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trating water. The changes visible in olivine (p. 300) offer instructive lessons on the progress of transformation. One further example may be cited as supplied by the zeolites, so common in cavities and veins among many ancient volcanic and other crystalline rocks. These have commonly resulted from the decomposition of felspars or allied minerals. Their mode of formation is indicated by the observation already cited (p. 522), that Roman masonry at the



Fig. 107.—Fossil wood from tuff, Burntisland, showing parts perfectly preserved and parts destroyed by crystallization of calcite. Magnified 10 diameters.



Fig. 108.—Section of a part of a Stalactite. Magnified 10 diameters.

baths of Plombieres has in the course of centuries been so decomposed by the slow percolation of alkaline water at a temperature not exceeding 50° C. (122° Fahr.) under ordinary atmospheric pressure, that various zeolitic silicates have been developed in the brick.⁹³

(2) Chemical Deposits.—Of these by far the most abundant is calcium-carbonate. The way in which this substance is removed and redeposited by permeating water can be instructively studied in the formation of the familiar stalactites and stalagmites beneath damp arches and in limestone caves (p. 262). As each drop gathers on the roof and begins