## TEXT-BOOK OF GEOLOGY

almost entirely of *Radiolaria*. These minute organisms occur, indeed, more or less abundantly in almost all deep oceanic deposits. From the deepest sounding taken by the "Challenger" (4475 fathoms, or more than 5 miles) a radiolarian ooze was obtained (Fig. 189). The spicules of sponges likewise furnish materials toward these siliceous accumulations. The number of marine plants and animals which



Fig. 189.-Radiolarian Ooze,

Dredged up by the "Challenger" Expedition, from a depth of 4475 fathoms, in Lat. 11° 24' N., Long. 143° 10' E. Magnified 100 diameters. This is from the deepest abyss whence organisms have yet been obtained.

secrete silica is so great, and the proportion of that constituent in sea-water so minute, that some difficulty has been felt to account satisfactorily for the vast quantities of silica continually being abstracted from the ocean by organic agencies. Messrs. Murray and Irvine, however, as already stated, have shown that an appreciable amount of fine clay is present even in the water of mid-ocean, and they have