

The principal powers which contribute to the transportation of soil, are, The weight of loose masses, ice, and water. The weight of loose masses is a cause of transportation which we frequently see in operation. By it the huge cones of debris at the base and upon the declivities of precipices and mountains, are gradually carried off toward the bottom of the valleys ; a phenomenon which can scarcely any where be better seen than in the valleys of the Alps, where mountains sometimes occur evidently consisting of debris, and clothed with trees and shrubs, or covered with pastures, the masses of which are gradually moved, as upon inclined planes, by the action of the water which percolates through them.

Ice effects the transportation of rocks and debris, with a power which nothing can resist. This is no where more conspicuous than among the glaciers of the Alps, by the falling of which great heaps of stones and rubbish are produced. The transportation of large stones by means of ice may also be seen in our mountain torrents in winter. Huge masses of stone, scattered over the plains of the north of Germany and the islands of Denmark, and often very prejudicial to agriculture, whose northern origin appears to be established, may have been carried by the same powerful agent from Finland, Sweden and Norway, into those countries, at a time when the plains of northern Germany, with the other flat districts along the shores of the Baltic, were still covered by the waves of the ocean.

In the formation of transported soil, water usually exerts a great degree of power. By means of it, not only are vast masses transported to the greatest distances, but their parts are at the same time crumbled