

*Remarks.*—Several individuals of this species occur embedded in the specimen of *Calthropella geodiides*, Carter, described on page 110. The largest, which bears three oscules, is 37 mm. long, 25 mm. broad, and 10 mm. high. The oscules, usually oval, measure about 9 by 6 mm., the depth of the surrounding fringe of oxate spicules is 7 mm. and over. The fringe is sometimes erect, but more often very obliquely inclined, sloping over the oscule on one side, and away from it on the other. The margins of the oscule are produced over its base into a short tube, an extension of the cloaca.

The cribriform membrane of the cloaca is attached below to the margins of the terminal apertures of the excurrent canals. Along the line of attachment it is not perforate, and this imperforate tissue forms a kind of framework enclosing oval sieve-like areas, which cover the ends of the excurrent canals. The fenestræ of the sieves vary from 0.16 to 0.024 by 0.34 mm. in diameter.

The ectosome is vaguely defined from the choanosome; and subdermal cavities are not present.

The mesoderm is a collenchyme of the ordinary type; it forms thick walls about the chief canals, which are frequently constricted by vela, and so converted into a succession of vesicles. The flagellated chambers open by wide mouths into the ultimate excurrent canals which are not thickly lined by collenchyme; indeed, the regions occupied by the chambers are remarkably poor in this tissue, the chambers lying closely contiguous, so that the existence of the mesoderm between them is scarcely apparent, and best indicated by the metasters which accompany it. The chambers measure from 0.032 by 0.036 mm. to 0.036 by 0.051 mm.

*Skeleton.*—The chief constituents are microxeas, which, from dimensions no greater than usual, increase to such a size that it is difficult to delimit them from the immature megascleral oxas. They thus present a striking instance of the passage of a microsclere into a megasclere. They are very irregularly distributed, forming a loose felt. On the whole, there is a tendency to take up a position tangential to the walls of the canals. The size of the spicule seems to depend to a great extent on its position; it is checked by meeting the opposition of a free surface—thus, when it lies parallel to the axis of a canal it may attain a considerable length, but when it runs transversely to two epithelial surfaces facing each other, it will not exceed the distance between them in length.

The spirasters are most abundant in the ectosome, beneath the outer epithelium, but they also occur beneath the epithelium of the main canals, where these are furthest removed from the exterior. The metasters are most abundant in the choanosome, though they are sparingly present beneath the outer epithelium. The oxas are distributed quite irregularly within the sponge, only becoming radiate in direction close to the surface; as already mentioned, around the oscule they project far beyond the surface. The calthrops are irregularly distributed also, but the orthotriænes lie radiately, their cladomes tangential to the surface, and the rhabdomes at right angles to it. The "sausage"-