

Inland, the stratified parts of the "Champlain group" have been accumulated on the sides of rivers, and present in great perfection the terrace character already (p. 669) described. The successive platforms or terraces mark the diminution of the streams. They may be connected also with an intermittent uprise of the land, and are thus analogous to sea-terraces or raised beaches. Each uplift that increased the declivity of the rivers would augment their rate of flow, and consequently their scour, so that they would be unable to reach their old flood-plains. Such evidences of diminution are almost universal among the valleys in the drift-covered parts of North America, as in the similar regions of Europe. Sometimes four or five platforms, the highest being 100 feet or more above the present level of the river, may be seen rising above each other, as in the well-known example of the Connecticut Valley.

The terraces are not, however, confined to river-valleys, but may be traced round many lakes. Thus, in the basin of Lake Huron, deposits of fine sand and clay containing fresh-water shells rise to a height of 40 feet or more above the present level of the water, and run back from the shore sometimes for 20 miles. Regular terraces, corresponding to former water-levels of the lake, run for miles along the shores at heights of 120, 150, and 200 feet. Shingle beaches and mounds or ridges, exactly like those now in course of formation along the exposed shores of Lake Huron, can be recognized at heights of 60, 70, and 100 feet. Unfossiliferous terraces occur abundantly on the margin of Lake Superior. At one point mentioned by Logan, no fewer than seven of these ancient beaches occur at intervals up to a height of 331 feet above the present level of the lake.⁶⁰ The great abundance of terraces of fluvial, lacustrine, and marine origin led, as already stated, to the use of the term "Terrace epoch" to designate the time when these remarkable topographical features were produced. The cause of the former higher levels of the water is a difficult problem. In some cases it has doubtless arisen from dams formed by tongues of ice during the retreat of the ice-sheet.

India.—There is abundant evidence that at a late geological period glaciers descended from the southern slopes of the Himalaya Mountains to a height of less than 3000 feet above the present sea-level. Large moraines are found in

⁶⁰ Logan, "Geology of Canada," p. 910. Consult also the paper by Gilbert on Lake Shores cited ante, p. 686.