

very first step of all was believed to be an insoluble problem. But this is now all changed. The whole scientific and literary world, even the whole educated public, accepts as a matter of common knowledge the origin of species from other allied species by the ordinary process of natural birth, the idea of special creation being all but extinct.

A summary of the Darwinian theory of the origin of species by Alfred Russel Wallace, is as follows :—"The theory of natural selection rests on two main classes of facts which apply to all organized beings without exception, and which thus take rank as fundamental principles or laws. The first is the power of rapid multiplication in a geometrical progression ; the second, that the offspring always vary slightly from their parents, though generally very closely resembling them. From the first fact or law there follows necessarily a constant struggle for existence, because while the offspring always exceed the parents in number, generally to an enormous extent, yet the total number of living organisms in the world does not and cannot increase year by year, consequently every year, on the average, as many die as are born, plants as well as animals ; and the majority die premature deaths. They kill each other in a thousand different ways ; they starve each other by some consuming the food that others want ; they are destroyed largely by the powers of nature—by cold, by heat, by rain and storm, by flood and fire. There is a perpetual struggle among them, which shall live and which shall die ; and this struggle is tremendously severe because so few can possibly remain alive—one in five, one in ten, often only one in a hundred or even a thousand.

"Then comes the question, Why do some live rather than others ? If all the individuals of each species were exactly alike in every respect, we could only say it is a matter of chance. But they are not alike. We find that they vary in many different ways. Some are stronger, some swifter, some hardier in constitution, some more cunning. An obscure color may render concealment more easy for some. Keen sight may enable others to discover prey, or escape from an enemy better than their fellows. Among plants the smallest differences may be useful or the reverse. The earliest and strongest shoots may escape the slug ; their greater vigor may enable them to flower and seed in unfavorable weather ; plants best armed with spines or hairs may escape being