

of the Fraser River is one of the most spectacular in Canada. The river basins afford considerable fertile land for cultivation and the plateau tops provide excellent pasture for cattle grazing. Toward the United States border are the Columbia Mountains, a complex system of folded and intruded rocks and fault-line depressions, rich in minerals and with productive river and lake terraces.

The Coast Range has the highest peaks in Canada including Mount Logan, 19,850 feet, in the Yukon Territory, and Mount Waddington, 13,260 feet, in British Columbia. The Canadian portion starts in the high, partly volcanic, partly folded mass of peaks known as the St. Elias Range. Here active glaciers have cut deep troughs and sharp ridges. South, the Coast Range has some large batholiths. The crystalline rocks have frequently become exposed by the very active erosion caused by heavy precipitation from oceanic airs. Consequently, most of the Coast Range, despite its massive structure, consists of a saw-like series of sharp peaks and ridges.

The Inner Passage, along the coast, comprises the Georgia, Queen Charlotte and Hecate Straits. It is a continuation northward of the string of great depressions occurring in the United States, such as the Sacramento and Willamette Valleys, but it became drowned by the sea and there is now little plain left. The mainland and island coasts rise very steeply to lofty mountains. The Passage has a very large number of arms, most of which are ice-cut fjords or fault depressions. These give it a highly indented shore, of utmost value for coastal fisheries and useful too in providing ready access to a wealth of lumber.

The outer insular arc is made up of outlying ridges, in line with the Coast Range of the United States, which, however, have become partially submerged under the sea. The result is a number of hilly or mountainous islands enclosing small fertile basins. The Queen Charlotte group in the north and Vancouver Island in the south are the most important.

The Western Cordilleras are very complex in structure and consequently have a wide range of resources. In some of the narrow plains, sedimentary rocks are underlain by coal fields as at Fernie and Nanaimo in British Columbia and at Carmacks in the Yukon Territory. Oil is purported to lie under plateau sections in the Yukon. Gold made the Cariboo district of British Columbia and the Klondike area of Yukon Territory world-famous in their time but of greater importance are the large mineral masses usually associated with igneous intrusions, of which copper, lead and zinc are the most significant. To this wealth of metals, the Cordilleras add vast hydro-electric potential and dense, extensive forests. Agriculture is limited except on the Fraser delta and in one or two of the interior trenches.

The Arctic Ranges, or Innuitias.—These make up an extensive belt of fold mountains, 800 miles long, involving rocks from Silurian to Cretaceous times. Folding started in Appalachian times in Silurian and Devonian beds. It overlapped that of the Cordilleras in Cretaceous and Cenozoic beds. Two sub-regions exist—the Ellesmere Island system and the Parry Islands folded belt. The Ellesmere Island system seems to indicate a double orogeny, in Silurian and then again in Cretaceous times. The results have been fairly high ranges of from 6,000 to 10,000 feet where folding and thrust faulting are much in evidence. The trends of the folds are from southwest to northeast. The Parry Islands fold belt, trending more nearly west-east, consists of typical Appalachian-like folds in canoe-shaped structures about 2,000 feet high. They include large tracts of horizontal strata.