

major chambers is developed at each end of the major axis of the calicle, and hence the more abundant specimens with sixteen pali. In one specimen with fourteen fully-developed pali and major chambers, the two end chambers at one end of the long axis are in the process of dividing each into two. The chambers have as yet not enlarged much in width, and their additional septa are crowded together, but curiously enough a pair of new pali is already developed in each of them opposite the new tertiary septa, just external to the old pali in each case, which thus look at first sight as if they had bifurcated at their outer ends. On one side between the two small new pali an additional minute palus has been abnormally developed on the original tertiary septum, which thus bears two pali. This condition is shown in the diagram on one side at *c*, where *p'* refers to the original palus which appears externally to split into three.

A further addition of two pairs of chambers, at either end of a calicle, would produce in instances of unusually prolonged growth, a coral with twenty-four major chambers and pali. It is quite possible that they arise in this way. The large specimen figured in Plate I. fig. 4*a*, is a little irregular, two of the chambers being not quite perfect and symmetrical; but it appears to have had thus twenty-four pali and major chambers. In two very small dwarfed, or young specimens, apparently to be referred to this coral, which were dredged off Bermuda, in 690 fathoms, there are twelve pali, and the septa show a regular symmetrical arrangement in twelves. It is of great interest that the fully-developed coral appears to arrive most usually at an arrangement in fours. Two of Professor Martin Duncan's figures ("Porcupine" Madreporaria, part 1, pl. xlviii. figs. 8 and 10), of *Caryophyllia clavus*, and var. *elongata*, show distinctly sixteen pali and sixteen major chambers.

In the large specimen referred to above, the inner borders of all the major septa curve in pairs, deep within the calicle, towards one another, to fuse with the lateral surfaces of the palus situate between each pair, and becoming thus united with the pali they cease at some distance from the columella, whilst the pali are continued on to fuse with the columella as very stout laminae.

There seems to be no reason for separating this coral from the genus *Caryophyllia*, and it is therefore here retained in it. Professor Martin Duncan has already absorbed the genus *Ceratocyathus* within *Caryophyllia* ("Porcupine" Madreporaria, part 1, pp. 305, 314).

Extreme height of the largest specimen, not allowing for the curve, 30 mm. Long diameter of the calicle 31 mm. Height of average specimen 20 mm. Height of young specimen, with twelve pali and fourteen major chambers, 14 mm.

Station 50. Off Nova Scotia, lat. 42° 8' N., long. 63° 39' W. 1250 fathoms. Numerous fully grown specimens.

Station 78. Off the Azores, lat. 37° 24' N., long. 25° 13' W, 1000 fathoms. Numerous fully grown specimens.