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ADDITIONAL OBSERVATIONS *on the* SUPERFICIAL GEOLOGY *of* BRITISH COLUMBIA *and* ADJACENT REGIONS. By GEORGE M. DAWSON, D.Sc., F.G.S., Assoc. R.S.M., Assistant Director of the Geological Survey of Canada.

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In two papers previously communicated to the Geological Society, the results of observations on the glaciation of the northern portion of the American continent from Lake Superior to the Pacific have been given *. The geological work of which these observations formed a part was carried on first in connexion with the North-American Boundary-Commission Expedition, and subsequently on the Geological Survey of Canada. In continuing the exploration of British Columbia on the Survey last named, during the seasons of 1877, 1878, and 1879, many additional facts of interest have been gathered, which it is proposed here briefly to summarize and discuss with special reference to the second of the two papers above mentioned, in which a description of the salient physical features of the province of British Columbia has been given, and a map published; to these, which it is unnecessary here to repeat, reference should be made in considering the points now brought forward.

Observations on the Southern part of the Interior of British Columbia.

In the more detailed examination of that part of the southern portion of the province extending from the Fraser eastward to the Gold ranges, and including the whole breadth of the region formerly called the interior plateau, traces of a general north-to-south glaciation have been found in a number of additional localities at high levels; and it would appear that the ice, whether that of a great glacier or water-borne, pressed forward to, or even beyond, the line of the 49th parallel, notwithstanding the generally mountainous character of that part of the country. With the facts previously recorded, these now extend the known area of north-to-south glaciation to a portion of the plateau over 400 miles in length.

The most striking instance of this general glaciation, and that which carries it up to a height greater than elsewhere observed, is met with in the case of Iron Mountain at the junction of the Nicola and Coldwater rivers. This mountain is one of the more prominent points of that portion of the plateau, which, toward the eastern or inland borders of the coast-range, becomes rough and broken. It rises in a broad dome-like form to a height of 3500

* Quart. Journ. Geol. Soc. vol. xxxi. p. 603, and vol. xxxiv. p. 89.