

or ridges of mountains, having considerable elevations and rounded forms, and at other times, the districts in which they occur present low and gentle undulations. This tameness of outline may, perhaps, in some measure, be attributed to their igneous character, and the circumstances under which they were formed; but in a still greater degree to the rapid disintegration which the rocks have suffered in consequence of the yielding nature of their material. There is, however, another form under which the unstratified rocks are presented to our notice, and that is as veins.

GRANITE AND TRAP VEINS.

It has been already stated that the unstratified rocks are frequently found to traverse other rocks in the form of veins. From the appearance which is thus presented, we gather an evidence that they have been in a state of igneous fusion, for it is only by this supposition that we can account for the existence of veins. If we imagine granite or trap liquefied by heat to lie beneath any stratified rock, it is evident that it may be forced into any fissure that may be made, and form a vein, when it has solidified by cooling. So, if a liquefied rock flows over another rock, it will enter into all the openings in its surface.

Some years since, when the Wernerian theory was in vogue, the existence of granite veins was doubted by many geologists, but we have now abundant examples. In the neighbourhood of the Land's End in Cornwall, in the Alps, and in many parts of Scotland, particularly in Glen Tilt, they have been traced by many observers.

These veins have been formed at different dates in the history of the material world. This fact is learned, not only from the character and age of the rocks which are traversed, but also from the circumstance that, in some instances, veins are traversed by other veins, that is to say, one granite vein is divided by another, and the appearance that is presented at the point where they join will enable the observer to judge of their relative ages.

Trappean rocks have also been injected among the stratified beds. There is, perhaps, no better locality for the examination of these rocks than the coast and islands of Scotland, so well described by Dr. Macculloch. It is not always possible to trace the veins of unstratified rocks to the mass from which