The hexactinellid sponge Euplectella (Venus's Flower-Basket), Fig. 29, page 57, which looks as if made of a network of spun glass, comes from a depth of 50 fathoms in the East Indies. The fossil Dictyophyton and Euphantenia are related to Euplectella, as shown by Whitfield. Sponges are mostly marine; but a few, like the Spongilla, grow in fresh water and contribute siliceous spicules to peat and other swamp deposits. The death and decay of Sponges adds largely to the silica of the sea-bottom.

446-460.


Spongespicules. - Figs. 446-449, Geodia or allied: 450, Globostellate spicule, near Geodia; 451, Stelletta; 452, Carterella; 453, 454, Tetractinellid spicules: 455, Ventriculttes, Hexactinellid; 456, Ragadinia annulata; 457, Tisiphonia; 458, the same?; 459, Racodiscula; 460, Plinthosella squamosa. Figs. 450, 453, $454(\times 10) ; 456(\times 68)$; others ( $\times 34$ ). Hinde.

## 8. Protozoans.

Among Protozoans only the Rhizopods and Radiolarians have prominent importance.

1. Rhizopods (Foraminifers). - Species mostly minute, often forming shells; the shells, with few exceptions, not larger than the head of a pin: but the groups sometimes having the shape of disks an inch in dianeter, and occasionally of large massive forms. They have usually calcareous shells called Foraminifers (from foramen), and these have contributed largely to the formation of limestone strata. They consist of 1 or more cells ; and the compound kinds present various shapes, as illustrated in Figs. 461-474. The arrangement in a group is usually alternate or spiral. Others make a shell or test by the agglutination of grains of sand or other material.


Figs. 461-474-Rifizopons, much enlarged (exceptlag 473, 474). Fig. 461, Orbulinn universa; 462, Globigerina rubra; 463, Textularia globulosa Ehr.; 404, Rotalln globulona : 464 a, Side-view of Rotalia Boacana; 465 , Grammostomum pbyllodes Ehr.; $466, a$, Frondicularia annularin; 467, Triloculina Josephina; 468, Nodosarin vulgaris; 460, Lituola nautloides; 470, a, Flabellina rugosa; 471, Chryealidina gradata; 472, $a$, Cuneolina pavonia: 473 , Nummulites nummularlus ; $\$ 74 a, b$, Fusulina cylindrica, All but the last two magnified 10 to 20 times.

