

systematist's point of view. Hardly any traces of coloration were visible, no external appendages distinguished the different species, no definite shape, marked out by hard portions of the integument, which facilitate the recognition of representatives of so many other divisions of the animal kingdom, were anywhere noticeable.

The majority of the specimens in the collection were cylindrical or flattened fragments, generally truncated, and rarely so intact that it was possible at first sight to distinguish between head and tail. The cephalic slits of those specimens which belong to the group of the Schizonemertea, and the mouths of many of the fragments, were the only external marks that could serve both for the discernment of what was posterior and anterior, and for a rough and provisional arrangement of the forms as they were probably related to each other.

The various figures on Pl. I. will give a general impression of the appearance of the fragments just alluded to. I more especially insist upon the poor aspect presented by the preserved material of the Nemertea in order to impress the reader with the fallacy of pronouncing an unfavourable judgment on a collection of marine invertebrates by relying merely upon the external appearance of the specimens. For I can hardly sufficiently emphasise the exceedingly good state of preservation of the large majority of the Challenger Nemertea. They were, indeed, in so perfect a state that the internal anatomy of all the fragments could be determined, and in very many cases delicate histological details could be revealed with as much facility as if the specimens had been captured a few days instead of ten years ago. I feel the more called upon to make this statement, and to express my admiration for the extreme care which the scientific staff have so evidently given even to unattractive and small-sized fragments, as it has been occasionally stated (even in certain of these Reports) that the Challenger material was sometimes unfit for the minute investigation of internal anatomical structures. So far as the collection of Nemertea is concerned, this statement is absolutely unfounded.

The study of the fragments and complete worms constituting this collection was only possible by aid of the microtome. This instrument was very freely made use of, and the most important improvement to which it has been subjected by Caldwell, whose automatic microtome was available, has enabled me to go into many more details than would otherwise have been possible. The total number of sections through different specimens of the Challenger material which have been prepared in the drawing up of this Report amounts to 19,560. They were all of them stained with Ranvier's picrocarmine.

As already mentioned in the Narrative of the Voyage,¹ the number of Stations from which the Challenger obtained Nemertea is more than twenty. It cannot be said that any of the three large subdivisions of the group is limited to any special region of the globe, although representatives of the very lowest and most primitive genera of Palæo-

¹ Narr. Chall. Exp., vol. i. pt. ii. p. 831, 1885.