

of time and in the region extending along the Rocky Mountains, from the 49th to the 51st parallel, of no less than six species of Cycads belonging to at least four generic types; and these types are quite as much Jurassic as Cretaceous in their affinities. Thus we find the Jurassic flora continuing without a break into the Lower Cretaceous, and we shall find that in beds considerably above, we have the beginning of the Dicotyledonous plants of the Tertiary and Modern periods. Thus, in so far as the flora is concerned, the dividing line is in the middle of the Cretaceous; and we may speak of the flora of the Lower Cretaceous as Jurassic-Cretaceous, while that of the Upper members of the series will be Cretaceous-Eocene. Whether the long-enduring and widely-distributed flora, which we have designated by the former name, was strictly contemporary in all parts of its range, may be doubted, though its whole migrations were in this one definite period. It is not impossible that it may have been introduced first into the Arctic, and that in a time of insular land and equable climate, it made its way slowly south. These questions may, however, be better answered in the conclusion of the paper.

3. *Conifera.*

SALISBURIA (GINKGO) SIBIRICA, Heer. (Plate II. Fig. 1.)

Heer, Jura Flora Ost-sibiricus. 1876, p. 61, Pl. VII.

Leaf long, petiolate, palmate, frequently lobed, with 8 to 11 lobes, which are oblong and obtuse at their apices. Veins, for the most part 5 to 6, nearly parallel."

The leaf thus described by Heer, represents a group of lobate leaves, very widely distributed in the Jurassic and Wealden formations, and originally referred to the ferns, though Brongniart, from the first, owing to their hard and coriaceous texture, doubted the correctness of this reference. They were at first placed in the genus *Cyclopteris*, and the old *C. digitata*, Lindley, from the English Oolite is very near to the present species. They were afterwards removed to the doubtful genus, *Baiera*, and finally have come to be regarded as taxine leaves allied to those of the Ginkgo tree of Japan, a form represented at the present day by only a single species, limited to the Japanese Islands, but which, in Mesozoic and Tertiary times, possessed several species distributed over the whole of the Northern Hemisphere.

Collected near Martin Brook by G. M. D.

SALISBURIA (GINKGO) LEPIDA, Heer. (Plate II. Fig. 2.)

This species, or perhaps only varietal form, is distinguished by Heer, on account of its long and deeply-cleft lobes, attenuated at base and pointed at apex. It is very near to the *Baiera gracilis* of Bunbury, from the Yorkshire Oolite, and leaves closely allied are described by Dunker from the Wealden.

Locality, Martin Brook, and Coal Creek, G. M. D.

SALISBURIA (GINKGO) NANA, S. N. (Plate II. Fig. 3.)

Leaf small, of four narrow lobes, linear obtuse, and arranged in two pairs. Four sub-parallel veins in each lobe.

This little leaf appears to be distinct from the above species, unless, indeed, it may be a depauperated variety.

Collected by G. M. D. near Coal Creek.