is discharged at the lower end, accumulating there in the mass of detritus known as the terminal moraine.

Glaciers have been termed rivers of ice; but there is one respect in which they differ remarkably from rivers. They are broad above and narrow below, or rather, their width above corresponds to the drainage area of a river. This is well seen in a map of the Mer de Glace. From its termination in the Glacier du Bois to the top of the Mer de Glace proper, a distance of about three and a half miles, its breadth does not exceed half a mile, but above this point it spreads out into three great glaciers, the Geant, the Du Chaud, and the Talefre, the aggregate width of which is six or seven miles. The snow and ice of a large interior tableland or series of wide valleys are thus emptied into one narrow ravine, and pour their whole accumulations through the Mer de Glace. Leaving, however, the many interesting phenomena connected with the motion of glaciers, and which have been so well interpreted by Saussure, Agassiz, Forbes, Hopkins, Tyndall, and others, we may consider their effects on the mountain valleys in which they operate.

1. They carry quantities of *débris* from the hill tops and mountain valleys downward into the plains. From every peak, cliff and ridge the frost and thaw are constantly loosening stones and other matters which are swept by avalanches to the surface of the glacier, and constitute lateral moraines. When two or more glaciers unite into one, these become medial moraines, and at length are spread over and through the whole mass of the ice. Eventually all this material, including stones of immense size, as well as fine sand and mud, is deposited in the terminal moraine, or carried off by the streams.

2. They are mills for grinding and triturating rock. The pieces of rock in the moraine are, in the course of their movement, crushed against one another and the sides of the valley, and are cracked and ground as if in a crushing mill. Further