

Three different kinds of deposits are to be found in the integument; large fusiform rods, which are sometimes changed into three-armed bodies (Pl. II. fig. 4, *b*); small irregular perforated deposits with a central process (Pl. II. fig. 4, *a*); and round or oval deposits of a wine colour (Pl. II. fig. 4, *c*). The fusiform deposits are very large, measuring up to 1.2 mm. or more in length, and mostly seem to have a transverse position; in the anterior and posterior parts of the body they are very numerous and closely crowded side by side, while at the middle of the body they are much scattered. Near the posterior end of the body the fusiform deposits often present a more irregular form, and it is here that the more or less irregular three-armed deposits are principally found. The slightly enlarged centre of these deposits is always pierced by some small holes. These deposits are quite smooth, and always devoid of spines or central processes. The deposits of the second kind are much smaller, about 0.4 mm. long, and very rare, and scattered so that they easily escape notice; they consist of a central, irregularly rounded or oblong, perforated disk with two or three arms and a central process, directed straight outwards from the body. The top of the process is often rough with minute spines. These deposits communicate to the integument a certain roughness, which, however, is very inconsiderable because of their rarity. The deposits of the third kind present a great variety of forms, from round to elongate or rather fusiform. The largest measure as much as 0.3 mm. or more. They are very numerous all over the body, and present a distinct concentric structure. They are of a brownish or reddish colour, like wine. The largest individual measures as much as 160  $\mu$ m.

The specimen, brought home from Station 169, agrees, as it seems, in most points with the species of Studer. However, it is smaller, only 70 mm. long, of a lighter colour, and has the anal aperture surrounded by small cylindrical papillæ apparently more than five in number. The tentacles are retracted so as to make it impossible to observe their true form. The deposits of a reddish colour like wine are smaller than in the typical forms. Possibly this individual belongs to a new species, but for the present, from want of necessary material, I must abstain from offering any opinion.

From the summary description given by Studer, Danielssen and Koren<sup>1</sup> have thought themselves justified in referring his species to *Trochostoma (Molpadia) boreale*, M. Sars. A comparison of the above description with those given by the authors just mentioned, as well as by Sars,<sup>2</sup> will prove clearly that the southern form is different from the northern one.

<sup>1</sup> Echinodermer fra den norske Nordhavs-Expedition, *Nyt Magazin f. Naturvidenskab.*, 1879, Bd. xxv. Hefte ii. pp. 124, 126.

<sup>2</sup> Oversigt af Norges Echinodermer, Christiania, 1861, pp. 116-124, pls. xii., xiii.