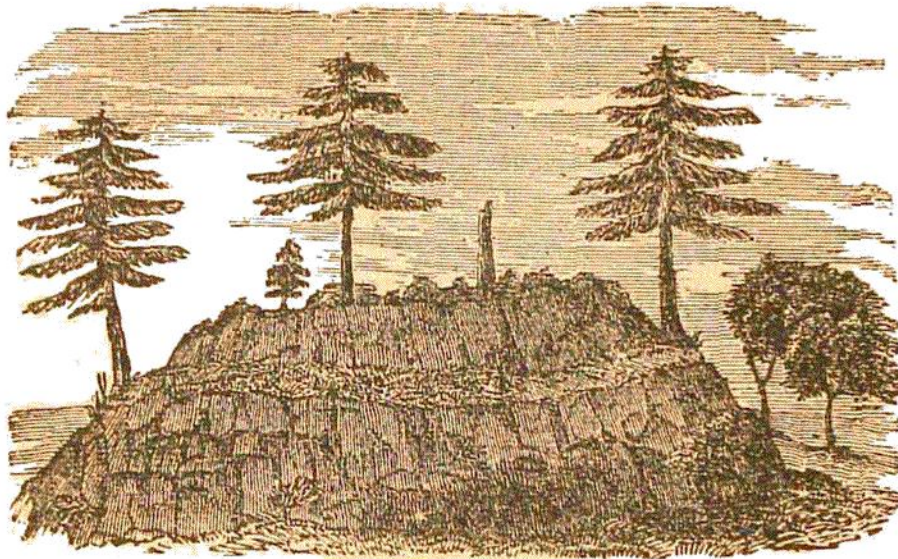


broad scratches, deviating from the common course, and at length terminating, just as would be done by a loose pebble waddling to one side and finally completely crushed beneath the heavy graver.

The summit of Mount Holyoke, in Massachusetts, which has been very much abraded by the agency under consideration, sometimes presents insulated hummocks of greenstone, resembling the "sacks of wool," described by Sefstroom, as shown in Fig. 101.

Fig. 101.



*Hummock on Holyoke.*

Sometimes, instead of striae, we find the summit of a mountain ploughed into deep furrows, which enlarge so as to form deep parallel valleys.

A most remarkable example of this kind is the summit of Mount Holyoke, mentioned above. This is a narrow, very precipitous ridge of greenstone, rising 700 or 800 feet above the valley of the Connecticut, and lying in the curvilinear direction shown in Fig. 102, where the line N S represents the meridian, and corresponds to the direction taken there by the drift, which struck the mountain from the north. On that side the mountain is a nearly perpendicular wall of rock. Yet the summit is intersected with numerous grooves and valleys in the direction of the lines A, A, A, A, N S, from a few inches to several hundred feet deep. And not only do we see the marks of abrasion in the bottoms and on the sides of these valleys, but the fact that they preserve their parallelism so perfectly, although the mountain curves so much, shows that they were produced by some abrading agency rather than by the original structure or elevation of the mountain. For had they resulted from the latter causes, we might expect them to change their course to the lines B, B, B, as the mountain continued to curve more and more.

These furrows and valleys must be imputed to the joint action of ice and water. If water alone were concerned, the valleys could not have so nearly preserved their parallelism. Indeed, unless the large valley around the mountain had been filled with ice, it is difficult to see how streams of water could have flowed over its summit so as to produce these valleys. Ice alone, moving over the top, might have begun the work, (and this would explain