

Plate IV. Their forms so entirely depend on their durable cases, or framework, that the latter may easily be recognised, even when the coloured soft parts have entirely disappeared. These shells, or cases, in some families are calcareous, and in others consist of a pure colourless transparent silex or flint. But many have a naked and flexible skin, or epidermis, and these of course are not known as fossils; the loricated (having an armour or shell) animalcules, whose shields are constructed of silex, lime, or iron, alone leave enduring memorials of their existence.

XANTHIDIUM (Plate IV. figs. 1, 2, 3, 4, 5).—The carapace (case, shield, or shell) of this genus of animalcules, consists of a hollow, siliceous globe, in which the body is contained, beset with tubular spines, that probably contained tentacula; but these have not been observed. Like most of the infusoria, the *Xanthidia* increase by self-division; hence the double appearance in the figures, all of which represent individuals in the progress of separation; they are very stationary animals. Mr. Hamlin Lee has collected several species in the ponds on Clapham Common; and Dr. Bailey (of the Military College, West Point, New York) has sent me recent specimens, which closely resemble a fossil species of our chalk flints.

PYXIDICULUM (Plate IV. fig. 2).—The carapace is a little saucer-shaped box or case, in which the