

minute amorphous aggregates like portions of the crust. It probably consists chiefly of sulphate of lime. But the most remarkable feature in the slide was the way in which the calcite granules had been corroded. Seen with reflected light they resembled those surfaces of spar which have been placed in weak hydrochloric acid to lay bare enclosed crystals of zeolites. The solution had taken place partly along the outer surfaces, so as to produce the fine passages or rifts, and partly along the cleavage. Deep cavities, defined by intersecting cleavage planes, appeared to descend into the heart of some of the granules. In no case did I observe any white pellicle such as might indicate a re-deposit of lime from the dissolved carbonate. Except for the veinings of probable sulphate just referred to, the lime, when once dissolved, had apparently been wholly removed in solution. There was further to be observed a certain dirtiness, so to speak, which at the first glance distinguished the section of crumbled marble from the fresh stone. This was due partly to corrosion, but chiefly to the introduction of particles of soot and dust, which could be traced among the interstices and cleavage lamellæ of the crystalline granules for some distance back from the crust.

*It may be inferred, therefore, that the disintegration of the marble is mainly due to the action of carbonic acid in the permeating rain-water, whereby the component crystalline granules of the stone are partially dissolved and their mutual adhesion is destroyed. This process goes on in all exposures and with every variety in the thickness of the outer crust. It is distinctly traceable in tombstones that have not been erected for more than twenty years. In those which have been standing for a century it is, save in exceptionally sheltered positions, so far advanced that a