

biplicata, *Solarium ornatum*, *Plicatula inflata*, *Schlönbachia varians*. The Chalk Marl contains *Holaster laevis*, *Rhynchonella Martini*, *Turrilites costatus*, *Inoceramus striatus*, *Schlönbachia varians*. The Gray Chalk, which is the upper part of the Cenomanian, called also the Lower Chalk, includes in England the zones: (1) of *Scaphites aqualis* and *Plocoscyphia mawdrina*; (2) of *Rhynchonella Martini*; (3) of *Holaster subglobosus*; (4) of *Belemnitella plena*.

In France, the beds in the valley of the Seine, called the "Craie glauconieuse" or *Rhotomagian* of M. Coquand, contain *Holaster suborbicularis*, *Cidaris vesiculosa*, *Ammonites (Acanthoceras) Rhotomagensis*, *Acanthoceras Mantelli*, *Turrilites costatus*, *Pecten asper*, *Inoceramus striatus*. The overlying *Carentonian* of Renevier is the zone of *Ostrea bauriculata*, *Belemnitella plena*, *Caprina adversa*.

In Germany, the Cenomanian is the *Lower Pläner*, affording *Pecten asper*, *Ostrea diluviana*, *Catopygus carinatus*, *Schlönbachia varians*, *Acanthoceras Rhotomagense*, *Acanthoceras Mantelli*, *Turrilites costatus*, *T. tuberculatus*. Three zones are recognized: (1) zone of *Pecten asper* and *Catopygus carinatus*; (2) of *Schlönbachia varians*; and (3) of *Acanthoceras Rhotomagense* and *Holaster subglobosus*.

3. **Turonian**, or the Lower White Chalk without flints, with the nodular chalk of Dover at the top, contains *Holaster planus*, *Ananchytes ovatus*, *Rhynchonella Cuvieri*, *R. plicatilis*, *Ostrea vesicularis*, *Spondylus spinosus*, *Ammonites (Pachydiscus) peramplus*, *Hemiaster Verneuli*, *Scaphites Geinitzi*.

In England the zones recognized are: (1) of *Rhynchonella Cuvieri*; (2) of *Terebratulina gracilis*; (3) of *Holaster planus*.

In France, (1) the *Ligerian* (named from the basin of the Loire) (the Middle Pläner of Germany) is the zone of *Exogyra columba*, *Inoceramus labiatus*, *Pinna decussata*; and (2) the *Angoumian*, the zone of *Terebratulina gracilis*, *Holaster planus*, and of *Radiolite* and *Hippurite* limestone in the eastern Alps.

4. **Senonian**, or the Chalk with flints (named from a locality of chalk at Sens). Contains *Ananchytes ovatus*, *Micraster cor-bovis*, *M. cor-anguinum*, *M. glyphus*, *Inoceramus labiatus*, *Spondylus spinosus*, *Ostrea vesicularis*, *Belemnitella quadrata*, *B. mucronata*, *Scaphites pulcherrimus*. (1) The *Santonian* is the zone of *Micraster brevis*, *M. cor-anguinum*, and *Inoceramus digitatus*; (2) the overlying *Campanian* is the zone of *Ostrea vesicularis*, *Belemnitella mucronata*, *B. quadrata*, and includes the Upper Quadersandstein, the Lemberg chalk, and chalk of Meudon and of Reims.

5. **Danian**.—The Lower Danian or *Maestrichtian* or *Dordonian* is the zone of *Nautilus Danicus*, *Ostrea decussata*, *Belemnitella mucronata*, *Baculites Faujasi*; the Upper or *Garumnian* (named from Garonne), that of *Micraster tercensis*, and includes the chalk of Faxe, fresh-water beds in Provence, and marine and brackish-water beds in the Pyrenees, 100' to 1000' thick. From the Danian comes the *Mosasaurus Camperi* (page 864).

In Provence, southeast France, the **SENONIAN**, overlying the *Angoumian*, or limestones containing *Hippurites Petrocorriensis*, etc., includes, according to M. Toucas (1891):—

1. The **SANTONIAN** (a) with *Hippurites giganteus*, *Rhynchonella Petrocorriensis*, *Trigonia limbata*; (b) with *Amm. tricarinatus*, *Hippurites brevis*, *Micraster brevis*; (c) *Ammonites Texanus*, *Inoceramus digitatus*, *Cidaris clavigera*; (d) *Ammonites Texanus*, *Actinoceras verum*, *Hippurites Corbaricus*, *Cidaris clavigera*.

2. **CAMPANIAN**, (a) *Hippurites dilatatus*, *H. Toucasi*, *H. socialis*, *Ostrea vesicularis*; (b) *Hippurites dilatatus*, *H. floridus*, *Ostrea Merceyi*, *Schizaster atavus*; Upper, (c) *Cidaris cretosa*, *Ostrea Matheroni*, *Lima decussata*; (d) *Ammonites Gallici*, *Nerinea bisulcata*, *Hippurites*, *Hemiaster Regulusanus*.

The following species are reported from different continents:—

Ostrea larva, North America; Europe; India. *Gryphaea vesicularis*, North America;