SOME RECENT BOOKS.

TURNING over the 900 pages of Dr. Alfred Russel Wallace's autobiography—"My Life: a Record of Events and "Opinions" (Chapman and Hall)—one is forced into the commonplace of criticism that greets almost all books of this kind. The record is planned on too large a scale; in the first volume especially, a more rigorous rejection and compression would have vastly improved the narrative. Yet the reader who knows how to skip will find these volumes deeply interesting; for they contain not only the life-record of one of the most striking figures in the world of modern science, but also the intimate self-expression of a man of great intellectual power, in whom are combined, with most perplexing psychological results, the sceptical mind of the man of science and the visionary temperament of the mystic. Every page of this book bears witness to the transparent honesty of the writer, to his nobility of character and his lofty ideals of life. It is assuredly a "book of "good faith," written by an octogenarian with the mental vigour of a man in the prime of life; and as we read we understand, in some measure, how one of the acutest biological thinkers of his day—an avowed Agnostic who rejected Christianity on the ground of insufficient evidence—came to accept the materialisation of spirit-forms and all the minor phenomena of the spiritualistic *séance* upon evidence which, to almost all scientific minds, seems wholly untrustworthy. Taine said of Renan: "He is a sceptic who, where his "scepticism makes a hole, stops up the hole with his mysticism." The remark applies with still greater force to Dr. Wallace.

Dr. Wallace will always hold an honoured place in the history of scientific research as the co-discoverer with Darwin of the theory of Natural Selection. The story of that remarkable coincidence is well known; and, quite apart from the epoch-making nature of the discovery, the modesty and unselfishness of the "rivals," each eager to give place and credit to the other, forms one of the most charming

passages in the annals of Science. It is not so widely known, I think, that both Darwin and Dr. Wallace found the long-sought clue to the Origin of Species in Malthus's "Principles of Population." Dr. Wallace gives us an interesting account of how the idea first occurred to him during his wanderings in the Malay Archipelago:—

> At the time I was suffering from a sharp attack of intermittent fever, and every day during the cold and succeeding hot fits had to lie down for several hours, during which time I had nothing to do but to think over any subjects then particularly interesting me. One day something brought to my recollection Malthus's "Principles of Population," which I had read about twelve years before. I thought of his clear exposition of "the positive checks to increase"—disease, accidents, war, and famine—which keep down the population of savage races to so much lower an average than that of more civilised peoples. It then occurred to me that these causes or their equivalents are continually acting in the case of animals also. . . . Vaguely thinking over the enormous and constant destruction which this implied, it occurred to me to ask the question, Why do some die and some live? And the answer was clearly, that on the whole the best fitted live. . . . Then it suddenly flashed upon me that this self-acting process would necessarily *improve the race*, because in every generation the inferior would inevitably be killed off and the superior would remain—that is, *the fittest would survive*. Then at once I seemed to see the whole effect of this, that when changes of land and sea, or of climate, or of food-supply, or of enemies occurred, it followed that all the changes necessary for the adaptation of the species to the changing conditions would be brought about. In this way every part of an animal's organization could be modified exactly as required, and in the very process of this modification the unmodified would die out, and thus the *definite* characters and the clear *isolation* of each new species would be explained.

Here at length was the solution! The same evening Dr. Wallace began a paper on the subject, and sent it to Darwin by the next post, "hoping the idea would be as new to him as it was to me." As all the world now knows, Darwin had been working on the same idea for twenty years, and had already nearly completed a large work fully developing it. It was characteristic of the man that he insisted on Dr. Wallace sharing with him the honour of the discovery; while Dr. Wallace, for his part, could write with splendid magnanimity to a friend, after reading Darwin's book: "I do honestly believe that with "however much patience I had worked and experimented on the "subject, I could never have approached the completeness of his "book, its vast accumulation of evidence, its overwhelming argument, "and its admirable tone and spirit. I really feel thankful that it has "*not* been left to me to give the theory to the world."

Although in general agreement with Darwin as to the overwhelming importance of the great principle of Natural Selection, there

are several points on which Dr. Wallace differs. These differences of opinion have been frequently misrepresented by objectors to "Darwinism," and it has even been stated that Dr. Wallace has given up the most essential parts of the theory of Natural Selection. Here (in Chap. xxv.) we have an admirably lucid statement of what these differences really are, and how they affect the theory in question. The only important points on which there is any real divergence of opinion are: (1) The origin of man as an intellectual and moral being; (2) sexual selection through female choice, as affecting male colour or ornament; (3) pangenesis, and the heredity of acquired characters. Dr. Wallace accepted Darwin's theory of pangenesis as a provisional hypothesis, but he now holds with Weissman that there is no valid evidence for the transmission of acquired characters, and has given up pangenesis as untenable. On the question of sexual selection he does not accept Darwin's inference that brilliant male colour or marking has been developed by the female's choice; but ascribes it to a variety of causes, and especially to the fact that in most species the male does not need so much protection as the female, and can therefore be more brilliantly marked with less danger. But the really important difference between Darwin and Dr. Wallace is the latter's rejection of the sufficiency of Natural Selection to explain the origin of man's mental and moral nature. Darwin believed that man's whole nature—physical, mental and moral—was developed from the lower animals by the same laws of variation and survival; and that there was no difference in *kind* between man's nature and animal nature, but only one of degree. "My view," says Dr. Wallace, "was, and is, that there is a difference in kind, intellectually and "morally, between man and other animals; and that while his body "was undoubtedly developed by the continuous modification of some "ancestral animal form, some different agency, analogous to that which "first produced organic *life*, and then originated *consciousness*, came into "play in order to develop the higher intellectual and spiritual nature "of man." He holds that although the mathematical, musical and artistic faculties have been developed under natural selection, this process could never have called them into being; and that the spiritual nature of man separates him completely from the lower animals. Elsewhere he has expressed this view even more forcibly: "The gulf which separates the ant from Newton, the ape from Shake-"speare, and the parrot from Isaiah, cannot be bridged by a struggle "for existence. To call the spiritual nature of man a 'by-product' is "a jest too big for this little world."*

* See an interview with Dr. Wallace in Mr. Harold Begbie's "Master Workers", just published by Messrs. Methuen. Mr. Begbie's volume will be found especially useful by the general reader who wishes to understand the present position of scientific investigators in relation to what is conveniently, but imperfectly, termed "occultism." In addition to the interview cited above, there are chapters on Sir Oliver Lodge and Sir William Crookes, on Mr. Frank Podmore and Psychical Research, and on Dr. Milne Bramwell and Hypnotism.

In the chapters on "My Friends and Acquaintances" we get many interesting glimpses of the famous men of a past generation—Darwin, Spencer, Huxley, Sir Charles Lyell, Tyndall, and many lesser lights. Much of the Darwin-Wallace correspondence has already been published in the "Life and Letters," and especially in "More Letters" (1903); but here we have several hitherto unprinted letters from Darwin, full of the personal charm which characterises all his private correspondence. Dr. Wallace was intimate with Huxley, but he never seems to have got over a "feeling of awe and inferiority" in discussing scientific problems with him—an inferiority he did not feel with Darwin. This was due, he thinks, to the fact that "the enormous "amount of Huxley's knowledge was of a kind of which I possessed "only an irreducible minimum, and of which I often felt the want. In "the general anatomy and physiology of the whole animal kingdom, "living and extinct, Huxley was a master, the equal—perhaps the "superior—of the greatest authorities on these subjects in the "scientific world." Dr. Wallace saw much of Spencer at one time. Here is an amusing glimpse:—

> Once I remember dining informally with Huxley, the only other guests being Tyndall and Herbert Spencer. The latter appeared in a dress-coat, whereupon Huxley and Tyndall chaffed him, as setting a bad example, and of being untrue to his principles, quoting his Essay on "Manners and Fashion," but all with the most good-humoured banter. Spencer took it in good part, and defended himself well, declaring that the coat was a relic of his early unregenerate days, and where could he wear it out if not at the houses of his best friends? "Besides," he concluded, "you will please to observe that I *am* true to principle in that I do *not* wear a white tie!"

The second of these volumes contains much concerning spiritualism. Dr. Wallace endeavoured, but with little success, to persuade his scientific friends to make a serious examination of the phenomena upon which he based his faith. Huxley pleaded lack of interest and time. Tyndall went to one *séance*, and read Dr. Wallace's pamphlet on "The Scientific Aspect of the Supernatural," afterwards writing to his friend: "It is not lack of logic that I see in your book, but a "willingness that I deplore to accept data which are unworthy of "your attention." Romanes, on the other hand, seems at one time to have taken spiritualism very seriously; but after spending much time and trouble over the matter, he too withdrew from further investigation. The following letter from the late Samuel Butler is worth quoting at length, as giving a curious revelation of the mind of that remarkable man:

> Granted that wonderful spirit-forms have been seen and touched and then disappeared, and that there has been no delusion, no trickery. Well; *I don't care.* I get along quite nicely as I am. I don't want them to meddle with me. I had

> a very dear friend once, whom I believed to be dying, and so did she. We discussed the question whether she could communicate with me after death. "Promise," I said, and very solemnly, "that if you find there *are* means of visiting me here on earth—that if you *can* send a message to me—*you will never avail yourself of the means, nor let me hear from you when you are once departed.*" Unfortunately she recovered, and never forgave me. If she had died, she would have come back if she could; of that I am certain by her subsequent behaviour to me. I believe my instinct was perfectly right; and I will go farther: if ever a spirit-form takes to coming near me, I shall not be content with trying to grasp it, but, in the interests of science, *I will shoot it.*

Butler evidently thought that he had said too much, for he wrote another letter apologising for his "rudeness." But one cannot doubt that the first letter was written in all seriousness, and can imagine that it was inspired by an irritating sense of the futility of investigating phenomena which, to the writer, seemed so trivial. That is a point which the temperamental spiritualist seems unable to appreciate—the *triviality* of the phenomena produced at spiritualistic *séances.* There are many people, by no means lacking in reverence and spirituality, who are repelled by the very nature of the spiritualistic phenomena they are asked to examine—the table-turning and spirit-rapping, the ringing of hand-bells, the purposeless moving of furniture, the throwing of flowers about the room, the untying of knots under cover of a dark cabinet, and all the tricks that form the stock-in-trade of the professed conjurer. To their minds it is inconceivable that spirit-forms should indulge in such idle pranks; or if such things can be, they would rather not witness the performance, just as they would rather not be present at the degradation of noble animals in a circus. It is a horrible idea that the spirits of those we love may be at the beck and call of some professional medium, engaged for the evening to go through a programme of spirit-tricks. I say it in all seriousness, and with no desire to scoff at believers in spiritualism, among whom there are men worthy of the highest esteem; but if these inanities of the *séance could* be proved by strict scientific investigation to be genuine spiritual manifestations, there would be only one course open to the humane—the formation of a Society for the Prevention of Cruelty to Spirits.

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