

The seas of the Lower Cretaceous period were remarkable in a zoological point of view for the great number of species and the multiplicity of generic forms of molluscous Cephalopods. The Ammonites assume quite gigantic dimensions; and we find among them new species distinguished by their furrowed transverse spaces, as in the *Hamites* (Fig. 132). Some of the *Ancyloceras* attained the magnitude of six feet, and other genera, as the *Scaphites*, the *Toxoceras*, the *Crioceras* (Fig. 125), and other Mollusca, unknown till this period, appeared now. Many Echinoderms, or sea-urchins, and Zoophytes, have enriched these rocks with their animal remains, and would give its seas a condition quite peculiar.

On the opposite page an ideal landscape of the period is represented (PLATE XXI.), in which the Iguanodon and Megalosaurus struggle for the mastery in the centre of a forest, which enables us also to convey some idea of the vegetation of the period. Here we note a vegetation at once exotic and temperate—a flora like that of the tropics, and also resembling our own. On the left we observe a group of trees, which resemble the dicotyledonous plants of our forests. The elegant *Credneria* is there, whose botanical place is still doubtful, for its fruit has not been found, although it is believed to have belonged to plants with two seed-leaves, or dicotyledonous, and the arborescent Amentaceæ. An entire group of trees, composed of Ferns and Zamites, are in the background; in the extreme distance are some Palms. We also recognise in the picture the alder, the wych-elm, the maple, and the walnut-tree, or at least species analogous to these.

The Néocomian beds in France are found in Champagne, in the departments of the Aube, the Yonne, the Haute-Alps, &c. They are largely developed in Switzerland at Neufchatel, and in Germany.

1. The Lower Néocomian consists of marls and greyish clay, alternating with thin beds of grey limestone. It is very thick, and occurs at Neufchatel and in the Drôme. The fossils are *Spatangus retusus*, *Crioceras* (Fig. 125), *Ammonites Asterianus*, &c.

2. *Orgonian* (the limestone of Orgon). This group exists, also, at Aix-les-Bains in Savoy, at Grenoble, and generally in the thick, white, calcareous beds which form the precipices of the Drôme. The fossils *Chama ammonia*, *Pigaulus*, &c.

3. The *Aptien* (or Greensand) consists generally of marls and clay. In France it is found in the department of Vaucluse, at Apt (whence the name Aptien), in the department of the Yonne, and in the Haute-Marne. Fossils, *Ancyloceras Matheronianus*, *Ostrea aquila*,