

phrenology by the scientific world. Mr. Wallace does not say so, but he appears to think there ought to be a professorship of phrenology at every University. That will come in good time, and perhaps also a State Department with a Phrenologist-Royal to examine the bumps of youthful Britons, and consign them to appropriate careers. In the meantime there is a preparatory professorship on the sands of every watering-place during the summer months. The second failure is the determined opposition to hypnotism and psychical research. This is a stiff-necked generation, which refuses to believe in "thought-transference, automatic-writing, trance-speaking, clairvoyance, veridical hallucinations, warnings, detailed predictions of future events, phantoms, voices or knockings, bell-ringing, playing on musical instruments, stone-throwing, and various movements of solid bodies, all without human contact or any discoverable physical cause," and, we may add, without any clear evidence of such things ever having happened, except to hysterical cranks in darkened rooms. The third failure is the continued belief in vaccination and its compulsory enactment. But, seeing that the law has had to be modified, and that a large number of medical men have dissented from vaccination, it seems that the century ought to be credited with breaking away from vaccination, instead of condemned for adopting and adhering to it. Other failures are the continued prevalence of militarism and what is called "the demon of greed." The chapter in which this demon is exorcised is at the end of the book and printed in small type, which suggests a want of confidence on Mr. Wallace's part in his "Remedy for Want in the Midst of Wealth."

We doubt if there is another thinker who agrees with Mr. Wallace in his classification of nineteenth-century successes and failures. The first part of the book, that containing a concise account of the progress of the sciences during the century, is the only valuable part. The chapters on physics, and especially one on the importance of dust, which shows how the English climate has been modified by modern industrial conditions, are exceptionally good. It may be of interest to give Mr. Wallace's list of the chief inventions and discoveries of the nineteenth century, and of all preceding ages. Most people will be inclined to add others to the list, and suppress some of those given. *Of the nineteenth century*: railways; steam-ships; electric telegraphs; the telephone; lucifer matches; gas illumination; electric lighting; photography; the phonograph; Röntgen rays; spectrum analysis; anæsthetics; antiseptic surgery; conservation of energy; molecular theory of gases; velocity of light directly measured, and earth's rotation experimentally shown; the uses of dust; chemistry (definite proportions); meteors, and the meteoritic theory; the glacial epoch; the antiquity of man; organic evolution established; cell theory and embryology; germ theory of diseases, and the function of the leucocytes. *Of all preceding ages*: the mariner's compass; the steam-engine; the telescope; the barometer and thermometer; printing; Arabic numerals; alphabetical writing; modern chemistry founded; electric science founded; gravitation established; Kepler's laws; the differential calculus; the circulation of the blood; light proved to have finite velocity; the development of geometry. Mr. Wallace is weak in mechanics, hence his opening chapters are not very brilliant. A book of this sort ought to have been written by a number of experts, and coordinated by an all-round man.

THE SHORTCOMINGS OF A CENTURY.

As the nineteenth century draws to its close, it is getting high time for everybody of importance to express an opinion about it, so that we may decide as to whether it is worth while to commence the twentieth century or not. According to the standpoint of the century's critics, judgments must vary. Some will be enthusiastic over the progress made in converting this country into a vast cinder-heap; while to others the results of industrial and scientific progress must seem a poor substitute for the cloud-capp't towers, the gorgeous palaces and solemn temples of a bygone age of chivalry. The century has had its failures as well as its successes. Even the stoutest Anglo-Saxon must admit that all is not yet for the best in the biggest of all possible empires. So great are the failures, indeed, according to Mr. Russel Wallace—socialist, scientist, spiritualist, phrenologist—that in a book* on the subject he devotes more attention to them than to the successes.

And what are these failures? First, the neglect of

* "The Wonderful Century: Its Successes and its Failures." By Alfred Russel Wallace. (Swan Sonnenschein & Co.)