

## V.—CLIMATE AND METEOROLOGY.

### GENERAL SURVEY OF THE CLIMATE OF CANADA.

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The climatology of the Dominion of Canada deals with widely varying conditions within the northern half of the continent of North America. Stretching from the Atlantic to the Pacific, from the United States boundary to the Arctic sea, this great area exhibits such a great diversity in topographical features, that he who traverses it must meet with even greater changes of climate than would naturally follow from variation in latitude and distance from the oceans. Of these features the most important are the lofty mountain ranges which parallel the Pacific coast, and cause the continental type of climate to predominate over the Dominion, the true maritime type being confined to the immediate coast line of British Columbia.

**British Columbia.**—Vancouver island, in the Pacific ocean, occupies somewhat the same position in relation to the American continent that Great Britain, in the Atlantic, does to Europe, lying between nearly the same parallels of latitude. The climate, as in all parts of British Columbia, varies much with the orographical features of the country. The annual rainfall along the exposed western coast of the island is very great, generally exceeding 100 inches, but in the more eastern districts it is less than half that amount. A comparatively dry period extends from May to September, while copious rains fall between September and March. The mean monthly and mean annual temperatures correspond very closely with those found in parts of England; the summers are quite as long, and severe frosts scarcely ever occur.

On what is usually termed the lower mainland of British Columbia, which includes all parts of the province that lie at comparatively low levels west of the Selkirks, the climate is everywhere equable and mild. The lower Fraser valley, in its northward reach to its junction with the Thompson river, traverses latitudes corresponding with those of the southern half of England. The spring opens early, the summers are warm, and the winters, which are usually mild and rainy near the coast, increase somewhat in severity with increasing distance from the sea. At Agassiz, about 70 miles from Vancouver, is situated one of the Dominion experimental farms; the average mean temperature for January at this place is  $35^{\circ}$  and for July  $64^{\circ}$ , with a mean daily range of  $11^{\circ}$  in the former month and of  $28^{\circ}$  in the latter; the lowest temperature on record is  $-13^{\circ}$  and the highest  $103^{\circ}$ . Frosts seldom occur as late as May, and there is no record of any during the summer months. The annual rainfall is 67 inches, two-thirds of which fall between the beginning of October and the end of March. At New Westminster the rainfall is essentially the same as at Agassiz, the winter mean temperature being a few degrees higher, and the summer temperature a little lower.