over a wide extent of territory, and many are identical with causes which produce somewhat similar results in other countries.

There are no long ranges of mountains within the Province to retard the free interspersion of its different indigenous forms, nor are the Laurentide hills of such considerable height as to much impede the admission of the cold boreal winds from around Hudson Bay. The great breadth of the lakes, however, must, there is no doubt, preclude a migration from the northern United States as extensive as under altered circumstances it would be.

To the influences effected by our numerous and extensive lakes and rivers through their currents, the formation of prairie land, the evaporation from their surfaces and the necessarily modified temperature of the land surrounding them, references will, in subsequent parts of this paper, be made.

An eminent writer on botanical as well as geological subjects, thinks, that many anomalies in the distribution of Canadian vegetation can be explained by considering the chemical constitution of the soil. "A little more lime or a little less alkali in the soil renders vast regions uninhabitable by certain species of plants. For many of the plants of our Laurentide hills to extend themselves over the calcareous plains south of them under any imaginable conditions of climate is quite as far beyond the range of possibility as to extend across the wide ocean."* This view is, in at least a limited sense, probable. *Rubus Chamæmorus* Linn. and *Empetrum nigrum* Linn. have been cited as illustrations of the preference maintained by some plants for soils of Laurentian origin. It may be more correct to, in part, ascribe the range of these plants to their known predilections for northern situations. They are both in fact sub-arctic plants, and it merely happens to be a coincidence that the Laurentian formations skirt the Lower St. Lawrence and the northern shores of Lake Superior, on the coasts of the former of which both of these plants occur, and on those of the latter *Empetrum nigrum*. Were their distribution entirely dependent upon the nature of the soil, they should occur in the country around the Upper Ottawa and elsewhere, but they are not known to range so far to the southward. *Pinus Banksiana* Lamb.—a less northern form—and probably *Polygonum cilinode* Michx. would seem, in our present knowledge of their distribution, to constitute better illustrations of preference for Laurentian soils and

* Dr. Dawson; this journal, O. S., vol. vii, p. 342.