

Science and Religion in Seventeenth-Century England

By Prof. Richard S. Westfall. (Yale Historical Publications, Miscellany 67.) Pp. ix+235. (New Haven, Conn.: Yale University Press; London: Oxford University Press, 1958.) 36s. net.

IN view of its importance as a landmark in human history, it is not surprising that the seventeenth century is receiving special attention from both historian and scientist. The present book is not merely one of many, it has a distinct approach of its own; indeed, the publishers claim that it "is the first attempt to study systematically the religious opinions of seventeenth-century scientists in the light of their importance to the future of Christianity". As the word "virtuoso" constantly occurs, Prof. Westfall wisely explains that he uses it to describe "one who has a general interest in arts and sciences, or who pursues special investigations in one or more of these; the meaning is further restricted to those interested specifically in natural science". The term appears in the title, the "Christian Virtuoso", published by Boyle in 1690.

The book under review contains many illustrations from the writings of the virtuosi on such subjects as the harmony of science and religion; the harmony of existence; Divine Providence and natural law; the growth of natural religion; reason and faith. Among the familiar names specially mentioned are Robert Boyle, Nehemiah Grew, John Locke, John Ray and Edmond Halley. It is fitting that the concluding chapter of Prof. Westfall's work should be headed "Isaac Newton: A Summation". It begins with an extract of Newton's letter to Richard Bentley, dated December 10, 1692: "When I wrote my treatise about our system, I had an eye upon such principles as might work with considering men for the belief of a deity; and nothing can rejoice me more than to find it useful for that purpose". There are references also in this chapter to Newton's theological writings, and a discussion of his views in relation to those of the other virtuosi.

The inclusion of a "Bibliographical Essay" of some ten pages enhances the value of Prof. Westfall's book, and invites further study of an outstanding period in science, religion and philosophy.

H. D. ANTHONY

Le Système du Monde

Histoire des Doctrines Cosmologiques de Platon à Copernic, Tome 8. Par Prof. Pierre Duhem. Pp. 512. (Paris: Hermann, 1958.) 3,400 francs.

THE posthumous publication of Vols. 6-10 of Pierre Duhem's monumental work "Le Système du Monde" has now proceeded to the eighth volume, being the second of a group of three which is devoted to the physics of the Parisian school in the fourteenth century. The first two chapters (8 and 9) deal with the problems of the vacuum: its possibility, the so-called *horror vacui* of Nature, the movement of bodies *in vacuo*. In the next two chapters (10 and 11) the movement of falling and projected bodies is treated. This is a most important subject in medieval physics, as it contains the germ of modern dynamics. Then the treatment turns to cosmology again: the application of the ideas of the Terminists on celestial motions is discussed and the various attitudes of medieval thinkers towards astrology are reviewed. As was remarked in the review of the preceding volume, we owe a debt of deep gratitude to the

editors for the fact that the great work that Duhem left unfinished at his death in 1916 is none the less being completed. In the meantime, however, the study of medieval science has been pursued and our ideas on the subject have notably progressed. It is no longer possible to consider Duhem's statements and opinions as final, as we all were inclined to do when the first volumes of "Le Système du Monde" appeared in the years 1914-17. Nowadays no reader striving after a knowledge of medieval science which is abreast of the time can afford to neglect studying the works of A. Maier. This, however, necessitates some important modifications in Duhem's exposition.

This does not detract from the pleasure of reading him. His style is an admirable specimen of French elegance and clarity from which it is no detraction that some corrections are necessary in the text.

E. J. DIJKSTERHUIS

Benedict de Spinoza

The Elements of His Philosophy. By Prof. H. F. Hallett. Pp. xvi+171. (London: The Athlone Press, University of London, 1957. Distributed by Constable and Co., Ltd.) 25s. net.

THIS is a compact, scholastic exposition of Spinoza's philosophy, the result of profound reflexion on the original texts. There is no evaluative discussion of Spinoza's ideas; Prof. H. F. Hallett has tried to speak only with his master's voice. His book provides a remarkable example of sympathetic understanding, in attitude and intellect, of a lapsed mode of thought, and it will unquestionably be illuminating for the expert in studies of Spinoza—and for those who thought they were experts. But I fear that to the rest the book will remain closed not long after it is opened. The author's scholastic style expresses itself continually in sentences such as, "A perfect primordial being possesses all potency in eternal act; but an imperfect and privative being possesses only the potency that it actualizes, though, as privative, potency is durationally available to it that is not *by it* durationally actualized" (p. 6), which might well discover truths to the initiated but can only baffle the novice for whom the book is confessedly designed. Again, the background to Spinoza's thinking, the patterns and pressures that moulded his mind and the materials that he transformed in his own peculiar way are neither elucidated nor referred to; and the principal scholarly work (by Wolfson) which provides this very background is nowhere mentioned, not even in the bibliographical note. Thus my reaction to Prof. Hallett's mature and careful presentation is one of respect and admiration, mixed with regret at his stylized obscurity and at the absence of historical enlightenment.

PETER NIDDITCH

ESP and Personality Patterns

By Gertrude Raffel Schmeidler and R. A. McConnell. Pp. xiii+136. (New Haven, Conn.: Yale University Press; London: Oxford University Press, 1958.) 25s. net.

SOME years ago, at the City College, New York, Dr. Schmeidler discovered that if she asked her experimental subjects whether or not they believed in the possibility of extra-sensory perception (ESP), their subsequent scores showed that the believers' average score was significantly above mean chance expectation, whereas the unbelievers tended to score at chance-level or slightly below. She labelled these