equally spread along the edges and shallow parts of the channel. It appears to arise first from the decomposition of dissolved carbonic acid by the living plants, and it proceeds along their growing stems and fibres. Subsequently, evaporation and loss of carbon-dioxide cause the carbonate to be precipitated over and through the fibrous sinter, till the substance may become a solid crystalline stone. Varieties of sinter are traceable to original differences in the plants precipitating it. Thus at Weissenbrunnen, near Schalkau, in central Germany, a cavernous but compact sinter is made by *Hypnum molluscum*, while a loose porous kind gathers upon *Didymodon capillaceus*.[356]

Some marine algæ, as above noticed, abstract calcium-carbonate from sea-water and build it up into their own substance. A nullipore (*Lithothamnium nodosum*) has been found to contain about 84 per cent of calcium-carbonate, $5\frac{1}{2}$ of magnesium-carbonate, with a little phosphoric acid, alumina, and oxides of iron and manganese.[357] Vegetable life has likewise the power of precipitating silica from solution in hot springs and forming siliceous sinter. In the geyser district of the Yellowstone Park it has been ascertained that the extensive sinter deposits are largely formed by vegetation, which causes the siliceous material to be thrown down as a stiff gelatinous substance, in many varied forms. Algæ are chiefly concerned in this process. On the death of the plant the jelly-like mass, which consists of the siliceous filaments of the algæ and their slimy en-

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[356] See V. Schauroth, Z. Deutsch. Geol. Ges. iii. 1851, p. 137. Cöhn, Neues Jahrb. 1864, p. 580, gives some interesting information as to the plants by which the sinter is formed, and their work. In Scotland *Hypnum commutatum* is a leading sinter-former.

[357] Gümbel, Abhandl. Bayerisch. Akad. Wissensch. xi. 1871.