Upper.

Helix-limestone of the Orleanais (Helix, Planorbis, etc.). Meulieres de Montmorency—very hard siliceous, cellular, fossiliferous, fresh-water limestones employed for millstones (Limnæa, Bythinia, Planorbis, Valvata, Chara). This deposit is replaced toward the south by the fresh-water Calcaire de la Beauce, which is separable into a higher assise (Molasse du Gâtinais, sometimes 57 feet) consisting of green marl, siliceous sand and calcareous sandstone passing into limestones (Helix Morognesi, H. aurelianus, H. Tristani, Planorbis solidus, Limnæa Larteti, Melania aquitanica, etc.); and a lower, composed of limestone (Limnæa Brongniarti, L. cornea, L. cylindrica, Helix Ramondi, Cyclostoma antiquum, Planorbis cornu, Potamides Lamarcki, etc.).

Gres de Fontainebleau. Sands, and hard siliceous sandstones. At the top of this subdivision there occurs at Ormoy, near Étampes, and elsewhere a band of calcareous marl full of marine fossils: Cardita Bazini,

Cytherea incrassata, Lucina Heberti.

Sables de Fontenay, Jeurre et Morigny, a thick accumulation of yellow ferruginous, generally unfossiliferous sands, covering a large area around Paris, and serving as a foundation for most of the new military forts of that locality. The "falun de Jeurre" contains many fossils: Natica crassatina, Cerithium, several species, Cytherea incrassata, Avicula stampinensis, etc.

Oyster-marls with Ostrea longirostris, O. cyathula, and Corbula subpisum. These pass into the Molasse d'Étrechy with Cerithium plicatum, Me-

lania semidecussata, Cytherea incrassata, etc.

Calcaire de la Brie, a lacustrine limestone with few fossils, Limnæa cor-

nea, Planorbis cornu, Chara, etc.

Green marls (Marnes à Cyrènes, glaises vertes), consistting of an upper mass of non-fossiliferous clay, and a lower group of fossiliferous laminated marls (Cerithium plicatum, Psammobia plana, Cyrena convexa).

White marls (Marnes de Pantin) with Limnea strigosa, Planorbis planu-

latus, Nystia Duchasteli.

Supra-gypseous blue marls, with very few fossils (Nystia plicata).

Lacustrine gypsum (Gyps lacustre). The highest and most important gypsum bed of the Paris basin, 65 feet thick at Montmartre, with a remarkable prismatic structure, containing skeletons and bones of mammals (Palæotherium, Anoplotherium, Xiphodon), fragments of terrestrial wood, and a few terrestrial shells (Helix, Cyclostoma, etc.). This deposit is continuous with the marine gypsum underneath it (p. 1607).

Lower.

Geographical names have been assigned to the subdivisions of the Oligocene series in France, Belgium, Switzerland, and North Italy. The lowest member is called Tongrian, from Tongres, in Limbourg. Above it comes the Stampian, so named from Etampes, where it is typically developed. The uppermost group is known as Aquitanian, from its well-marked occurrence in Aquitania.

The chief area of Oligocene strata in France lies between Paris and Orleans, where, spreading over a wide extent of country, they have been cut down by the streams so as in some cases to reveal the Eccene formations below them. The next area in importance lies far to the southwest (Aquitania), where the Lower Oligocene division (Tongrian of