

Some groups such as the Gastropoda and the Lamellibranchiata among the Mollusca, which are such abundant and characteristic elements of the faunæ of the shore-belts, are scarce and comparatively insignificant, while some families, of which we have hitherto known only rare and stunted examples, chiefly from the Boreal province, show a large number of conspicuous genera and species, and give a marked character to the abyssal fauna, which is consequently very recognisable. The extent of the area which

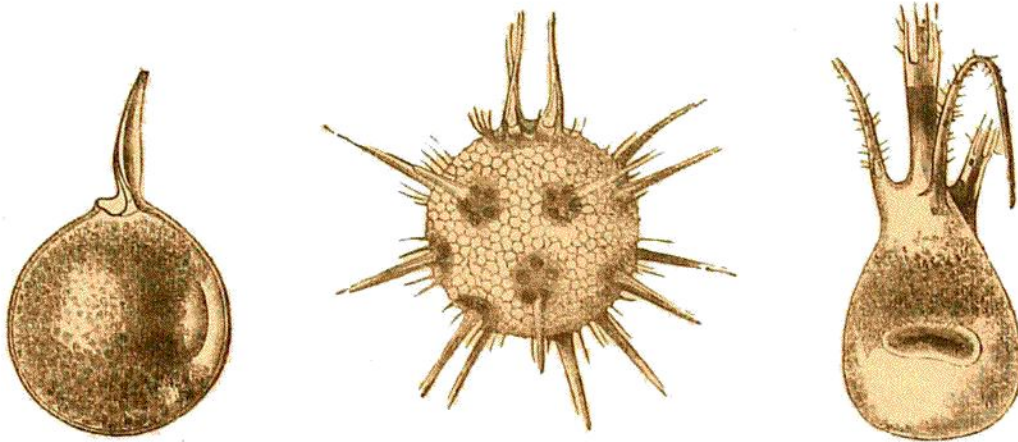


FIG. 21.—Forms of the *Phæodaria*.

is covered by this fauna is enormous, but the number of genera and species which it includes does not seem to be inexhaustible. After the first year of the CHALLENGER'S voyage, during which the Atlantic had been crossed and recrossed, we had a very good idea beforehand what would be the general appearance of the group of animals forming the contents of the trawl or dredge. Through the Indian Ocean and down to the Antarctic Circle, through the seas of Australia and Polynesia, and in the South and North Pacific, the general character of the fauna was the same. The same species were often repeated, but more frequently, especially at Stations at great distances from one another, the species were different, but were markedly representative; that is to say, they bore to one another a close genetic relation.

Perhaps among the groups which, on account of their speciality, their abundance, and their universal diffusion, may be reckoned the more characteristic of the abyssal fauna, are an order of rhizopods closely allied to the true *RADIOLARIA*, described by Professor Hæckel under the name *Phæodaria*. To this order are referred, with others, a family of extremely graceful forms like highly ornamented and beautifully sculptured Foraminifera with silicious tests,—the *Challengeridæ*. The *Phæodaria* are free-swimming, and inhabit the cold water of the abyssal area. The *Hexactinellidæ* (figs. 14, 15, 16), an order of sponges unknown in shallow water, are very abundant at all depths in the abyssal region. The *Hexactinellidæ* are extremely common in the Chalk and Greensand, represented chiefly by the *Ventriculites*, and occur not uncommonly, re-