

CENTRES OF DEPRESSION.

When examining attentively the general geological features of the country surrounding the Great Lakes, the careful student will not fail to observe that three great centres, as it were, of depression existed in its bygone history.

One occupies nearly the western half of Lake Superior, the floor of which here is overlaid by the Cambrian and upper division of the Keweenawan rocks. Beyond these, on the north-west and south-east sides of this part of the lake there occur, in successive descending order, the lower division of Keweenawan, the Animikie division of the Huronian, and what are supposed to be the Laurentian rocks.

Eastward of Lake Superior, it will be observed that, as far onward as the Carboniferous period, there were, near the present lakes, two other great centres, as it were, of depression, the one in Northern Pennsylvania, the other in Michigan. In passing southward from the Laurentian region lying between the Georgian Bay and the Upper Ottawa, the formations are met with in a regular, almost unbroken, ascending order, from the Laurentian of Canada, through the Lower and Upper Silurian and Devonian, until the Carboniferous rocks of Northern Pennsylvania appear. The strata representing these formations occur in this regular succession, all within a distance from north to south of one hundred and seventy-five miles. The outcrops of several of these formations are, on the south side of Lake Ontario, more or less parallel to the length of the lake and to each other, whilst the outcrop of the Trenton and Black River limestones to the north of the lake runs in a line diagonally from the east end of Lake Ontario to the Georgian Bay.

That the area presently occupied by Lake Ontario was overlaid in part by Trenton limestones and Utica slates, but perhaps more by rocks of the Hudson River and Medina age, is apparent from the way in which these strata on the north-western side are again represented to the eastward and southward of the lake. Thus, the interesting questions