

British Museum, I regard as identical with the sponge named *Asconema setubalense* by Saville Kent. The specimens in question were trawled at Station 4 of the "Triton" expedition, from a depth of 327 to 430 fathoms, and were preserved in absolute alcohol. By means of this fitly selected medium the soft parts were especially well preserved.

The principalia of the parenchyma are strong, smooth diacts, 1 cm. or more in length, pointed at both ends, and usually exhibiting in the middle a small knot-like swelling. They lie parallel to the bounding surface at different levels, and are distributed with comparative irregularity. Every principal ray is surrounded by a layer of thin diact comitalia which extend over its surface in gently undulating curvature.

The parenchyma also contains a rich abundance of thin rod-like diacts of small size, separately or in bundles, and disposed in different directions. Of these many exhibit a central swelling (Pl. XXI. figs. 7-10), and either terminate in sharp points (Pl. XXI. figs. 9, 10), or are provided with rough knob-like swellings on one or at both extremities (Pl. XXI. figs. 7, 8).

Between all these rod-like spicules four different kinds of rosettes occur in irregular distribution:—namely (1) simple oxyhexasters with long terminal rays, two or three in number, and running out in a diverging manner from the principal (Pl. XXI. fig. 12); (2) smaller oxyhexasters in which each of the broad, moderately short principal rays bears a bundle of three to twelve fine terminals (Pl. XXI. fig. 6); (3) quite small discohexasters in which each of the broad principals bears a strongly-developed, diverging brush-like bundle of numerous fine terminal rays with terminal knobs (Pl. XXI. fig. 3); and (4) discohexasters twice the size of the above, with short principal rays, each of which exhibits six long, thickly barbed, cylindrical terminals. These are disposed either in a tuft or round a funnel-shaped space, and terminate in an arched terminal disc with several prongs (Pl. XXI. fig. 11).

The *dermal skeleton* is supported by tolerably large, simple, smooth hypodermal pentacts. In the dermal membrane itself lie the four cruciate transverse rays of small pentacts, from each of which a distal radial, as long as the transverse, projects outwards, while the proximal radial ray is reduced to a small rounded peg. The five developed rays of these autodermalia are thickly beset with small outwardly directed prongs, while the proximal stump appears to be smooth (Pl. XXI. fig. 4).

The *gastral skeleton* is very similar. Here also large, smooth, pentact hypodermalia (not introduced into the diagrammatic figure 2) are present. The gastral membrane contains the cruciate transverse rays of pentacts, in which the proximal ray projects inwards into the gastral cavity, while the radial is rudimentary. The five developed rays, like those of the autodermalia, are beset with prongs. Between the pentact autogastralia, hexacts also occur here and there. In these the distal ray enters into the parenchyma, and has the same length and development as the proximal ray opposite to it (Pl. XXI. figs. 2, 5).