

and "gorgeous flamingo." There were times, however, when the mud-shoe proved of no avail, and the flat expanse remained impassable for weeks,—

" A boggy syrtis, neither sea
Nor good dry land."

The coast,—directly impinged on by the drift current, and beaten by the long roll of waves which had first begun to rise under the impulsions of the trade-winds on the African coast two thousand miles away,—was much exposed to tempests; and after every fresh storm from the east, a huge bank of mud used to come rolling in from the sea, three or four feet abreast, and remain wholly impassable until, during some two or three neap tides, its surface had been exposed to a tropical sun, and partially consolidated by the heat. And then the waste would become passable as before, and the chopped and broken surface, exposed to the ordinary action of the sea, and to gradual depositions during flood, would begin to be smoothed over, and the birds would find themselves no longer safe. Now, I am inclined to think that we have here the conditions necessary to the formation of the Thurso deposits. Let us suppose, near where Thurso now stands, a wide tract of flat mud-banks in a sea so shallow as to be laid dry at ebb for miles together. Let us farther suppose periods of tranquil deposition or re-arrangement, during which one ripple-marked stratum is laid quietly down over another, and the fish, killed by accident, or left stranded by the evaporation of the little pools, are covered up, like the plants in a botanist's drying-book, in a state of complete entireness. Let us yet farther suppose great mud-banks driven by occasional tempests from the deeper water beyond, and so heaped up over these sedimentary beds as to be exposed during even the flood of neap tides to the desiccating influences of the atmosphere and the sun, until the surface has become hard &c.