

and Kew Bridge, others in London itself, and below it at Erith in Kent, on the right bank of the Thames, and at Ilford and Gray's Thurrock in Essex, on the left bank. The united thickness of the beds of sand, gravel, and loam amounts sometimes to forty or even sixty feet. They are for the most part elevated above, but in some cases they descend below, the present level of the overflowed plain of the Thames.

If the reader will refer to the section of the post-pliocene sands and gravels of Menchecourt, near Abbeville, given at p. 122, he will perfectly understand the relations of the ancient Thames alluvium to the modern channel and plain of the river, and their relation, on the other hand, to the boundary formations of older date, whether tertiary or cretaceous.

So far as they are known, the fossil mollusca and mammalia of the two districts also agree very closely, the *Cyrena fluminalis* being common to both, and being the only extra-European shell, this and all the species of testacea being recent. Of this agreement with the living fauna there is a fine illustration in Essex; for the determination of which we are indebted to the late Mr. John Brown, F.G.S., who collected at Copford, in Essex, from a deposit containing bones of the mammoth, a large bear (probably *Ursus spelæus*), a beaver, stag, and aurochs, no less than sixty-nine species of land and fresh-water shells. Forty-eight of these were terrestrial, and two of them, *Helix incarnata* and *H. ruderata*, no longer inhabit the British Isles, but are still living on the continent, *runderata* in high northern latitudes.* The *Cyrena fluminalis* and the *Unio littoralis*, to which last I shall presently allude, were not among the number.

I long ago suggested the hypothesis, that in the basin of the Thames there are indications of a meeting in the post-pliocene period of a northern and southern fauna. To the

* Quarterly Geological Journal, vol. viii. p. 190, 1852.

Mr. Brown calls them extinct species,

which may mislead some readers, but he merely meant extinct in England.

See also Jeffreys, Brit. Conch. p. 174.