unnecessarily long, and there is some lack of balance, thus enteric fever and diphtheria each get eight pages, while neoplasm of the lung and chronic bronchitis get respectively two and one and a half pages. The sampling process of a reviewer may not be quite random, but it revealed some unexpected errors and omissions. The article on pneumoconiosis is many years out of date and most misleading. The myths of circus movement in auricular flutter, and of the high protein content of nephritic oedema are perpetuated, and there is no mention of respiratory alkalosis or acidosis, nor of the Borst régime for anuria. The lucid account of the pathogenesis of hypertension makes no mention of the adrenals and salt retention, nor are insulin antagonists mentioned in diabetes. Details of clinical procedures such as lumbar puncture are deliberately omitted and perhaps one should not expect a reference to the cardiac catheter, but it is surprising to find no account of the technique of estimating venous pressure from the jugular veins. The index is full but has the curious property of redundant references to some subjects; there are seven references to sarcoidosis all on the same two pages and no reference to others such as shock or benign pericarditis.

Appendices on the treatment of disease by anti-bacterial drugs and by cortisone and A.C.T.H. summarize the position of these rapidly advancing fields at the time of going to press. Within the end covers there are tables of normal results of clinico-pathological tests (but expressed in the old milligrams per 100 millilitres instead of milli-equivalents), a conversion table from the apothecaries to the metric systems (in the text either or both are used), and a table of equivalents in official preparations of some popular proprietary drugs.

This all adds up to a useful book for students, but one which will not satisfy his scientific curiosity, or tell him where to go to do so. It will not tell him much about the principles of medicine, but it will guide his practice safely along orthodox channels.

C. M. FLETCHER

Review of Pneumoconiosis Abstracts, Vol. II. (Reprinted from the *Bulletin of Hygiene* for the years 1939 to 1950 inclusive); Foreword by Charles Wilcocks. (Pp. x + 518. 80s.) London: Sir Isaac Pitman. 1954.

The first volume of this work, which covered the years 1926 to 1938, contained 347 pages. The second volume, which brings the history up to 1950, contains 518 pages. Considering that the second period included the war years when very little was published, the rate of increase of literature on the subject of pneumoconiosis (as indeed on most subjects) is alarming.

All workers in the field who are striving to keep their heads above water in this spate of literature owe a debt of gratitude to the *Bulletin of Hygiene* and to Dr. E. L. Middleton who has again selected and arranged the abstracts. Another volume will undoubtedly be required in less than 12 years if it is not to be of unwieldy size, and it is to be hoped that it will be produced by the same capable hands.

B. M. WRIGHT

The Appraisal of Intelligence. By A. W. Heim. (Pp. 171. 12s. 6d.) London: Methuen & Co. 1954.

Dr. Alice Heim is well known as the author of two important intelligence tests, A.H.4 and A.H.5; the former was used in naval selection, the latter by the Civil Service Selection Board, and both have been the subject of a good deal of investigation. She is therefore clearly equipped to deal authoritatively with the testing of intelligence.

In this book she sets out to discuss the pitfalls of the would-be test constructor and user, and the result is an entertaining disquisition on her opinions of present-day psychologists and their theories. In particular, Dr. Heim makes a spirited attack upon the general usefulness of factor analysis and does not disguise her sympathy for the intuitive rather than the statistical approach to testing.

She starts with an inquiry into what is meant by intelligence, and suggests that as it is so flexible a concept it is misleading to consider it something which can be tested accurately. She prefers "intelligent activity" to intelligence, and believes that two qualitatively different forms of activity may be equally intelligent in a given situation. From this she goes on to castigate the factor analysts, the majority of whom she believes are prepared to label statistical artifacts "intelligence" without any valid grounds for so doing. After discussing the concepts of reliability and validity she moves to ground with which she is particularly familiar—the difference between results obtained from tests given with and without time limits. The book ends rather surprisingly with a chapter which says that "an intelligence test can be an exceedingly valuable instrument".

This useful little book should be read by all who make routine use of tests—and not only intelligence tests. It is probably too technical for those who have little testing experience, while to the research worker it will (or should) offer little that is novel. It leaves one with the impression that Dr. Heim is tilting at windmills. Here and there she admits that her objections may not be wholly general (as, for instance, when she admits that there are factor analysts whose claims are modest and whose conclusions are of value). It is certainly true that the term "intelligence test" is liable to introduce semantic difficulties because most people regard intelligence as synonymous with commonsense, whilst the majority of test constructors tend to narrow its meaning. It is also true that the "g" found in one battery of tests is often assumed to be more or less the same as the "g" found in another battery. It is true that the term "reliability" can be ambiguous and that there are several possible sources of unreliability when testing. Yet, in spite of these drawbacks, intelligence tests work; and if this point were made at the beginning of the book instead of at the end it would enable the reader to put Dr. Heim's criticisms more clearly in perspective.

To answer her objections in detail is beyond the scope of this note, but it may be useful to indicate the less pessimistic view. Most psychologists would agree that the label "intelligence test" is unsatisfactory and that "g test" is not much better. Most serious workers are