

Phlebopteris, Oleandridium, and Tæniopteris (Figs. 381, 382). The cycads (Fig. 383), however, are the dominant forms, in species of Zamites, Pterophyllum, Anomozamites, Nilssonia (Pterozamites), Dioonites, Podozamites, Sphenozamites, Glossozamites, Otozamites, Cycadites, Bucklandia (Clathraria), Bennettites, Mantellia (Cycadites and Cycadoidea), Zamiostrabus (Cycadeostrobus), Beania, Cycadospadix,

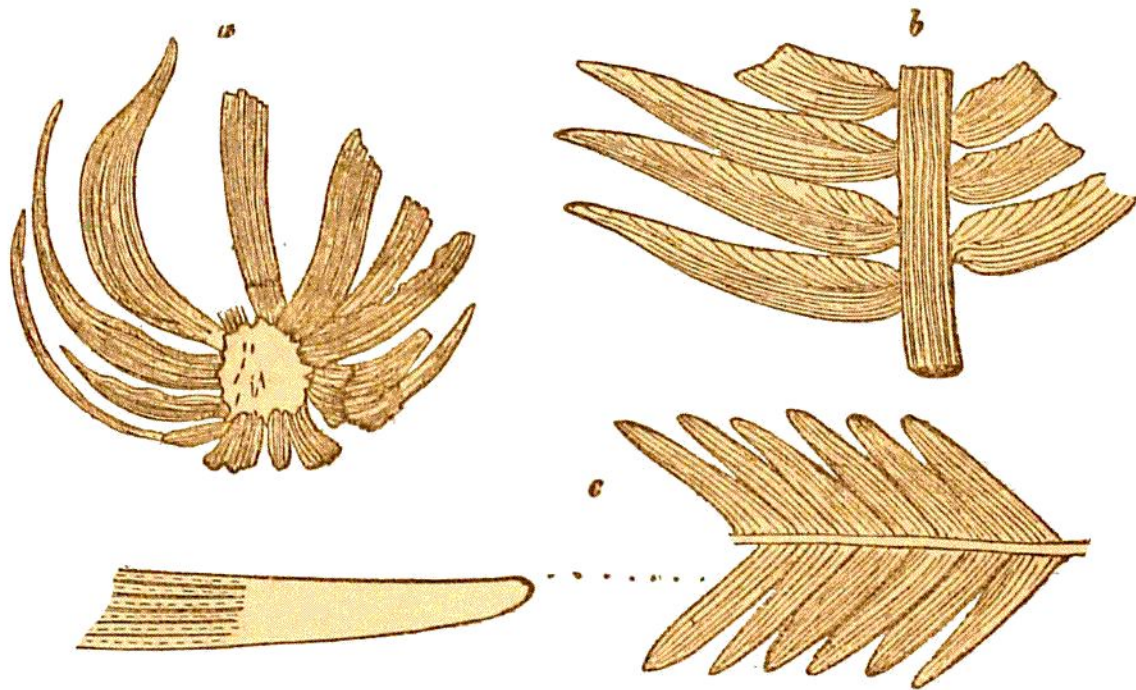


Fig. 383.—Jurassic Cycads (Lower Oolites).

a, *Williamsonia (Zamia) gigas*, Carr ($\frac{1}{2}$); *b*, *Otozamites lanceolatus*, Lindl. and Hutt. ($\frac{1}{2}$); *c*, *Williamsonia hastula*, Bean. (nat. size and mag.).

Cycadinocarpus. *Williamsonia* is by some botanists placed with the cycads, by others with the dicotyledons or with the monocotyledons. Conifers also are found in some numbers, particularly Araucarians of the genera *Pachyphyllum* (*Walchia*) and *Araucaria*; also *Pinites*, *Peuce*, *Brachyphyllum*, and *Thuyites*. This flora appears to have flourished luxuriantly even as far north as Spitzbergen, where the large number of cycads gives an almost tropical aspect to the Jurassic vegetation of this Arctic island.⁴¹

⁴¹ O. Heer, K. Svensk. Vet. Akad. Handl. xiv. No. 5, p. 1.