ued in solid rock, and is now proceeding at the rate of three feet a year.

The question has been much discussed whether the basins of the great lakes were excavated by the action of the continental glacier. By Ramsay, lake basins have been generally attributed to such action. By others, the doctrine is held in light esteem, since we have evidence, in some cases, that glaciers have moved over sheets of clay without plowing them up. I incline to agree in part with both. The positions of the terminal and lateral moraines show that glaciers moved along the beds of Lakes Erie, Huron, and Michigan, and Saginaw and Green Bays. What directed ice-streams to these positions? A pre-existing valley. What caused the valley? The erosion of the great river which had been flowing out of Lake Superior during Mesozoic and Cænozoic ages. The valley may have been a mile, or five miles, wide, and bounded by precipitous rocky walls. When the glacier commenced its movement along such a valley, it exerted powerful erosion along the steep bounding walls, and wore them down to the gentle slopes which now form part of the bed of the lake. The basins of the lakes are demonstrably works of erosion. Why the great glaciers worked there more than elsewhere, was because the great river had inaugurated the work and invited the glacier. A glacier also moved out of the western end of Lake Superior. A valley already existed—indeed a lake basin existed, shaped by the ancient upheaval of rocks along the northern and southern shores.

In regions where returning spring-time found the general surface nearly level, and locally indented with basin-like depressions, the Champlain floods formed large numbers of lakes and lakelets. Such depressions might arise from the rocky configuration of the country—especially the larger depressions. More generally they were mere intervals inclosed by hills and ridges of Drift. Thus arose the numerous lakes of Maine, Michigan, and Minnesota. Whenever a lakelet found an outlet, the process of erosion began; the lakelet was continually lowered, and in many cases, it has been completely