water-glass these minute algæ caused it to look as if filled with chopped hay. On the surface of the sea there were also an immense number of small spheres of gelatinous matter about the size of a pea, in which no structure could be observed; probably the jelly masses of some Diatoms, in which were entangled Coccospheres, Rhabdospheres, Radiolarians, and the threads of *Trichodesmium*. The tow-nets when hauled in were covered with a sticky substance resembling thin glue, due to the presence of these little globular masses. The tow-nets when sunk and dragged at a depth contained a much greater variety of organisms and less of the jelly-like matter and fewer Oscillatoriæ, so that very probably these last were confined chiefly to the immediate surface layers. Globigerinas, Pulvinulinas, Orbulinas, and Pullenias were very numerous in the deeper hauls; some of the spines of the Globigerinas were very long and delicate, being eleven times the diameter of the shell in length.

The trawling in 2150 fathoms (Station 198) yielded several fragments of volcanic rock; some palm fruits, pieces of wood and bark, together with numerous animals among which were specimens of the rare deep-sea Fishes *Ipnops murrayi* (see p. 239) and *Typhlonus nasus*. There were several Starfish belonging to the families Brisingidæ and Archasteridæ, two families which are referred to as characteristic deep-sea forms in the following notes by Mr. W. Percy Sladen, F.L.S., who is at present engaged in the preparation of a Report on the Asteroidea collected during the Expedition :—

The Asteroidea.—"As the Starfishes are a group of animals universally distributed throughout the whole of the marine portion of the globe, and inhabit alike the shallow waters of the coast and the abyssal depths of the ocean, the collection made during such a cruise as that of the Challenger is necessarily a very large one. It is also, unquestionably, the most important addition which has ever been made to our knowledge of the group, both from a geographical and a zoological point of view. That such should be the case is not very surprising when it is borne in mind how little was previously known about deep-water Asterids, or even about those inhabiting very moderate depths, excepting only the limited areas of the Atlantic, north of the Equator, which have been systematically investigated by European and American naturalists within the past twenty years.

"The Challenger has contributed to the previous lists of Asterid species upwards of one hundred and fifty forms new to science; and twenty-eight new genera have been established. A few remarks upon the most interesting of these types and upon their habitats will in the meantime be acceptable to the naturalist.

"In all the great ocean depths below 1000 fathoms the characteristic forms are genera belonging to the Pterasteridæ, Brisingidæ, Archasteridæ, and Porcellanasteridæ; a few genera referable to the Astropectinidæ proper also occur; and the Echinasteridæ and Goniasteridæ are still more feebly represented.