

feet in its greatest depth, preceded the opening of the Straits of Dover, or the final separation of England from the Continent. This he inferred from the present distribution of species both in the animal and vegetable kingdoms. Thus for example, there are twice as many reptiles in Belgium as in England, and the number inhabiting England is twice that found in Ireland. Yet the Irish species are all common to England, and all the English to Belgium. It is therefore assumed that the migration of species westward having been the work of time, there was not a sufficient lapse of ages to complete the fusion of the continental and British reptilian fauna, before France was separated from England and England from Ireland.

For the same reason there are also a great number of birds of short flight, and small quadrupeds, inhabiting England which do not cross to Ireland, the St. George's Channel seeming to have arrested them in their westward course.*

The depth of the St. George's Channel in the narrower parts is only 360 feet, and the English Channel between Dover and Calais less than 200, and rarely anywhere more than 300 feet; so that vertical movements of slight amount compared to some of those previously considered, with the aid of denuding operations or the waste of sea cliffs, and the scouring out of the channel, might in time effect the insulation of the lands above alluded to.

Time required for successive Changes in Physical Geography in the Post-Pliocene Period.

The time which it would require to bring about such changes of level, according to the average rate assumed at p. 58, however vast, will not be found to exceed that which

* E. Forbes, Fauna and Flora of British Isles; Memoirs of Geological Survey, vol. i. p. 344, 1846.