

is intersected through its entire extent, and in a general north-and-south direction, by the deep valley of the St. John, but as the sections thus made are of very unequal extent, so they also present many features of contrast as regards their orographical aspects. Thus, on the western side of the river, from Woodstock northward, at least as far as the boundary of Victoria county, and westward to the Maine frontier, the country, though far from being low or flat, is nowhere hilly, presenting rather a series of gentle undulations, with a drainage embracing numerous but mostly small streams, and not unfrequently diversified by small lakes. On the eastern side, on the contrary, hills and ridges are met with in almost every direction, these often attaining an elevation of over 1,000 feet, while the separating valleys are deep and not unfrequently abrupt, giving passage to such streams as the Beccaguimic* and the Shiktehawk, the Munquart and the Tobique. In most instances these ridges are composed of the same slates as those which occupy the intervening lowlands, and no very obvious connection can be traced between their occurrence and either the composition or structure of the rocks accompanying them. Occasionally, however, where these are of an eruptive character, as in Moose Mountain, (an eminence which, near the boundary between Carleton and Victoria, rises abruptly, from a comparatively level tract to a height of 1,030 feet), it is evidently to the hardness of their constituent minerals and consequent power of resistance that their prominence is to be ascribed. The general course of the slate ridges, like that of the formations composing them, is about N. 10°—20° E.

In the study of the geology of the Silurian district two main difficulties are to be contended with. Of these, one arises from the comparatively slight diversity in the nature of the rocks to be studied, which, as a consequence, present nearly the same aspect over wide areas, and the second, from the profound disturbances which they have everywhere undergone. It is thus well-nigh impossible to determine with anything like certainty, either the order of succession or the relative or total thickness of the several subdivisions of the system. Some aid, however, in this direction is afforded by the organic remains found at different points, as well as by the occurrence of ore deposits, and again by the occasional presence of conglomerates apparently marking the base of the system. From a careful study of these data we have been led to regard the following as representing their probable arrangement, the succession being a descending one:—

* In the case of the first named of these streams, a good illustration is afforded, not only of the extent but of the irregularity of the erosive processes by which these valleys have been formed, its serpentine course being such as to more than double the actual distance between its source and outlet.