

parts of it are at the sea level now ; while other parts, along gently undulating lines at the bases of the North and South Downs, rise to more than 250 feet above the sea.

On the supposition that the Wealden area was once an oblong bay, this land would also have been formed of two narrow strips of country, one on the south at least 60, and the other on the north not less than 100, miles long, both of which project eastward from the Chalk of Hampshire, to form what we now call the North and South Downs. These hills generally rise high above the Eocene strata that skirt them on the north and south, and these Eocene beds, under the supposed circumstances, would be covered by sea, while the scarped cliffs of Chalk, as shown on the diagram, would overlook a sea-covered plain of Gault *g* ; outside of which, near the shore, would be a series of ridgy islands of Lower Greensand *s d*, which, at present, in some parts of the country, rise into escarpments higher than the Downs themselves. Beyond these there would be a sea where the flats of Weald Clay *w* now lie ; inside of which would rise an island, or rather group of islands, formed of the Hastings Sand series *h h*. This form of ground would certainly be peculiar, and ill adapted in form to receive the beating of a powerful surf, so as to produce *on the inner side only*, the cliffy escarpment that forms the steep edge of the oval of Chalk. Further, if the area had been filled by the sea, we might possibly expect to find traces of superficial marine strata of late date, as in some other parts of England, scattered across the surface between the opposite Downs. But none of these traces exist. On the contrary, the underlying strata of the Cretaceous and of the Wealden series everywhere crop up and form the surface of the ground,