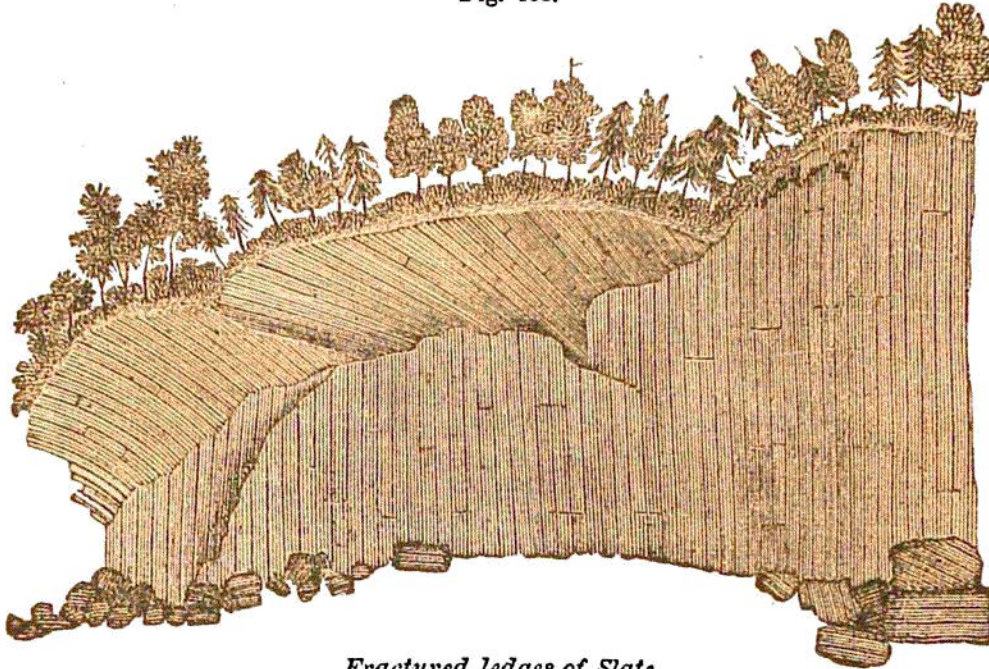


Similar cases are found elsewhere in Vermont; near Niagara Falls, in New York; at Middlefield, and Lowell, in Massachusetts; at Newark, New Jersey; in Wales and Scotland, etc.

Fig. 103.



*Fractured ledges of Slate.*

These fractured ledges are difficult to explain. Where the strike of the cleavage is at right angles to the direction of the valley, it may be supposed that a glacier formerly descended the valley, breaking the strata, and pushing them downwards. In other cases it might be explained by the joint action of frost and gravity. If we suppose that water percolates into crevices, and freezes, it might separate the layers; and if a heavy weight of snow and ice had accumulated upon it, gravity might produce a slide. But this will not explain all the phenomena. A more probable theory is that huge icebergs or glaciers of great weight crowded along the surface might crush and displace the strata to a considerable depth.

*Trains of Boulders.*—Rarely the boulders derived from a single locality are arranged in a line or in several lines streaming off in the direction in which the drift agency operated. Such boulders are not much rounded, and they lie upon the surface of the common drift, not being mixed with it.

Fig. 104 represents one of these trains in Berkshire County, Massachusetts. The mountains from which the angular blocks of hard talcose slate have been torn off, lies in Canaan, New York; and from thence they lie in trains, running for a few miles S. 56° E., and then changing to S. 34° E., and extending yet further, making in the whole distance not less than fifteen or twenty miles; at least one of them extends that distance, passing obliquely over mountain ridges some 600 or 800 feet high. Its width is not more than thirty or forty rods. The blocks are of all sizes, from two or three feet in diameter to those containing 16,000 cubic feet, and weighing nearly 1,400