BOOK REVIEWS


The publication of this work under Richard Schilling’s editorship is something of a landmark in the post-war literature of occupational health; there has been nothing quite like it since Merewether’s three volumes in 1954 from the same publisher.

This single volume does not aim at the comprehensive survey attempted by Merewether, but chooses to explore in considerable depth some novel or recent developments. It is therefore selective, reflecting equally its editor’s wide interests and his contributors’ special talents. Its purchase can be recommended with confidence to postgraduate students of industrial medicine, and to all practitioners, physicians, nurses, and engineers engaged in the search for better occupational health. Personnel officers and management generally would also benefit by selective reading.

Twenty-five contributors have produced 21 chapters. The list of contributors is among the most distinguished to be assembled in this country; the authors are all British with one notable exception, Ross McFarland of Harvard.

Because Schilling’s choice has been so personal, and only for this reason, your reviewer feels justified in making a personal choice of the chapters offered. For his own interest, for what that is worth, the following are the outstanding chapters: “The Toxicology of Metals” (E. Browning); “Morale and the Size of the Working Group” (R. W. Revans); “Machine Design and Human Engineering” (R. McFarland); “Noise” (W. Burns), and “The Value of Routine Medical Examinations” (L. G. Norman). The latter chapter should be read by every doctor and personnel officer engaged whole or part-time in industry.

Schilling’s own chapter with which the book commences deals with “The Measurement of Health”, by epidemiological techniques and makes an excellent introduction.

“ Radiation Hazards” (W. Court Brown and R. Doll) and protection against them (E. E. Smith), are two chapters placed early in the book. They point the importance of this relatively new subject for industrial physicians, and both are unusually well written and lucid. Smith places particular emphasis on the much wider control which radioactive substances will demand of industry and transportation in the decades ahead. Court Brown and Doll have interesting observations to make on the non-specific ageing of irradiated populations.

J. C. Gilson has produced, as expected, a classic chapter of only 28 pages on “Industrial Pulmonary Disease” and has contributed extensively (with C. B. McKerrow) to the preceding chapter “Lung Function and its Measurement in Industrial Pulmonary Disease”. These two chapters in the order in which they appear form a most useful section.

Further on in the text G. M. Carstairs, “Mental Illness and Work”; distinguishes clearly between psychotic disease and minor psychiatric disorder in working populations. The portion of his text which deals with the prevention of psychiatric illness is good too, although all readers may not share his enthusiasm for Field-Marshal Montgomery’s memoirs!

Carstairs’ contribution is aptly preceded by A. G. P. Elliott writing on “Vocational Psychology”; this is a most interesting chapter also. One is astonished to learn that despite the outflow of trained psychologists from our university departments, no more than 30 are to be found in British industry, and that even in the U.S.A. the number is not more than 100; one would like to know the comparable position in the U.S.S.R.

Heron, as might be anticipated, has written on “Ageing and Employment” and has done it very well. The age-group 55-64 will increase by 30% as between 1954 and 1979, a mere quarter of a century. His comments therefore on the problem of enforced retirement at a set chronological age are pertinent.

Space alone does not permit more than mention of the remaining chapters and they are in no way less important than those quoted. At least in this review they should all be listed: they are as follows: “Toxicity Testing” (J. M. Barnes); “Safety in the Use of Pesticides” (J. M. Barnes and E. F. Edson); “Occupational Cancer” (A. L. Walpole and M. H. C. Williams); “Prevention of Accidents” (R. Bramley-Harker); “The Treatment of Injuries at Work” (J. P. Bull); “Occupational Health Services in Smaller Work Places in Britain” (Lord Taylor); “Industrial Law: Trends and Prospects” (W. Mansfield Cooper).

The whole work concludes, most suitably, with a chapter from R. E. Lane on “The Teaching of Occupational Health”.

As an indication of the standard of scholarship invariably maintained throughout this book, there is a total of some 890 references. References are quoted separately at the end of each chapter rather than at the end of the book as a whole, with the single and nice exception of “Industrial Law”, where they appear, as in legal commentaries, at the foot of the page.

The index is compiled with care and accuracy. One suspects that much of the hard work in compiling the reference sections and the index has fallen, inevitably, on the shoulders of those privileged to work in Schilling’s department at the London School of Hygiene and Tropical Medicine, and the editor gives due thanks to them in his introduction.
The book is easy to read on a 5-in. line, set in Times Roman type face and printed on a non-gloss paper. The pictures are good, too.

Owen McGirr


This is a valuable contribution to existing knowledge on a subject which has attracted much intensive research especially during the last decade. It comprises the 21 papers contributed at a symposium held at the Postgraduate Medical School of London in September, 1957 and March, 1958, and, by virtue of the coordinated arrangement of the papers, it presents a clear statement of the present position of thought and practice in this field in Britain.

Coalworkers' pneumoconiosis occupies a prominent place in many of the papers and a few deal specifically with it. This is to be expected: for it is the most prevalent disease due to dust and the object of much research carried out in Britain and sponsored by the Medical Research Council and the National Coal Board as well as other bodies.

In a general survey of industrial pulmonary diseases in Britain, A. Meiklejohn reviews some of the statistics available and indicates the need for special investigations into the significance of variations in prevalence. The pathology of the pneumoconioses is dealt with by J. Gough and A. G. Heppleston and special reference is made to characteristics of the disease found in workers in coal, asbestos, and tacle. The reaction of the lung to dust is studied by E. J. King and C. V. Harrison in a brief paper on experimental evidence in favour of the hypothesis that massive fibrosis in miners is due to a combination of dust and tuberculous infection. The physical process of deposition of dust in the lungs is described by C. N. Davies in a lucid examination of the process and its results. G. Nagelschmidt reviews the theories on the origin of the siliceous nodule and the experimental evidence underlying them. Ultrahistological work by French observers points to changes in the mitochondria and the death of the cell apparently resulting from the action of silica fume, the test substance. Radiology occupies three papers: G. Simon writes on problems in taking and reading chest radiographs; C. M. Fletcher recapitulates the radiological diagnosis of pneumoconiosis and discusses the differential diagnosis; P. J. Chapman, on radiography in the field, gives details of equipment and techniques required for a high and consistent standard. In epidemiology of coalworkers' pneumoconiosis A. L. Cochrane refers to research work carried out by the Pneumoconiosis Research Unit in South Wales. In this area too the Miners' Chest Diseases Treatment Centre gives hospital treatment for advanced cases of the disease.

Normal lung function and its measurement is discussed by P. Hugh-Jones. The disturbance of pulmonary function in industrial pulmonary disease is discussed by J. C. Gilson; an important and significant distinction is made between pneumoconioses fitting the International Labour Office radiographic classification and those which do not fit; other conditions considered are byssinosis, cadmium smelters' emphysema, and late effects of acute exposure to irritant gases. The general principles in the use of pulmonary function tests in epidemiological work are described by C. B. McKerrow.

The pneumoconioses of tin-miners, granite workers and china clay workers in Cornwall are described by L. W. Hale. A. I. G. McLaughlin writes on iron and other radio-opaque dusts encountered in several occupations. A. John Robertson describes the processes of tin smelting and gives an illustration of a radiograph of a tin smelter's lungs. The epidemiology of byssinosis is described by R. S. F. Schilling.

Other notable contributions are studies on bronchitis in industry by I. T. T. Higgins; occupational lung cancer by Richard Doll; and a well illustrated article on rheumatoid disease and pneumoconiosis by Anthony Caplan. The final paper on the prevention of silicosis, by Donald Hunter, contains the essential principles of this most important approach to all the problems of pulmonary disease due to dust.

The volume is well presented by the publishers; a relevant bibliography accompanies each paper; and there is an excellent index.

E. L. Middleton


This report is based on that of the W.H.O. Expert Committee on Hygiene and Sanitation in Aviation, 1959. It is a considerable improvement on previous publications of this nature including that of the U.S. Department of Health, Education, and Welfare, whose handbook on Sanitation of Airlines (1953) is now seriously outdated.

This well written handbook deals with three abiding principles, which hold true on the ground and in the air.

(a) Food and water and the utensils or vessels used for services must be free from both living organisms of disease and toxic substances of any origin.

(b) Persons must be kept from contact with infected wastes, particularly human wastes.

(c) Persons must be kept from contact with infected insects, rodents, or other vectors of disease.

Accordingly, subsections are devoted to and specific recommendations made on, the sanitation of water, drinking fountains, disinfection of water, aircraft water systems, water service outlets, water hoses, water carts, food preparation, food handlers, building and premises for food preparation, cleansing and germicidal treatment, food sanitation on aircraft, toilet waste disposal, sewage disposal, refuse disposal, aircraft toilet fluids, and finally insect control, mosquito proofing, fly control, and rodent control. This is a comprehensive list of subjects for a small handbook and the matters raised are dealt with firmly, accurately for the greater part, and with clarity.

There is still no attempt to lay down international standards for aircraft toilet fluids. Economics aside, some international agreement on this subject is urgently required. Aircraft in this day and age may be handled by a large number of countries on an agency basis, so