

ON TWO ADDITIONAL PERFORATING BODIES, BELIEVED
TO BE THALLOPHYTIC CRYPTOGRAMS, FROM THE
LOWER PALÆOZOIC ROCKS OF N. S. WALES.

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(Plate xxiii.)

IN 1891 I described* a perforating Thallophyte under the name of *Palæachlya tortuosa*, occurring in the tissues of a Permo-Carboniferous Monticuliporoid from Queensland, and an Endophytic form, then believed to be allied to the Saprolegnian Fungi, met with in the old visceral cavities of another coral (*Stenopora crinita*, Lonsdale) from rocks of the same age in New South Wales. The latter was termed *Palæoperone endophytica*.

For the first of these minute and interesting fossils I used the late Prof. P. M. Duncan's genus *Palæachlya*,† proposed by him for the reception of certain supposed fungal borings detected in the corallums of Tertiary and Palæozoic corals, particularly *Goniophyllum pyramidale* and *Calceola sandalina*.

The recent examination of a well preserved *Favosites*, from the Devonian Limestones of the Tamworth District, has revealed the presence of two highly interesting perforating forms, one of which is, in all probability, allied to *P. tortuosa*, while the other is certainly quite distinct. The second being much the more important, will be described first.

The tissues of the *Favosites* are penetrated in various directions, but, more commonly by far, at right angles to the coral's growth, by longer or shorter chains of moniliform cells (Pl. xxiii., fig. 1), rather similar to a chain figured‡ by Prof. P. M. Duncan in the tissues of *Goniophyllum*. These lines of monillæ divide at irregular distances apart, either at an acute or obtuse angle, as the case may be, but no inosculation, contortion, or returning on themselves occur, although there is a certain amount of curvature. To use an expression of Prof. P. M. Duncan's, the chains "often dip out of and come within the focus of the microscope, in their more or less long course."§ At times they are widely separated, at others crowded together, the calibre of both the parent portions and branches being practically the same, the offshoots being quite as

* Rec. Geol. Surv. N.S.W., ii., 3, 1891, p. 95.

† Quart. Journ. Geol. Soc., xxxii., 1876, p. 210.

‡ Quart. Journ. Geol. Soc., xxxii., 1876, pl. xvi, fig. 6.

§ Proc. Roy. Soc., xxv., 174, 1876, p. 243.