

sands form the lower portion, though they are largely interstratified with beds of clay, and sometimes, by changes of character, the sands and clays of the series pass into each other. In the various beds are found Ferns of the genera *Alethopteris*, *Otopteris*, and *Sphenopteris*, the latter sometimes standing erect, as if in the position of growth. Coniferous wood and Cycadeous plants also occur. With rare exceptions, the shells are of fresh-water genera, viz. ten species of *Unio*, five species of *Cyrena*, besides *Cyclas*, *Melanopsis*, *Melania*, and *Paludina*, together with *Cypris*, *C. Valdensis*, and the strata containing these are sparingly interstratified with beds containing *Ostrea*, *Corbula*, and *Mytilus*. Several remarkable reptiles occur in the Weald, of the order Dinosauria, belonging to the genera *Hylæosaurus*, *Megalosaurus*, *Iguanodon*, *Plesiosaurus*, and *Pterodactylus*, together with nine species of Crocodilia, of seven genera. The *Iguanodon* was first described by Dr. Mantell as an herbivorous reptile of gigantic size. Its teeth were serrated like those of the modern Iguana, but unlike them it masticated its food. Various fish, of the Placoid and Ganoid orders, also occur in the Wealden. The strata composing the Hastings Sand series are about 700 feet thick.

The overlying beds of Weald Clay are of about equal thickness, and spread in a broad plain, or series of low undulations, all round the more hilly country of the sands. They lie between these sands and the overlying Atherfield Clay and Lower Greensand. It is in this clay that thin bands of the well-known Sussex marble occurs, so much used in old times for monumental purposes in churches, good examples of which may be seen in Westminster Abbey. It is formed chiefly of the agglomerated shells of *Paludina fluvii-*