

*Dendrophyllia.**Dendrophyllia cornigera*, Blainville.

Light and delicate specimens only were obtained. A single fragmentary specimen was dredged together with *Corallium rubrum*.

Off St Jago, Cape Verde Islands, in 100 to 220 fathoms.

A considerable quantity was obtained at

Station 190, in the Arafura Sea. Lat. 8° 56' S., long. 136° 5' E. 49 fathoms.

*Stephanophyllia*, Michelin.*Stephanophyllia complicata*, Moseley (Pl. IV. fig. 12 ; Pl. XIII. figs. 3-5).*Stephanophyllia complicata*, Moseley, Proc. Roy. Soc., 1876, p. 558.

The corallum is circular, free, and without trace of adherence ; it has the form of a biconvex lens, the base being very slightly curved, and the upper surface greatly so. The under surface, or wall, is perforated by rows of oblong holes arranged in regular series along the interspaces between the costæ. The costæ are fine ridges covered with small swellings and granules, which radiate out with great regularity from the centre of the basal disk ; they commence in the centre from six very short roots of origin, which immediately bifurcate, thus becoming twelve. The bifurcation of each of the costal ridges proceeds at successive distances from the centre, until at the margin of the adult coral there are ninety-six costæ present, sixteen in each system. The costæ at the margin of the calicle are slightly grooved, showing a tendency to divide again. The perforations between the costæ form about twenty-two concentrically-arranged rows. The coral is very convex above the septal meshwork, rising in an even curve which culminates at the columella. There is scarcely any central fossa. There are six systems of septa and five cycles. The primary septa are thin straight lamellæ with untoothed margins, which proceed directly from the periphery to the base of the columella. At about half their length from the periphery to the centre of the calicle is a notch followed by a sudden rise, which forms thus a distinct palus, from the summit of which the line of the inferior margin of the septum slopes sharply down to the base of the columella. The secondary septa are also straight thin laminæ ; they can be traced in the adult coral no further than for about one-third the distance from the periphery to the columella, since they are here covered by the tertiary septa, which, bending over the secondary septa at this point, bring together their upper margins, and, fusing with one another, form stout laminæ, which run in a radial direction to join the columella, and are the stoutest and most conspicuous septa in the coral. From their point of junction with the secondary septa, the tertiary septa curve outwards towards the primary septa on either side in each system ; and each of them being joined on its side next the primary septa by a curved quaternary