

less than 2 fathoms. The shallowest part follows a line drawn between Romney Marsh and Boulogne. From this point the English Channel again deepens progressively as we proceed westward, so that the Straits of Dover may be said to part two seas.\*

Whether England was formerly united with France has often been a favourite subject of speculation. So early as 1605 our countryman Verstegan, in his "Antiquities of the English Nation," observed that many preceding writers had maintained this opinion, but without supporting it by any weighty reasons. He accordingly endeavours himself to confirm it by various arguments, the principal of which are, first, the proximity and identity of the composition of the opposite cliffs and shores of Albion and Gallia, which, whether flat and sandy or steep and chalky, correspond exactly with each other; secondly, the occurrence of a submarine ridge, called "our Lady's Sand," extending from shore to shore at no great depth, and which from its composition appears to be the original basis of the isthmus; thirdly, the identity of the noxious animals in France and England, which could neither have swum across, nor have been introduced by man. Thus no one, he says, would have imported wolves, therefore "these wicked beasts did of themselves pass over."

He supposes the ancient isthmus to have been about six English miles in breadth, composed entirely of chalk and flint, and in some places of no great height above the sea-level. Cuvier informs us that in 1753 (a century and a half later), a society at Amiens proposed the question above alluded to, as a prize essay, which was gained by the celebrated Desmarest, then a young man. With respect to this essay, it has been justly remarked, in a recent memoir by Mr. Page, that Desmarest borrowed all his arguments from Verstegan, for they are not only the same in number and substance, but are advanced in precisely the same order. †

When we consider the state of physical science at the commencement of the seventeenth century, we cannot too much admire the philosophical spirit and acuteness with which Verstegan conducts his argument. The operation of the waves and tides, he says, would have been more powerful when the straits were narrower than now, when they are still destroying cliffs composed of similar materials. He suggests the possible co-operation of earthquakes; and I may mention that there are geological appearances at the base of the cliffs near Dover and Brighton, which indicate oscillations in the relative level of sea and land at a very modern period. We there learn that the chalk itself, originally a marine deposit, has been depressed about 60 feet since its first emergence from the deep, and that the actual cliffs are not the first which have been excavated. These, and perhaps other upward and downward movements, may have taken place as slowly as those now in progress in Sweden and Greenland, and they cannot

\* Stevenson, Ed. Phil. Journ. No. v. p. 45., and Dr. Fitton, Geol. Trans., 2d series, vol. iv. plate 9. and Phil. Soc. of St. Andrew's, Fife Journal, Jan. 17. 1839, and Cuvier's Eloge de Desmarest.

† See paper read by Mr. Page to Lit.