crystalline, until the rocks formed of or containing it pass into true crystalline schists.

Detritus derived from the comminution or decay of organic remains presents very different and characteristic structures[103] (Fig. 22). Sometimes it is of a siliceous nature, as where it has been derived from diatoms and radiolarians. But most of the organically-derived detrital rocks are calcareous, formed from the remains of foraminifera, corals, echinoderms, polyzoa, cirripeds, annelids, mollusks, crustacea and other invertebrates, with occasional traces of fishes

Fig. 21.—Clastic Structure, of Inorganic origin—Section of a Piece of Greywacke. (10 Diameters. See p. 232.)

Fig. 22.—Clastic Structure, of Organic Origin—Structure of Chalk (Sorby). Magnified 100 Diameters. (See p. 246.)

or even of higher vertebrates. Distinct differences of microscopic structure can be detected in the hard parts of some of the living representatives of these forms, and similar differences have been detected in beds of limestone of all ages. Mr. Sorby, in the paper cited below, has shown how characteristic and persistent are some of these distinctions, and how they may be made to indicate the origin of the rock in which they occur. There is an important difference between the two forms in which carbonate of lime is made

[103] The student who would further investigate this subject, will find a suggestive and luminous essay upon it by Mr. Sorby in his Presidential Address to the Geological Society, Quart. Journ. Geol. Soc. 1879.