the writer's view, lies not in the application of scientific method to such complex phenomena as war, since scientific method has already been often successfully applied, in the form of social studies, to the equally or still more complex phenomena of society. The novelty, in my view, is in the organisational level at which the work was done. The essential point is that the work was carried out in close contact with executives and had an immediate practical relevance. This fact coloured the whole organisation and personal relations of the people concerned. The authors do bring out clearly the very important point of the relation between the operational research workers and the executives, and the fact that they have two different tasks to do and that these must never be confused. I personally am convinced that both the organisational patterns evolved empirically for the operational research groups during the war and the methods they developed are directly applicable to very many peacetime problems. The single proviso is, of course, that the groups must build up that intimate background of knowledge of the whole field of activity of what they are investigating before they attempt to give advice to busy and usually harrassed executives.

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A Portrait of Newton

Isaac Newton. By E. N. Da C. Andrade. 111 pp. Chanticleer Press, New York, 1950. $1.75.

Printed in a size that will enable the reader to carry it in his jacket pocket, this short biography of Isaac Newton will appeal to all physicists who are intrigued by the personalities of great discoverers. In a certain real sense, Professor Andrade has not written so much a biography as a portrait of Newton. The limitation of space and the adulatory tone of the book do not allow for a full critical analysis of all that Newton did and all that Newton was. In this connection we must remember that Newton is one of the most enigmatic figures in the history of modern science. The intensity of his creative effort during a short period of his youth continued to bear fruit until he forsook the career of scientist for one of public service in the Mint. Of this we are given a simple lucid account by Professor Andrade in a book that is gracefully written and that provides a more intimate portrait of Newton the man and Newton the creator than is to be found in many larger works.

In this book the reader will find more than a picture of Newton the physicist. Professor Andrade does not neglect Newton's other activities and presents Newton the alchemist, the theologican—wrestling with problems of the Trinity and a kind of Unitarianism, and the critic of the Bible for whom every aspect of human existence and the universe provided material for a great hermeneutic exercise on "the meaning of it all". Here too are presented Newton's abhorrence of controversy and the difficulty his contemporaries had to get anything out of him, his dislike of women, and his generosity on occasion.

Professor Andrade has written a number of studies on various aspects of science in the seventeenth century, especially in England, and possesses one of the finest private collections of books in older science. Not only does he know the science of the seventeenth century well, but he has—in addition—consummate literary skill which he has exhibited in splendid nontechnical accounts of modern physical science and also in verse. As a literary venture, this small book is a gem, evoking memories of other short biographies of English men of science by Englishmen, such as Tyndall's *Faraday as a Discoverer*. Yet, on the critical side, it must be pointed out that the character of the book is also its weakness; while Newton's predecessors are mentioned briefly, as are some of his contemporaries, one gets the impression a little too much that Newton—so to speak—did it all himself. A number of minor slips mar the text; e.g., all the learned men of Kepler's time did not write in Latin (Galileo, for one, wrote also in Italian); Newton was not the first to extend gravity from the surface of the earth to the moon; etc. But these are minor matters and critics can be too carping in reviewing books for general reading that make no pretence of advancing scholarship.

For the busy physicist who wishes to spend a few hours in his study or on a train in reading a most pleasant and engaging book, Professor Andrade's *Newton* can be highly recommended. Handsomely printed and beautifully illustrated, it is a volume in a series entitled "Personal Portraits", edited by Patric Dickinson and Sheila Shannon; let us hope that other members of the series will be forthcoming on such figures as Boyle, Hooke, Priestley, Cavendish, Clerk Maxwell, J. J. Thomson and Rutherford, and that they will be as excellent in their way as this one is.

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Briefly Noted

Physics in France

The French Bibliographic Digest, No. 7, Physics (87 pp.) was edited and published this year by the Cultural Division of the French Embassy, 934 Fifth Avenue, New York City. Copies may be secured without charge by writing to the above address.

For those having some special interest in French physics books published during the period between 1940 and 1948, the booklet is certain to be of considerable value. Others, provided they bring with them at least a casual curiosity, will find this pamphlet rewarding—if for no other reason than its introductory essay, a review of wartime and postwar French physics written by Ives Rocard, professor of physics at the Ecole Normale Supérieure de Paris. Professor Rocard's summary of the period places particular emphasis upon the effects of the German occupation on French research and pays homage to several of the more notable French physicists whose lives were lost during the war, some in the campaign of 1940, some in concentration camps or during