

REPORT
ON THE
GEOLOGY OF THE COUNTRY
NEAR THE
FORTY-NINTH PARALLEL OF NORTH LATITUDE
WEST OF THE ROCKY MOUNTAINS.

The country immediately adjacent to the 49th parallel of north latitude, on the western side of the continent of America, which forms the subject of the present communication, is in the first place remarkable for its excessively rugged profile, as with the exception of a belt of terraced plains bordering the sea and extending for a short distance inland, it presents a continuous succession of steep mountain ridges, which are furrowed by the deep, narrow and tortuous valleys of the Fraser and Columbia Rivers and their tributaries; the former flowing from east to west, while the latter usually follow a general north and south course.

Principal
orographic
features.

The most important among the mountain ranges, orographically considered, are two in number. First, the main chain of the Rocky Mountains which forms the eastern terminus of that portion of the boundary-line which the commission was instructed to define, and divides the Pacific waters from those of Hudson's Bay and the Gulf of Mexico. Second, a western chain containing a few snowy summits, which occasionally rise to a height of about 9,000 feet above the sea level. This is situated on the northerly prolongation of the Cascade Mountains of Oregon, and divides the waters of the Fraser River, and in part, of the streams flowing into the Gulf of Georgia from those discharging into the Pacific in much lower latitudes through the basin of the Columbia River.

The streams of the western slope of the Cascade Mountains are mostly small, consisting of one principal tributary of Fraser River, the