

A BRIEF SKETCH OF THE PHYSICAL GEOGRAPHY AND TOPOGRAPHY

OF THE PROVINCES OF
ONTARIO AND QUEBEC,

CONSTITUTING THE FORMER PROVINCE OF CANADA.

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THE great basin of the St. Lawrence, in which the provinces of Ontario and Quebec formerly known as Upper and Lower Canada are situated, has an area of about 530,000 square miles. Of this, including the gulf of St. Lawrence, the river and the great lakes, to Lake Superior inclusive, about 130,000 square miles are covered with water, leaving for the dry land of this basin an area of 400,000 square miles, of which about 70,000 belong to the United States. The remaining 330,000 square miles constitute the provinces of Ontario and Quebec. With the exception of about 50,000 square miles belonging to Quebec, and extending from the line of New York to Gaspe, the whole of this territory lies on the north side of the St. Lawrence and the great lakes.

On either side of the valley of the lower St. Lawrence is a range of mountainous country. These range deep close to the shores for a considerable distance up the river; but about 100 miles below the city of Quebec, where the river is fifteen miles wide, the southern range begins to leave the margin, and opposite to Quebec is thirty miles distant. From this point it runs in a more southwestern direction than the river-valley, and opposite Montreal is met with about fifty miles to the southeast, where it enters Vermont, and is there known as the Green Mountain range, which forms the eastern limit of the valley of Lake Champlain. In Canada, this range, stretching from the parallel of 45° north latitude to the Gulf is known as the Notre-Dame Mountains, but to its northeastern portion, the name of the Shackshock Mountains is often given.

The flank of the northern hills, known as the Laurentides, forms the north shore of the river and gulf, until within twenty miles of the city of Quebec. It then recedes, and at the latter city is already about twenty miles distant from the St. Lawrence. At Montreal the base of the hills is thirty miles in the rear, and to the westward of this it stretches along the north side of the Ottawa River for about 100 miles, and then runs southward across both the Ottawa and the St. Lawrence, crossing the latter river a little below Kingston, at the Thousand Islands, and entering New-York. Here the Laurentides spread out into an area of about 10,000 square miles of high lands, known as the Adirondack country, and lying between the Lakes Champlain and Ontario. The narrow belt of hill-country which connects the Adirondacks with the Laurentides north of the Ottawa, divides the valley of the St. Lawrence proper from that of the great lakes, which is still bounded to the north by a con-

tinuation of the Laurentides. The base of these, from near Kingston, runs in a western direction, at some distance in the rear of Lake Ontario, until it reaches the southwest extremity of Georgian Bay on Lake Huron; after which it skirts this lake and Lake Superior, and runs northwestward into the Hudson Bay Territory. This great northern hill-region consists in large part of the oldest known rocks of the globe, to which the name of the Laurentian series has been given, and occupies, with some exceptions, the whole of the province northward of the limits just assigned. We shall designate it as the LAURENTIAN REGION. Over considerable portions of this area along Lakes Huron and Superior to the north of Lake Ontario, and farther eastward on Lake Temiscaming are other and most recent series of crystalline rocks; but as the country occupied by these, is geographically similar to the Laurentian, it is for convenience here included with it.

To the south of this region the whole of Canada west of Montreal, with the exception of the narrow belt of Laurentian country described as running southward across the Ottawa and St. Lawrence Rivers, is very level. The same is true to the eastward of Montreal until we reach the Notre-Dame range of hills, already described as passing southward into Vermont, and in its north-eastern extension as bounding the lower St. Lawrence valley to the south. This valley may be regarded geographically as an extension of the great plains of western Ontario and central New-York, with which it is connected through the valley of Lake Champlain. This level country to the south of the Laurentides in the two parts of the province is occupied by similar rock formations, and constitutes the CHAMPAIGN REGION of Canada, the surface of which is scarcely broken, except by a few isolated hills in the vicinity of Montreal, and by occasional escarpments, ravines, and gravel-ridges farther westward.

The next area to be distinguished consists of the Notre-Dame range on the south side of the St. Lawrence, which forms the belt whose course has just been described, with an average breadth of from thirty to forty miles. To the south and east of this is a district of undulating land, which extends to the boundaries of the province in that direction. These two districts may for convenience in farther description be classed together. They include the region which is generally known as the *Eastern Townships*. By this term they are distinguished from the *Seigniories* which bound

them to the north and west. To the north-east however, along the Chaudière River, some few seigniories are found within the geographical limits of this region, which as it is the northeastern prolongation of the great Appalachian Mountain system may be designated as the APPALACHIAN REGION, and for convenience will be described before noticing the Champaign region.

The whole of the province is well watered with numerous large and small rivers, and in the mountainous districts there are great numbers of small lakes, more than 1,000 of which are represented on the maps.

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THE LAURENTIAN REGION.

The great tract of country thus designated has for its southern boundary the limits already assigned, and stretches northward to the boundary of the provinces in that direction, which is the height of land dividing the waters of the St. Lawrence basin from those of Hudson Bay. Its area is about 290,000 square miles, or six tenths of the whole land of the province. This region is composed chiefly of crystalline rocks, for the most part silicious, or granite-like in character, consisting of quartzite, syenite, gneiss and other related rocks. These are broken up into ridges and mountain peaks, generally rounded in outline and covered with vegetation. The summits in the neighbourhood of the city of Quebec are some of them from 2,000 to 2,500 feet in height, and in other parts attain 4,000 feet or more; but the general level of this region may be taken at about 1,500 feet above the sea, although it is much less in the narrow belt which crosses the province of Ontario east of Kingston. Through the hard gneissic rocks of this region run numerous bands of crystalline limestone which from their softness give rise to valleys, often with a fertile soil. The hill-sides are generally covered with little else than vegetable mould, which sustains a growth of small trees, giving them an aspect of luxuriant vegetation. But when fire has passed over these hills, the soil is in great part destroyed, and the rock is soon laid bare. In the valleys and lower parts of this region however, there are considerable areas of good land, having a deep soil, and bearing heavy timber. These are the great lumbering districts of the country, from which vast quantities of timber, chiefly pine, are annually exported, and constitute a great source of wealth to the province. These valleys are in most cases along the line of the bands of