Budding.—The fact that *Cephalodiscus* is free while *Rhabdopleura* is fixed causes considerable divergence in regard to the buds; and, moreover, the functions performed by the bud in the latter species, while yet incompletely developed, and with a bifid buccal shield (viz., the secretion of the cœnœcium or tubarium) is an important difference. Another essential divergence is the occurrence of the buds in a regular series on *Rhabdopleura*, the youngest nearest the terminal polypide, the oldest next the distal. The confinement of the buds in *Cephalodiscus* to the region just within the terminal hypodermic plate is peculiar, and makes it difficult to institute anything like parallelism between them in this respect. Further, Lankester is inclined to think that after the complete development of the polypide in *Rhabdopleura*, there is no evidence that it takes upon itself bud-production; that is to say, the buds are given off at an early period of its growth. It is not quite clear, however, that the budding of this form is in the same category as that of *Cephalodiscus*, in which the stalk is a process of the body-cavity, whereas the soft stalk of *Rhabdopleura*, if the descriptions are understood correctly, has not yet been shown to be so, though at first sight it might be interpreted otherwise. Nothing like the arrested buds of this form is known in *Cephalodiscus*. The source of the hypoblastic elements, if these are present, in the bud of *Rhabdopleura* is thus in obscurity. In *Phoronis* no bud is known, while the small ova are extremely numerous, and the embryos (having the form of the well known Actinotrocha) pelagic. In *Balanoglossus* likewise no bud occurs, the ova are numerous and small, and the embryo free-swimming (Tornaria).

On taking a general survey of the subject, then, it occurs to me that in the present state of our knowledge, and while fully admitting the remarkable resemblances between it and certain hitherto isolated types such as *Balanoglossus* (which I have for the most part left in the able hands of Mr. Harmer), it will lead to no disadvantage if *Cephalodiscus* be left as formerly near the Polyzoa; and, further, though the divergences between it and *Rhabdopleura* are noteworthy, in the same group as formerly, viz., the Aspidophora of Professor Allman. It is well to exhaust the structural, developmental, and other features in the various forms reviewed in the preceding paragraphs before changes in classification are promulgated.

Cephalodiscus approaches the Polyzoa in regard to its cœnœcium, its digestive system, and its buds, and it is peculiar that in these points there is a lack of conformity in *Balanoglossus*, and to some extent in *Phoronis*. Viewed as a whole, the several systems mentioned agree most with the type of the Polyzoa. Though *Phoronis* forms a tube, and *Balanoglossus* secretes very abundant mucus, a feature common to many diverse groups, such as the Nemerteans, Discophora, and Mollusca, nothing like the regular cœnœcium of *Rhabdopleura* or *Cephalodiscus* is constructed. While again the digestive system of *Phoronis* resembles that in the Polyzoa, the same system in *Balanoglossus* is very different, for the straight alimentary canal with its terminal anus has no