

FRESH-WATER RHIZOPODS.

PROTOPLASTA.

Protos, first; *plasso*, I form or mould.

The **Protoplasta** comprise by far the greater number of the Fresh-water Rhizopods, and include nearly all the known forms except the Heliozoa, or Sun-animalcules. They are divisible into two sub-orders, the **Lobosa** and the **Filosa**, founded mainly on the difference of the pseudopods, which in the former are comparatively thick, finger-like or lobose, and in the latter filamentous and of extreme delicacy.

Some of the Protoplasts are naked, usually have no real distinction in the relative position of parts, and emit pseudopods from any portion of the body-mass, though even most of these when in movement, for the time being, may have the body more or less differentiated into an anterior and a posterior region.

The greater number of the Protoplasts are provided with an exterior shell, commonly of a more or less flask- or vase-like shape, and, with few exceptions, having a single orifice, from which the pseudopods are projected. The shell is an excreted membrane, chitinous or siliceous in character, or it is constructed of siliceous sand or particles of similar constitution, but, so far as known, appears never to be composed of carbonate of lime.

PROTOPLASTA LOBOSA.

The **Lobose Protoplasts**, represented by the familiar Amœba, Diffugia, Arcella, as well as by many other less known genera, are principally characterized, as indicated in the name, from the comparatively thick, lobe-like, or blunt finger-like form of the pseudopods.