

here and there in patches. The septa are in six systems and four cycles, with part of a fifth cycle. The primaries are free from the periphery to the columella, and straight, and consist of very thin laminæ; the secondaries are free to near the columella, where they are covered over by the fused tertiaries, which in joining form a thin laminar expansion over them. The tertiaries bifurcate at a short distance from their junctions, which is equal in all the systems, and the two septa thus derived from each of them themselves bifurcate at a further distance again from the columella, which distance also corresponds symmetrically in all the systems. At each of the bifurcations there is a certain small amount of laminar hard tissue developed covering over the interval in the fork. In each system one of the four septa derived from this last-mentioned bifurcation, namely, that which lies second away from each primary septum, has developed on its side next the secondary septum a small and short additional septum (Pl. XVI. figs. 3, 4). The septa are extremely low, their lamellæ not rising more than 1 mm. above the level of the base of the corallum near its centre, and gradually becoming lower towards the margin of the calicle, before reaching which they become lost (Pl. XVI. fig. 6). They are excavated below by a series of notches (Pl. XVI. fig. 7), which correspond to the perforations in the wall of the base, and are seen from beneath in Plate XVI. fig. 5. Between these notches are a series of short processes of the laminæ of the septa, by means of which the septa are fused to the transverse trabeculæ connecting the costæ already described (Pl. XVI. fig. 3). The free margins of the septa towards the margin of the disc are slightly and irregularly dentate. Towards the columella they bear a series of long but very delicate spines, which are all directed outwards at an angle, and are arranged on the septa at definite intervals with great regularity (Pl. XVI. figs. 2 and 7), increasing in size towards the margin of the disc. Each of the primaries bears six of these spines, each of the secondaries five, three of which project through the laminar expansion found at the junction of the tertiaries over the secondaries. There is a spine at the point of bifurcation of the tertiaries, and other spines disposed close to these as shown in the figure. A few very small and short similar spines compose the columella. The whole group of spines is confined to the central region of the disc, and is seen to rise from it like a cluster of small prickles when the corallum is viewed edge-wise (Pl. XIV. fig. 3).

The septa correspond in position with the intervals between the long spikes into which the margin of the disc is prolonged, and to the intervals between the costæ. The bifurcations of the costæ and those of the septa above them do not correspond in position or arrangement, as will be seen from Plate XVI. fig. 1. The primary and secondary septa do not branch at all, whereas the costæ commence growth at the centre of the disc as six, and almost immediately become twelve by bifurcation. Two of the twelve costæ thus derived in each system, those next the primaries, soon branch again, whilst the pair accompanying the secondary septa do not branch for a considerable distance further away from the centre of the disc. By branchings at successive intervals four costal trabeculæ