

ern there is a wide opening into an upper cavern, the top of which is not visible from below, even with the illumination of fireworks, which those who show the mine generally take with them.

By the ceaseless action of such internal currents of water, falling into original fissures, or descending through soft strata in mountains of compact limestone, it is easy to conceive that caverns of great extent may be excavated. A very few years since, a miner, in driving an adit or passage into the heart of the well-known rock called Matlock High Tor, discovered a large cavern and a lake in the middle of the mountain. Many of the coves or caves in Craven, in Yorkshire, were originally caverns, the roofs of which have fallen in; they have streams of water rushing into them, forming subterranean cascades. The cavern called Weather Coat Cove, and the rocks at Gordale Scar, offer illustrations of the effects of subterranean currents. Where springs of water of considerable magnitude rise at once to the surface, it is obvious that they are not the result of slow percolation through porous strata, but that they are the outlets of internal streams or rivers. The river Air rises at the foot of a perpendicular limestone rock, called Malham Cove, in Craven; it is a broad, powerful, and permanent stream, before it receives any tributary rivulets from the adjacent valleys. It is generally believed that the subterranean stream which gives rise to the river Air, is connected by internal passages with Malham Tarn, a mountain lake, situated at a considerable distance. Perhaps the spring at Holywell, in Flintshire, may be cited as offering a similar proof of underground rivulets.

The reason why subterranean streams of water, and extensive caverns, should occur chiefly in districts where compact transition or mountain limestone is the prevailing rock, will admit of an easy explanation. Slate rocks are almost always intersected by perpendicular fissures, which carry off the water, and prevent its accumulating in large streams; and the secondary strata in England are generally too soft, or too much broken, to form the roofs of extensive caverns, or the beds of subterranean rivers. In the vicinity of the Alps, where the secondary limestones are extremely hard and compact; they contain caverns, and afford a passage for subterranean currents. A considerable cavern has, however, been recently discovered in mica-slate and common slate, in the Isle of Thermia, one of the Cyclades, at the height of 1400 feet above the level of the sea. M. Virlet, who visited the cavern, attributes the excavation to subterranean streams of water, as there is a considerable deposition of mud and bluish clay at the bottom of it.—*Séance du Fév., 1832, de la Société Géologique de France.*

It is admitted by M. Desnoyers, in the report from which this account is extracted, that the existence of such a cavern in rocks of mica-slate and slate, is a new fact in geology. There are several thermal springs in the island, which indicate the action of subterra-