

but this I suspect was mainly due to the circumstance that near the shore I could see the ooze at the bottom of the water, and could much better manage to collect the desired material.

Aquatic plants, if rooted in the mud, should be carefully cut off and gently lifted from the water so as to disturb as little as possible the adherent materials. A sufficient quantity being placed in a tin preserving-can or other vessel, water from other portions of the plants may be squeezed upon that which is retained.

Wet Sphagnum may be collected and put in tin preserving-cans, and the water of other portions may be squeezed upon the portion preserved. The same process may be pursued with other mosses.

From the surface of the ground in wet places, to collect the Rhizopods, it is sufficient to scrape up, with the broad blade of a knife, the green algaous material with which the animals are usually associated.

The materials collected from waters I have preserved, for convenient examination from time to time, by putting them in dishes about three inches in depth, filling them with fresh water, and placing them in the window where they obtain an abundance of light, but without receiving the direct rays of the sun. If exposed to the sun, the water becomes unduly heated, and all living things speedily die and decompose. Care should also be observed not to have too much material in the same dish; and I have found it best to preserve a stratum of ooze which, when settled, is not more than from a line to the eighth of an inch in depth. Some Duck-meal, *Lemna*, Bladderwort, *Utricularia*, *Spirogyra*, or other plant, collected, and placed in the water, greatly promotes its freshness and continued purity. The dishes should be covered with panes of glass to exclude the dust and prevent evaporation. A day or two after the materials have been placed in dishes, the sediment has deposited and the water become clear. In this condition, there may usually be observed on the surface of the sediment a continuous thin film, or patches of a yellowish, yellowish-green, or green color. The film, or patches of the same material, is more tenacious than the deposit beneath, and consists of the various living organisms, especially diatoms, desmids, rhizopods, etc., which have extricated themselves from the ooze to occupy the most favorable position to continue their functions. Indeed, it is a remarkable phenomenon to observe with what ease and rapidity these extremely minute living creatures can free themselves from the depths of