triassic epochs; but, together with these, some well-marked leaves of dicotyledonous trees, of a genus named *Credneria*, have long been known. They are met with in the "quader-sandstein" and "plåner-kalk" of Germany, rocks of the Upper Cretaceous group. More recently, Dr. Deby has discovered in the Lower Cretaceous beds of Aix-la-Chapelle a great variety of dicotyledonous leaves,* belonging to no less, according to his enumeration, than 26 species, some of the leaves being from four to six inches in length, and in a beautiful state of preservation. In the absence of the organs of fructification and of fossil fruits, the number of species may be exaggerated; but we may certainly affirm, reasoning from our present data, that when the lower chalk of Aix-la-Chapelle originated, Dicotyledonous Angiosperms flourished in that region in equal proportions with Gymnosperms. This discovery has an important bearing on some popular theories, for until lately none of these Exogens (a class now constituting three-fourths of the living plants of the globe) had been detected in any strata older than the Eocene. Moreover, some geologists have wished to connect the rarity of dicotyledonous trees with a peculiarity in the state of the atmosphere in the earlier ages of the planet, imagining that a denser air and noxious gases, especially carbonic acid gas being in excess, were adverse to the prevalence, not only of the quick-breathing classes of animals (mammalia and birds), but to a flora like that now existing, while it favored the predominance of reptile life, and a cryptogamic and gymnospermous flora. The coexistence, therefore, of Dicotyledonous Angiosperms in abundance with Cycads and Coniferæ, and with a rich reptilian fauna, comprising the Iguanodon, Megalosaurus, Hylæosaurus, Ichthyosaurus, Plesiosaurus, and Pterodactyl, in the Lower Cretaceous series, tends manifestly to dispel the idea of a meteorological state of things in the secondary periods so widely distinct from that now prevailing.

Among the recent additions made to the fossil flora of the Wealden, and one which supplies a new link between it and the tertiary flora, I may mention the *Gyrogonites*, or spore-vessels of the *Chara*, lately found in the Hastings series of the Isle of Wight.

much cited, it may be useful to geologists to give a table explaining the corresponding names of groups so much spoken of in palæontology.

	Brongniart.	Lindley.	
Cryptogamic.	1. Cryptogamous amphigens, or cellular cryptogamic.	Thallogens.	Lichens, sea-weeds, fungi.
	2. Cryptogamous acrogens.	Acrogens.	Mosses, equisetums, ferns, lycopodiums,—Lepidodendron.
Phanerogamic.	3. Dicotyledonous gymnosperms.	Gymnogens.	Conifers and Cycads.
	4. Dicot. Angiosperms.	Exogens.	Compositæ, leguminosæ, umbelliferæ, cruciferæ, heaths, &c. All native European trees except conifers.
	5. Monocotyledons.	Endogens.	Palms, lilies, aloes, rushes, grasses, &c.

* Geol. Quart. Jour. vol. vii. part 2, Miscell. p. 111.