The Ideal Aim of Physical Science: a Lecture delivered on November 7, 1924, before the University of London, at King's College. By Prof. E. W. Hobson. Pp. iv+34. (Cambridge: At the University Press, 1925.) 2s. net.

PROF. E. W. HOBSON has published in this booklet a lecture which he delivered in the autumn at King's College, London, and which is very well worth publication. He expounds briefly but clearly the view of the nature and necessary limitations of science, which received its most systematic development from Auguste Comte, but which Comte himself referred in germ to Hume. Mach, Karl Pearson and Prof. Hobson himself are the most notable recent advocates of it, and it must be held to have made its case good, subject to a clearer definition of its meaning and limitation than have been given to it by some of its defenders in the past, not excluding Comte himself.

We keep "explaining" in science, pushing our explanation further and further back. What do we mean by "explanation"? On this point those who become interested in Prof. Hobson's pamphlet should go on to Meyerson's "Explication dans la science," where this very point is submitted to a most searching historical examination. How far does this descriptive theory of science itself involve metaphysical elements, that very reasoning about the nature of things in themselves which it seeks most carefully to exclude? What do we mean by the "nature of things-in-themselves," and what would be the basis of philosophy if it is to be so sharply severed from science as Prof. Hobson demands?

Broadly speaking, while agreeing with him in his general thesis, on the basis of the old ideas of a separate, metaphysical world of things-in-themselves, we cannot agree that the spheres of science and philosophy can be thus regarded as independent. Philosophy is rather the "science of sciences," the most general conclusions of all which we can reach, while pursuing the strict path of science as the school to which Prof. Hobson belongs would describe it. But this is far too large a subject for a short note. Prof. Hobson's pamphlet is an admirable provocative to further thought, and concludes with an enlightening account of Einstein's work as illustrating his general position.

F. S. MARVIN.

Martin Arrowsmith. By Sinclair Lewis. Pp. 480. (London: Jonathan Cape, Ltd., 1925.) 7s. 6d. net.

IT is not often that a novel calls for review in a scientific journal, but Mr. Sinclair Lewis has given us in "Martin Arrowsmith" a work of such interest and importance that notice of it should not be neglected. It is a long novel dealing with the life problem of a young medical student and practitioner in the United States, who is handicapped by the common difficulty of narrow financial straits. He is inspired by the fine fire that consumes the true research worker to the exclusion of all else, and perpetually has to fight his superiors, who demand practical results and cannot see the importance of fundamental research *per se*. If the book brings home to any of the public the force of this idea, as it surely must, then it will do a very great service to research.

The other characters are remarkably well drawn, and though the "two-fisted fighting poet Doc" Pickerbaugh, of a State Public Health Service, may appear somewhat of a caricature to British eyes, doubtless he has his prototypes in the newer civilisation of America. Max Gottlieb, the bacteriologist, is excellent, and his gospel of truth so well set out that it should be an inspiration to many others who choose the hard paths of research as it was to Martin Arrowsmith.

What is called the "human interest" is not neglected, but we can see that Mr. Lewis was much more interested in the relation of Martin's emotional life to his work than to the mere story of it; viewed only as a tale, however, it makes excellent reading.

In a preliminary note, the author acknowledges the help of Dr. Paul de Kruif afforded him with the medical parts of the work, and with his scientific philosophy, and we can only say we should be glad to meet this gentleman. Mr. Lewis showed great promise in his earlier work, but here he has surely found himself, and we have no hesitation in strongly recommending this book to all research workers. W. P. K.

Über Wärmeleitung und andere ausgleichende Vorgänge. Von Prof. Dr. Emil Warburg. Pp. x+106. (Berlin: Julius Springer, 1924.) 1·40 dollars.

THE idea of making the theory of heat conduction in solids serve as an introduction to the theory of all diffusion or levelling processes is a good one and saves a large amount of repetition of mathematical work. The use of the term thermal resistance (p. 11) in the same sense as its analogue electrical resistance is another good feature of the book. More use of the point source is made than has been customary in books on heat conduction, *e.g.* the heat section of Riemann-Partielle Differential-gleichungen. In applying the elementary theory to cases like the deposit of dew (p. 32) and the bolometer (p. 34), in which the conditions are not such as to give direct conductivity problems, the author has detracted somewhat from the value of his work for teaching purposes. The same may be said of the transition from the periodic flow of a temperature wave into the earth to the periodic change of concentration at electrodes through which an alternating current enters a solution (p. 55). Only a page (p. 64) is devoted to diffusion, and no hint is given as to the motion of the solvent. Viscosity gets twenty pages, too many of which are devoted to the old oscillating disc method.

Islands: West Indian—Ægean. By Sir Arthur E. Shipley. Pp. xii + 139 + 24 plates. (London: Martin Hopkinson and Co., Ltd., 1924.) 6s. net.

SIR ARTHUR SHIPLEY has reprinted in this volume a number of short newspaper articles which he contributed to the *Times* and other journals on a recent visit to the West Indies, and a cruise among the islands of the Ægean Sea. Tropical agriculture takes a prominent place in the volume, but other interests find a place. There is enough in the brief volume to make the reader ask for more, but all too little to satisfy. The chapters on the Mediterranean Islands especially are tantalisingly hurried.