

the depositions; and, as a necessary consequence, frequent shiftings of currents. The ocean, too, seems to have lessened its general depth, and the bottom to have lain more exposed to the influence of the waves. And hence one cause, added to the porous nature of the matrix, and the diffused oxide, of the detached, and, if I may so express myself, churchyard character of its organisms.

Above the blended conglomerates and sandstones of this band a deposition of lime took place. Thermal springs, charged with calcareous matter slightly mixed with silex, seem to have abounded, during the period which it represents, over widely-extended areas; and hence, probably, its origin. An increase of heat from beneath, through some new activity imparted to the Plutonic agencies, would be of itself sufficient to account for the formation. I have resided in a district in which almost every spring was charged with calcareous earth; but in cisterns or draw-wells, or the utensils in which the housewife stored up for use the water which these supplied, no deposition took place. With boilers and tea-kettles, however, the case was different. The agency of heat was brought to operate upon these; and their sides and bottoms were covered, in consequence, with a thick crust of lime. Now, we have but to apply the simple principles on which such phenomena occur, to account for widely-spread precipitates of the same earth by either springs or seas, which at a lower temperature would have been active in the formation of mechanical deposits alone. The temperature sunk gradually to its former state; the purely chemical deposit ceased; the waters became populous as before with animals of the same character and appearance as those of the upper conglomerate; and layer after layer of yellow sandstone, to the depth of several hundred feet, were formed as