

if this process take place on both sides of the mountain, the whole of the bed of limestone will fall, except the part which rests flat upon the summit: in this manner have been left the enormous caps of limestone, like immense castles, that compose the summits of the calcareous mountains, near the lake of Annecy, and in the Bauges.—Sometimes the mountain caps, which form an extended range in front, present the appearance of a narrow ridge, when seen in profile.

The mountain called the Dent d'Alençon, near the Lake of Annecy, offers a remarkable instance of this. See Plate II. fig. 6. The mass of limestone on its summit,—which I found by trigonometrical measurement to rise 3840 feet above the lake, and to be nearly five hundred feet in thickness,—was, undoubtedly, once a continuous bed, covering the mountain like a mantle, as represented by the dotted lines: in the course of ages, the side *a a* has fallen down, and the action of rain on the soft bed, *c*, on the other side, is undermining the steep escarpment *b*, and preparing for its further destruction. The soft bed *c c*, which forms the talus or slope, being covered with vegetation on the side *b c*, is in some parts protected from rapid disintegration. On the opposite side of the valley, I found that the thick bed which formed the talus or slope under the limestone, was lias clay. I was not able to ascend the Dent d'Alençon, and therefore did not ascertain whether the bed *c* was soft sandstone or lias. In numerous instances, the upper beds of limestone in the mountains of Savoy, may be observed overlapping and overhanging, as at *a a*, Plate II. fig. 1., and are thus prepared to fall, whenever the rain and frost has widened the longitudinal natural fissures in the limestone. In Plate II. fig. 2., the mountain at *y*, which had the arched stratification, has been so broken as to present a steep escarpment: such instances are very common in Savoy. The present state of Mont Grenier, south of Chamberry, and the vast ruins in the plain below, offer a striking illustration of the causes which are in operation, to disintegrate the vast calcareous mountains of Savoy. The following description, with the cut, is taken from the first volume of my Travels:—"A part of Mont Grenier fell down in the year 1248, and entirely buried five parishes, and the town and church of St. André. The ruins spread over an extent of about nine square miles, and are called *les Abymes de Myans*. After a lapse of so many centuries, they still present a singular scene of desolation. The catastrophe must have been most awful when seen from the vicinity; for Mont Grenier is almost isolated, advancing into a broad plain, which extends to the valley of the Isère. It is several miles in length, and is connected with the mountains of the Grand Chartreux, but it is very narrow. Its longitudinal direction is from east to west: near the middle it makes a bend towards the north, forming a kind of bay or concavity on the southern side.