

an intense but equable heat, the portions of the mass in which the fluxes exist in large proportions must pass into a much higher state of fluidity than the portions in which they are less abundant, or which are altogether devoid of them. Single strata and detached masses might thus come to be in the state of extremest fusion of which their substance was capable, and all their particles, disengaged, might be entering freely into the combinations peculiar to the plutonic rocks, when all around them continued to bear the semi-chemical, semi-mechanical characteristics of the metamorphic ones. Hence it is possibly the origin of some of those granite veins, open above, and terminating below in wedge-like points, which have so puzzled the Huttonians of a former age, and which have been so triumphantly referred to by their opponents as evidences that the granite had been precipitated by some aqueous solution.

SEPTARIA OR CEMENT-STONES OF THE LIAS.

OBSERVE these nodular masses of pale blue limestone, that seem as if they had cracked in some drying process, and had afterwards the cracks carefully filled up with a light-coloured cement. The flaws are occupied by a rich calcareous spar; and in the centre of each mass we find, in most instances, a large ill-preserved Ammonite, which has also its spar-filled cracks and fissures, as if it, too, had been burst asunder by the process which had rent the surrounding matrix. These nodular masses are the characteristic *septaria* or cement-stones of the Lias, so much used in England for making a hard, enduring mortar, that has the quality of setting under water. Their bluish-coloured portions are so largely charged with the argillaceous matter of the bed in which they occur, and contain, besides, so considerable a mixture of iron, that, refusing to slake like common lime,