

LITERATURE.

Dr. Wallace's Essays *

THE high rank long held by Alfred Russel Wallace as a scientist and publicist gives interest and importance to any fresh contribution from his pen. These essays are exceptionally important by reason of the fact that, tho written at various times during the last thirty-five years, they have all been revised in the light of later discoveries and reflections, and the whole may therefore be taken as the author's final judgment on the questions treated.

The scope of subjects is wide and various, tho not inclusive of all the controverted questions with which the veteran scientist's name has been connected. Vaccination, for instance, of which he is a persistent opponent, is omitted from discussion, except in a passing mention; and Spiritualism, in which he is an ardent believer, is treated only indirectly, in the paper on "Why Lead a Moral Life?"

Most of the subjects having to do with matters of controversy, and the range being particularly wide, it may prove better, instead of dwelling at length on particular questions to indicate the attitude of the author on the most important and occasionally to point out divergences of belief between him and others. The first volume is almost entirely given to pure science. In a paper on the formation of the so-called inaccessible valleys, such as the Cox and Grose valleys in New South Wales and our own Yosemite, Dr. Wallace attacks the subsidence theory of Prof. J. D. Whitney. He contends that erosion, caused by carbonic acid and other gases during volcanic times, and subsequently glacial, aqueous and aerial erosion, are entirely sufficient to account for the phenomena presented.

The next two essays deal with the character of the oceanic basins, of whose permanence throughout known geologic time the author is firmly convinced, and of the molten interior of the globe. This

latter chapter will be found in many respects one of the most interesting in the book. The author supports, with a wealth of illustration, the theory of the Rev. Osmond Fisher of the fluidity of the earth's interior, inclosed by a solid crust varying from 18 to 37 miles thick. In an appendix Dr. Wallace gives a tentative support to the theory of the formation of the earth by meteoric accretion.

Three essays on the ice-age follow. In most of his contentions regarding the phenomena of this period the author is in harmony with the greater weight of scientific opinion. But in his support of the theory of Sir Andrew Ramsay that the valley-lakes of highly glaciated regions have been hollowed out by glaciers he runs counter to a theory somewhat strongly maintained, of a pre-glacial origin of these lakes.

Interesting, but not particularly controversial, are the articles on English and American flowers and American forests; tho exception must be taken by any one who has felt the real charm of our deep woods and flowery meadows to his somewhat depreciatory comments thereon.

In five articles on the theory of evolution the argument for the sufficiency of natural selection alone, as an explanation of the existence of the numberless forms of life on the planet, is presented with a truly wonderful marshaling of illustrations and cogency of reasoning. Against Spencer and all his partisans, Dr. Wallace has consistently maintained for years his antagonism to the theory of the transmissibility of individually acquired characters. In recent years Weismann and a number of followers have entered the field on the side of Wallace, and the earth has been literally ransacked for illustrative instances in behalf of the contentions of either side. Yet to the average on-looker the conflict is still a drawn battle, with the final task of proof and demonstration yet to be shown. It is certain that the present tendency in teaching biology in the schools is to avoid both theories and to deal with narrower generalizations from observed facts.

* STUDIES SCIENTIFIC AND SOCIAL, By Alfred Russel Wallace. New York: The Macmillan Company. Two vols. \$5.00.

The author joins issue with Quatrefages and others on certain questions concerning the Polynesians. In the former's opinion the Polynesians have no connection with the Malays, but are descended from the Caucasian race. In convincing terms he shows their essential differences from the Fijians, Papuans and other negroid types, as well as from the Malays. A Caucasian origin is also given to the Australians, tho it is admitted that traces of admixture with other races are often shown.

Our readers will remember Dr. Wallace's contribution to these columns two years ago on the subject of white men in the tropics. In this paper he maintains that the arguments making for the theory that whites cannot work and maintain themselves in the tropics are founded merely upon superficial observation, and have no basis in fact. A succeeding paper on "How to Civilize Savages" is largely an indictment of the missionaries and white traders.

The second volume deals entirely with educational, political, ethical and sociological problems. Dr. Wallace's attitude on the land question is sufficiently known to every well-read person. His convictions have not altered with time, and his later papers are quite as insistent and powerful as the earlier ones in voicing the necessity of nationalizing the land. His criticism of the Spencerians and other individualists is at once keen and trenchant. He acknowledges his conversion to the principles of land nationalization as having been due to Spencer's "Social Statics," and ridicules Spencer's subsequent change of view, whereby the payment of poor rates by the landed class since 1630 is made to appear as a compensation for the original inclosing and expropriation of the common lands. But the land problem, tho to his mind the most immediate and pressing, by no means represents the full extent of his social program. Dr. Wallace is a Socialist, and is to be classed with the partisans of the late Edward Bellamy. A well-nigh unreserved support to the latter's theories is given in the paper on "Human Selection," and further support in other articles, particularly in his interesting account of the co-operative colony at Ralahine, Ireland (1830-34).

For a scholarly consideration of many

of the most important questions in science and politics we unhesitatingly recommend this book to the reader. He will find much with which he cannot possibly agree; nevertheless, he will find in what is unacceptable as well as in what is acceptable a strength of reasoning, a happiness of illustration and a conscientiousness of method which are unusual; and he will find everywhere revealed the evidences of a strong, simple and sincere nature, guided in all things by a love of truth and a devotion to the interests of humanity.