

occur at the same level, and were doubtless formerly, or are still, continuous.

A little above Chelsea the clays are overlaid by a heavy wash of stream boulders representing the position of the Gatineau river during a later stage in its history. [Shown on section.]

October 22nd the last excursion of the season was made to the mouth of Green's Creek, five or six miles east of Ottawa, and to the sulphur springs, for the purpose of collecting fossils from the leda clays. You are already well acquainted with these; yet it is a pleasing realization of the flood period described, to see these still living inhabitants of the waters of Labrador and of Hudson's Bay imbedded in boulders now under the wheat fields of inland Ontario. I did not carry with me any barometers on this occasion, but estimated the average top of the terraces of the clay at the riverside 30 to 40 ft. above the summer stage of the Ottawa, or 160 feet above the sea; the sulphur springs, several miles up Green's Creek, at about the same height; the leda clays adjacent 50 ft. higher; the overlying sands and interbedded clays of High Bluff 220 ft. above the sea. The latter were observed on another occasion spreading over the entire country at the head of Green's Creek; and farther throughout Carleton and Russell counties at about the same level—250 ft. above the sea—as far as Duncanville covering and forming the watershed between Ottawa City and Cornwall on the St. Lawrence; exhibiting in Russell county some of the best farming land of Ontario.

The width of the exposed sea bottom of the leda clays from King's mountain to Lake Champlain was greater than are now any of the Canadian lakes,—140 miles—and over, in many places.

I have drawn a longitudinal section of the St. Lawrence, including the Canadian lakes, on which are exhibited the elevations and relative positions with reference to the drainage outlet of the terraces, of the known surface of the inland sea of the St. Lawrence to which I have referred. [Shown on the wall.]

I will now ask you to accompany me farther inland toward that portion of the valley of the St. Lawrence which is at present filled by the great Canadian lakes. Let us inquire into the relation of the farms of the salt water region hereabouts, to those of the freshwater region surrounding these lakes.