

beds of sand and limestone, which constitute the Cretaceous formation, announce a state of things very different from that of the preceding ages. The seasons are no longer marked by indications of central heat; zones of latitude already show signs of their existence.

“Hitherto two classes of vegetation predominated: the cellular *Cryptogams* at first, the dicotyledonous *Gymnosperms* afterwards; and in the epoch which we have reached—the transition epoch of vegetation—the two classes which have reigned heretofore become enfeebled, and a third, the dicotyledonous *Angiosperms*, timidly take possession of the earth—they consist at first of a small number of species, and occupy only a small part of the soil, of which they afterwards take their full share; and in the succeeding periods, as in our own times, we shall see that their reign is firmly established; during the Cretaceous period, in short, we witness the appearance of the first dicotyledonous *Angiosperms*. Some arborescent Ferns still maintain their position, and the elegant *Protopteris Singeri*, Preissl., and *P. Buvigneri*, Brongn., still unfold their light fronds to the winds of this period. Some *Pecopteris*, differing from the Wealden species, live along with them. Some *Zamites*, *Cycads*, and *Zamiostrophi* announce that in the Cretaceous period the temperature was still high. New Palms show themselves, and, among others, *Flabellaria chamæropifolia* is especially remarkable for the majestic crown at its summit.

“The *Conifers* have endured better than the *Cycadeæ*; they formed then, as now, great forests, where *Damarites*, *Cunninghamias*, *Araucarias*, *Eleoxylons*, *Abietites*, and *Pinites* remind us of numerous forms still existing, but dispersed all over the earth.

“From this epoch date the *Comptonias*, attributed to the Myricaceæ; *Almites Friesii*, Nils., which we consider as one of the Betulaceæ; *Carpinites arenaceus*, Gœp., which is one of the Cupuliferæ; the *Salicites*, which are represented to us by the arborescent willows; the Acerinæ would have their *Acerites cretaceæ*, Nils., and the Juglanditæ, the *Juglandites elegans*, Gœp. But the most interesting botanical event of this period is the appearance of the *Credneria*, with its triple-veined leaves, of which no less than eight species have been found and described, but whose place in the systems of classification still remains uncertain. The *Crednerias*, like the *Salicites*, were certainly trees, as were most of the species of this remote epoch.”

In the following illustration are represented two of the Palms belonging to the Cretaceous period, restored from the imprints and fragments of the fossil remains left by the trunk and branches in the rocks of the period (Fig. 130.)