

*Branchial Sac* formed of a simple meshwork of longitudinal and transverse vessels. No true stigmata present.

*Dorsal Lamina* represented by a series of languets.

*Reproductive Organs* placed in a long post-abdomen extending behind the intestinal loop.

This genus is formed for an interesting species obtained in the abyssal zone (1600 fathoms). In general appearance, and in the structure of most of the systems of the body, this form agrees with many of the other Polyclinidæ, but in the condition of the branchial sac it differs from all known species of Compound Ascidiæ, and exactly resembles the genera *Culeolus*, *Fungulus*, and *Bathyoncus* amongst Simple Ascidiæ. At first I felt inclined, on account of this great peculiarity, to regard this form as the type of a new family, but finally I decided to leave it as a very well marked genus of the Polyclinidæ. Further details and remarks are given under the specific description.

*Pharyngodictyon mirabile*, n. sp. (Pl. XXI. figs. 1-18).

*The Colony* consists of a more or less discoid mass, the "head," borne on a short peduncle. The upper surface of the head is usually flat, and nearly horizontal, while the lower tapers somewhat towards the top of the peduncle. The colony is attached by the base of the peduncle, which is considerably enlarged. The colour is light grey, with a slight yellowish tinge about the head. The surface is uneven and not very smooth. No common cloacal apertures are visible.

The length (from top of peduncle to upper surface of head) is 6 mm., and the breadth (greatest diameter of head) is 14 mm. The length of the peduncle is about 15 mm., and its thickness in the middle is 5 mm.

*The Ascidiozooids* are exceedingly long, and are placed nearly at right angles to the upper surface of the colony. Exclusive of the post-abdomen, containing the reproductive organs, the largest measure 4 mm. or 5 mm. antero-posteriorly. Beyond this the post-abdomen extends for fully as far again, and reaches into the peduncle. The anterior end of the Ascidiozoid is not wide, but a considerable part of the body is visible on the surface of the colony, forming a mark about 2 mm. in diameter.

*The Test* is moderately hard and firm. It is fairly transparent, and is of a greyish colour throughout. In sections the test is seen to consist of a perfectly structureless matrix, in which many small cells are imbedded. The cells are in some places very closely crowded. Most of them are round, but fusiform, triangular, and stellate forms also occur. They all have large nuclei, which stain very readily. No bladder cells are present.

*The Mantle* is moderately strong, and is provided with transverse equidistant muscle