Spicules.—I. Megascleres. 1. Desma, smooth, similar to those of Pleroma turbinatum; cladi ending in disc- or cup-like expansions. 2. Strongyle, cylindrical, about 0.8 mm. in length.

II. Microscleres (?).

Habitat.—Cuba, Cozera; depth, 270 fathoms.

Remarks.—I have not seen this species, which is based on a fragment only 1 sq. cm. in area, and possibly not in possession of its full complement of spicules. Zittel states that the strongyles are distributed through the dermal layer. If the dermal layer is present in the specimen, as one would infer from this, we may conclude that triænes are absent.

## Demus II. RHABDOSA.

## Family I. NEOPELTIDÆ.

Rhabdosa in which the ectosomal spicules are monocrepid discs.

## Genus 1. Neopelta, O. Schmidt.

Neopeltidæ in which the microscleres are microrabds and spirasters.

Neopelta perfecta, O. Schmidt.

Neopelta perfecta, O. Schmidt, Spong. Meerb. Mexico, p. 88, pl. v. fig. 3, 1880.

Sponge.—An irregular rounded mass, constricted above the base, which is attached by a flattened surface. Oscules small, borne at the end of compressed papillary processes, sometimes concealed by a flap-like outgrowth, involving both ectosome and choanosome. Pores simple, oval, from 0.045 to 0.077 mm. in diameter. In addition to the oscules several small oval openings occur here and there over the surface, they lead into vestibular canals.

Spicules.—I. Megascleres. 1. Desma, cladi smooth, slender, frequently dichotomising, syzygial processes usually confined to the ends of the terminal cladi, zygosis simple, the syzygial tubercles and lobes are few. An average example measured, protocladus 0·127 by 0·019 mm., deuterocladus 0·0636 by 0·013 mm., tritocladus 0·0636 by 0·013 mm., tritocladus 0·0636 by 0·013 mm., length of compound cladus 0·24 mm.; crepis 0·0513 mm. in length. 2. Oxea, slender, cylindrical, curved simply or irregularly, distributed singly or in bundles, which run parallel with the course of the larger canals, 0·54 by 0·008 mm. 3. Ectosomal disc, more or less oval in outline, rarely presenting a central process directed