

The Wonderful Century ; its Successes and its Failures.
By Alfred Russell Wallace. With Portrait of the Author,
and twelve Statistical Diagrams. 8½ x 5½ in., x. + 400 pp. 1898.
New York. Dodd Mead.
London. Sonnenschein. 7/6

An account of the "wonderful"—that is to say, of the nineteenth-century, comprised within four hundred pages, of which the last two hundred and forty-one are devoted to "failures," and only the first one hundred and fifty-nine to "successes," must surely be entitled to a place in one or other of these primary divisions. The attempt to write such an account is wonderful in itself, and the way in which it has been accomplished is more wonderful still. The volume contains the most curious jumble of fact and fiction, of science and quackery, of narrative and prophecy, which it has ever been our fortune to encounter. Perhaps the crowning wonder is that it should be written by a naturalist who, forty years ago, touched the fringe of a generalization which, if he had fairly grasped it, would have placed his memory side by side with that of Darwin; but who, in his later life, has come to regard "phrenology" as a science, "socialism" as possible in an organized community, Sir William Wedderburn as a political oracle, and all who differ from himself as either profoundly ignorant or hopelessly wrong-headed. The book affords a melan-

choly proof of the extent to which the faculty called by Faraday "judgment" may be permitted to decay, even while the faculty of observation is being exercised; and if we were called upon to suggest a motto for the title-page, it would be, "Fears of the brave, and follies of the wise."

Mr. Wallace's selection of the successes of the century is not only arbitrary, but may be said to err in the direction of triviality. The invention of friction matches, although they add appreciably to domestic convenience, could hardly be described even by a German as "epoch-making." The enumerated improvements in locomotion, in labour-saving machinery, in the conveyance of thought, and in the applications of light to photography and spectrum analysis are all of them important; but many words are devoted to other alleged discoveries, some of which can hardly be said to have passed out of the region of hypothesis into that of completed knowledge. What might have been expected, on the principles laid down by the author, to be in his opinion the greatest success of all is hardly mentioned. We refer to the manner in which the government and general policy of the country have fallen out of the hands of privileged classes, and are now controlled by the nation as a whole.

The "failures" of the century, from Mr. Wallace's point of view, are numerous and important. The list includes the "opposition to hypnotism and psychical research"; the endeavour to prevent epidemic smallpox by compulsory vaccination; the "plunder of the earth," apparently by digging coal and selling it to foreign nations; the "demon of greed" and other matters which the exigencies of space forbid us to notice. We must confine ourselves to the "failure" to which the first place is assigned, and to which, it may therefore be presumed, Mr. Wallace attaches the greatest amount of importance. This, of all conceivable things, is neither more nor less than "the neglect of phrenology." Phrenology is an assemblage of doctrines which teach that the endowments of man depend upon an uncertain number of independent "faculties," each of which is asserted to be due to the activity of separate portions of brain, ministering to it alone, occupying fixed positions, and called "organs." The "organs" are said to be arranged in pairs, two for every faculty, the two hemispheres of the brain being exact counterparts. Large "organs" form elevations on the surface of the brain, with corresponding elevations of the skull and its coverings; and small "organs" permit depressions. The various combinations of large and small "organs" produce all existing diversities of capacity and character; a man's animal, moral, and intellectual constitution being the result of the balance of his "faculties," much as the flavour of a dish depends upon the proportions in which its ingredients have been mingled. The "organs" of the intellectual "faculties" are said to be situate in the front portion, or anterior lobe, of each hemisphere; the "organs" of the moral faculties in the middle lobe; and the "organs" of the animal propensities in the posterior lobe, which occupies the back of the head.

That such an assemblage of grotesque hypotheses could ever have been formulated, or, when formulated, could ever have been seriously discussed, can only be explained by the existence of a class of persons described by Bishop Butler as having much curiosity to know what is said, but no sort of curiosity to know what is true. The so-called "science" had for its aim the investigation of indefinable conditions by inexact methods; and the only "evidence" ever adduced in its support was of the same kind as that which has been adduced in favour of palmistry, or of the interpretation of character

from handwriting. The whole system was demolished, from the side of the supposed "faculties" themselves, by Jeffrey, in the 44th volume of the *Edinburgh Review*, and again from its physiological side by Dr. Carpenter, who showed that the first rudiments of the brain hemispheres make their appearance in the lowest animals as representations or analogues of the anterior lobes alone. In ascending the animal scale the anterior lobes increase in size and complexity, and the middle and the posterior lobes are placed behind them by degrees; but it is only in man that this process reaches its completion, and that the posterior lobes (the assumed seats of animalism) are fully developed. More recently, it has been shown by Ferrier and Hitzig that the functions of the opposite hemispheres are not identical, and that areas of brain surface which are claimed by phrenologists as the seats of moral or intellectual faculties are in fact subordinate to the performance of voluntary movements of some restricted kind, as the left frontal convolution to the movements of speech; but Mr. Wallace actually claims this discovery as supporting the views which, both in principle and in localization, it obviously and emphatically condemns. Phrenology made the two frontal convolutions the "organs" of "hope," and placed the "organs" of language in or behind the eyes.

The social conditions of the century affect Mr. Wallace in an extraordinary manner, and he draws a picture, in opposition to all known facts or recorded experience, of increasing penury and distress in the great army of industry. He does not believe, or will not admit, that the lives of working people have undergone prodigious amelioration; and he talks the common stuff of the strike agitator about the tyranny of capital and the cruel exploitation of the poor. As a remedy for the conditions which he deplores, he suggests that a revenue of about four millions a year should be raised by additional taxation of the "rich," and that it should be expended in giving bread to everybody who asks for it. He does not agree with the apostolic dictum, "if any man will not work, neither shall he eat," and his proposal may perhaps be sufficiently answered out of the mouth of one of M. Zola's characters in "Paris." "Ah! le pain, croire que le bonheur régnera quand tout le monde aura du pain, quel imbécile espoir!"

In the early part of his career, Mr. Wallace was elected a Fellow of the Royal Society, and received the honorary degree of D.C.L. from the University of Oxford. It is, perhaps, as a small indication of his complete severance from modern scientific thought and action that neither of these distinctions is suffered to appear upon his title-page.
