

and in the genera of plants alone, it would be as allowable to refer the Cretaceous flora of Aix-la-Chapelle to the Miocene age, as it is to refer the Hempstead beds to that epoch. The genera of mammalia, also of the Hempstead strata, are truly Eocene, for *Hyopotamus* is found in the Headon series, and *Hyracotherium* in the London Clay. The Hempstead beds, in fact, merge gradually into those below, and the uppermost stratum of all is marine, containing *Corbula pisum*, which is a well-known Eocene species, found in various subformations as low as, and including, the Barton Clay. The series may be said to be unfinished, and seems quite naturally to belong to the Eocene epoch. In old times, what kind of strata, if any, may have lain above the *Corbula* bed, no one knows.

In Hampshire, the same general series of fluvio-marine strata occurs, with variations in lithological character, but only as high as the Bembridge beds, the Hempstead strata having been removed by denudation.

If we now review the whole of the circumstances relating to the English Eocene strata, we find that in their lower and upper divisions they are decidedly of fresh-water and estuarine character, the fresh-water beds having been laid down in the broad mouth of a great river, so near the sea, that the area was liable by slight oscillations of level to intermittent influxes of the salt water, which produced minor marine interstratifications both in the Woolwich and Reading beds below, and in the upper strata, from the Headon to the Hempstead beds inclusive. But this is not all. Though, technically, the London Clay and the Bracklesham Barton and Bagshot beds are marine, as far as sea-shells are concerned, yet no one is likely to believe that these shell-fish lived and died in an open ocean. On the