



FIG. 14.—*Navicula hippocampus* (greatly magnified). In the middle of the cell the cell-kernel (nucleus) is visible, together with its kernel speck (nucleolus).

The *Flint-cells* (Diatomeæ), a sixth class of Protista, are perhaps the most closely related to the Labyrinthuleæ. These primary creatures—which at present are generally considered as plants, although some celebrated naturalists still look upon them as animals—inhabit the sea and fresh waters in immense masses, and offer an endless variety of the most elegant forms. They are mostly small microscopic cells, which either live singly (Fig. 14), or united in great numbers, and occur either attached to objects, or glide and creep about in a peculiar manner. Their soft cell-substance, which is of a characteristic brownish yellow colour, is always enclosed by a solid and hard flinty shell, possessing the neatest and most varied forms. This flinty covering is open to the exterior only by one or two slits, through which the enclosed soft plasma-body communicates with the outer world. The flinty cases are found petrified in masses, and many rocks—for example, the Tripoli slate polish, the Swedish mountain meal, etc.—are in a great measure composed of them.

A seventh class of Protista is formed by the remarkable *Slime-moulds* (Myxomycetes). They were formerly universally considered as plants, as real Fungi, until ten years ago the botanist De Bary, by discovering their ontogeny, proved them to be quite distinct from Fungi, and rather to be akin to the lower animals. The mature body is a