

more abundantly than others; a circumstance in all probability attributable to the constituent substance of the original having been favourable to the process of silicification. The softer zoophytes, as the alcyonia, spongiæ, &c. absolutely swarm in the flints; and infusoria are equally abundant. Fishes are occasionally found enveloped in a flint nodule; and their minute scales have been detected by Mr. Reade with the aid of the microscope, in almost every fragment of flint. Wood which has been perforated by lithodomi, and silicified, is not scarce; and confervæ and fuci are sometimes found floating, as it were, in the liquid silex. Bones of reptiles and fishes are often impacted in a mass of flint, but in no instance that I have observed has the silex permeated the osseous structure. When corals, echini, shells, &c. are imbedded, the substance of the fossils is calcareous, not silicious; they appear to be simply enveloped by a silicious paste, which had not the power of penetrating the interstices, nor of producing any chemical change.

7. SULPHURET OF IRON.—Iron pyrites is the only metalliferous ore that occurs abundantly in the chalk of England. The large nodular masses that are found on the Downs and in the ploughed fields, are commonly termed *thunderbolts*. This mineral sometimes forms groups of octahedral crystals of great elegance and regularity, and frequently occupies the cavities of shells and echini; terebratulæ and pectens also occasionally occur in masses