

on soils will find an excellent discussion on the subject in this book, although the author wisely avoids too drastic a use of modern Russian systems. Soils are but short-lived things compared with their geological neighbours, and our knowledge of their characteristics in bygone times is still scanty—but the paragraph on "Relic Soils" whets our appetite for more.

The translation, in spite of great difficulties, reads easily. Only one slight improvement might well have been made; it would have been better to have anglicised the transliteration of Russian names—the German transliterations offend the eye in an English book and are very apt to be misleading.

*The Great Betrayal (La Trahison des clercs).* By Julien Benda. Translated by Richard Aldington. Pp. x+188. (London: George Routledge and Sons, Ltd., 1928.) 7s. 6d. net.

THE thesis of M. Benda's book is that the European *intelligentsia* have gone over to the enemy; that is to say, they have deserted the idealist ranks and joined the great army of the Philistines. It is not merely that the *intelligentsia* have become sceptics; they have actually transferred their allegiance, and devote themselves to detract and deride every form of idealism. For example, they lend themselves to "the intellectual organisation of political hatreds," and preach the doctrine of "sacred egotism." They display "the scorn for argument, the excess, the hatred, the fixed ideas" which we are accustomed to associate with the lowest forms of political propaganda. In short, they have prostituted their powers, and have become the militia of materialism. Even internationalism, which assumes imposing idealist airs, is inspired by bankers, industrialists, and trade unionists, whose aims are by no means disinterested.

The most notable betrayal has been an attack upon the intellectual ideal of truth itself, since "truth is a great impediment." There is now, for example, "a bourgeois truth and a working-class truth," and truth varies with frontiers. "Recently certain French thinkers waxed indignant that the doctrines of Einstein were accepted by their compatriots without more resistance." There is doubtless much ground for M. Benda's onslaught in some continental countries. But we do not think that British men of letters or of science have yet reached this stage of cynical barbarism. Yet the book is well worth reading. The translation is good.

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### Physics.

*Modern Physics.* By Prof. H. A. Wilson. (The Student's Physics, Vol. 6.) Pp. xiv+381. (London, Glasgow and Bombay: Blackie and Son, Ltd., 1928.) 30s. net.

PROF. H. A. WILSON is best known for his experimental researches, but this book shows that he is also able to give clear expositions of the more

theoretical aspects of modern physics. As he has himself recognised, the title is elastic, and not everyone will agree with his interpretation of it. In particular, most examinations demand a greater knowledge of the newer experimental methods and less of mathematical physics than is given here. The outlines of electromagnetic theory and electron theory are especially good, and furnish an excellent introduction to more pretentious treatises, whilst the two chapters on relativity are complete in themselves. The sections on the conduction of electricity through gases are good so far as they go, especially the chapter on flames, but too great weight has been given to the work of the Oxford school, and the treatment of the glow-discharge could well have been entirely replaced by an account of the precise methods for studying ionised gases at low pressures that have been developed in the last few years at Schenectady and at Princeton, the potentialities of which have still to be properly recognised.

The same general criticism applies to the other parts of the book that have an experimental bias. What is given is, nevertheless, concise and accurate. We have noticed only one incorrect statement: the photographing of the artificial disintegration of a nitrogen nucleus is erroneously attributed to Chadwick in the text (p. 225), an obvious slip, since the proper acknowledgment is made to Blackett on the corresponding plate (p. 131).

*An Introduction to Physical Science.* By Dr. Ivor B. Hart. Second edition. Pp. xii+406. (Oxford: Clarendon Press; London: Oxford University Press, 1928.) 4s.

*An Introduction to Physical Science.* By Prof. James Rice. (Benn's Sixpenny Library, No. 115.) Pp. 79. (London: Ernest Benn, Ltd., 1928.) 6d.

THOUGH of the same title, these two books differ widely in treatment and in aim. The former, now in its second edition, has already proved useful for beginners in experimental science. Mechanics, heat, light, sound, and magnetism and electricity all find a place in its pages, the young student being introduced to these sections in some fifty experiments which he is himself to work through. Descriptions of numerous demonstrations and applications are also included, the whole being put together in a perfectly natural manner which cannot fail to attract. The arrangement is excellent, and the book is cheap at the price.

Prof. James Rice's book reads more like a retrospect than an introduction. To comment adequately on all the main branches of physics within seventy small pages requires very close packing. We cannot help feeling that the little book would demand a greater effort of concentration than the majority of uninstructed laymen would be willing or able to make. It does, however, provide a pleasant evening's reading for one who already knows, and it might with advantage be put into the hands of students at about the intermediate stage, for the purpose of providing a general survey of past work.