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## NOTES ON THE PLEISTOCENE GEOLOGY OF A FEW PLACES IN THE OTTAWA VALLEY.

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The Ottawa River rises near the height of land in Latitude 48 N. and Longitude 76 W., whence it flows westwardly for a distance of 250 miles to Lake Temiscaming. From this lake its course is south-east till it reaches the St. Lawrence River. Its whole length is about 650 miles, but from its source to the St. Lawrence River in a direct line is less than 200 miles. Its branches on the north or Quebec side are the Dumoine, Black, Coulonge, Gatineau, Lièvre, and Rouge, all of which flow nearly south. From the west or Ontario side it receives the waters of the Montreal, Mattawa, Petewawa, Bonnechere, Madawaska, Missisippi, Rideau, and South Nation, all of which flow eastward. The whole area drained by the Ottawa is approximately fifty-six thousand square miles.

It is the purpose of this paper to record the result of observations made at a few points extending from the city of Ottawa to Pembroke, a distance of eighty miles, during the summers of 1895-96, more especially the district included in the townships of Ross, Westmeath, Stafford, Wilberforce, Bromley, S. Algona, Sebastopol and Grattan, in Renfrew county.

Everywhere in this district there is abundant evidence of ice action, both in the polished and striated rocks and in the general distribution of boulder-clay and boulders. The question of the direction of the ice movement is comparatively simple. Near the Ottawa River the striæ follow closely the course of the