we may add the appearance of these macrospores in coals and shales of the Carboniferous period, though there in association with other forms.

It is also to be observed that the Erian shales, and the Forest of Dean beds described by Wethered, are marine, as shown by their contained fossils; and, though I have no certain information as to the Tasmanite and Australian white coal, they would seem, from the description of Milligan, to occur in distinctly aqueous, possibly estuarine, deposits. Wethered has shown that the discs described by Huxley and Newton in the Better-bed coal occur in the earthy or fragmentary layers, as distinguished from the pure coal. Those occurring in cannel coal are in the same case, so that the general mode of occurrence implies water-driftage, since, in the case of bodies so large and dense, wind-driftage to great distances would be impossible.

These facts, taken in connection with the differences between these macrospores and those of any known land-plant of the Palæozoic, would lead to the inference that they belonged to aquatic plants, and these vastly abundant in the waters of the Erian and Carboniferous periods.

It is still further to be observed that they are not, in the Erian beds, accompanied with any remains of woody or scalariform tissues, such as might be expected in connection with the *débris* of terrestrial acrogens, and that, on the other hand, we find them enclosed in cellular sporocarps, though in the majority of cases these have been removed by dehiscence or decay.

These considerations, I think, all point to the probability which I have suggested in my papers on this subject referred to above, that we have in these objects the organs of fructification of plants belonging to the order *Rhizocarpeæ*, or akin to it. The comparisons which I have instituted with the sporocarps and macrospores of these plants confirm this suggestion. Of the modern