## SCIENTIFIC THOUGHT.

86. Darwin. publication of the 'Origin of Species' that the phenomena of variation-*i.e.*, of deviation from the existing type or average-forced themselves upon naturalists and statisticians as requiring to be specially observed, de-Since that time a new scribed, and accounted for. branch of science has sprung up, unknown before even by name—the study of variation in nature. This, as we have seen in a former chapter, is one of the great and important aspects of nature brought prominently before the thinking naturalist by Darwin's and Wallace's discoveries, and strongly urged forward by the independent arguments of Mr Herbert Spencer. It involves the great problems of Inheritance and Adaptation. What are the facts, and what the causes of variation, of the moving and propelling principle in natural selection and evolution? The latter is a physiological problem-the former is one of statistics.

thought or human action which evolutionism leaves exactly where it stood before the advent of the Darwinian conception. In nothing is this fact more conspicuously seen than in the immediate obsolescence (so to speak) of all the statical pre-Darwinian philosophies which ignored development, as soon as ever the new progressive evolu-tionary theories had fairly burst upon an astonished world. Dogmatic Comte was left forthwith to his little band of devoted adherents; shadowy Hegel was relegated with a bow to the cool shades of the common-rooms of Oxford; Buckle was exploded like an inflated windbag: even Mill himself,-magnum et venerabile nomen,-with all his mighty steam - hammer force of logical directness, was felt instinctively to be lacking in full appreci-

ation of the dynamic and kinetic element in universal nature. Spencer and Hartmann, Haeckel and Clifford, had the field to themselves for the establishment of their essentially evolutionary systems. Great thinkers of the elder generation, like Bain and Lyell, felt bound to remodel their earlier conceptions by the light of the new Darwinian hypotheses. Those who failed by congenital constitution to do so, like Carlyle and Carpenter, were, philosophically speaking, left hopelessly behind and utterly extin-Those who only half guished. succeeded in thus reading themselves into the new ideas, like Lewes and Max Müller, lost ground immediately before the eager onslaught of their younger com-petitors" (loc. cit., p. 197).