than one of the conventional specialties. It will be of interest to a much wider audience.

Junior hospital staff and all those who may have to care for these serious emergencies, even before arrival at hospital, including nurses and doctors in industry, will find much in this book to interest and instruct them.

The major part is devoted to the care of emergencies resulting from trauma presented in the clear concise style of the author's previous writings. The book loses nothing from, and is probably enhanced by, a rather dogmatic and in places unconventional approach.

The first chapter, *Be Prepared*, summarizes the first aid for those situations where there may be a danger to life. The second chapter on the General Management of the Recently Injured successfully condenses into 14 pages information on subjects varying from life-saving measures to advice on the nurse's attitude to the press. Other chapters have titles such as *The Blood and Circulation*, *Injury and Breathing*, and *Unconsciousness* with particular reference to Head Injuries.

'Shock' is a word used in a variety of contexts. The author makes a plea that its use to describe the upset of the circulation in trauma, or other medical and surgical emergencies, be abandoned. It is pointed out that the term shock is at present used and divided into degrees to describe the observer's interpretation of a group of clinical findings. Such an assessment must vary from person to person. The author's logical approach to this situation is to suggest that the medical profession restrict the use of the word 'shock' to its everyday dictionary definition and confine itself to recording and reporting clinical observations without any expression of opinion in terms of clinical shock.

Four specialist collaborators have provided additional chapters on General Surgical Emergencies, Medical Emergencies, Obstetrics and Gynaecological Emergencies, and Poisoning. These maintain the high standard set in the earlier part of the book.

In a discussion of overbreathing tetany, it is stated that a nurse seeing such a case should be able to recognize and deal with a situation which might otherwise add her to the list of anxious bystanders.

It is suggested that the book will help many others to avoid the role of anxious bystander in a variety of situations.

J. D. CAMERON

The Pathology of Emphysema. By Lynne Reid. (Pp. 372; 173 figures; 70s.) London: Lloyd Luke. 1967.

The interrelationship of the several varieties of emphysema is a problem which taxes anyone dealing with this disease, and a useful feature of this valuable book is the classification of emphysema set out in the early pages. This is commendably based upon a correlation of structure with function. For example, its main division is between those varieties associated with air trapping and those without airways obstruction. Consideration is then given to whether airways obstruction is reversible and whether there is organic bronchial disease. In this way 11 main types of emphy-

sema are distinguished and these are allocated one chapter each. It is not immediately evident which varieties are regarded as the more important but this becomes apparent in the text, and a third of this part of the book is rightly devoted to emphysema associated with bronchitis and bronchiolitis. Not all pathologists, however, would agree with the separation of centrilobular emphysema from that associated with bronchiolitis and its relegation to the clinically less important group in which there is no air trapping. Together with simple pneumoconiosis of coalworkers, centrilobular emphysema is dealt with in 11 pages. An excellent feature of each of these chapters is the correlation of structural alteration with functional effect, which is illustrated by 50 well-documented case histories. Radiological correlation is similarly considered under each variety and is also given a chapter of its own. A later chapter discusses the recognition and causation of the cardiovascular changes in chronic lung disease. Here again clinico-pathological correlation is prominent, and by this means the differing cardiovascular effects of chronic bronchitis and emphysema are demonstrated. Pathogenesis is usually dealt with under each of the sub-varieties but is also considered separately in a general manner. The experimental production of emphysema is described and further work in this direction is obviously required. It can be seen that this book covers many aspects of emphysema and is recommended to all concerned with this important disease.

B. CORRIN

Publications of the State Institute of Occupational Health 1960-1964. (Pp. 105; price not stated.) Budapest: State Institute of Occupational Health. 1965.

This small volume consists entirely of abstracts from scientific publications by members of the Hungarian State Institute of Occupational Health. Virtually all major topics in occupational health and hygiene have been covered and reading through the book one is reminded that in these fields, at any rate, scientific publications in the English language seldom acknowledge the contribution of research workers who do not write up their work in English. This lack of knowledge is partly due to the difficulty of obtaining translations from a language such as Hungarian and so a book of this sort is welcome. Although some of the abstracts are not particularly informative and others are rendered meaningless by printing and other errors, this book should be examined by any research worker whose objective is to review 'the literature'.

G. R. C. ATHERLEY

Radiology in World War II. Edited by Kenneth D. A. Allen (Pp. 1132; 317 illustrations; 8 charts; 14 maps; comprehensive index; \$8.25.) Copies available from The Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

This large volume presents an extensive review of the various fields of radiology in the wide experiences of the United States Army in World War II. The foreword notes the neglect in the documentation of information obtained in World War I and the failure in anticipation of the problems encountered in World War II. This contribution stresses the value of the recording of available facts in the organization for any further major conflict.

The records are divided into those obtained from the various 'Theaters of War' and considerable clinical material is included but this is so scattered and poorly presented as to be of little value.

An interesting feature is the description of the enormous routine radiological chest surveys organized for recruits and the various techniques that were used. In 1944 a chest radiograph was a prerequisite in Physical Examination for Mobilization. Difficulties were naturally encountered in assessment of rejection standards with regard to calcified tuberculous pulmonary lesions. It was agreed that large lesions might break down under war-time circumstances and the criteria recommending that men could be accepted were as follows:

(1) Residual lesions in the thorax did not exceed 1.5 cm. in diameter, (2) the total number did not exceed five; (3) calcified lesions of the pulmonary parenchyma could be accepted if the number of lesions did not exceed ten. The diameter of any must not exceed 1.0 cm. but all the others must be less than 0.5 cm. in diameter.

Difficulties in the maintenance of equipment are described in detail and shortages in ancillary apparatus caused many problems. Many instances are given of the ingenuity of individual radiologists in the clever improvisation of simple but effective apparatus for techniques such as kymography and localization of intraocular and other foreign bodies.

Practical difficulties in producing good radiodiagnostic techniques with limited available facilities at the front in combat areas are well described. The radiographic problems of the tropics include the difficulties of coping with melting gelatine emulsions and the effects of fungus on the radiographs. The extreme cold of winter in Alaska caused other technical troubles.

The major contribution is a report of the Organization and Administration of Radiological Units in the various 'Theaters of War'.

The space devoted in a war record to the experience and results of radiation therapy is a little surprising but emphasizes the differing trend in the United States of America where diagnostic and therapeutic radiology combine as a joint speciality.

The last 100 pages are a most interesting story of the role of radiology in the development of the atomic bomb. The method of production of the atomic bomb is indeed fascinating. The planning of the vast organization needed, combined with the speed and secrecy involved, is described in considerable detail. Protection hazards concerned not only radiation but other toxic substances, such as uranium hexafluoride, beryllium, carbon tetrachloride, and many new unknown toxic solvents. Detailed descriptions of the resulting effects of

the bomb include radioactive and blast damage to humans and property.

G. B. LOCKE

Inhaled Particles and Vapours. II. Edited by C. N. Davies. (Pp. 605; 140s.) Oxford: Pergamon Press. 1967.

This large volume contains the Proceedings of an international symposium organized by the British Occupational Hygiene Society and held at Cambridge from September 28 to October 1, 1965; it follows a similar volume published six years ago containing the Proceedings of the Oxford Symposium held in 1960.

The papers are arranged in seven groups. The first group comprises six papers on the anatomy and physiology of the lungs in relation to particle retention and clearance. The second group of 11 papers deals with the response of the lungs to dusts, starting with the functional changes in airway calibre, and the pathological reactions to silica and other dusts. There follow 11 communications on the clearance of dusts from the lungs of animals and a further five on deposition and clearance in man. The fifth and sixth sections of nine papers deal with problems in the human subject related to particle size, dust deposition, and the relationship between pneumoconiosis and dust exposure. Finally there is a group of six papers on methods of evaluating dust exposure in factories and mines.

It is difficult to do justice in a short review to the breadth of this collection. The majority of the papers are concerned with laboratory studies although most are orientated towards practical rather than purely theoretical aspects of their subject. Following each paper there is a summary of the discussion sufficiently detailed to be of considerable value.

The general reader will perhaps be surprised at the many gaps in knowledge of factors determining deposition and clearance of particles and vapours in the human lung. Admittedly a general picture has been established but the wide variability between different subjects suggests that many details remain to be added. Perhaps the use of radioactive techniques demonstrated in three of the papers on the human subject may hasten this knowledge. Much effort has been expended in correlating dust dosage with the radiological category in large groups, especially of miners, and this work has been fruitful; it has brought nearer the time when the response of the individual must be considered rather than the group and in this respect knowledge derived from the inhalation described in Section IV of the Proceedings may be relevant.

In the last section on methods of dust measurement the growing acceptance of gravimetric techniques is evident, and the last paper describes a gravimetric size-selecting personal sampler to monitor the environment of the individual conveniently throughout his working shift.

There must be few interested in the biological effects of dusts and vapours either in the theoretical or practical aspects who will not find something to interest them in this fascinating volume.

C. B. McKERROW