

dealing with the anatomy of the group. It is wholly continuous, and a body-cavity in which the above-named organs may be said to float, or to be suspended, is totally absent.

A rapid survey of the peculiarities which these five systems present must complete this descriptive account of the new genus. The aperture for the proboscis, which is situated terminally, leads into an anterior cylindrical compartment, which remains passive when the proboscis is protruded or retracted. It is coated by ciliated cells, and at the posterior end the anterior insertion of the proboscis into the body musculature takes place (Pl. II. fig. 8; Pl. III. fig. 5). Although the name is etymologically not wholly adapted for the purpose, I still am inclined to adopt for this compartment, which is present in all Nemertea, the name of rhynchodæum. This name as clearly separates it from the cavity of the proboscis or its sheath, as that of stomodæum and proctodæum distinguishes certain portions of the intestine of other invertebrates from the mid-gut.

The rhynchodæum of *Carinina* has a great resemblance to that of *Carinella*, more especially because of the wide and much distended blood-space which wholly surrounds it, and in which it is kept in place by numerous strings of tissue starting from the muscular body-wall and inserting themselves on the muscular investment of the rhynchodæum (Pl. III. fig. 5; cf. IX., pl. i. fig. 2). From the same figure it may be gathered that the internal cellular coating of the rhynchodæum is more than one row of cells thick, and that these cells have a clear and distended aspect, with a comparatively small nucleus.

The proboscis itself is inserted in a very simple way in the muscular tissue of the body-wall. The muscular investment of the proboscis curves round at an angle of 90°, and becomes continuous with the longitudinal muscular layer of the body-wall. The details of this arrangement may be gathered from Pl. III. fig. 5, and it will there also be seen how the protruded proboscis remains fixed to the body all along this annular point of attachment. Thence it extends backwards as far as the proboscidian sheath permits, which, in the forms allied to *Carinella*, is only the anterior portion of the body. It is drawn back again by its retractor. How far backwards the proboscidian sheath reaches in *Carinina* could not be made out, as I only possessed two small anterior fragments, in neither of which the proboscidian sheath terminated. The proboscis itself could be examined with detail in the single specimen which was cut longitudinally. An anterior and a posterior portion of different textures are exceedingly distinct. They are separated from each other by a constriction. In the posterior portion the cells are eminently glandular, high and flask-shaped; in the anterior portion they are less high and apparently less glandular (Pl. III. figs. 1, 2). Great differences in aspect, but not in actual texture, are of course occasioned by the different stages of contraction in which the various parts of the proboscis happen to be.

The mouth, situated ventrally close to the anterior extremity, was very small in both specimens. The cellular coating of the œsophagus is very distinct, and the direct