

REPORT ON THE GEOLOGY AND RESOURCES OF THE REGION IN THE VICINITY OF THE FORTY-NINTH PARALLEL, FROM THE LAKE OF THE WOODS TO THE ROCKY MOUNTAINS. By GEORGE MERCER DAWSON, Assoc. R.S.M., F.G.S., Geologist and Botanist to the Commission; addressed to Major D. R. CAMERON, R. A., Commissioner. Large 8vo., pp. 379, with numerous maps and illustrations.

In this volume Mr. Dawson has given us in a very clear and thorough manner the result of his explorations while acting in the capacity of geologist and botanist to the Boundary Commission. We have not space in this number for lengthy extracts, but the following from the prefatory note addressed by Mr. Dawson to the Commissioner will serve to give an idea of the character and scope of the work:—

“In undertaking single-handed the care of Natural History work in connection with the Boundary Commission, it was obvious that in attempting too much it might happen that nothing should be well done. I therefore decided to give the first place to geology; and in that field to endeavour to work out as far as possible the structure of the country, and to make illustrative collections of rocks and fossils, rather than to amass large local collections at the expense of general information. Such time as could be spared from the geological investigations has been devoted to collection and work in other departments; and in this Report the results are presented, elaborated in so far as the time at my disposal would allow, and supplemented also by several valuable notices of the collections in special departments, by gentlemen whose names are elsewhere stated.

“The field work, in extent, has directly covered a region, stretching from the Lake of the Woods, on the east, to the Rocky Mountains on the west, and lying in the vicinity of the forty-ninth parallel, which here forms the International Boundary. In time it has extended over two seasons, those of 1873-74. Owing to the vastness of the region covered by the operations of the survey, much of the period actually spent in the field has been necessarily employed in more or less arduous, and often almost continuous travel. * * * * *

“The main geological result arrived at is the examination and description of a section over 800 miles in length across the central region of the continent, on a parallel of latitude which has heretofore been geologically touched upon at a few points only, and in the vicinity of which a space of over 300 miles in longitude has—till the operations of the present expedition—remained even geographically unknown.

“In working up the geological material, I have found it necessary to make myself familiar with the geological literature, not only of the interior region of British America, but with that of the western portion of the United States to the south, where extensive and accurate geological surveys have been carried on. It has been my aim to make the region near the boundary line as much as possible a link of connection between the more or less isolated previous surveys, and to collect by quotation or reference, the facts bearing on it from either side. In this way it has been attempted to make the forty-ninth parallel a geological base-line with which future investigations may be connected. The matter contained in the special preliminary report on the Lignite Tertiary formation, published last year, has in this final report been included, in so far as necessary to complete the general section on the line.”