HALYSITES IN NEW SOUTH WALES.

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(Plate xvii.)

The history of this genus, not only in N. S. Wales, but in Australia generally, is a very brief one. *Halysites* was first recorded by the late Prof. L. G. de Koninck,* who recognised *H. escharoides*, Lamk., in the collection of N. S. Wales fossils sent him by the late Rev. W. B. Clarke for determination. In the description given, however, there are no characters that would readily differentiate between this species, and the typical *H. catenulatus*, Linn. De Koninck gives Wellington as the locality, but I have never seen a *Halysites* from the limestone of that district.

Although the presence of this old Paleontological landmark has been in a generic sense, recorded as occurring in N. S. Wales, the microscopic structure has not been investigated, so far as I know.

The largest fasciculo-reticulate corallum that has come under my notice is a specimen measuring six and a half inches by four and a half, forming, in every case, a lax and spreading mass rather than a high erect growth. The intersecting reticulations, or "fenestrules," are very variable in size and shape, but always polygonal, the smaller having an average size of three by three mm., the largest observed fifteen by five mm., fourteen by twelve, and so on, with intermediate gradations, the angles of junction of the vertical laminæ or plates being equally variable. The reticulations are usually longer in one direction than another, but not by any means invariably so. The walls are strong, but in consequence of the alteration that has taken place, the epitheca on the free sides of the laminæ is rarely discernible, but when so, is well The number of corallites on any one side of a reticulation varies from two to twelve, but the average number is from four to six.

Examination in thin sections renders the great amount of alteration the corallum has undergone apparent, an unfortunate circumstance common to a large number of our Lower Palæozoic

^{*} Foss. Pal. Nouv.-Galles du Sud, pt. 1, 1876, p. 16; Clarke, Sed. Formations N. S. Wales, 4th Edit., 1878, p. 129.