alities in what may be regarded as a reasonably healthy industrial population.

C. M. FLETCHER

Psychology and the Industrial Worker. By E. G. Chambers. 1951. Cambridge University Press. Pp. 192. Price 10s. 6d.

This book is difficult to assess. If one accepts the author's declared intention to draw illustrations "wherever possible . . . from British sources", then it is no use complaining that 96 references from a total of 119 are British. If it is necessary that two-thirds of these British references should be to reports of the Industrial Health Research Board, then one takes leave to wonder if it was altogether wise to confine attention so narrowly to British work. We often castigate our American colleagues for their apparent inability to "read British", but at least their all-American bibliographies are evidence of widespread sponsorship of industrial psychology.

The author devotes 27 pages to "Vocational Guidance" and 12 pages to "Vocational Selection", but to the latter should be added an 18-page chapter on "Psychological Tests", so the apparent emphasis is probably not measurable in pages. What is evident, however, is that the author's healthy scepticism about tests sometimes tends to negativism. He is undoubtedly at his best when explaining the uses, importance, and drawbacks of statistical methods, a subject in which he rightly enjoys a high reputation. Many little gems of wisdom are to be found, and do much to excuse what may appear to some readers a lack of balanced judgment in parts of this book. For example, no reference to factor analysis appears in the fairly full "Index of Subjects", but on p. 149 there is an incorrect statement that psychological tests "are the sole material of the factor analyst". Apart from the fact that nothing in the book provides the lay reader with a clue to what a "factor analyst" may be, it looks as though the author either has never read the work of Burt and Cattell, or regards personality trait ratings as included in the word "test".

It seems a pity that in a book published in 1951 there is not even a footnote to correct the statement on p. 41 that "there has yet been no attempt to validate" the War Office Selection Board procedure. Even when Mr. Chambers' preface was written in December, 1949, it was possible to check progress in this matter; and in April, 1950, Vernon's article "The Validation of Civil Service Selection Board Procedures" appeared in *Occupational Psychology*, a journal which must obviously be high on the author's reading list. In this paper, Professor Vernon quoted very full details of the procedure and validation, with validity coefficients of 0.5 to 0.6.

The last point which the reviewer is obliged to mention (with surprise) is the author's unfortunate inability to prevent his political views from intruding in a book of this kind. In chapter IX, which opens with the altogether praiseworthy statement that "it is possible for a psychologist to make some comments of a non-political nature, and in what follows the writer hopes that he has

escaped as far as possible from the bias of party politics". Despite his awareness of the danger, Mr. Chambers in his discussion of trade unionism and nationalized industry leaves little doubt as to which party he supports. This is a pity, especially if the book is widely read by industrial workers, for they may be inclined to distrust psychology more than they do already if the author's political views are identified with the use of psychology by management.

In summary, this book provides a useful compendium, not elsewhere available, of I.H.R.B. Reports; a great deal of statistical and methodological sense; and a rather lop-sided estimate of industrial psychology, its achievements and possibilities.

ALASTAIR HERON

The Health of Executives: Mental Stress and Break-down. I.W.S. Pamphlets. 1951. The Industrial Welfare Society, Inc., 48, Bryanston Square, London, W.1. Price 1s.

This pamphlet is a discussion of the stresses and breakdowns arising in people who exercise high mental skills and responsibilities by Dr. Cecil Roberts, Deputy Treasury Medical Adviser. After a brief survey of the nature of mental skill, Dr. Roberts considers the meaning of responsibility and concludes that it is the same as answerability. He further concludes that the crux of the stress situation is the interplay between responsibility and self-esteem. This pamphlet is of particular interest to industrial medical officers for its analysis of the early signs of breakdown and the sequence of events which occurs; only psychological breakdowns leading to anxiety, apathy, and depression are considered, and these mainly from the angle of self-imposed stresses. Dr. Roberts gives a number of useful and practical suggestions for the avoidance of stress or at least of minimizing stress when it is inevitable. This little pamphlet contains much useful, concentrated wisdom in dealing with the affairs of a busy life; the executive does not exist who would not derive some benefit from a study of it.

L. G. NORMAN

Human Kinetics and Analysing Body Movements. By T. McClurg Anderson. 1951. London: Wm. Heinemann Ltd. 245 text figures. Price 30s.

There is a growing belief that students of anatomy are being assigned too much time to the study of the cadaver. The author demonstrates in this book the possibility of teaching this factual subject in a more functional manner. Even in the introductory section, which deals with the anatomy of the body structures concerned with movement, the activities of certain muscles are illustrated by sprinting, tennis service, or golf swing, and references to sport or industrial tasks are frequent throughout the entire book. Part II deals at first with the fundamental actions performed by the limbs against external forces, and the use of gravity, elastic recoil of the tissues, and momentum as aids to maximum effort. A very good chapter follows on "Kinetic Analysis" describing "lock", "check" and "balancing" actions and their effects, usually beneficial,

on sustained muscle action. Under the somewhat misleading title "Classification of Muscular Work", prime movers, fixation muscles, and synergists are extensively subdivided. At first sight this classification appears rather involved, but some such scheme is probably necessary to cover completely such movements as flexion of the arm at all stages. In Part III these principles are applied in formidable detail to athletics and industrial tasks. The book is profusely illustrated throughout, in many cases from films of famous athletes in action.

References to other work on the subject are not supplied and this is regrettable, however much fresh ground may have been broken by the author. The distinction between static and dynamic work is implied, but this fundamental difference might have been given more prominence, and, in view of the lengthy anatomical introduction, some space might have been devoted to oxygen consumption and efficiency of muscular work.

Many medical readers may not agree with the author's views about causation of many cases of fibrositis (strain and fatigue in certain muscles), Dupuytren's contracture (sustained contractions of muscles of the fourth and fifth fingers) or osteo-arthritis of the spine in women (stiff corsets associated with fixation of the lumbar spine).

This book is nevertheless a major contribution to the dynamics of human movements and the publisher's claim that it is essential to those concerned with athletic coaching, physical culture and education, occupational therapy, physical medicine, and industrial health, is to a large extent justified.

M. L. THOMSON

Bulletin of Hygiene Reprints. Published monthly by the Bureau of Hygiene and Tropical Diseases, Keppel Street, Gower Street, London, W.C.1. Price 2s. Yearly subscription 20s. (17s. 6d. without index).

The Bureau of Hygiene and Tropical Diseases collects and disseminates information on all branches of public health and preventive medicine through the *Bulletin of Hygiene*.

The Bureau's *Bulletin of Hygiene Reprints*, which is a new publication, contains those sections of the *Bulletin of Hygiene* which deal with occupational hygiene and toxicology, atmospheric pollution, occupational psychology, physiology as applied to hygiene, and hygiene of buildings. These abstracts have been printed separately so that they may be more readily available to non-medical men such as industrial engineers, chemists, works managers, welfare officers, and others in industry who are concerned with the health and efficiency of workers. The "Reprints" will also be of value to the industrial medical officer who does not already subscribe to the *Bulletin of Hygiene*.

The abstracts, all of which are written in English by those who have special knowledge of the various subjects, reach a high standard and give useful and well classified information about original papers many of which appear in foreign or other journals to which reference is not easily made. Sometimes contributors indicate at the end of the abstract the value of the original paper. This makes the abstract much more useful and is an example which might well be followed by more contributors.

RICHARD SCHILLING

THE JANUARY (1952) ISSUE

The January (1952) issue contains the following papers :—

Rheumatism in Miners. Part I : Rheumatic Complaints. By J. S. Lawrence and Jean Aitken-Swan.

A Study of the Conditions under which Methanol may Exert a Toxic Hazard in Industry. By G. Leaf and L. J. Zatman.

The Determination of Small Amounts of Tetranitromethane in Air. By V. B. Vouk and O. A. Weber.

Contribution à l'Etude de la Toxicologie du Trichloréthylène. II. By René Fabre and René Truhaut.

A Clinical-pathological Report of Eight Cases of Methyl Bromide Poisoning. By J. H. Prain and G. Harvey Smith.

Vanadium Poisoning from Cleaning Oil-fired Boilers. By N. Williams.

Salt Losses of Men Working in Hot Environments. By J. S. Weiner and R. E. van Heyningen.

Penetration of Dust Particles and Sites of Dust Stores in Pneumoconiosis. By Giacomo Mottura.

The Experimental Production of Radiographic Shadows by the Inhalation of Industrial Dusts. Part II : Zircon ($ZrSiO_4$). By H. E. Harding and T. A. Lloyd Davies.

Skin Cancer of the Hand and Forearm. By C. N. D. Cruickshank and A. Gourevitch.

Simplified Eye-piece Graticule for Assessing Thermal Precipitator Dust Samples. By H. H. Watson.

A number of copies are still available and may be obtained from the Publishing Manager, British Medical Association, Tavistock Square, W.C.1, price 12s. 6d.