

dant are those spinous and hooked spores or sporangia, to which the names *Sporocarpon*, *Zygosporites*, and *Traquaria* have been given, and some of which Williamson has shown to be spores of Lycopodiaceous plants.*

The true "Sporangites," on the contrary, are round and smooth, with thick bituminous walls, which are punctured with minute transverse pores. In these respects, as already stated, they closely resemble the bodies found in the Australian white coal and Tasmanite. The precise geological age of this last material is not known with certainty, but it is believed to be Palæozoic.

With reference to the mode of occurrence of these bodies, we may note first their great abundance and wide distribution. The horizontal range of the bed at Kettle Point is not certainly known, but it is merely a northern outlier of the great belt of Erian shales referred to by Prof. Orton, and which extends, with a breadth of ten to twenty miles, and of great thickness, across the State of Ohio, for nearly two hundred miles. This Ohio black shale, which lies at the top of the Erian or the base of the Carboniferous, though probably mainly of Erian age, appears to abound throughout in these organisms, and in some beds to be replete with them. In like manner, in Brazil, according to Mr. Derby, these organisms are distributed over a wide area and throughout a great thickness of shale holding *Spirophyton*, and apparently belonging to the Upper Erian. The recurrence of similar forms in the Tasmanite and white coal of Tasmania and Australia is another important fact of distribution. To this

* *Traquaria* is to be distinguished from the calcareous bodies found in the corniferous limestone of Kelly's Island, which I have described in the "Canadian Naturalist" as *Saccamina Eriana*, and believe to be Foraminiferal tests. They have since been described by Ulrich under a different name (*Møllerina*: contribution to "American Palæontology," 1886). See Dr. Williamson's papers in "Transactions of Royal Society of London."