

ON THE OCCURRENCE OF THE GENUS *COLUMNARIA* IN THE
UPPER SILURIAN ROCKS OF NEW SOUTH WALES.

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(Plate viii.)

I BELIEVE I am correct in stating that *Columnaria* has not so far been recognised as an Australian genus of Palæozoic Corals. When I had the pleasure of examining the Museum at St. Stanislaus College, Bathurst, a few months ago, under the guidance of the Rev. Father Dowling, I observed a coral from Molong, that I took to be *Columnaria* from macroscopic characters only, subsequently confirmed, however, by microscopic. At any rate if the coral in question be not a species of this remarkable genus, then the candid confession of my ignorance as to its systematic position must be made. Father Dowling courteously allowed me to divide the specimen, a portion of which is now in the Australian Museum.

The composite corallum (Pl. viii., Fig. 1) is small, hemispherical, but whether flat, rounded, or subpedunculate at the base, I am unable to say. The colony only measures about two inches square, and is thus even less than in *C. calicina*, Nich. The surface is covered with shallow polygonal calices that are circumscribed by prominent margins, crenulated by the strongly marked septa very distinctly visible in a weathered specimen. The corallites are closely compacted, contiguous, and completely united by their walls. Tetragonal, quadrangular, pentagonal, hexagonal, or even irregular corallites were observed, in contact throughout their entire course, without any partial separation, even near the mouths as in *C. calicina*, Nich., or some conditions of *C. alveolata*, Goldf. In thin sections prepared for the microscope, the walls are found to be composed of uniform grey sclerenchyma (stereoplasma), with only here and there any trace of a primordial wall separating them as a thin brown line; the amalgamation is therefore so perfect that nearly all trace of primordial demarcation is practically lost. Thus, in one instance, there is to be noted a decided departure from the microscopic structure of *Columnaria* described by Nicholson.* The corallites have a very constant diameter of one millimetre. In longitudinal sections (Pl. viii., Fig. 7) the same appearances are visible, the corallites also presenting the narrow tube-like structure of the Favositidæ, but without the mural pores of the latter. There are only sixteen septa, equally divided into primary and secondary, the former extending across the visceral chambers

* Tabulate Corals Pal. Period, 1879, p. 192.