that the victims of radiation hazards are to be expected neither among radiographers nor atomic energy workers but among non-coal miners! Could there be a better illustration of the value of regular monitoring of the working environment? M. J. DAY.

Report of the Working Party on the Laboratory Use of Dangerous Pathogens (Chairman: Sir George Godber), Department of Health and Social Security. (Pp. 40; 55p.) London: HMSO (Cmnd 6054). 1975.

It was not unexpected that the smallpox escape in London which resulted in the death of two outside contacts would lead to an inquiry into the use of dangerous pathogenic organisms in laboratories. Even without this event to focus attention, it was timely to consider the problem in view of the growth in recent years of institutions not primarily concerned with the routine diagnostic and research responsibility for handling such organisms, who nevertheless under current legislation could acquire and use them independently.

The report of the working party is divided into five sections and has four appendices. All aspects of the problem are considered in detail. The committee compiled a list of some 70 pathogens which they divided into two categories: 'A, organisms so dangerous as to present great risk to the health either of laboratory workers or of the human or animal communities such that material containing live organisms should not be accepted knowingly, or held at all in this country without authorization', and 'B, organisms which present considerable danger to laboratory workers and/or animals but are either present in the human or animal communities or are not likely to cause epidemics. They should be held only in a laboratory under the supervision of suitably qualified staff'. The working party assessed the size of the problem by circulating a questionnaire to laboratories, universities, and research departments to determine which species of pathogens on the list were held by individual laboratories. They discuss existing codes of practice, in particular 'Safety in Pathology Laboratories' compiled by the Department of Health and Social Security in 1972, note the potential hazard posed by genetic engineering and review the existing legislation relevant to the problem, such as the Health and Safety at Work Act.

Finally, the working party make specific recommendations for the handling of dangerous pathogens in laboratories. These recommendations are adequate and attainable without being excessively restrictive or impracticable. Thus in essence the report defines a comprehensive list of organisms considered to be of special importance in laboratories, formalizes the responsibility for their control, and advises on how best this may be done. Heads of all laboratories handling dangerous organisms and other interested parties such as doctors in environmental health should have a copy of this report and study it carefully. A. A. CODD

Research in Occupational Safety and Health. International Directory of Research Laboratories and Organizations. 2nd edition. (Pp. 584; Fr. fr. 60.) Association for Research on Prevention of Occupational Risks, Switzerland: 154 Rue de Lausanne, 1211 Genève 22. 1974.

The International Social Security Association whose members are drawn from government departments and other institutions has among its aims the publication of documents on social security and a permanent committee on the Prevention of Occupational Risks. This has several sections, one of which aims to make research involving experimental work on occupational hazards and prevention more widely known.

This book is a new English language edition of a volume first published in French in 1971. The information is based on replies to questionnaires issued in 1973 so that it is inevitably out-of-date in some respects. However, this is probably not a serious drawback as much of the important information it provides is likely to be correct for some time yet. There is a very useful index of the materials and subjects covered by various research institutes and organizations, which themselves are indexed by type of activity and field of study. Research workers are also indexed by name and there is a geographical index. As a directory it is a good source of information for workers seeking to know where certain interests lie or for travellers to other countries who wish to plan a series of visits related to their own research interests. Any research group with an international outlook would find this directory very useful.

R. I. MCCALLUM

Toxicology: the Basic Science of Poisons. Edited by L. J. Casarett and J. Doull. (Pp. 768; tables, 15 figs; £14.50.) New York: Macmillan. (London: Baillière Tindall) 1975.

Most of the chapters of this textbook, designed primarily for toxicological courses, were written by eminent experts. Their experience ensures a readable style which by contrast makes irritating the occasional imperfections, slips, and the absence of active editorial work. There are duplications, for example in the metabolism of pesticides, or the deposition and clearance of particles. The 42-page table on air pollutants could be omitted without any loss, as could more than 80% of the chapters on the skeletal and reproductive systems which are unrelated to toxicology. In the same chapters the authors omit to mention many important toxicological facts, for example: Ita Ita disease, skeletal fluorosis, the radiological signs of lead deposition, the ovarian effect of cadmium. In the chapter on metals there are sentences like: 'The demonstration that beryllium can induce tumours, especially by the probable route of human exposure, is indeed incriminatory'. There are several factual errors: lead in the bone is in equilibrium with free lead in the plasma; doses given in mg/kg but not in mol/kg fit the probit regression line; atropine is a competitive inhibitor of AcChE inhibitors; arsenic and fluoride are heavy metals and CO is a volatile agent; the dose effect relationship is defined as dose response relationship; the definition of absorption does not fit the use of this term by the same author. In the chapters by Professor Casarett, who died before the book was completed, there are wrongly drawn figures.

In spite of these shortcomings this textbook helps the reader to a better understanding of the mechanisms of toxicological research and gives him a critical approach to toxicological literature. The first unit of the book discusses the general principles of toxicology. The second unit is a successful presentation on systemic toxicology.

cology with excellent chapters on liver and eye. The third unit covers toxic agents, with outstanding chapters on teratology, carcinogens, pesticides, solvents and vapours, air pollutants, and social poisons. The last unit deals with clinical, forensic, industrial, and veterinary toxicology aiming to give guidance on how to act properly and avoid the pitfalls of the trade. The chapter on industrial toxicology by H. F. Smyth covers step by step the basic principles and rules, including budgeting and ethics, to be followed by an industrial toxicologist.

Without any doubt this book will be a success because it fills a gap. Because of the differentiation of toxicology into widely diverse fields, everybody, even the professional toxicologist, needs education in most of the fields covered by the authors. Considering the length, the satisfactory references and indexing, and the quality of printing, the price is not exorbitant. Although not written specially for people working in the field of occupational medicine and health, they can hardly afford to omit this book from their libraries.

LASZLO MAGOS

Vibration: White Finger in Industry. Edited by W. Taylor and P. L. Pelmeur. (Pp. 166; £5.20). London: Academic Press. 1975.

The findings of four years' research financed by the Department of Health and Social Security for an investigation into the vibration syndrome by the Industries Injuries Advisory Council, following their Interim Report of 1970, are published in this book.

The foreword, by the chairman of a large and well-known industrial group, is of particular interest to occupational health physicians in that it is an excellent statement of an enlightened employer's approach to industrial health problems. One cannot help remarking on the statement that it 'should be read by all employers'.

The vibration syndrome itself concerns only a small minority of doctors in industry and relatively few work people. Nevertheless, this is a multidisciplinary study which demonstrates very well the basic nature of occupational medicine and the need for its practitioners to possess a wide knowledge of scientific and technical disciplines, let alone medical ones, and to be able to co-operate with colleagues who know the same subjects in depth. The result is a fascinating and detailed study and it further intrigues in that the details, of concern on a whole only to those with an interest in the vibration syndrome, individually relate to other interests too. For example, the study of bone cysts of the hand and wrist is not only another commentary on the difficulties of accurate diagnostic radiology but also a source of information to radiologists, orthopaedic surgeons, and rheumatologists on the prevalence of these lesions.

Other notable inclusions are a summary of the British Standards Institution *Draft for Development on Hand-arm Vibration* (DD 43: 1975), a list of valuable references, and an excellent summary of the research project.

The only adverse criticisms one can make of this volume are fairly carping. There is a small amount of repetition, almost inevitable when separate papers are gathered together. Long detailed readings of arteriographic examinations in the text are only partially illustrated by reproductions of radiographs in the plates. It would have been better to describe and illustrate the

best example fully and relegate other descriptions without illustration to an appendix. In fact, there is a rather unsystematic use of tables in that some are in the text and others in appendices. A better arrangement might have been to insert class results in the text and list individual results in appendices. Turning again to the plates, these are not listed in the contents but are easily found, being bound together. The black and white photographs of processes are good and the colour reproductions of various appearances of vibration white finger, though they do not look very convincing at first sight, improve with patient scrutiny, especially through half-closed eyes (a by-product of patience?). There are useful summaries of conclusions at the end of most chapters but they do not all appear to be justified by the preceding text, presumably expressing experience gathered during the project. Figures 1 and 2 in chapter 1 are difficult to understand as the bars and their cross-hatchings are not explained. There is no index.

This book should be widely read not only by students of occupational health but also by mature practitioners of occupational medicine, physicians, surgeons, and engineers who wish to enlarge their view of the effects of working processes on man and how to get to grips with them.

To the reviewer there remains an unresolved problem. After such lucid evidence for the induction of vibration white finger at work, how did it remain unprescribed?

JOHN RICH

NOTICES

Industrial Audiometry Course

A three-day course on industrial audiometry is to be held on 15-17 December 1976, at the Wendover Hotel, Monton, Eccles. It will offer basic training in audiometry for industrial medical staff, safety officers, and others concerned with hearing in industry. Attention will be paid to problems of practical screening audiometry in industry in the assessment of hearing for both new entrants to noisy employment and existing workers.

The course will include lectures on the theory of audiometry, audiometric methods, accuracy of results, interpretation of data, detection of malingering, and available techniques for the prevention of hearing loss. Assessment of handicap, detection of non-organic hearing loss, legal liability, and current noise legislation will also be covered. Practical work will include the use of manual and automatic audiometers, care and calibration of audiometers, and practice sessions on audiometry using both simulated and live subjects.

Because of the intensive nature of the course and the emphasis placed upon practical work the number of participants will be limited to not more than 20.

Further information may be obtained from Dr N. S. Yeowart, 8 Clay Lane, Norden, Rochdale.

International Congress on Toxicology

The Society of Toxicology will hold its Annual Meeting at the Royal York Hotel, Toronto, from 27-30 March 1977. Further information may be obtained from Gale C. Boxill, PhD, Wyeth Laboratories, Box 861, Paoli, Pennsylvania, USA.