

adherent. In no case, however, do these form a regular layer. The tenacity of this secretion is considerable: thus, when a young example is attached to the tube of an adult, it is almost impossible to remove it without rupture of the contained animal.

The habit of this species, therefore, differs considerably from the Australian form described by Dr. Haswell, which seems, in vast numbers, to find sufficient protection in the thick semi-gelatinous case or tube of *Cerianthus*, composed as it is almost entirely of the large ovoid thread-cells of the Actinia—the threads in most cases having escaped, though a few are still in the interior of the cysts. The only other constituents of this remarkable blackish felt are a few sponge-spicules and grains of muddy sand.

Tubes have been found in almost all the species of *Phoronis* hitherto described, the hypodermic secretion being mingled with mud or sand. Schneider makes the curious statement, that the tube in his form had in it Fungi and Infusoria. No author seems to have connected the presence of these tubes in holes in limestone and other rocks, and in shells with the power of perforation; but it seems to me that in future this genus will in all probability have to be included in this interesting group.

External Form.

The total length of *Phoronis buskii* (Pl. I. fig. 1) is about 52 mm., with a variable diameter of about 2 mm. at the blackish anterior region, and 4 or 5 mm. at the enlarged posterior part. The tentacular or branchial region has a length of 6 or 7 mm. The species thus exceeds in size any hitherto described, and is even considerably longer and more bulky than the Australian form. Observers, as a rule, have worked with specimens—like those of Kowalewsky's at Naples—measuring about 14 lines in length.

The body (Pl. I. fig. 1) is elongate, smoothly rounded to the naked eye, and generally thrown into several constrictions and enlargements, as in *Phascolosoma*, or in certain examples of *Cerianthus* and *Edwardsia*, the bulbous posterior end (devoid of all transverse wrinkles) of many making the resemblance to the latter all the more striking. On the other hand, the double branchial fan and general appearance approach the contour of the Eriographididæ and Sabellidæ amongst the Annelids. The anterior third of the body, which is tinted of a blackish hue (it may be somewhat purplish during life), with a slight metallic lustre—fading posteriorly, is most minutely marked by fine transverse lines—as in the massive muscular proboscis of *Lepidonotus* and *Aphrodita*. These circular striæ are much finer in front, and gradually widen towards the posterior part of the coloured or anterior region, which in almost all the specimens is firmly contracted, from the peculiar structure of the body-wall. The dorsal (Pl. I. fig. 1) is distinguished from the ventral surface (Pl. I. fig. 2) by a longitudinal furrow—on each side of the median line—cutting off a ridge or fold, underneath which the rectum passes. This feature was formerly noticed in the smaller specimens by Schneider. In many the body gradually dilates toward the end of the anterior region, and an enlarged pale