tively few examples had hitherto been known, are those to which belong the genera *Cryptolaria* and *Grammaria*, as well as a new and very interesting genus to which I have assigned the name of *Perisiphonia*, and of which the collection contains two species.

An examination of the specimens by which these genera are represented has shown that they possess a remarkable and hitherto unsuspected type of structure, rendering necessary the institution for them of two new families, while to one of these families must also be referred certain other genera with which zoologists have long been familiar, but in which the essential character of the family had been overlooked.

Idia, hitherto known only by the very deficient description and figure of Lamouroux,[1] and of which only a single species, *Idia pristis*, has as yet been discovered, is represented by examples which show that it is constructed on a type quite unique among the Hydroida, and one which demands the allocation of it to a special Hydroid section. To this section I have assigned the name of Thalamophora.

Among other families largely represented is that of the Haleciidæ, with not only many new species, but with one form which must be referred to a new generic type, and which is rendered especially interesting by the fact that the colony is provided with bodies which admit of a close comparison with the sarcostyles and sarcothecæ of the Plumularinæ. Similar bodies are also borne by the two species of *Perisiphonia* already referred to, and by a species referable to the new genus *Hypopyxis*. The presence of these bodies, formerly supposed to be confined to the Plumularinæ, with a very few forms belonging to other groups, has thus been shown to be by no means so limited as had been imagined.

In two species, one of which is referable to *Sertularia* and one to *Thuiaria*, the specimens afford abundant evidence of the fact that the hydranths are incapable of complete retraction within the hydrothecæ. In both of these the body of the hydranth is connected with the wall of the hydrotheca by ectodermal bands quite similar to those which in most Hydroid trophosomes connect the cœnosarc with the walls of the perisarcal tube, or the blastostyle with those of the gonangium. In at least one of these the tentacles of the hydranth are each provided at its base with a prominent cushion loaded with thread-cells, and forming a defensive battery in which we can scarcely avoid seeing a provision, the object of which is to act as a compensation for the comparatively unprotected condition of the hydranth.

The curious genus *Synthecium*, in which the gonangia spring from within the cavity of the hydrotheca, is represented by two new species, both from the Australian seas, thus extending our knowledge of the range of this genus, which had been previously known only through specimens obtained from the region of New Zealand. There also occur fine

[1] Mr. Hincks has since sent me a specimen of this Hydroid from the Mergui Archipelago, while I am also indebted to my late lamented friend Mr. Busk for an opportunity of examining singularly fine specimens from the Persian Gulf.