

influences which give warmth and moisture just in the same way that the Polar Current on the opposite coast produces refrigeration. The Pacific currents and prevailing westerly winds carry an influence of warmth and moisture through the comparatively low passes of the Rocky Mountains into British territory, and redeem a large portion of the continent from the conditions of desert area which obtains over so large a portion of North America below the 50th degree of latitude until the tropical rains from the Gulf of Mexico are met.

In other words we have in Canada climates and productions similar to those of the North-west and Central Europe; that is of Russia, Norway, the British Islands, Denmark, Germany, France, Holland, Belgium, Switzerland and Northern Italy; and on the Continent of America, the territory occupied by the Dominion of Canada is exactly analogous to that occupied by these countries on the Continent of Europe. We have room in our territory for all these Empires and Kingdoms.

The climate of Canada offers conditions favourable for the growth of the grasses, the cereals, roots and fruits of northern and middle Europe. That is to say that it offers the same conditions of habits and life to which the people of that part of Europe have been accustomed, and which they would be required to change if they went further south than Pennsylvania.

A line touching the most southern part of Canada on Lake Erie and carried directly East, would go through Spain and Portugal, the Mediterranean Sea, Italy, at the point of Rome, the Adriatic, Turkey, and the Southern part of the Black Sea.

The report of Mr. Sandford Fleming, of the Explorations and Surveys for the Pacific Railway, contain some very interesting facts relative to the snow fall between the Great Lakes and the Pacific Coast. He states:

"Throughout the whole of the Woodland Region the depth of snow is generally less on an average than it is at the City of Ottawa. Only in one locality on the routes favorable for the railway, between Manitoba and Lake Nipissing, is the snow found generally so deep as at this city. The locality referred to is in the immediate neighbourhood of Lake Superior, where the routes approach the coast; here the lake appears to have a local influence on the humidity of the atmosphere, and in consequence, on the amount of snow-fall. With this exception, the depth of snow on the route east of Lake Nipigon is found to be from 20 to 30 per cent. less than at Ottawa, gradually increasing to the east and south. From Lake Nipigon to Manitoba the snow ranges from 70 to less than 50 per cent. of the depth at Ottawa.

"Throughout the Prairie Region the snow rarely exceeds 20 or 24 inches in depth frequently not half so much over wide areas.

"In the Mountain Region the climatological phenomena are more marked and the depth of snow-fall more varied. It appears that the Western slopes of the Cascade and Rocky Mountain Chains, exposed to the vapor-laden winds from the Pacific, receive a bountiful supply of rain in summer and snow in winter, while, on the eastern sides of these elevated barriers, comparatively little precipitation takes place.

"In the Cascade Chain deep snow extends from the shores of the Pacific to the summit, but generally increases in depth with the increase in altitude. In the several passes through these mountains the depth of snow-fall varies greatly, according as they are more or less sheltered from the prevailing winds."

And he states further in reference to a tabulation of Mr. Moberley's observations by Professor Kingston:—

"It appears from the information in the documents referred to, that the deepest snow in the valley of the River North Thompson is found between Stillwater and Lake Albreda, and that it sometimes reaches five feet. Between Lake Albreda and Tête Jaune Cache, the greatest depth is about four feet. In the first week in March, 1873, the depth of snow in the Yellow Head Pass was two feet.

"The greatest depth of snow at the Athabasca Depot, 22 miles easterly from the Yellow Head Pass, never exceeded six and a-half inches, at any one time, during the whole winter 1872-73. The surveying party experienced, what the resident officers of the Hudson Bay Company at Edmonton and Jasper House considered, an unusually severe winter, yet they found it less severe in the district referred to than at Toronto.

"Professor Kingston has made a complete analysis of the meteorological register kept by the officers of the surveying party in the mountains, and has constructed tables giving a comparison between the minimum temperature and the depths of snow at Rocky Mountain stations and various places in Ontario, Quebec, and the Maritime Provinces. From these tables it will be observed, that, while in autumn the Rocky Mountain stations are liable to a cold much exceeding that of the East, the winter compares favourably, and in spring the mountain stations have a very decided advantage. With regard to snow, the total depth recorded for the winter quarter at the depot in the Jasper Valley, is remarkably light compared with other points, as the following abstract will show:—

Snow fall, during the winter quarter at Depot, Jasper Valley...10 inches

Do.	winter at Toronto.....	50.7	"
Do.	" at Ottawa.....	52.2	"
Do.	" at Montreal.....	74.0	"
Do.	" at Quebec.....	12.7	"
Do.	" at St John, N.B.....	70.1	"
Do.	" at Bathurst (Bay Chaleur).....	112.3	"
Do.	" at Halifax, N.S.....	49.5	"
Do.	" at Howse Pass.....	70.0	"

"The character of the winter climate, on the eastern approach through the Rocky Mountains to the Yellow Head Pass, may be judged from the fact that about one hundred horses and mules, engaged on the survey, were obliged to shift for themselves during the whole winter. These animals, much worn out by excessively hard work and nearly starved when they reached the Jasper Valley, were turned out in mid-winter to pick up what they could get. Not a single death occurred, and they all resumed work in March in fair condition. Jasper Valley is fully 3300 feet above the level of the sea, and nearly ten degrees of latitude farther north than Toronto.