

geological times, by these vast plains of ice. The glacier of the Moselle was the most considerable of the glaciers of the Vosges, receiving numerous affluents; its lowest frontal moraine, which is situated below Remiremont, could not be less than a mile and a quarter in length.

But the phenomenon of the glacial extension which we have examined in the Alps was not confined to Central Europe. The same traces of their ancient existence are observed in all the north of Europe, in Russia, Iceland, Norway, Prussia, the British Islands, part of Germany, in the north, and even in some parts of the south, of Spain. In England, *erratic* blocks of granite are found which were derived from the mountains of Norway. It is evident that these blocks were borne by a glacier which extended from the north pole to England. In this manner they crossed the Baltic and the North Seas. In Prussia similar traces are observable.

Thus, during the Quaternary epoch, glaciers which are now limited to the Polar regions, or to mountainous countries of considerable altitude, extended very far beyond their present known limits; and, taken in connection with the deluge of the north, and the vast amount of organic life which they destroyed, they form, perhaps, the most striking and mysterious of all geological phenomena.

M. Edouard Collomb, to whom we owe much of our knowledge of ancient glaciers, furnishes the following note explanatory of a map of Ancient Glaciers which he has prepared:—

“The area occupied by the ancient Quaternary glaciers may be divided into two orographical regions:—1. The region of the north, from lat. 52° or 55° up to the North Pole. 2. The region of Central Europe and part of the south.

“The region of the north which has been covered by the ancient glaciers comprehends all the Scandinavian peninsula, Sweden, Norway, and a part of Western Russia, extending from the Niemen on the north in a curve which passed near the sources of the Dnieper and the Volga, and thence took a direction towards the shores of the glacial ocean. This region comprehends Iceland, Scotland, Ireland, the isles dependent on them, and, finally, a great part of England.

“This region is bounded, on all its sides, by a wide zone from 2° to 5° in breadth, over which is recognised the existence of erratic blocks of the north: it includes the middle region of Russia in Europe, Poland, a part of Prussia, and Denmark; losing itself in Holland on the Zuider Zee, it cut into the northern part of England, and we find a shred of it in France, upon the borders of the Cotentin.

“The ancient glaciers of Central Europe consisted, first, of the