slender diverging branches, each provided with a pear-shaped barbed terminal swelling. The branch stalks are smooth or rough, and either straight or uniformly curved towards the exterior, or occasionally slightly flexuous (Pl. LXXXVI. figs. 5, 9). This seems to vary according to habitat, but also according to the individual.

The gastral skeleton consists exclusively of long rod-like diacts, which are rough throughout or terminally, and are provided with a central node of intersection. Their extremities, which are embedded in the gastral membrane, are simply rounded or slightly swollen. Of gastral hexacts or scopulæ I have found no trace.

The uncinates of the parenchyma vary greatly in length and form. Sometimes the greatest breadth occurs just about the middle, sometimes nearer the outer extremity; sometimes the barbs are densely crowded, sometimes more widely disposed, and so on.

The numerous irregularly scattered hexasters are, on the one hand, oxyhexasters with a variable number of terminal rays, which are not unfrequently curved, similar in fact to forms already described in the other species of *Aphrocallistes* (Pl. LXXXVI. figs. 6, 11), and, on the other hand, regular or irregular discohexasters in which the terminal rays are also curved, and provided with rounded terminal knobs (Pl. LXXXVI. fig. 10). In addition to these, simple regular hexacts occur, in some specimens very abundantly. In these the rays are slender and tolerably long, smooth or rough, and always ending in fine points (Pl. LXXXVI. fig. 7).

The soft parts, which I was able to examine on some well-preserved spirit specimens, do not differ in disposition or minute structure from what has been already described in *Aphrocallistes bocagei.*

Family III. Coscinoporidæ, Zittel (Pls. LXXXVII.–XCI.).

The plate-like wall of the cup-, goblet-, or plate-shaped, firmly attached body is transversely penetrated by more or less elongated funnel-shaped straight canals, which open alternately on one or other surface (covered only by the sieve-like bounding skin), but are pointed and blend at the other end. Their length thus always corresponds to the thickness of the sponge body-wall.

Genus *Chonelasma*, n. gen. (Pls. LXXXVII.–XCI.).

The dictyonal framework of the beaker or almost plate-like specimens is traversed by two systems of oppositely directed funnel-shaped meshes or passages, which appear so arranged that each blind funnel extremity of the one system always occurs between the circumjacent funnel openings of the adjoining passages of the other and oppositely directed system. Those oppositely directed passages represent the incurrent and ex-