

5. *Stylophora cellulosa*, n. sp. (Pl. I. figs. 2-2c).

Corallum forming, large more or less rounded clumps, the branches of which are elongated, much compressed or angular, and divided throughout into rather broad sub-palmate lobes; these branches are from 1.5 to 4 cm. wide and about 7 to 10 mm. thick at their upper part, being often subterete at their base; the lobe-like branchlets are short, broad, rounded or angular, often swollen at their apex, and subdivide rapidly and longitudinally into smaller lobes, apparent as incipient lateral crests, in a plane at right angles to their width. Calicles very crowded towards the apical parts, where they are from 1 to 1.5 mm. in diameter, polygonal and deep, with generally thin, but unequal interspaces, which are of an open cellular structure; towards the basal parts they are circular, smaller and shallower, less crowded but not distant, and separated by dense interspaces; throughout the corallum the calicles are even with the surface and generally fringed by small spinules, those on the distal margin being often rather more elongated than those on the proximal, but the upper edge is neither prominent, arched nor vaulted. Septa six, well developed, those in the extreme distal calicles being very conspicuous, broad and very thin, meeting quite at the centre, the interseptal chambers being very wide and deep; those in the proximal calicles being much less conspicuous, distinct only at the bottom of the fossa, much thickened and not exsert, coalescing with the columella so as to form a thick central mass which is concave above, and which, nearly filling up the bottom of the cup, renders the interseptal chambers small and narrow, though quite deep. The styliform prolongation of the columella generally absent, except in the extreme apical calicles, where it is represented by a very small, short pointed style placed above the point of union of the thin septa. Cœnenchyma very cellular and light throughout the apical parts, but becoming dense at the peripheral parts of the basal portions; surface covered with fine and short spinules.

This species is extremely close to the fossil species *Stylophora raristellata*, from which it differs in that the calicles are closer and are not margined by a solid ring-like edge. The styliform columella also is much less developed than in *Stylophora raristellata*. From the *Stylophora danæ*, to which it is closely allied, it may be distinguished by its less dense cœnenchyma, its narrower branches, its even calicles, which are neither distinctly raised at the margin nor furnished with a projecting upper lip, its much shorter, more thickened, and less developed septa, which throughout the greater part of the corallum, and especially at the basal portion, are distinct only at the bottom of the calicle, and do not take the form of the vertical plates characteristic of the older calicles of *Stylophora danæ*. The styliform columella is also absent, except in the extreme apical calicle, the centre being occupied by a broad concave mass, with which the septa are united, while in the *Stylophora danæ* a distinct styliform columella is