

presents a similar appearance. The *S. Reichenbachii* is a type more distinct from those now living and those in the Tertiary. It has indeed stiff, pointed leaves, lying forward, but they are arcuate, and the cones are smaller. This tree has been known for a long time, and it serves in the Cretaceous as a guiding star, which we can follow from the Urgonian of the Lower Cretaceous up to the Cenomanian. It is known in France, Belgium, Bohemia, Saxony, Greenland, and Spitzbergen (also in Canada and the United States). It has been placed in another genus—*Geinitzia*—but we can recognise, by the help of the cones, that it belongs to *Sequoia*.

Below this, there is found in Greenland a nearly related species, the *S. ambigua*, Hr., of which the leaves are shorter and broader, and the cones round and somewhat smaller.

The connecting link between *S. Smithiana* and *Reichenbachii* is formed by *S. subulata*, Hr., and *S. rigida*, Hr., and three species (*S. gracilis*, Hr., *S. fastigiata* and *S. Gardneriana*, Carr.), with leaves lying closely along the branch, and which come very near to the Tertiary species *S. Couttsiæ*. We have therefore in the Cretaceous quite an array of species, which fill up the gap between the *S. sempervirens* and *gigantea*, and show us that the genus *Sequoia* had already attained a great development in the Cretaceous. This was still greater in the Tertiary, in which it also reached its maximum of geographical distribution. Into the present world the two extremes of the genus have alone continued; the numerous species forming its main body have fallen out in the Tertiary.

If we look still further back, we find in the Jura a great number of conifers, and, among them, we meet in the genus *Pinus* with a type which is highly developed, and which still survives; but for *Sequoia* we have till now looked in vain, so that for the present we can not place the rise of the genus lower than the Urgonian of the Cre-