is often ribbed, and the ribs are ordinarily only an outer extension of the interior septa; so that surface spines are in fact but the outer margins of septa.

The first of the preceding figures, representing *Thecocyathus cylindraceus*, Sourt, exhibits another of the forms of these simple corals. It is described by Pourtales, from specimens collected by him at a depth of 100 to 200 fathoms off the Florida reef. The actual size was one-third that of the figure. The second figure represents a living species, the *Flabellum pavoninum*, described and figured by the author from specimens obtained at Singapore.

The bottom of the *calicle*, or polyp-cell, in the corallum is sometimes made simply by the meeting of the radiating septa; occasionally by the same, with the addition of a point or *columella* at the centre; often by a twisting together of this part of the radiated septa. Very often, also, it is a mere porous mass. Sometimes there is a circle of prominent points about the centre, as seen in the figure of a Caryophyllia on page 22, which are the extremities of narrow vertical strips (called *pali*) lying in the planes of the septa. Similar points exist in the Thecocyathus on the preceding page, though not in sight in the figure.

In many cases the bottom is quite solid; and this may be so either (1) because the coral secretions fill up all the pores as the polyp increases in age, and thus make the interior of the corallum solid or nearly so; or (2) because there are formed periodically, as the polyp grows upward, solid horizontal plates across the bottom, so that beneath, in the interior of the corallum, there is a series of plates or tables with spaces between. The Pocilloporæ, among recent corals (page 70), and the Favosites among ancient, are examples. Increasing solidity with the increasing age of the polyps is also produced at times by additions to the exterior of a corallum. In many species, the skin, over part or all of the exterior, gradually disappears or dies away and leaves the corallum bare, while all is living within; and in such cases the skin, before disappearing, often adds a layer of stony material to the exterior,