

THURSDAY, MAY 8, 1919.

JOSEPH BLACK.

The Life and Letters of Joseph Black, M.D. By Sir William Ramsay. With an Introduction dealing with the Life and Work of Sir William Ramsay, by F. G. Donnan. Pp. xix + 148. (London: Constable and Co., Ltd., 1918.) Price 6s. 6d. net.

THIS little book has a special interest in being the last published work of the late Sir William Ramsay. As Prof. Donnan states in his graceful appreciation of the author's life and work, Ramsay possessed an intimate knowledge and true perception of Black's position in the history of science, and as they were both *alumni* of the same *alma mater* (the University of Glasgow) it was exceedingly appropriate and a charming act of piety that he should have paid such a tribute to the memory of one with whose name and fame that university is so closely identified.

At the same time it cannot, in strict truth, be said that we have thereby gained any fresh light on Black's life and character, or on the nature and influence of his work. Nor was this to be expected. Practically all that can be said concerning his personal history, his habits, his occupations, his intellectual powers, his social gifts, and his influence as a teacher was said long ago by his successor and biographer, Robison, and his contemporaries, Playfair and Brougham, and it has been summarised in Thomson's well-known account. Indeed, says Ramsay with that quaint turn of humour and gentle irony so characteristic of him, "Dr. Thomas Thomson found Dr. Robison's estimate of Black's character so just that he appropriated it almost verbatim in his 'History of Chemistry' without the formality of quotation marks."

As regards, too, the influence of Black's work and teaching, there is nothing fresh to be learned. History has set its seal upon them, and posterity will accept the verdict. There will be no appeal. Epoch-making as Black's services to science were, few men of such eminence ever furnished so little material to the historian. His great achievements were made at the very outset of his career. He became famous almost at a bound, and for upwards of forty years he lived upon his reputation, augmenting it, indeed, by the wise and philosophic insight, the depth and range of his knowledge, liberality of thought, and sound judgment with which he impressed his colleagues and contemporaries, and influenced and stimulated his students. To all this Sir William Ramsay bears admirable testimony. The subject was evidently congenial to him, and the story as told by him was well worth the telling. For Robison's biography is practically forgotten except by bibliophiles, and Thomson's "History," a compilation of no great merit, and mainly of value for its record of events within the author's personal experience, is probably never looked into by the modern student. What is worth preserving in it,

from the point of view of history, has long since been incorporated into later and more important works.

A physician with a very limited practice, whose energies, such as they were, were almost wholly engrossed in the work of preparation for his lectures on chemistry, mainly to medical students, of feeble health and little physical vigour, Black lived a singularly tranquil and uneventful life. His constitutional weakness predisposed him to indolence, and he was incapable of any sustained mental exertion. Literary composition was evidently irksome to him. His correspondence might have been as world-wide as his fame had he cared, or been able, to maintain it. But a valetudinarian before he had reached middle life, he attained the allotted span only by the strictest regimen and by a routine almost monotonous in its regularity.

Moreover, the conditions both at Glasgow and at Edinburgh offered little inducement to experimental inquiry; in those days there was nothing in the nature of laboratory instruction to students, nor had Black facilities for working by means of assistants. Still, had he possessed something of the zeal and enthusiasm of a Scheele or a Priestley, he would have triumphed over these obstacles, for Black was not a poor man, and was well able to afford the expense of tilling the field of inquiry, especially in the domain of heat, which he had opened out for himself. As it was he left it to others to garner the rich harvest which lay ready to his hand had he only had the will and the vigour to gather it. Not that Black was careless of, or indifferent to, his reputation. He complained, and with good cause, of the manner in which his pioneering work was ignored by his French contemporaries, and he was consequently annoyed by the fulsome flattery addressed to him by Lavoisier when it became known that he was not indisposed to accept the doctrine of the anti-phlogistians. But he never sought for honours and distinctions or marks of recognition by foreign academies, and was genuinely surprised, and with an almost childlike gratification, when he received them.

Sir William Ramsay's pen-portrait conveys a vivid and lifelike presentment of a guileless, unaffected character, a man of strict integrity, perfectly transparent, firm and constant in his friendships, of a cheerful, lovable disposition, easy of approach, affable and courteous in bearing, and honourable in all transactions and social obligations. He lived a serene and unembittered existence, wholly unmoved by faction and undisturbed by polemical strife. He died as he had lived, and his gentle spirit left him when seated in his chair, without the slightest sign of even momentary pain.

The student of chemistry who is at all interested in the personal history of the science will read this book with pleasure and profit, for no better instance of the happiness and contentment that attend a life free from worldly troubles, and devoted to the unselfish pursuit of science and to the contemplation of its truths, can be found than in that of Joseph Black, who is to us, as he was to his contemporaries, one of the greatest ornaments of his age.