

without central nodes. The somewhat roughened or tubercled terminal portions are rounded off, or not unfrequently slightly club-shaped at their extremities. Between these a large number of oxyhexasters occur with long, slim, but roughened terminal rays, which vary considerably in number. The principal rays are much shortened, and this goes so far in some hexasters, that the spicule has quite the appearance of a simple, many-rayed star (Pl. LIX. fig. 2). A slight irregularity frequently occurs at the base of these rays, in the occurrence of a slight union or something of that nature, which also points to the reduction above referred to. The presence of these star-shaped parenchymal spicules led me to give this form of *Bathydorus* the specific title *stellatus*. Finally, in the parenchyma, I have observed the isolated occurrence of minute delicate discohexasters, in which each of the six short principal rays bears, on a terminal expansion, three to six long diverging terminal rays with a toothed terminal portion (Pl. LIX. fig. 4).

The dermal skeleton contains medium-sized, smooth, hypodermal oxypentacts, with rough conically pointed ends, and more or less roughened autodermal tetracts, with rounded extremities, disposed flatly in the dermal membrane (Pl. LIX. fig. 3). Between these, pentact forms occur with uniform proximal radial rays, and sometimes diacts also with central nodes (Pl. LIX. fig. 5).

The gastral skeleton, which is not well preserved, consists of rough or spinous oxyhexacts. The pleural prostalia are simple or strongly developed oxydiacts, about 1 cm. in length.

3. *Bathydorus spinosus*, n. sp. (Pl. LIX. figs. 6-9).

Near Penguin Island (Station 147, lat. 46° 16' S., long. 48° 27' E.), from a depth of 1600 fathoms and a Diatom ooze ground, the trawl brought up a thin-walled sack, 6 cm. in length and 3 cm. in greatest diameter, but reduced to 2 cm. in width towards the superior, irregularly contoured terminal aperture. The surface of the sack exhibited irregularly scattered pointed spicules, projecting for about 6 mm., while the oscular margin bears a corona of marginalia. It is possible that this sponge form does not represent a distinct species, but belongs to the above described *Bathydorus stellatus*, which it resembles in general structure, and especially in the nature of the siliceous spicules. There is, however, a certain difference about to be noted, which seems to warrant at least a provisional separation of the two forms. I have, therefore, regarded the distinction as really specific.

While the long diacts of the parenchymal skeleton are not in any way essentially different from the long diacts of *Bathydorus stellatus*, I find that the abundant oxyhexasters differ from those of the above species in this, that the principal rays are not usually so markedly shortened, even to disappearance, as they are in the above; the