

animals, with the remains of those which had fallen into the deeper pits, would be imbedded in the sediment which would then fill up the holes. These seem to have been the precise conditions of the bed which has afforded all these remains.

The history of a bed containing reptiliferous erect trees would thus be somewhat as follows :—

A forest or grove of the large-ribbed trees known as *Sigillaria*, was either submerged by subsidence, or, growing on low ground, was invaded with the muddy waters of an inundation, or successive inundations, so that the trunks were buried to the depth of several feet. The projecting tops having been removed by subaërial decay, the buried stumps became hollow, while their hard outer bark remained intact. They thus became hollow cylinders in a vertical position, and open at top. The surface having then become dry land, covered with vegetation, was haunted by small quadrupeds and other land animals, which from time to time fell into the open holes, in some cases nine feet deep, and could not extricate themselves. On their death, and the decomposition of their soft parts, their bones and other hard portions remained in the bottom of the tree intermixed with any vegetable *débris* or soil washed in by rain, and which formed thin layers separating successive animal deposits from each other. Finally, the area was again submerged or overflowed by water, bearing sand and mud. The hollow trees were filled to the top, and their animal contents thus sealed up. At length the material filling the trees was by pressure and the access of cementing matter hardened into stone, not infrequently harder than that of the containing beds, and the whole being tilted to an angle of  $20^{\circ}$ , and elevated into land exposed to the action of the tides and waves, these singular coffins present themselves as stony cylinders projecting from the cliff or reef, and can be extracted and their contents studied.

The singular combination of accidents above detailed was,