

collection of the Challenger, so that we may here distinguish eight genera and twenty-seven species.

The family Plectanida may be divided into four different subfamilies, according to the number of the radial spines which compose the skeleton. These four subfamilies, as also the genera contained in them, correspond exactly to the four subfamilies of Plagonida, from which they have originated: Triplectida with three, Tetraplectida with four, Hexaplectida with six, and Polyplectida with numerous (seven to nine or more) radial spines. These spines are usually united (as in the corresponding ancestral Plagonida) in one common central point, upon which rests the basal pole of the central capsule, with the porochora. More rarely (in the genera *Periplecta* and *Plectanium*) the spines arise in two opposite groups (each of two or three spines) from the two poles of a common horizontal central rod, which supports the overlying porochora of the central capsule.

The different genera of Plectonida, which are enumerated in the following synopsis, correspond so exactly to the different genera of Plagonida described above, that probably each of the former has arisen from a corresponding genus of the latter. The only difference between the two is, that in all Plagonida the branches and ramules of the radial spines end freely, without growing together, whilst in all Plectanida the meeting ends of the neighbouring spines grow together and so produce a loose and irregular wickerwork. Therefore the latter constantly possess meshes, which are missing in the former. As soon as any form of Plagonida begins to produce meshes by conrescence of meeting branches of the spines, it passes over into a corresponding form of Plectanida. The loose wickerwork or wattlework so produced is sometimes very irregular, at other times more or less regular; but it never assumes the regular form of a complete lattice-shell, as in the *Cyrtellaria* (*Spyroidea*, *Botryodea*, and *Cyrtodea*). The general differences which this wickerwork exhibits in the different genera of Plectanida have been already described above (compare pp. 900–904).

*The Central Capsule* of the Plectanida agrees perfectly with that of the ancestral Plagonida, as well in general form and structure as in the peculiar topographical relation to the radial spines (compare above, p. 905). A slight difference between the two families is effected by the higher development of the skeleton in the Plectanida. Since the branches of the radial spines in this family become united and form a loose wickerwork, the central capsule becomes more or less enclosed by the latter, and more perfectly protected, than in the Plagonida, where the branches remain free. In this respect the Plectanida approach more nearly to the *Cyrtodea* with which they are connected by such transitional forms as *Plectaniscus* and *Periplecta* on the one hand, *Cladoscenium* and *Pteroscenium* on the other.