book as a basic guide in preparing a paper and, provided the interest of the patient comes uppermost, there is an enormous epidemiological field open for the benefit of everyone.

P. M. O. MASSEY

Air Sampling Instruments. For Evaluation of Atmospheric Contaminants. In sections; (£10.0.0.) American Conference of Governmental Industrial Hygienists, 1014 Broadway, Cincinnati, Ohio, 45202, U.S.A. 1967.

The British occupational hygienists are currently preparing a directory of the air sampling instruments in general use in this country. The publication of this 1966 edition of the A.C.G.I.H. directory may well make them envious; it emphasizes the availability of 'hardware' in the United States, hardware not necessarily better in performance but greater in variety.

The first section of *Air Sampling Instruments* deals with the principles of sampling and instrumentation, two very valuable sections. They are followed by the lists of instruments divided according to type, each instrument being illustrated, described, and commented upon. Inevitably there is a compromise between manufacturers' opinions and field experience, and, very occasionally, this shows. It is encouraging to see so many old friends from the British stables prominent in the lists.

In practice, the choice of sampling instruments follows a consensus opinion of the hygienists concerned, be it a given field or country, and while this volume is sufficiently inexpensive to find a place on every hygienist's bookshelf, it should be there as a reference book, and not as a buyer's guide. For the latter purpose, for this country, the British directory, when it appears, may be of value despite its limited size and presentation.

E. KING

The Control of Indoor Climate. By T. C. Angus. International Series of Monographs in Heating, Ventilation and Refrigeration. Vol. 4. (Pp. 110; 50s.) Oxford: Pergamon Press. 1968.

This book is one of an International Series of Monographs (Editors – Billington and Owers) intended to extend the knowledge of persons with a general engineering background in special subjects relevant to heating and ventilation engineering. Dr. Angus, who will be known to many readers of this Journal for his work at the London School of Hygiene, states that his intention was to provoke an interest in the standards for thermal comfort, their measurement, and their attainment through the use of modern appliances, rather than to provide a designers' textbook. The consequence is a rather superficial and selective review of the field. There is a serious lapse in proof reading on page 35 which has resulted in reference to a pulse rate of 215 'points' and to a rectal temperature of 125°F. (51.7°C.) as possible physiological criteria for the assessment of heat stress. The serious student to whom this series appears to be

aimed would prefer initially to read a fuller treatment of the topic, as is available in previously published works.

D. TURNER

Absenteeism – Causes and Control. By P. J. Taylor. (Pp. 30; 7s. 6d.) London: Industrial Society. 1969.

Sickness absenteeism is topical and the Industrial Society has done well to produce this excellent booklet on the subject. It sets out to explain the forms and causes of absence from work and the factors that affect it. It then considers the practical problem of reducing absenteeism – what actions the manager can take to reduce the present absence rate and what climate he should try to establish to reduce the future problem. There are many specific examples of situations that have existed in companies and the ways in which they were handled.

The technical information on definitions and measurements and the methods of collecting absence rates is accurate and clearly presented. The section on factors affecting absence is comprehensive, helping the uninitiated in matters of sickness absence measurement from ignoring influences other than sickness which may invalidate comparisons between groups. The sections on the control of sickness absence would be particularly valuable to managers who wished to tackle the problem of sickness absence with some hope of success.

This is a booklet which any industrial medical officer can recommend to any management which is interested in understanding and controlling absenteeism.

P. A. B. RAFFLE

General Principles of Monitoring for Radiation Protection of Workers. A Report by Committee 4 of the International Commission on Radiological Protection. ICRP Publication 12. (Pp. 24; 15s.) London: Pergamon Press. 1969.

This is a report of a Task Group of one of the standing committees of the International Commission on Radiological Protection (Committee 4). The terms of reference of the Group were to prepare a report on the principles of monitoring for radiation protection of workers. It was to include monitoring of workplaces, personal monitoring, and the relationship between the two. It should be read in conjunction with a number of the main recommendations of the Commission (ICRP Publication 9, 1966).

It covers the field in a comprehensive manner and will be a useful document for all those embarking on work in the field of radiological protection. It points out at the beginning that, like its more general parent, occupational hygiene, the principal aim of radiological protection is the achievement and maintenance of safe and satisfactory working conditions. Measurements are of great importance in any radiological protection programme because they help both to achieve safe conditions and to assist in demonstrating that safety has been achieved.

The booklet discusses the objectives of the design of programmes for the monitoring of workplaces for external radiation, surface contamination, and air contamination

by radioactive materials and for the interpretation of results. This is followed logically by similar considerations for individuals exposed to external radiation, skin contamination, and internal contamination (*i.e.*, absorption) by radioactive materials. There are two appendices dealing with suggested criteria for the selection of workers for individual monitoring for external radiation and for the selection of workers for individual monitoring for internal contamination.

This booklet sets out the principles likely to be adopted by radiation protection officers in research establishments and hospitals or by small industrial users. There is little in this publication which would be of value to those concerned with radiological protection at nuclear power stations as the conditions of work differ from those discussed.

The section on monitoring of accidental exposures is less convincing because the problems are oversimplified. Prominence is given to criticality accidents which are extremely rare events (none has occurred in the United Kingdom); they are only possible in research reactors, they cannot occur in British civil nuclear reactors.

This booklet is part of a logical sequence of documents published under the auspices of the ICRP and is a 'must' on the shelves of all radiation protection officers.

J. A. BONNELL

Beiträge zum Betriebsgesundheitsschutz. Vol. 16. Edited by H. Thiele and S. Eitner. (Pp. 294; illustrated; 50s. 6d.) Berlin: VEB Verlag Volk und Gesundheit. 1968.

This volume is a record of the papers given at the second congress of the Association for Occupational Hygiene held at Weimar, East Germany, in November 1966. The editors explain that where papers have already been published in full elsewhere or when the subject is adequately presented in similar papers the record has been condensed and summarized as far as possible. Exception has been made, however, in the case of the address by the deputy Health Minister of the Democratic Republic of Germany and also of the discussion on the subject of Occupational Hygiene and the rationalization of underlying theses. These papers are printed in full because of the new phase of development reached in occupational hygiene in which the objectives can only be achieved by the closer working together of the 'work sciences' and the general disciplines of medicine, they claim.

The subjects covered by the 42 scientific papers are grouped under four headings as follows: 'Climate in the work room and at the work position', 'Lighting in the work room', 'Miscellaneous subjects', 'Theses: occupational hygiene and rationalization under socialistic production methods'.

The first section consists of papers dealing with the measurement of temperature and humidity and problems of heat exchange between man at work and his environment. Basic observations on pulse rate and blood pressure before and after work under conditions of high temperature in a foundry are described and the effect of acclimatization and training is measured. Less familiar

to industrial medical officers are two papers dealing with environmental factors affecting seamen. The first deals with the assessment of the effects of climatic changes on voyages into the tropics and the second with the laboratory investigation of the effect of heat and high humidity on 85 'tropics adapted sailors' and 275 men of other occupations. An interesting diversion from the fundamentals of occupational hygiene appears in a brief paper in the 'miscellaneous' section on accidents occurring outside working hours. The importance of unfamiliarity with the tools used, the different nature of the work done on a casual basis at home, and the part played by alcohol are cited as major factors resulting in injuries which lead to absence from employment.

Quite strange to the reader from the West is the inclusion of a paper to relate the work of the Trades Unions to the ideals and objectives of the State and also the formal discussion under the heading 'Occupational Hygiene and Rationalization under socialistic production methods'. This throws some light on the situation in a one-party State and the imposition of one political philosophy stands out clearly complete with quotation from Lenin.

Though the scientific material is of wide interest, British readers may consider 294 pages of small typeface still in the original German of the Congress a disincentive to studying this volume.

G. FLETCHER

Digest of Pneumoconiosis Statistics 1967. Ministry of Power. (Pp. 14; 11 tables; 5s. 6d.) London: H.M.S.O. 1968.

This Annual Digest is a valuable record of the extent of pneumoconiosis officially reported in Britain. The ease with which radiological investigation of the lungs can be carried out in most of the United Kingdom, and the special facilities which are available for some occupational groups, means that under reporting is probably low. The stereotyped form of the introduction to the digest, which has varied little over several years, may tempt the regular reader to ignore it altogether. At least part of it, dealing with legislation and the details of boarding procedures, could with advantage be printed as an appendix. There are, however, some new comments in this year's introduction. Changes in the presentation of the material recommended by a working party of the National Joint Pneumoconiosis Committee are due to be completed in the 1968 Digest. This issue of the Digest includes for the first time a summary table showing the prevalence of pneumoconiosis in a selected mining population. The interesting feature of this material, which comes from the medical service of the National Coal Board, is that category 1 simple pneumoconiosis has been included. While this is not significant from the point of view of Industrial Injuries Benefit, it has considerable epidemiological value and one hopes that this information will continue to be included in the Digest. The use of such a sensitive measure of dust exposure confirms that real progress has been made. The prevalence of all categories of pneumoconiosis in men radiographed under the National Coal Board periodic x-ray scheme has dropped from 12% in 1959-62 to