clay is there absent, as it is for the same reason from the south of England. It is consequently difficult to decide which superficial accumulations are really contemporary with those termed glacial further north, and which ought to be grouped as of later date. The ordinary sedimentation in the non-glaciated area not having been interrupted by the invasion of the ice-sheet, deposits of pre-glacial, glacial, and post-glacial time naturally pass insensibly into each other. The older Pleistocene deposits (perhaps interglacial) consist of fluviatile gravels and clays which, in their composition, belong to the drainage systems in which they occur. There is generally no evidence of transport from a great distance, though, in the Champ de Mars at Paris, blocks of sandstone and conglomerate nearly a yard long sometimes occur, as well as small pieces of the granulite of the Morvan. Erratics at Calais and on the coast of Brittany may also have been carried a long way.³¹ The rivers, however, were probably much larger during some part of the Pleistocene period than they now are, and the transport of their stones may have been

²⁶ H. Hogard, "Terrain erratique des Vosges," 1851.

²⁷ J. Partsch, "Gletscher der Vorzeit," 1882, p. 115.

²⁸ Ibid. p. 9.

²⁹ Ibid. p. 55.

³⁰ Lossen and Kayser, *Zeitsch. Deutsch. Geol. Ges.* xxxiii, 1881.

³¹ Ch. Velain, *Bull. Soc. Geol. France*, xiv, 1886, p. 569.