

the northeast. In a sense, this "Beavermouth block" is really part of the Dogtooth range, from which it has become separated by a late-Glacial or post-Glacial diversion of the Columbia from the main axis of the Rocky Mountain trench. South of Donald the width of the trench, measured from crest to crest of the bounding mountains, is about 8 miles. Northwestward from Donald it preserves its trend as a great trough, 5 miles in width, now drained southeastwardly by Blackwater creek. The "Beavermouth block" thus cut off between the river and the principal trough is stratigraphically and structurally a continuation of the Purcell Mountain system. According to an alternative view, the "Beavermouth block" might be considered as a mass isolated in the Rocky Mountain trench, which thus includes both the wide trough at Blackwater creek and the local, canyon-like part of the Columbia valley to the southwest of the "Beavermouth block." Probably the latter conception offers the fewest complications in a treatment of the local topography in terms of a systematic scheme for the whole Cordillera. So far as known to the writer, the Columbia has been diverted from the main axis of the trench at no other point in its course between the Columbia-Kootenay divide and the Big Bend, where the river finally leaves the trench.

Scenically this trench is very impressive. Approaching it by railway from either side, the observer has followed a tortuous way through closely set mountains, famous for their ruggedness. At Golden he suddenly emerges from the Kicking Horse canyon and finds himself in a wide trough stretching northwest and southeast, as far as the eye can reach. Its real majesty becomes apparent when he reflects that the eye takes in only a minute section of a feature which extends nearly a thousand miles, from Montana to Yukon, a distance greater than the whole length of British Columbia. From the Columbia river, here about 2,550 feet above the sea, the slopes ascend on either side over strong benches of gravel and glacial drift to the cliffy scarps of mountains ranging from 7,000 to 9,000 feet in height (Plate II). The topographic relief is thus considerable, but the Rocky Mountain trench cannot be appreciated at its true orographic value unless its unique length is kept in mind. As