

ingly delicate, with a very slender median and two lateral ridges, and a row of very distant pores on each side and a few of smaller size on the sides and below the orifice. Oœcium galeriform, completely immersed in front of the superjacent zoœcium, and covered with the general epithecal membrane, with which the entire growth is enveloped as in a loose veil.

*Calymmophora lucida*, n. sp. (Pl. XXXII. fig. 3).

*Character*.—The only species.

*Habitat*.—Station 163A, off Twofold Bay, 150 fathoms, green mud.

One great peculiarity in this form is that the external chitinous membrane, or epitheca as it may be termed, which is in fact the remains of the original germinal membrane of which the incipient budding zoœcia are solely formed, is completely detached, except at a few points, from the proper calcified wall, and forms a universal beautifully transparent veil over the entire growth, passing as it were uninterruptedly from one zoœcium to another, and enclosing the oœcia. Another special characteristic is the completely terminal position of the mouth, the oral valve constituting a curved lid, which when open is thrown forwards.

The growth is everywhere as transparent as glass, so that the whole internal economy is visible. The polypide is of comparatively small size compared with the capacity of its habitation, and presents nothing unusual, except that there is no ventricular diverticulum, nor any distinct œsophagus nor pharynx. The retractor muscles do not appear to be either striated or nucleated, and there is no appearance of a so-called funiculus, nor in fact of any structures within the cavity beyond the retractor muscular fibres.

The extreme delicacy and transparency of the textures make it advantageous to employ some colouring agent in the examination.

#### Family XIV. SALICORNARIADÆ.

*Salicornariadæ* (pars), Bk., Brit. Mus. Cat.

*Salicornariidæ* (pars), Bk., Crag Polyz.

*Salicornaridea* (pars), Reuss.

*Cellariæ* (pars), Smitt.

*Cellaridæ*, *Escharellinidæ*, &c., d'Orb.

*Cellariidæ*, Hincks, &c.

*Character*.—Zoarium erect, radicate or fixed; simple, branched, or lobed; segmented or continuous; cylindrical, with the cells disposed round an imaginary axis, or compressed and bilaminar. Surface areolated. Zoœcia completely immersed, each corresponding to an area; front depressed, usually concave. Orifice crescentic, semi-