## APHODAL TYPE OF CHAMBER-SYSTEM.

In the next and by far the commonest stage of development, as met with in the Tetractinellida, a change in the character of the chamber-system occurs, accompanied by a change in the character of the mesoderm. The apopyles of the flagellated chambers no longer lie at the same level as the surface of the excurrent canal into which they open; the flagellated chambers themselves are more or less deeply removed from this surface, and the apopyle of each is continued into a longer or shorter canaliculus (aphodus) lined by epithelium continuous with that of the excurrent canal into which it opens. The aphodus may enter the excurrent canal either directly or after joining with one or more of its fellows (Fig. V., B).

The relations of the chambers to the incurrent canals remain at this stage almost

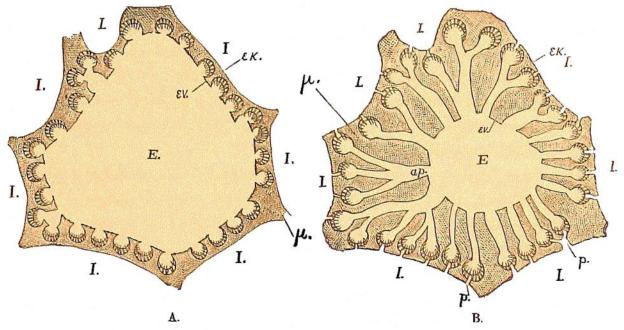


Fig. V.—Diagram showing the relation of the aphodal to the eurypylous canal-system. A. an excurrent canal (E) with eurypylous chambers opening into it. B. the same, with the lumen reduced by a growth of mesoderm which has converted the apopyles into aphodi; I., incurrent, E., excurrent canals; p., prosodus; ap., aphodus;  $\epsilon\kappa$ ., ectoderm;  $\epsilon\nu$ ., endoderm;  $\mu$ ., mesoderm.

unchanged, the prosopyles still lying in the surface of the canal-wall, or if removed from it, only for a very short distance, so that the canaliculus (prosodus) resulting from the elongation of the prosopyle is comparatively very short. Short prosodi, it may be observed, occur even in the Rhagon.

This change in the character of the canal-system is probably due to the increased growth of the mesoderm, which encroaches upon the cavity of the excurrent canals, diminishing the lumen except in front of the flagellated chambers, the margins of which thus become produced into the aphodi, which indicate by their length the distance to which the epithelial lining of the canal has been carried from its original position.

The aphodus is evidently not produced like the excurrent canals by folding, but is