II. Microscleres. 4. Sterraster, spherical. 5. Oxyaster, large, with a small centrum.6. Spheraster, small, actines cylindrical and truncated.

Size, from 125 to 150 mm. in diameter, cloaca from 37 to 50 mm. in diameter. Habitat.—Martinique and Porto Rico, Antilles.

Remarks.—The observations of Dr. Bowerbank, who examined the original types of Lamarck's species in the Museum of the Jardin des Plantes, Paris, show incontestibly that in the character of its oscules it differs in no respect from those of Geodia baretti, Bowerbank, which I took for my type in redefining the genus Geodia (loc. cit. supra). It is satisfactory to be sure of so much; as for the rest, all is confusion. Bowerbank, in further describing the species, took for his type a specimen presented him by Dr. Fleming, who obtained it from the Island of Dominica; and he did this although possessing fragments of the original sponge. This of itself would be of no consequence were it not unfortunately the case that Fleming's sponge belongs to a different genus, viz., Cydonium. I was in hopes that an examination of Bowerbank's slides in the British Museum might help to set the matter right; but, singularly enough, these which in other cases are, as an almost invariable rule, correctly labelled, are, as regards this sponge, in a state of hopeless confusion. There are three of them—two are thick slices, the third bears separated spicules. No two are in agreement; the spicules differ from those in the slices and the slices differ from one another, one of them having evidently been taken from Geodia barretti, Bowerbank. Bowerbank states that the spicules in Dr. Fleming's specimen are identical in character with those of Lamarck's; and as we may accept this as probably true of the forms of the spicules, I have enumerated those alleged by Bowerbank to be present, but have refrained from adding measurements.

Section 1. Pantaa.1

Species possessing cortical as well as somal oxeas, and anatriænes or protriænes, or both, in addition to orthotriænes or dichotriænes.

Geodia perarmata, Bowerbank.

Geodia perarmata, Bowerbank, Proc. Zool. Soc. Lond., p. 8, pl. ii. figs. 1-11, 1873.

" Carter, Ann. and Mag. Nat. Hist., ser. 5, vol. vi. p. 131, pl. vi. figs. 32-35, 1880.

Sponge.—Spherical or massive, sessile; cortex 0.48 mm. in thickness; oscules and pores as in Geodia barretti.

Spicules.—I. Megascleres. 1. Somal oxea, 2.0 by 0.0375 mm. (B.). 2. Cortical oxea, 0.225 mm. long (B.). 3. Dichotriæne, rhabdome 2.68 by 0.064 mm., protocladi