

0·097 mm. in length and breadth; they are aggregates of more or less spherical or polygonal, discrete granules, which are not immersed in any kind of matrix, and thus at the slightest touch fall apart; hence the want of consistency in these embryos which renders it impossible to isolate them in a whole state from the parent. The granules are of very different sizes, ranging from about 0·001 to 0·006 mm. in diameter; they are deeply stained, transparent, and under high magnification appear to consist of a homogeneous substance, in which several very minute granules are embedded. I sought in vain for a nucleus either in the polygonal aggregates, or in the granules of which they are composed. The epiblast occurs over each end of the planula as a layer of columnar flagellated cells; they are from 0·006 to 0·01 mm. long, by 0·002 to 0·004 mm. thick. The outer ends of these cells end evenly in a comparatively darkly stained margin from which the flagella proceed; the inner ends are rounded and do not end at the same level, but adapt themselves to the inequalities of the surface of the granule-aggregates. The nucleus lies in the outer half of the cell. The thickness of the columnar layer diminishes as it extends from the ends on to the sides of the planula, and appears to pass into an epithelium consisting of cells broader than high, but this is a point I could not satisfactorily determine. The cavity of the choanosome within which the embryo is contained is lined by a distinct epithelial layer.

*Craniella carteri*, Sollas (Pl. I. figs. 28–35).

*Craniella carteri*, Sollas, Prelim. Account, Sci. Proc. Roy. Dubl. Soc., vol. v. p. 182, 1886.

*Sponge* (Pl. I. fig. 28) subspherical, free. Oscules two or more in number. Surface irregularly conulose, the conules differ in size and proximity to each other; around the oscules they are larger than elsewhere; the skin between them is smooth. Anchoring filaments absent, as also a differentiated base. The ectosome as in the genus; the outer layer of the cortex distinguished by subdermal pigment-glands.

*Spicules*.—I. Megascleres. 1. *Somal oxea* (Pl. I. fig. 29), anisoactinate, fusiform, maximum diameter nearer the distal end; 2·56 by 0·0276 to 0·0345 mm.

2. *Cortical oxea* fusiform, 0·8 by 0·026 mm.

3. *Protriæne* (Pl. I. figs. 31, 32). Rhabdome regularly attenuated from the cladome to a filiform termination; cladi conical, equal; rhabdome 3·49 by 0·0138 to 0·0158 mm.; cladi 0·0868 by 0·0118 mm.

4. *Anatriæne* (Pl. I. figs. 30, 33). Rhabdome as in the protriænes; cladi not quite terminal, the rhabdome being continued far enough to give a double curvature to the distal margin of the cladome; rhabdome 6·75 by 0·016 to 0·02 mm.; cladi 0·06 mm. long.

II. Microscleres absent.

*Colour*.—An ochreous-white or brown tint; one specimen dotted over with brown spots.

*Habitat*.—Bahia.