

The quarrymen, when in search for good beds of slate, where the side of a mountain is covered with stones and vegetation, form a lake or pool near the top of the mountain, by damming up a rivulet where it passes through a depression or small valley. When the water has accumulated in sufficient quantity, they dig a trench near the dam, to direct the current where they wish it to flow, and then break down part of the dam. The water flows first through the trench, and rushing with accelerated velocity down the mountain, carries with it the stones near the surface, and in a very short time ploughs a deep channel in the rocks, exposing every bed to view. Thus, in a few hours is effected, what the labour of many men, continued for months, could not have accomplished. I have been informed, that in the upper part of the valley of Long Sleddale, when the process of *hushing* takes place, the river Ken, (as it flows by Kendal, twelve miles distant,) is made turbid for some days, by the quantity of *débris* carried into it. If such an effect can be produced by the small quantity of water thus pent up, it will not be difficult to believe, that the bursting of extensive mountain lakes, may have scooped out passages for mighty rivers. Even the bursting of a small mountain lake, in the valley of Bagnes, in the year 1818, produced the most terrific effects. The lake had been formed by a barrier of ice damming up the river at a great elevation: this barrier suddenly gave way, and precipitated the water into the great valley of the Rhone, near Martigny, tearing down and overturning every obstacle it met in its passage. From the quantity of mud and stones which it bore along, it resembled a moving mass of stones and earth. An English gentleman who was descending the valley at the time, observed his horse exhibit by its motions, great trepidation, of which he could not discover the cause, until a loud rushing noise occasioned him to look back, when he beheld what appeared like a wall filling up the bottom of the valley, and advancing rapidly towards him. He instantly alighted, and scrambled up the adjacent rocks, leaving his horse to its fate. Two years afterwards, when I was at Martigny, the desolating ravages of this catastrophe were apparent.

Many of the valleys in the Alps have, evidently, once been lakes. The upper valley of the Rhone, from its source to Martigny, formed one lake: the whole valley of Geneva, between the Alps and the Jura, formed a lower and more extensive lake, before a passage was opened for the water at Porte l'Ecluse. When a fissure was once made by earthquakes or by subsidence, the rushing of water charged with stones, would enlarge and deepen the passage, and thus lay dry and reduce the ancient lakes in a comparatively short period. In the year 1819, part of a mountain immediately above the river Isère, and opposite to the city of Moutiers, in the Tarentaise, suddenly fell down into the river, and formed a dam across it, over which persons might pass from one side to the other. When I was there in the year 1821, all this mass of stone, had been carried away by the riv-