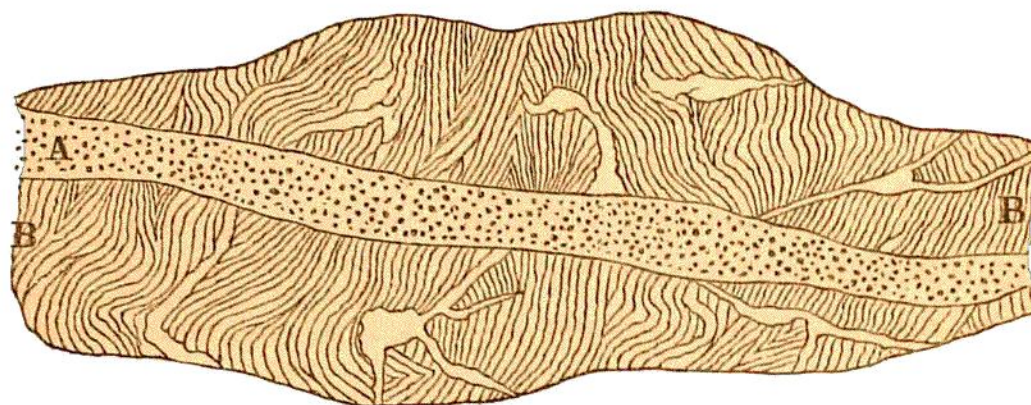


rocks never rose to the surface in a melted state, and overflowed like lava streams. This and their frequently

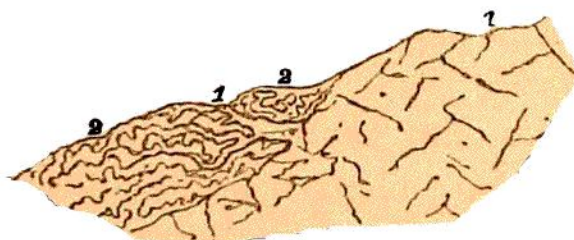
FIG. 10.



A, vein of granite ; B, gneissic contorted mica-schist. The ramifying white spaces are white quartz. Milldam Goatfell, Brodick, Arran.

largely crystalline structure, together with peculiarities of crystallisation showing the presence of moisture, and

FIG. 11.



1. Granitic mass with injected veins among gneissic rocks.
2. Gneiss, metamorphosed strata.

also the transformations effected on the adjoining strata, prove the granitic rocks to have cooled and consolidated deep beneath the surface.

A third division, or *sub-class*, is known as *metamorphic rocks*. All strata as they assume a solid form become to a certain extent altered ; for originally they were loose sediments of mud, sand, gravel, carbonate of lime, or mixtures of these. When these were accumulated, bed upon bed, till thousands of feet were piled one upon