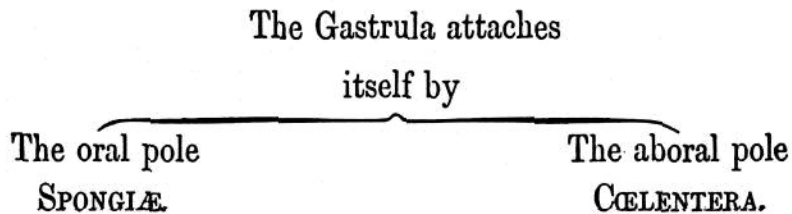


If the Sponges are to be classed with the Metazoa (as so many spongologists appear to think they should) the question arises as to whether they should be included with the Cœlentera, as a class (Ganin), subtribe (Poléjaeff), or phylum (von Lendenfeld), or whether they should form a group independent of the Cœlentera? Vosmaer argues in favour of the latter alternative, as I did myself, and on the same grounds as Vosmaer, in 1876,¹ when I represented the relations of the two groups thus :—



If to this character we add the presence of choanocytal cells, the role played by the mesoderm, and the invagination of the flagellated cells in the amphiblastula of the Calcareia (inversion of the germinal layers?), it would appear that quite enough distinctions exist, and of quite sufficient importance, to justify us in assigning the Sponges to a place outside the Cœlentera.

We next approach the question whether the Sponges are to be included in the Metazoa or distinguished as a special subkingdom (Parazoa). Lendenfeld has an easy method of solving this problem : all animals are divided into Protozoa and Metazoa, the Sponges are not Protozoa, therefore they must be Metazoa ; similarly the Metazoa are divided into Cœlomata and Cœlentera, the Sponges are not Cœlomata and must therefore be Cœlentera ; it is owing to the fact that this has been overlooked, more especially that the subdivision of the Metazoa has not been fully appreciated, that Bütschli and others have fallen into error. Now that Lendenfeld has pointed it out nothing can be clearer, and no one, as he remarks, "will raise any objection to the statement" "that the Sponges are evidently Metazoa and no doubt Cœlentera." Although perhaps after such a fundamental oversight Bütschli and I (for I err in good company) might be excused from discussing this subject further, I shall now proceed to show on what grounds I still maintain the existence of a separate subkingdom Parazoa. In the first place the Sponges are distinguished by the constant possession of collared flagellate cells ; these never fail, for no Sponge, notwithstanding the vast number which have been exhaustively studied, is known in which they become replaced by ciliated cells, like those which occur in the Cœlentera and Turbellaria. On the other hand no animal, not a Protozoon, and in particular no Cœlenterate nor Turbellarian, is known in which similar collared flagellate cells appear.

¹ This was soon after Carter's discovery that the larva of *Halichondria simulans* attaches itself by the "posterior" extremity (Carter, *Ann. and Mag. Nat. Hist.*, ser. 4, vol. xiv. p. 14, 1874). My view was printed in a *Syllabus of Lectures on Biology*, of which about 150 copies were distributed ; although not published at this time the same view was alluded to later in an Article on Spongiæ, Cassell's Natural History, p. 325, 1883.