

graphical order of these strata, in this area, see diagrams, Nos. 71, 72, and 73, pp. 337-343.

In this area, near Battle, the lowest strata rise to the surface, being the fresh-water Purbeck Limestone, interstratified with beds of clay. For long in this area they were known as the Ashburnham Beds, but the fresh-water shells and other fossils found in them during the progress of the experimental boring already mentioned, clearly proved them to belong to the Purbeck Series. They are there about 180 feet thick, and overlie about 110 feet of shales, somewhat sandy, with chert, which may perhaps represent the Portland beds. In the Purbeck strata, at a depth of 130 feet, 35 feet of gypsum more or less pure were penetrated, a mineral much more sparingly developed in the lower strata of the Isle of Purbeck, and which I consider indicates, that these strata were not laid down in the sea, but probably in a lagoon temporarily separated from the main current of the river. Beneath the so-called Portland beds about 921 feet of Kimeridge Clay were pierced, followed by 985 feet of Coral Rag and Oxford Clay, when, for want of funds, this interesting experiment was stopped at a total depth of 1,906 feet from the surface.

The HASTINGS SANDS and WEALD CLAY are almost exclusively fresh-water beds, and must be considered as a continuation of the deposits formed at the mouth of the great river, which commenced with the deposition of the Purbeck limestones and shales. The name *Wealden* applies to the whole group above the Purbeck rocks, and the term originated from the circumstance that these fluviatile beds are largely developed in the Weald of Kent and Sussex. Their true character was first discovered by Dr. Mantell. As a whole, the Hastings