from mere evaporation, but is frequently due to the action of bog-mosses and water-plants, which, decomposing the carbonic acid, cause a crust of carbonate of lime to be deposited round their stems and branches (postea, p. 482). Hence calcareous springs are popularly called "petrifying," though they merely incrust organic bodies, and do not convert them into stone. Calc-sinter or travertine, as this precipitate is called, may be found in course of formation in most limestone districts, sometimes in masses large enough to form hills, and compact enough to furnish excellent building-stone. The travertine of Tuscany is deposited at the Baths of San Vignone at the rate of six inches a year, at San Filippo one foot in four months. At the latter locality it has been piled up to a depth of at least 250 feet, forming a hill a mile and a quarter long and a third of a mile broad.[96]

Chalybeate springs give rise to a deposit of hydrous peroxide of iron. This has already been referred to as a yellow and reddish-brown deposit along the channels of the water. Some acidulous springs, like those of the Laacher See, deposit large quantities of ochre. In undrained districts of temperate latitudes in Northern Europe and America, much iron is also deposited beneath soil which rests on a retentive subsoil. When the descending water is arrested on this subsoil, the iron, in solution as organic salts that oxidize into ferrous carbonate, is gradually converted into the insoluble hydrous ferric oxide, which is precipitated and

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[96] Lyell, "Principles," i. p. 402. At Narni, the greater the velocity of flow, the greater the deposit of lime, very little being deposited in stagnant water. The amount thrown down increases with temperature and distance from source, exposure to the air being necessary for deposition. B. Fabri, Proc. Inst. Civ. Engineers, xli. 1876, p. 246. The student will find much detail regarding the abstraction and deposit of carbonate of lime by subterranean water in a paper by Senft, "Die Wanderungen und Wandelungen des kohlensäuren Kalkes," Z. Deutsch. Geol. Ges. xiii. p. 263.