

CHARLES DARWIN, M.A., F.R.S.

BORN FEBRUARY 12, 1809; DIED APRIL 19, 1882.

DEATH, with tender hand, has taken away our most celebrated Naturalist, Charles Darwin; one of whom it is not too much to assert that he has made a greater impression on the minds of men of science throughout the world, than any of his contemporaries. His publications have had the effect of exciting numberless persons to make observations for themselves, and thus unconsciously to become naturalists; whilst, both directly, and indirectly, our store of scientific knowledge has been enlarged a thousandfold. He was born at Shrewsbury on Feb. 12, 1809, his father being Dr. Robert Waring Darwin, F.R.S., physician of that town. His grandfather was the celebrated Dr. Erasmus Darwin, F.R.S., the poetical and scientific physician of Lichfield. His mother was a daughter of Josiah Wedgwood, the modern founder of the English pottery manufacture. Charles Darwin was educated at Shrewsbury Grammar School under Dr. Butler, thence he went to the University of Edinburgh in 1825, remained there two years, and next entered Christ's College, Cambridge, where he graduated B.A. in 1832, and M.A. in 1837. His hereditary aptitude for the study of natural science was early perceived, and the Rev. Prof. Henslow recommended him to Captain Fitzroy and the Lords of the Admiralty, in 1831, as Naturalist to accompany the second Surveying Expedition of H.M.S. *Beagle* in the Southern Seas. The first expedition, that of the *Adventure* and *Beagle* (1826-30), had explored the coasts of Patagonia; the *Beagle*, which sailed again December 27, 1831, and returned to England October 22, 1836, made a scientific circumnavigation of the globe. Mr. Darwin served without salary, and partly paid his own expenses, on condition that he should have the entire disposal of his zoological, botanical, and geological collections. On returning to England, he published a "Journal of Researches into the Geology and Natural History" of the various countries he had visited. This originally appeared with a general account of the voyage by Captain Fitzroy, but was afterwards published separately. Since that time Mr. Darwin has resided at Down, near Farnborough, Kent. In addition to numerous papers on various scientific subjects, Mr. Darwin edited the "Zoology of the Voyage of the *Beagle*," and wrote three separate volumes on geology—viz. "The Structure and Distribution of Coral Reefs," 1842, second edition 1874; "Geological Observations on Volcanic Islands," 1844; and "Geological Observations on South America," 1846. The most important of Mr. Darwin's subsequent works are a "Monograph of the Family Cirripedia," published by the Ray Society in 1851-3, and on the Fossil Species of the same group, by the Palæontographical Society. But by far the most widely-known contribution from Mr. Darwin's pen was his famous "Origin of Species by means of Natural Selection," published in 1859, which has gone through several editions at home, and has been translated into French, German, Italian, Spanish, and other European languages. No other book ever caused a more profound sensation, and probably no book was ever received with such extreme manifestations of scientific enthusiasm and scientific incredulity.

Briefly summarized, the propositions submitted by its author are as follows:—More organisms perish than survive. No two individuals are exactly alike. Individual peculiarities are transmissible. Those individuals whose peculiarities bring them into close adaptation with their surroundings survive and transmit them to their offspring. The survival of the fittest thus tends to maintain an equilibrium between organisms and their surroundings. The environment of every group of organisms is steadily changing. Every group of organisms must therefore change in average character under penalty of extinction. A change set up in one part of an organism necessitates changes in another part. These changes are complicated by the law, that structures are nourished in proportion to their use, and the changes thus set up must alter the character of any group of organisms. These propositions being granted, Darwin simply asks us to believe that, since the appearance of life, time enough has elapsed to produce all the variation of species now seen. His subsequent works have had for their object the supplying the data on which he founded his conclusions. A treatise on "The Fertilisation of Orchids," published in 1862, was followed by "Domesticated Animals and Cultivated Plants; or the Principles of Variation, Inheritance, Reversion, Crossing, Interbreeding, and Selection, under Domestication," in 1867. In 1871 he published the "Descent of Man and Selection in Relation to Sex," two volumes, a new edition of which was published in 1874, in one volume, with large additions. Also, "The Expression of the Emotions in Man and Animals," published in 1873; "Insectivorous Plants and Climbing Plants," in 1875; "The Effects of Cross and Self Fertilisation in the Animal Kingdom," in 1876; "Different Forms of Flowers in Plants of the same Species," in 1877; the "Movement of Plants," in 1880, a continuation of his investigations on the movement and habits of climbing plants; and in October last, "The Formation of Vegetable Mould through the Action of Worms."

As a matter of course, Charles Darwin was a member of most of the leading scientific societies, both at home and abroad. He had also obtained the Royal and Copley Medals from the Royal Society, and the Wollaston Palladium Medal from the Geological Society, and had lately received many high distinctions, including the Prussian Order "Pour le Mérite" in 1871, degrees from the Dutch University of Leyden in 1875, and from that of Cambridge (LL.D.) in 1877, the corresponding membership of the French Academy in 1875, and also the corresponding membership of the Academy of Vienna.

In 1831 he married his cousin, Miss Emma Wedgwood, who survives him; he also leaves a family of five sons and two daughters.¹

DR. JOHN LYCETT.

WE regret to record the death of this excellent geologist, and hope to give some notice of his work next month.

¹ Most of the facts here stated appeared in the *Morning Post*, April 21, 1882.