

IV.—PHYSICAL CHARACTERISTICS OF CANADA.

GEOGRAPHICAL FEATURES.

Situation.—The Dominion of Canada includes the whole of the northern half of the North American continent, except the United States territory of Alaska and the Labrador coast, which is under the jurisdiction of Newfoundland. The southernmost point in the Dominion is Middle island in lake Erie, south of Pelee island, in north latitude $41^{\circ} 41'$; from here Canadian territory extends northward toward the pole. In longitude the Dominion stretches from about west longitude 57° —the exact boundary with Newfoundland territory is as yet undefined—to west longitude 141° , the boundary with Alaska. Canada thus extends over about 84° of longitude and 48° of latitude.

General Formation.—The topographic features of the present surface of the American continent admit of its division, in Canada, into several physiographic provinces. The exposed surface of the old pre-Cambrian continent forms one of the largest divisions and has been called the Canadian Shield, the Archean Peneplain and, in its southern portion, the Laurentian highland. The mountainous country of the west constitutes the Cordilleras, while the mountains of Eastern United States, in their continuation across the border, form the Appalachian Highlands of eastern Canada. The Great Plains, with various subdivisions, occupy the area between the mountainous area of the west and the great, roughened surface of the Canadian Shield. The St. Lawrence lowland lies between the Laurentian and Appalachian highlands. Within the borders of the Canadian Shield an area on the southern margin of Hudson bay has been referred to as the Clay Belt. It occupies a part of the basin that was submerged during the glacial period and covered with a coating of clay which smoothed over its inequalities and concealed most of the underlying rocks. Since its emergence the surface has been but slightly altered by drainage channels cut across it.

Canadian Shield.—The portion of the pre-Cambrian continent whose exposed surface still forms a large part of Canada, has an area of about two and a half million square miles. Its northern border crosses the Arctic archipelago, the eastern lies beyond Baffin island and Labrador and reaches the depressed area occupied by the St. Lawrence river, a short spur or point crossing this valley at the outlet of lake Ontario to join the Adirondack mountains in New York. The southern boundary runs from the spur west to Georgian bay, skirts the north shore of lake Huron and sweeps almost entirely around the ancient depressed area occupied by lake Superior. The western edge, from the lake of the Woods and lake Winnipeg, bears northwest to the western end of lake Athabaska, and passes through the basins occupied by Great Slave and Great Bear lakes, reaching the Arctic ocean east of the Mackenzie River delta. In detail, the surface features of the Canadian Shield are irregular; but, viewed