

discriminate the inclosure from the rocks of which it appears to form an integral and original part. Some of the recorded examples of fossils of an older zone occurring by themselves in a much younger group of plicated rocks may be thus accounted for.

The inward dip and consequent inversion traceable toward the centre of a mountain-chain lead up to the fan-shaped structure (p. 901), where the oldest rocks of a series occupy the centre and overlie younger masses which plunge steeply under them. Classical examples of this structure occur in the Alps (Mont Blanc, Fig. 250, St. Gothard), where crystalline rocks such as granite, gneiss, and schist, the oldest masses of the chain, have been ridged up into the central and highest peaks. Along these tracts, denudation has been of course enormous, for the appearance of the granitic rocks at the surface has been brought about, not necessarily by actual extrusion into the air, but more probably by prolonged erosion, which in these higher regions, where many forms of subaerial waste reach their most vigorous phase, has removed the vast overarching cover of younger rocks under which the crystalline nucleus doubtless lay buried.

With the crumpling and fracture of rocks in mountain-making, the hot springs must be connected which so frequently arise along the flanks of a mountain-chain. A further relation is to be traced between these movements and the opening of volcanic vents either along the chain or parallel to it, as in the Andes and other prominent ridges of the crust. Elevation, by diminishing the pressure on the parts beneath the upraised tracts, may permit them to assume a liquid condition and to rise within reach of the surface, when, driven upward by the expansion of