

body is contained; and is invested by a membrane(?). It occurs fossil in flint.

BACILLARIA (Plate IV. fig. 6.).—A simple siliceous shell, of a prismatic shape, forming a brilliant chain, which often appears in zig-zag, in consequence of incomplete self-division: each link is an individual animalcule. An immense number and variety of forms are placed in this family, with a multitude of generic and specific names. The fresh-water species inhabit every pond and lake, and the marine every sea. Fossil species have been found in the Isle of France, Virginia, &c.

COCONEIS (Plate IV. fig. 7.).—This is a very elegant kind of *Bacillaria*, and consists of a simple or bivalve siliceous carapace, with a central opening; it never occurs in chains like the former. It has been found fossil near Cassel.

NAVICULA (Plate IV. figs. 8, 9, 14, 15.).—This beautiful free animalcule, has bivalve siliceous shields, with six openings; they are never found in chains. Figs. 8 and 9. show a living *Navicula*, viewed in front, and in profile; the spots in the centre indicate the cells of the stomach: in fig. 9, the currents produced when the animal moves through the water are represented. Fossil *Naviculæ* abound in the Tertiary marl of Virginia.