

very slight pressure suffices to crumble the stone into powder. ~~X~~ But with this internal disintegration we have to take into consideration the third phase of weathering to which I have alluded. In the upright marble slabs it is the union of the two kinds of decay that leads to so rapid an effacement of the monuments.

(3.) *Curvature and Fracture.*—This most remarkable phase of rock-weathering is only to be observed in the slabs of marble which have been firmly inserted into a solid framework of sandstone, and placed in an erect or horizontal position. It consists in the bulging out of the marble accompanied with a series of fractures. This change cannot be explained as mere sagging by gravitation, for it usually appears as a swelling up of the centre of the slab, which continues until the large blister-like expansion is ruptured. Nor is it by any means exceptional; it occurs, as a rule, on all the older upright marble tablets, and is only found to be wanting in those cases where the marble has evidently not been fitted tightly into its sandstone frame. Wherever there has been little or no room for expansion, protuberance of the marble may be observed. Successive stages may be seen from the first gentle uprise to an unsightly swelling of the whole stone. This change is accompanied by fracture of the marble. The rents in some cases proceed from the margin inwards, more particularly from the upper and under edges of the stone, pointing unmistakably to an increase in volume as the cause of fracture. In other cases the rents appear in the central part of the swelling where the tension from curvature has been greatest.

Some exceedingly interesting examples of this singular process of weathering are to be seen in Greyfriars Churchyard. On the south wall, in the enclosure of a well-known