

tatives of the *S. gigantea*. Their leaves are stiff and sharp-pointed, are thinly set round the branches, and lie forward in the same way: the egg-shaped cones are in some cases similar.

There are, however, in the early Tertiary six species, which fill up the gap between *S. sempervirens* and *S. gigantea*. They are the *S. Couttsiæ*, *S. affinis*, Lesq., *S. imbricata*, Hr., *S. sibirica*, Hr., *S. Heerii*, Lesq., and *S. biformis*, Lesq. Of these, *S. Couttsiæ*, Hr., is the most common and most important species. It has short leaves, lying along the branch, like *S. gigantea*, and small, round cones, like *S. Langsdorfi* and *sempervirens*. Bovey Tracey in Devonshire has afforded splendid specimens of cones, seeds, and twigs, which have been described in the "Philosophical Transactions." More lately, Count Saporta has described specimens of cones and twigs from Armissan. Specimens of this species have also been found in the older Tertiary of Greenland, so that it must have had a wide range. It is very like to the American *S. affinis*, Lesq.

In the Tertiary there have been already found fourteen well-marked species, which thus include representatives of the two living types, *S. sempervirens* and *S. gigantea*.

We can follow this genus still further back. If we go back to the Cretaceous age, we find ten species, of which five occur in the Urgon of the Lower Cretaceous, two in the Middle, and three in the Upper Cretaceous. Among these, the Lower Cretaceous exhibits the two types of the *Sequoia sempervirens* and *S. gigantea*. To the former the *S. Smithiana* answers, and to the latter, the *Reichenbachii*, Gein. The *S. Smithiana* stands indeed uncommonly near the *S. Langsdorfi*, both in the appearance of the leaves on the twigs and in the shape of the cones. These are, however, smaller, and the leaves do not become narrower toward the base. The *S. pectina*, Hr., of the Upper Cretaceous, has its leaves arranged in two rows, and