

south of Sweden to the south-west of France, a distance of about nine hundred miles ; and there are extensive districts both in France and England where it attains to an average thickness of not less than a thousand feet. The only analogous deposit of the present time occurs on comparatively a small scale among the coralline reefs and lagoons of the Pacific, where there is in the act of forming an impalpable white mud derived from the corals, which in dried specimens cannot be distinguished by the unassisted eye from masses of soft chalk. But what chiefly distinguishes the true chalk from any of its modern representatives is the amazing number of microscopic animals which it contains. On a low estimate half its entire bulk is composed of animalcules of such amazing minuteness, that it has been calculated by Ehrenberg that each cubic inch of chalk may contain upwards of a million of the shells of these creatures. The chalk rocks so characteristic of the sister kingdom have been often sung by the poets as

‘Rising like white ramparts all along  
The blue sea’s border.’

And, in especial, one ‘chalky bourn of dread and dizzy summit’ has been made by the greatest of poets the subject of the sublimest description of a giddy, awe-inspiring precipice ever drawn. And here is there a new association with which to connect the chalk cliffs of England. Every fragment of these cliffs was once associated with animal life ; that impalpable white dust which gives a milky hue to the waves as they dash against them, consists of curiously organized skeletons ; even the white line which I draw along the board, were our eyes to be suddenly endowed with a high microscopic power, would resemble part of the wall of a grotto covered over with shells. And, embedded in this mass of minute, nicely-framed invisibilities,—*Polythalamia*, *Foraminifera*, *Polyporia*, and *Diatomaceæ*,—we find fossils of larger size, such as *Spatangus-cor* and the