

occur in the chalk in horizontal rows, which present some degree of regularity, but are placed at unequal distances from each other. This arrangement has probably arisen from the chalk and flint having been held in suspension or solution in the same fluid, and precipitated into the basin of the ocean: when consolidation took place, the silicious molecules separated from the cretaceous, on the well-known principles of chemical affinity; the sponges and other zoophytes acting as nuclei or centres, around which the silicious matter coagulated. This process receives illustration from the fact, that when different substances in a state of extreme division are mixed together, they have a tendency to separate, and re-arrange themselves in masses more nearly homogeneous; thus in the materials prepared in the potteries, a separation of pounded flint from aluminous earth takes place, and silicious concretions are formed, if the mixture be not constantly agitated. The marked stratification of the chalk shows that it was deposited periodically; and it is not unusual to find veins of flint running through and filling up crevices in the strata beneath; an appearance that can only be attributed to the lower beds having been consolidated, and subsequently fissured, before the superincumbent stratum was precipitated.

6. ORGANIC REMAINS IN FLINT.—The organic remains which usually occur in the chalk are also found in the flints; but certain fossils prevail far