name which is so frequently associated with Darwin, especially in Germany, is that of Professor Haeckel, whose 'Generelle Morphologie' and 'History of Creation' have done much to introduce the spirit of Darwinism into German literature. These works also represent the

44. Haeckel.

idea of natural selection is unquestionably the most important idea that has ever been conceived by the mind of man. Yet the wonder is that it should not have been hit upon long before;" and after referring to the forgotten anticipations of Wells and Matthew, Romanes proceeds: "Still more remarkable is the fact that Mr Herbert Spencer — notwithstanding his great powers of abstract thought and his great devotion of those powers to the theory of evolution, when as yet this theory was scorned by science—should have missed what now appears so obvious an idea." In this connection it is interesting to note how those general canons of evolutionary thought which were established by Spencer before the publication of the 'Origin' were brought into general recognition by scientific men only when the definite mathematical or statistical formula of natural selection was announced, and that, after the lapse of a whole generation, it is not this precise formula but the general conception of evolution which, according to many of the foremost naturalists, will obtain; the part which natural selection plays being uncertain and variously estimated by the many adherents of the theory of evolution. See, *inter alia*, the article on "Evolution in Biology" by Huxley in the 'Ency. Brit.,' 9th ed., vol. viii. p. 751: "How far natural selection suffices for the production of species remains to be seen. Few can doubt that, if not the whole cause, it is a very important factor in that operation. . . . The importance of natural selection will not be impaired even if further inquiries should prove that variability is definite and is determined in certain directions rather than in others by conditions inherent in that which varies." See also the Address of Lord Salisbury at the meeting of the Brit. Assoc. at Oxford in 1894, and the subsequent remarks of Huxley in seconding the vote of thanks ('Life of Huxley,' vol. ii. p. 378): "The essence of this great work (the 'Origin of Species') may be stated summarily thus: it affirms the mutability of species and the descent of living forms, separated by differences of more than varietal value, from one stock. . . . And yet it is also true that if all the conceptions promulgated in the 'Origin of Species' which are peculiarly Darwinian were swept away, the theory of the evolution of animals and plants would not be in the slightest degree shaken." In fact, the general principles of mechanical evolution, as first systematised by Mr Spencer, received recognition only through a definite formula, but may, after all, survive that special doctrine. It is further very evident how the parallel with Newton's formula of gravitation entirely breaks down if we look at matters in this light; every subsequent discovery having only tended to confirm that special mathematical relation, and proved the all-important part it plays in nature.