animal existence, the infusoria (so called because numerous species abound in vegetable infusions) appear, many, like the cypris of which we have already spoken, possess shields or coverings, some of which are ferruginous, others calcareous, and many silicious; the yellow film seen on the surface of stagnant water is made up of these animals. The infusoria belong to many distinct families, some having a complex organization, with a nervous, muscular, and circulating system, and digestive organs highly developed. As I shall revert to this subject in another lecture, I now only wish to call your attention to the remarkable fact, that the silicious cases, or skeletons, of this class of beings, have been discovered in a fossil state; and that some deposits, for instance the tripoli of Bilin in Bohemia, consist almost entirely of the silicified remains of infusoria, of a species so minute, that a cubic inch of stone, weighing 220 grains, contains upwards of 41 thousand millions of these skeletons.* The distinguished naturalist, Ehrenberg, to whom we are indebted for this wonderful discovery, has also detected the remains of these animalculæ in chalk-flints, semi-opal, and other silicious substances; and the Rev. I. B. Reade, of Peckham, + has observed in the flints of Surrey, shields of gaillonella, a form of infusorial animal well known to microscopic

† Appendix H.

^{*} See a translation of Ehrenberg's Observations on these discoveries, in Taylor's Scientific Memoirs, Part III.