REVIEWS OF BOOKS.

Contributions to the Theory of Natural Selection. A Series of Essays, by Alfred Russell Wallace, author of the Malay Archipelago. London: Macmillan & Co.

M. ALFRED WALLACE has, in the volume of essays now published, first given to the world in a comprehensive form the several memoirs which have during many years past appeared from his pen in the scientific periodicals. It will be known to all of our biological readers that the doctrine now so familiar as the Darwinian theory of Natural Selection was really promulgated by Mr. Wallace a short time before it was more elaborately stated by Mr. Darwin himself.

Both of these eminent naturalists had simultaneously and independently worked out the great problem of the origin of species; but Mr. Wallace, with unusual modesty, and with a profound admiration of Mr. Darwin's great qualifications as the advocate of a new law in biology, gave way to him, and allowed him to have, so far as the outside public are concerned, the credit of establishing the doctrine of Natural Selection. We should not be doing justice to Mr. Wallace's extreme modesty, if we did not here quote a passage from the preface, in which he states clearly the position he has taken:—

"The present work will, I venture to think, prove that I both saw at the time the value and scope of the law which I had discovered, and have since been able to apply it to some purpose, in a few original lines of investigation. But here my claims cease. I have felt all my life, and I still feel, the most sincere satisfaction, that Mr. Darwin had been at work long before me, and that it was not left for me to attempt to write 'The Origin of Species.' I have long since measured my own strength, and know well that it would be quite unequal to that task. Far abler men than myself may confess that they have not that untiring patience in accumulating, and that wonderful skill in using large masses of facts of the most varied kind—that wide and accurate physiological knowledge—that acuteness in devising and skill in carrying out experiments—and that admirable style of composition, at once clear, persuasive, and judicial—qualities which in their harmonious combination mark out Mr. Darwin as the man, perhaps of all men now living, best fitted for the great work he has undertaken and accomplished.

In this volume we find the collected essays of the author which bear especially on the great question of the origin of specific forms. Most of these have already appeared in scientific and popular journals, some having been published in the Student and the Westminster Review; but certain of them, as that on "Instinct in Man and Animals," are now printed for the first time. In all the chapters we note the same wonderful collection of observed facts, the same close and clear reasoning from data to conclusions, the same patience, and the same candour in acknowledging difficulties which characterize Mr. Wallace's other writings. Taken collectedly, these essays form a most valuable supplement to Darwin's "Origin of Species," beside which Mr. Wallace's book should be placed on every biologist's bookshelves. It would be impossible to select any one of Mr. Wallace's chapters in preference to another for interest or value; but there are certain of them that have for us a peculiar attraction; among these are the paper on birds' nests, which develops an important theory of instinct, that doubtless will find many opponents among the religiously orthodox; and the chapter on the "Limits of Natural Selection as applied to Man," in which the author discusses the question of an abstract moral sense, and treats of the question of volition. On many of these points Mr. Wallace takes views from which we, and many others of his admirers, must distinctly dissent. Nevertheless, his remarks are highly philosophic, and may be read by all without the least feeling of offence. We note in connection with this part of the subject that Mr. Wallace accepts, with much enthusiasm, the remarkable and well-known theories of the Jesuit writer, Bayma. In conclusion, we must say of the work that it is an admirable pendant to Mr. Darwin's classic treatise.