

form of naked cells with a kernel, which cannot be distinguished at all from the naked eggs of many animals (for example, those of the Siphonophorous Medusæ). (Compare the figure of a naked egg of a bladder-wrack in Chapter xvii. p. 90). In reality every naked simple cell, whether it proceeds from an animal or vegetable body, cannot be distinguished from an independent Amœba. For an Amœba is nothing but a simple primary cell, a naked little lump of cell-matter, or plasma, containing a kernel. The contractility of this plasma, which the free Amœba shows in stretching out and drawing in its changing processes, is a general vital property of the organic plasma of all animal as well as of all vegetable plastids. When a freely moving Amœba, which perpetually changes its form, passes into a state of rest, it draws itself together into the form of a globule, and surrounds itself with a secreted membrane. It can then be as little distinguished from an animal egg as from a simple globular vegetable cell. (Fig. 10 A).

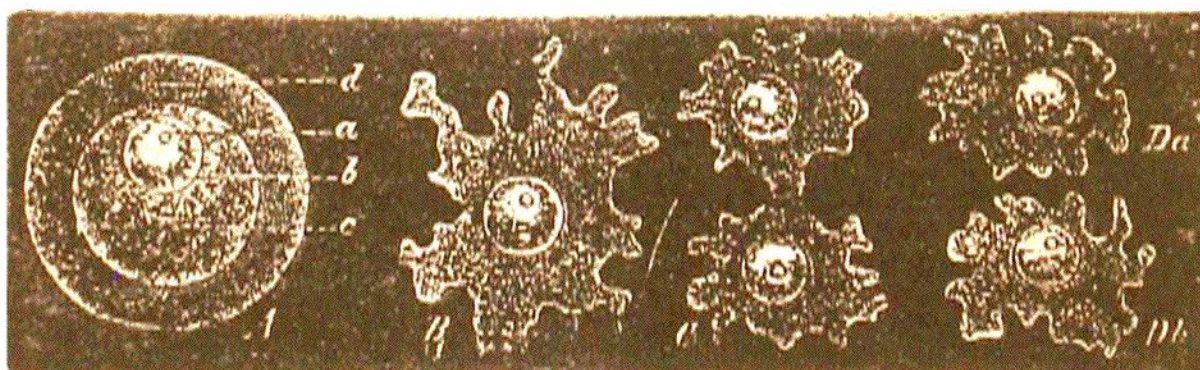


FIG. 10.—Amœba sphaerococcus, greatly magnified. A fresh-water Amœba without a contractile vacuole. A. The enclosed Amœba in the state of a globular lump of plasma (c) enclosing a kernel and a kernel-speck (a). The simple cell is surrounded by a cyst, or cell-membrane (d). B. The free Amœba, which has burst and left the cyst, or cell-membrane. C. It begins to divide by its kernel parting into two kernels, and the cell-substance between the two contracting. D. The division is completed, and the cell-substance has entirely separated into two bodies. (Da and Db).