Book reviews

Industrial and Environmental Xenobiotics, International Congress Series No. 440. Edited by J. R. Fouts and I. Crut. (Pp. 345; \$57.00.) Excerpta Medica: Amsterdam. 1978.

Conferences can be a good thing, and no doubt the International Conference on Industrial and Environmental Xenobiotics, held in Prague in September 1977, was a jolly affair, with much useful discussion over coffee. But there is no conceivable reason for publishing the 86 two- to four-page abstracts.

There are many important questions concerning metabolism and toxicity of industrial materials. There are the questions of neurotoxicity of solvents, of organophosphorus compounds, of heavy metals, of exposure to low doses of carcinogens, and mutagens. None of these questions gets any solid discussion.

Much of the meeting concerned itself with the areas of drug metabolism currently fashionable in biochemical laboratories. Rat liver microsomes were described and dissected in numerous papers. However, many of the papers have the musty air of matters already published elsewhere and often.

Eight papers deal with chemical and biochemical models of drug oxidation. The paper by Anders on dihalomethanes is of interest.

Twenty-four papers deal with various *in vitro* systems such as isolated rat liver cells and perfused organs.

Twenty papers are put in a section on occupational and environmental aspects. The good papers can mostly be found in their full form by reading the *British Journal of Industrial Medicine*, *Toxicology and Applied Pharmacology*, the *Archives of Environmental Health*, and related journals. The question is whether this volume is a useful compilation of papers. The answer is that the papers are too short to be a useful introduction to the field, and there is no balance in their selection.

The last section of 34 papers on Mechanisms of Toxic Action has an

interesting paper by H. Kappus on lipid peroxidation induced by halogenated hydrocarbons.

This volume cannot be recommended. It is better to stick to the journals and proper review papers.

A. E. M. MCLEAN

A Guide to Improving Food Hygiene. By Graham Aston and John Tiffney. (Pp. 144; £2.50.) Northwood Publications Ltd: London. 1978.

This is a comprehensive guide to the subject of food hygiene and should be read by managers, supervisors, training officers, nurses and doctors who may be concerned with food handling at home, or in the catering and food industry, both on the production line and in retail outlets.

After a discussion of the up-to-date legal requirements for the food industry, a review of the aetiological factors in food poisoning ensues, and the common bacteriological causes are discussed. There is a useful comparative table of the different incubation periods, symptoms and recovery times of these bacterial causes. The design of food premises and equipment required for them is covered, together with a discussion on cleansing techniques. The chapter on pest control provides a thorough account of common infestation problems.

For the occupational health physician, however, the book falls short in one important area; health standards and procedures for monitoring the health of food handlers on engagement and on return from absence. It is a pity that the authors were not able to get more detailed or comprehensive information on this important subject which is treated so cursorily in many food companies. One stool check, which is referred to as part of a pre-employment health assessment of a food handler, costs money and is unsatisfactory. Either stool checks are not required, or else three stool checks on alternate days are necessary, depending on the occupational health physician's

clinical assessment of the employee.

Having said this, I think that the book is essential reading material for any occupational health physician, to provide a broader understanding of the subject of food hygiene before deciding on health standards for food handlers in the company.

It would have been interesting to have a short biography of the authors to establish their area of professional expertise and experience and to understand from what standpoint they wrote the book.

D. M. MILLER

Social Security Law, 2nd edition. By H. Calvert. (Pp. 549; £6.85.) Sweet and Maxwell: London. 1978.

This book examines the legal structure which has been built to put government policies on income security into practice. The author's task is not to be envied, for the structure is a rambling one full of intricacies and continually subject to renovation, alteration, extension, and demolition!

Since the first edition appeared in 1974, the National Insurance and Supplementary Benefit schemes have been amended and consolidated. Industrial Injuries Benefits have been merged into National Insurance, Family Allowances have been replaced by Child Benefit, and a new State Earnings-Related Pension Scheme has been launched. All of these changes are reflected in this edition and the opportunity has been taken to rewrite parts of the book and to expand coverage. Mention should be made in particular of the new chapters on Industrial Injuries Benefits and Adjudication on social security matters and the greatly improved treatment of Family Benefits and Supplementary Benefits.

The resulting second edition is a much more comprehensive and comprehensible book than the first. In addition, the changes by the author (and his assistant) have helped to produce a better-balanced

book by reducing the dominance of the chapter on Unemployment Benefit.

The chapters on sickness and industrial injury are of particular interest to practitioners of occupational medicine. The former chapter provides an account of the rules governing entitlement to Sickness and Invalidity Benefits while the latter provides a clear account of the legal niceties to be overcome by claimants of Industrial Injuries Benefits.

Throughout the book, the author offers a critical appraisal of the operation of the law and a discussion of the policy behind the various rules, and these two elements highlight the inadequacies of our present system of income security.

The book is to be recommended subject to two reservations. First, it is a matter of regret that all references are placed in a somewhat clumsy fashion at the end of the book, for this does make them difficult to follow. Second, it may be that readers of this journal will find the book as a whole too technical and detailed for their needs. It is, however, a low-priced law book which would serve well, in Professor Calvert's own words, as a useful point of reference.

A. M. WILTON

Mortality Surveillance 1968-76: England and Wales. (Pp. 172; £14.50 + 50p p. & p. + VAT.) Office of Population Censuses and Surveys, Medical Statistics Division. HMSO: London. 1978.

The previous publication in this series (*Mortality Surveillance 1968-75: England and Wales*), which is intended to provide research workers, epidemiologists, health planners and others with a guide to recent changes in death rates, was reviewed in the *British Journal of Industrial Medicine* in November 1977. Like its predecessor, each page shows for a specific cause of death the number of deaths and death rates in five-year age groups for each sex and for each year since 1968. The 158 analysis sheets cover the 163 A list causes recommended by the World Health Organization including 'External Cause of Injury' (AE codes) and 'Nature of Injury' (AN codes), together with an analysis of all causes combined. There were no deaths associated with the six causes A1, A11, A26, A32, A33 and A35.

A number of changes have been made since the last analysis volume and each analysis sheet now contains an estimated

mean and median age at death for both men and women in each year. The results of four statistical tests are provided to assist the interpretation of trends in the death rates over the nine years 1968-76 from each cause in each age group. (The previous publication examined trends over the six years 1970-75 only.) Two of the tests, the Spearman rank correlation coefficient and the product moment correlation coefficient were included in the earlier volume. A third test is concerned with how well the death rate in 1976 is predicted by fitting a linear regression to the previous eight years' rates and the final test examines whether there is a constant or exponentially increasing or decreasing trend in the rates. The first three tests are also applied to the estimated mean and median ages at death. A description of the four tests, which have all been performed as 'one-sided' tests, is given at the front of the volume.

As well as being available as a complete set, spirally bound, individual sheets may be purchased at 12.5p each + 10p postage and packing + VAT. Alternatively the complete set may be obtained on 35 or 16 mm microfilm (£2.50 + 20p postage and packing + VAT) or on microfiche (£1.50 plus 20p postage and packing + VAT). Orders should be addressed to Mortality Surveillance, Statistics Servicing I, Office of Population Censuses and Surveys, 189-199 West Street, Fareham, Hampshire PO16 0HB.

Further analysis by ICD chapter and three- and four-digit ICD codes are also available and details of cost and means of ordering can be obtained from the address above.

ANN PETRIE

Mutagen-induced Chromosome Damage in Man. Edited by H. J. Evans and D. C. Lloyd. (Pp. 355; £15). Edinburgh University Press: Edinburgh. 1978.

Although this book is ostensibly concerned with the extent and significance of chromosome damage induced in man following exposure to any type of clastogenic agent, it will probably be received primarily as a timely guidebook for those considering the use of cytogenetic analysis as a means of monitoring human populations exposed to chemicals.

While substantial advances have recently been made in detecting *potential* human chemical carcinogens, little progress has been made in determining whether low-level exposure of humans to

such agents will be safe, or whether cancer or other effects can flow from transitory or permanent changes induced in human chromosomes by chemical mutagens. Currently, the only method that exists for determining whether a chemical can cause cancer in man is epidemiology, but this technique is usually retrospective and is often blunted by a variety of complicating factors. It is therefore not surprising that attempts are being made to develop an early warning system based upon changes induced in the chromosomes of humans exposed to biologically active chemicals.

As it is possible to sample the circulating lymphocytes of people who have been exposed to a mutagen, and then to determine the extent of chromosomal changes produced, it would appear that such an early warning technique already exists. The data presented in the majority of the 37 chapters contributed to this book, which forms the proceedings of a symposium of the same name held at Edinburgh in 1977, suggest that this is not so. Certainly, effects can be observed, but their significance, apart from establishing chromosomal contact with a mutagen, is far from clear.

The book makes four major contributions to this rapidly growing subject. First, a valuable bibliography has been provided. Second, the experience gained to date in man has been collected together. This includes a description of the chromosomal abnormalities induced in survivors of the Hiroshima A-bomb and in x-ray treated patients, the apparent absence of chromosomal changes in psoriasis patients treated with 8-methoxypsoralen and ultraviolet light and those produced in chemical workers exposed to benzene or vinyl chloride. The third major contribution is to focus attention on the uncertainty that currently exists concerning the phenotypic significance of the various types of chromosomal damage that can be chemically induced in either model systems (animals or cultured cells) or in man. For example, a simple link between specific, chemically induced chromosome abnormalities and the eventual chemical induction of cancer, or any other disease condition, has yet to be established. Similarly, there appears to be little evidence of permanent genetic damage induced in patients who survived intensive anti-cancer drug therapy, despite the fact that their peripheral lymphocytes had passed through a crisis of chromosomal damage during therapy.

At present it is difficult to disregard