BOOK REVIEWS

Untersuchungen auf dem Gebiet der Staub- und Silikosebekämpfung im Steinkohlenbergbau, 4 Teil. (Investigations relating to the Control of Dust and Silicosis in Bituminous Coal Mines, 4th Issue.) (Pp. 160; illustrated; no price stated.) Published for the Minister of Economics and Trade, North Rhine-Westphalia. Detmold: Hermann Bossmann, G.m.b.H. 1963.

A study group for 'Dust and Silicosis Control' made arrangements for the research work reported in this publication to be carried out by six institutes and research bodies in Düsseldorf, Münster, Essen, Essen-Kray, and Dortmund. The 23 papers each refer to a definite problem concerning dust in coal-mines and indicate methods of investigation and in many cases show the results.

One half of the book is taken up by technical and engineering aspects of the dust problem, the remainder by studies of purely medical interest. The technical subjects range from laboratory studies of instruments for estimating the dust cloud to engineering methods for controlling dust underground by such means as water infusion. One contribution compares various types of thermal precipitators; the long-running thermal precipitator, Casella type, used in England is one which is studied. Another contribution gives an account of several series of animal experiments designed to obtain information as to safe limits of dust concentration. Various problems related to this are studied; the grade of coal, the content of quartz in the mineral dust of mines, and the level of dust in relation to the production of collagen. The paper contains a plea for the co-ordination of all such experiments being carried out in England, Belgium, and France.

The part of the book devoted to purely medical research has 10 contributions, nine of which are laboratory studies. The exception is a description of a method of demonstrating cor pulmonale without blood analyses. The laboratory studies include an exhaustive review of silicosis prophylaxis by medical methods. In this contribution, Dr. Schiller demonstrates by photographs of histological sections of bronchial and bronchiolar walls from experimental animals the changes produced by dust and the influence on fibrosis of various drugs, hormones, and vitamins. The conclusion, however, is that whatever favourable effect may be produced by hormone prophylaxis, much better prospects of the elimination of dust from the lungs and of the prevention of the destruction of macrophages can be obtained by polyvinylpyridine-N-oxide. The immune theory of silicosis is the basis of two articles. Drs. Antweiler, Schiller, and Baumann give the results of the subcutaneous injection of such adjuvants as dust and dead tubercle bacilli on the progression of quartz-induced fibrosis of the lungs. The presence of such adjuvant action was, however, not conclusively demonstrated. The other articles by Professors Schlipkötter and

Plüss use the fluorescent labelling of complement to decide if complement-fixing antigen-antibody complexes appear in the lungs of rats after the application of quartz, coal, and kaolin dusts. Other papers are concerned with the phagocytosis of dust in cell cultures, the retention and elimination of quartz dust after continued low dosage inhalation, and the action of dust on bacteria. All the contributions in the book are of a high standard, and although the title would suggest that they are concerned with coal-mining problems, many are of use in the problems associated with other types of dust hazard. The medical part is limited in its scope to laboratory work, but the names of such contributors as Kloster Kötter, Antweiler, and Schiller indicate the interest of the investigations.

CHARLES L. SUTHERLAND

Man at Work: Studies on the Application of Physiology to Working Conditions in a Sub-Tropical Country. No. 4. By E. Hohwü Christensen. (Pp. 49; no price quoted.) Geneva: International Labour Office. 1964.

This booklet gives a summary of the basic aims and principles of work physiology with particular, but not exclusive, reference to conditions in India. 'Hard work in hot climates' best describes the theme.

Summaries almost inevitably introduce an imbalance which reflects the opinions of the author. That some of these opinions are controversial is not, in some instances, sufficiently emphasized. This is, however, a minor criticism for a publication of this kind. *Man at Work* is a readable review which should be useful, as the author hopes, to a broad spectrum of those concerned with personnel aspects of increasing production.

It is sombre and provocative comment on the twentieth century that the author should feel constrained to remind his reader that '... people will survive on a decreased calorie intake but they can never reach normal productivity'.

G. R. C. ATHERLEY

The Practical Management of Head Injuries. By John M. Potter. (Pp. xv + 92; illustrated; 15s.) London: Lloyd-Luke Medical Books.

The appearance of a second edition of this book only three years after its original publication is proof of its excellence. Briefly, sanely, and lucidly, it outlines a simple and rational system of treatment of head injuries literally from the moment of their infliction until rehabilitation is complete. One might make a few suggestions for the third edition which will certainly be called for:

(1) Penetrating brain injuries, e.g., with an entry wound on the face, are often not suspected until complications supervene. The special dangers of wounds known

to have been inflicted by a sharp instrument could usefully be stressed.

(2) Mention is made of the importance of soft-tissue injuries of the neck in causing headache immediately after injury (p. 17). The referred head pains associated with cervical spondylosis might well receive mention in the section on *Sequelae* (p. 72).

(3) The inclusion of a three-page essay on anosmia from the sufferer's point of view, whatever its literary merits, disturbs the balance of so short a monograph.

These are small points. No one who deals with casualties can afford to be without this book. It slips easily into the pocket of a white coat, whence it should frequently be withdrawn for study.

A. N. GUTHKELCH

Atmospheric Pollutants. Report of a W.H.O. Expert Committee (Pp. 18; 1s. 9d., \$0.30, Sw. Fr. 1). Geneva: (Wld Hlth Org. techn. Rep. Ser., No. 271). 1964.

This short report summarizes the progress that has been made in air pollution control. It calls for the abolition of imprecise terms such as 'smog' and the standardization of nomenclature, units, and methods of measurement, though the dangers of oversimplification are stressed. Four levels of air quality are quoted:

Level I. Concentration and exposure time at or below which, according to present knowledge, neither direct nor indirect effects (including alteration of reflexes or of adaptive or protective reactions) have been observed.

Level II. Concentrations and exposure times at and above which there is likely to be irritation of the sensory organs, harmful effects on vegetation, visibility reduction, or other adverse effects on the environment.

Level III. Concentrations and exposure times at and above which there is likely to be impairment of vital physiological functions or changes that may lead to chronic diseases or shortening of life.

Level IV. Concentrations and exposure times at and above which there is likely to be acute illness or death in susceptible groups of the population.

International guides for concentrations of individual pollutants are to be prepared.

An improvement in the exchange of technical knowledge between countries is recommended and also further research. In particular further work is required to develop methods for removing sulphur from fuel and sulphur dioxide from flue gases; for the low cost production of smokeless fuels; to study meteorological conditions associated with air pollution; and to evaluate the economic consequences of air pollution and its control.

C. H. WOOD

Textbook of the Rheumatic Diseases. 3rd ed. Ed. W. S. C. Copeman. (Pp. 831; illustrated; £6 10s.) Edinburgh and London: Livingstone. 1964.

Compared with its predecessor, the third edition of Dr. Copeman's textbook has grown by 80 pages and half a pound in weight. The use of a new smaller but clearer type has allowed more words to the printed page, yet good spacing and a pleasing appearance have been preserved. Thus the physical growth, which is in any

case moderate for a book of this calibre appearing after a nine years' interval, considerably underestimates the increase in the knowledge gathered within.

Several chapters have been comprehensively rewritten by new authors, and there are seven entirely new chapters. Each chapter is followed by its own references, and there is a good index. Reproductions of radiographs are mostly good, though a few could be discarded without loss.

In a book of this size one may always find trifles to quibble over. If Pleonosteosis merits a paragraph, do not Paget's disease or the changes of acromegaly or ochronosis deserve one also? Should one really advise giving oral penicillin as a protection against masked infection to children receiving high or prolonged dosage of steroids?

This new edition comes at an appropriate time when much of the extensive study on the nature and treatment of rheumatic diseases, which began soon after the war, has been reported and fallen into a reasonable perspective. The reader can therefore feel confident that the views expressed will be shared by most rheumatologists, and the book thus represents a particularly valuable guide to the best current practice.

The editor, believing that 'the consultant in clinical rheumatology now needs, in addition to a full training in general medicine, a considerable . . . knowledge within many other specialist branches' has included new chapters on such diverse but highly relevant fields as epidemiology, auto-immunity and genetics, and clinical trials. This breadth of approach greatly enhances the book's value as a comprehensive source of reference, and it ought to be at the elbow of all who deal with rheumatic patients. This latest edition has added lustre to the high reputation of its predecessors, and Dr. Copeman and his team deserve warmest congratulations.

M. R. JEFFREY

An Outline of Psychiatry for Students and Practitioners. By F. J. Fish. (Pp. 270; 32s. 6d.) Bristol: John Wright. 1964.

The last two years have brought out a veritable rash of psychiatric textbooks, none of which, however, has changed the face of psychiatry very much, except perhaps that they have made it look as if it had the measles. The metaphor can be taken further: one spot looks remarkably like the other. Professor Fish's book, as the foreword by Professor Carstairs points out, is based on his experience in undergraduate and postgraduate teaching of many years, and to those many who will in future have the benefit of his guidance into the subject this book will be of very great help. The foreword described the book as 'dogmatic' at least in parts; if by dogmatic one means adherence to a principle in the approach to every clinical problem, then this book is nothing less than dogmatic. Certainly the book is didactic even to the point of oversimplification; this sacrifice however appears to be made deliberately for the purpose of clarity. Dogma is nowhere to be found. The author describes his outlook as 'Neo-Meyerian', by which he means an avoidance of any kind of 'school' approach, and in this he has succeeded. It has often been said before that present-day psychiatric knowledge is such that any attempt to unify the subject