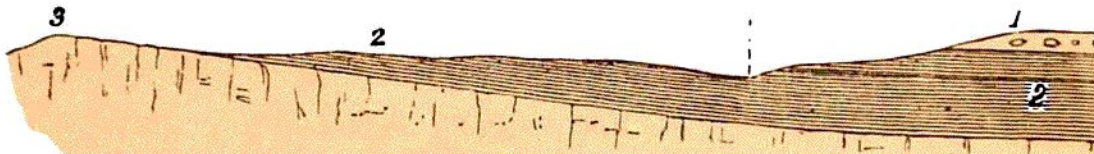


Ouse, and its tributaries in Bedfordshire, and also many other streams flow through areas covered with this clay, and have cut themselves channels through it in such a way as to lead to the inference that parts of the valleys in which they run did not exist before the Boulder-bed period, but that they have excavated their courses through it and the underlying Oolitic strata, and thus formed a new system of valleys. These often only apply to parts of their channels.

Again, with regard to the Thames, I have said that it is remarkable that it rises in the Seven Springs, not far from the edge of the Oolitic escarpment of the Cotswold Hills that overlooks the Severn, which runs in the valley about 1,000 feet below. The infant Thames

FIG. 106. *Thames.*



1. Boulder-clay. 2. London Clay. 3. Chalk.

thus flows at first across a broad tableland of Oolitic rocks, and by-and-by comes to a second tableland formed of the Chalk, and the wonder is that there its course was not turned aside by that high escarpment. Instead of that being the case, a valley cuts right across the escarpment of Chalk, through which the river flows, and this I have already explained in Chapter XXX. This escarpment dates from long before the deposition of the Boulder-beds, for we find far-transported boulders and Boulder-clay at its base, while in the same neighbourhood the drift has not always been deposited on its slopes, nor yet does it lie on the top. Yet north of the mouth of the estuary of the Thames in Essex we