"At present a duplicate Criminal Record is being kept, i.e. a record based on anthropometric measurements plus thumb marks, and also separately a record based solely on the impressions of the ten digits. A system of classifying the latter is being worked out, and if after being subjected to severe tests it is found to yield sufficient power of differentiation to enable search to be unerringly made, it seems probable that measurements will gradually be abandoned as data for fixing identity, dependence being placed exclusively upon finger impressions."

It seems, therefore, that the following phrase of M. Bertillon requires modification: "We may safely say, then, of this new edition, that it is final in its main outlines and in most of its details, and that any future edition, if such there should be, will differ from it very little." A perfect system is one that attains its end with the minimum of effort, and that certainly cannot be affirmed of the French system. In my own opinion, the present English system (which includes full-face and profile photographs) much more nearly fulfils that definition.

Francis Galton.

## SCIENCE AND THEOLOGY.

A History of the Warfare of Science with Theology in Christendom. By Andrew Dickson White, L.L.D., &c., late President and Professor of History at Cornell University. 2 vols. Pp. xxiv + 416, xiv + 474. (London: Macmillan and Co., 1896.)

WENTY years ago Dr. White published a little volume, entitled the "Warfare of Science," to which the late Prof. Tyndall contributed a brief preface. Out of that volume has grown the present book, which, though very much more learned, has lost something of the freshness that characterised its predecessor. We should like to have said that the one had made the other needless, but, as ecclesiastical dignitaries still accept men like Dr. Kinns for authorities in science and champions of orthodoxy, we fear that Giant Pope—using the title in a wider sense than Bunyan did-is hardly dead yet. This book is melancholy reading, for it tells, again and again, of the miserable mistakes that have been made by good men with the very best intentions. Here and there, perhaps, Dr. White a little magnifies these mistakes and overlooks extenuating circumstances; is, perhaps, a little too ready to accept witnesses on his own side, as when he assumes it proved that man existed on the Pacific slope of America in the Pliocene age. The acute theologian also might sometimes have his chances of breaking the windows in the house of the man of science, for the latter occasionally talks wildly when he trespasses on the other's province. But we must sorrowfully admit, that Churchmen and Nonconformists alike—the most extreme Protestants as well as the most ardent Romanists-have distinguished themselves too often by their unwise and ignorant opposition to scientific facts and scientific progress. The former adversaries have not been less illiberal than the latter; indeed, of late years they have perhaps been more so. They have not persecuted so actively, simply because they have not so often had the power; as to the will, the less said the better.

Dr. White discusses the various branches of his subject in separate chapters. The first, entitled "From Creation to Evolution," is not the least interesting, though

we think that in these words he needlessly gives a point to an assailant; for to a theist evolution might appear only a mode of creation. But special creation is obviously meant, so that we may pass on. This chapter gives a very interesting summary of opinion, ancient and modern, ending with the story of the storm raised by the publication of Darwin's "Origin of Species." Here, as in several other places, Dr. White's book is of great though indirect value, because of its plain speaking. spirit of saint worship lingers in most religious bodies. It is deemed almost profane to admit that good and well-meaning men could make great mistakes, and thus produce serious mischief; could use absurd arguments, utter intemperate language, and do unjust actions. But Dr. White is no believer in this policy. Bishop Wilberforce of Oxford, even Pusey and Liddon, with firebrands like Dean Burgon and Archdeacon Denison, are dealt with in a spirit of refreshing candour; and even Mr. Gladstone occasionally comes in for not unkindly criticism, though his courtesy to theological antagonists receives its due meed of praise.

Then the author passes on to geography, with the absurd figments of Cosmas Indicopleustes and that deadly heresy of the existence of the antipodes; to astronomy, with the denunciation of the heliocentric theory of the planetary system, and the story of Galileo. Next we come to the battles over geology, the antiquity of man, anthropology, and the discoveries in Egyptian and Chaldæan history. Magic and demonology, with the development of chemistry and physics, follow next, together with the spread of scientific views on medicine and hygiene. Here theologians are charged with having opposed inoculation, vaccination, and the use of anæsthetics. As regards the second, they might now retort that its present opponents, as a body, are not specially distinguished either for orthodoxy or for religious zeal. Next come chapters on lunacy and demoniacal possession, a subject more difficult than appears on the surface, and concerning which, we may be sure, the last word has not yet been said. After chapters on the origin of language and the Dead Sea legends, the book concludes with a sketch of the development of modern ideas as to the function of inspiration and the duty of criticism.

Dr. White's book is a very exhaustive survey of this unreasonable conflict, which we may hope is coming to an end, and will be valuable as a work of reference. It should be carefully studied by all tutors in theological colleges, who would do well to give the substance of it in lectures to students preparing for the ministry, lest perchance they make the same mistakes as did their forefathers.

T. G. B.

## OUR BOOK SHELF.

A Manual of Botany. By J. Reynolds Green, Sc.D., F.R.S., F.Z.S., Professor of Botany to the Pharmaceutical Society of Great Britain. Vol. ii. Classification and Physiology. (London: J. and A. Churchill, 1896.) The second volume of Prof. Green's "Manual of Botany" concludes a work, the usefulness of which will be recognised by students and teachers alike. The present part is devoted to the treatment of taxonomy and physiology, and opens with an account of the general principles of classification, and of the leading systems which have severally left their mark on the progress of the science.