In the glaciated area along the Rocky Mountain Range of British America called the "Cordillera area" by G. M. Dawson, and the region between this range and the coast, the movement of the ice was for the larger part southeastward. But a northern part, north of 60°–65° N., moved northwestward, and central portions escaped westward through passes in the mountain ranges near the coast (G. M. Dawson).

About the Wisconsin driftless area the scratches over the surface east of it, according to Chamberlin and Leverett, mostly point westward or westsouthwestward, toward the area, in concordance with the fact that the area was that of a depression in the ice-sheet, so that the slope of the ice-surface was toward it. And to the south of it the same course is continued, showing that the depression in the ice-sheet was lengthened southward. But on the same authority, there was also an interval when the movement south of the area, as proved by the transported material, was reversed, or from Iowa into Illinois.

To the eastward, the ice-sheet, when at its maximum stage, extended southward in a broad convexity or lobe over New England and New York. (See map.) This was due in part to the general topographic form of the surface, but more directly to the position and height of the White Mountain and Adirondack ice-plateau, the head of the ice-movement. But besides this, Pennsylvania and southwestern New York were under the lee of the ice-covered Adirondacks and Catskills, and it is for this reason, apparently, that over the former state the southern limit took its northwestward course into New York; a course which has no correspondence with the lines on a modern rain chart.

The flow was also guided in part by large lake depressions, and especially when these were near the border, as was the case during the progress of the Glacial period. Moreover, the flow of the lower ice was always influenced locally by the topographic form of the surface, and particularly by the courses of large river valleys as stated on page 247. Such valleys have their valley drift and scratches, as proof of the valley movement. This movement, as in the case of that along the Connecticut River valley, has sometimes been attributed to a local glacier after the retreat of the ice-sheet. But the Connecticut, for the 200 miles from Haverhill, N.H., to the Sound, has a pitch of only *two feet a mile*. More than 50 feet a mile would be required for movement, and this would demand a height at Haverhill of 10,000 feet, which could not be unless the greatest of the earth's mountains existed there. A length of 200 miles in a local glacier along an open valley is more than three times greater than now exists.

The Connecticut River valley is a good example of the effect of large valleys, oblique in direction to the general movement of the ice, in carrying off the lower ice which lay in the depression, while the upper ice continued part way, or wholly, across it. Its direction along southern Vermont and over Massachusetts and Connecticut to New Haven is S. 8°–15° W., while that of the general glacier movement was S. 30°–50° E. The flowing bottom ice, within the confines of the valley, carried along for distribution almost solely