surface smooth and shining, when decorticated sparsely punctured all over. Orifice arched with a straight deeply emarginate lower lip. An avicularium with a curved, lanceolate, acuminate mandible pointing inwards on either side immediately above the mouth; in the mature cells a slender bridge in front of the deeply depressed mouth, formed by the gradual upgrowth of the wall on each side (not of the peristome proper). A very minute suboral

pore is occasionally formed by the cutting away of a portion of the labial fissure.

Occial cells of the same form as the zoocial but with a differently shaped operculum. Avicularian cells numerous, marginal, small.

Habitat.—Station 142, lat. 35° 4′ S., long. 18° 37′ E., 150 fathoms, green sand.

I have not been able to distinguish the occial from the zoccial cells in the natural condition, but infer that there must be such from the presence of the widely different form of opercula presented in a decalcified preparation. And with reference to this it

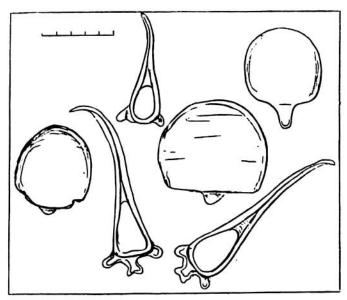


Fig. 55.—Adeonella regularis. a, Zoœcial operculum; b, b, oœcial opercula; c, c, c, mandibles.

should be noticed that, in some parts, cells may be observed in which there is no indication whatever of mouth or orifice of any kind, the front instead rising into a subconical eminence upon which a very minute avicularium is placed. Whether these are merely occluded zoœcial cells or represent oœcia may be doubtful. As regards the peculiar bridge formed in front of the mouth, it should be understood that it has nothing to do with the peristome, but is formed entirely from an upgrowth of the thickly calcified wall, the mouth remaining of its original conformation and with an unaltered peristome at the bottom of a deep pit.

What may be the perfect habit, size, or mode of attachment of the species cannot be ascertained from the fragmentary portions in the Challenger Collection.

(6) Adeonella distoma? Busk (woodcuts 56, 57).

1 Eschara coscinophora, Reuss, 1 Foss. W. Tertiarb. p. 67, pl. viii. fig. 20.

" Id., Fauna des deutsch. Oberoligocans II. p. 36, pl. xii. fig. 12.

" Stoliczka, Sitzungsb. d. k. Akad. Wiss. Wien, Bd. 1. p. 89, pl. ii. fig. 11, and pl. iii. figs. 1, 2.

" Manzoni, Brioz. fossil. d. Miocene d'Austria ed Ungheria, p. 14, pl. viii. fig. 25.

1 Porellina coscinophora, d'Orbigny, Palæont. Franç., p. 476.

Lepralia distoma, Busk, Quart. Journ. Micr. Sci., vol. vi. p. 127, pl. xviii. fig. 1.

Character.—Zoarium composed of long straggling ligulate branches (sometimes