Normandy or Brittany, or from land which may once have existed to the south-west, in what is now the English Channel.

They were probably drifted into their present site by coast ice, and the yellow clay and gravel in which they are embedded are a littoral formation, as shown by the shells. Beneath the gravel containing these large erratics, is a blue mud in which skeletons of Elephas antiquus, and other mammalia, have been observed. Still lower occurs a sandy loam, from which Mr. R. G. Austen* has collected thirtyeight species of marine shells, all recent, but forming an assemblage differing as a whole from that now inhabiting the English Channel. The presence among them of Lutraria rugosa and Pecten polymorphus, not known to range farther north in the actual seas than the coast of Portugal, indicates a somewhat warmer temperature at the time when they flourished. Subsequently, there must have been great cold when the Selsea erratics were drifted into their present position, and this cold doubtless coincided in time with a low temperature farther north. These transported rocks of Sussex are somewhat older than a sea-beach with recent marine shells which at Brighton is covered by chalk rubble, called the ' elephant-bed,' which I cannot describe in this place, but I allude to it as one of many geological proofs of the former existence of a seashore in this region, and of ancient cliffs bounding the channel between France and England, all of older date than the close of the glacial period.

In order to form a connected view of the most simple series of changes in physical geography which can possibly account for the phenomena of the glacial period, and the period of the establishment of the present provinces of animals and plants, the following geographical states of the British and adjoining areas may be enumerated.

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[^0]:    * Geological Quarterly Journal, vol. xiii. p. 50.

