

the theory in all its details, but the story may be recommended to the psychological historian as a labyrinth of error, with glimpses of truth at every turn.

Ancient
Belief in
Spontaneous
Generation.

Even Aristotle (384–322 B.C.), the founder of Biology, believed in spontaneous generation, but he did not accept the current creed lightly. In point of fact he devoted no small space, and no little ingenuity, to its discussion. Thus it was almost exclusively in regard to invertebrate animals that Aristotle postulated spontaneous generation; except in the case of a few fishes, such as eels (whose generation was till very lately a complete puzzle), he held that vertebrates arose as the result of pairing. As to insects and the like, Aristotle was well aware that they were male and female and reproduced sexually; he was even aware of the partial parthenogenesis of bees' eggs, those which become drones having a mother but no father: what he asserted was, that spontaneous generation occurred as well. He seems to have been especially and naturally puzzled by the sudden appearance of internal parasites, and by the occurrence of small animals in putrefying substances—facts which were not explained until quite modern times.

From Aristotle to Augustine, from Lucretius to Luther, on through the long centuries the belief in

Mediæval
Beliefs.

spontaneous generation remained unshaken. Even a man like Cesalpino, who did some excellent botanical work, and had, long before Harvey, some clear ideas as to the circulation of the blood, believed that frogs might be generated from the mud with the help of sunshine, and even suggested a similar origin of the aboriginal Americans. The botanists were no better than the zoologists. One of their favourite notions was that the green dust which grows in damp weather on trees and stones, which is now known to consist of unicellular Algæ, such as *Pleurococcus*, was a standing evidence of the genetic connection between the dead and the living, between the mineral and the vegetable; even Bacon of Verulam believed in the spontaneous origin of some higher plants, like thistles, from dead earth; and the Italian botanist Matthioli