of this system lie in an inadequate selection of studies to reproduce, and unskilful commentaries. These are happily avoided. Selection had to be heavily restricted but the 90 or so (out of the many thousand possible) articles reproduced seem on the whole well chosen and with few important omissions. One is Häkkinen's (1958) admirable study on Helsinki public transport drivers; perhaps another is Farmer and Chambers' (1926) pioneer work on accident proneness to which a later paper of these two authors was preferred. Further, the authors' comments—sometimes unfavourable but always fair—are soundly based, lucid, and realistic, and as consistently reliable as any this reviewer has encountered. Some may argue that singling out articles 'which embody (common methodological) errors and are seriously weakened by them', even for the authors' laudable purpose, is rough justice; but such sentiment is misplaced. Accident research has suffered heavily from enthusiasm usurping technique, and the authors are right to re-examine critically some of the work on which substantial theories of accident causation are based including, this reviewer is glad to see, inter alia that which produced the fashionable 'drive as you live' hypothesis.

This book admirably fulfills its purpose and can be recommended without qualification to all interested in accident research. The frequent excuse that the fundamental statements of principles and techniques are buried in statistical works is no longer valid. The book is well printed and produced, and excellently written though in the modern American 'scientific' idiom.

P. FROGGATT


This elegant volume is comprised of some 30 of the 50 or so publications which have emanated in the quinquennium 1956-61 from the Nuffield Department of Industrial Health in the University of Newcastle upon Tyne. The wide range of research which has been carried out by Professor Browne and his colleagues in these five years is reflected in the variety of the papers. The opening section on the teaching of occupational health is followed by sections on industrial medicine, dust disease of the lungs, biostatistics, occupational hygiene, and ergonomics. Readers of this Journal have already had the opportunity to see many of these papers when they were originally published, and a number of the other articles have appeared in other widely read medical journals, but few of our readers may have seen the papers on occupational erosion of teeth which appeared in several dental journals.

These papers were all published before 1962 but it is striking how up to date they are; this is as it should be, because a university department should be ahead of the norm of contemporary thought and development, and the Newcastle school more than satisfies this criterion.

The proportions which the various branches of occupational medicine occupy in this anthology are well balanced. Clinical medicine, statistics, occupational hygiene, animal experimentation, and the philosophy of the subject have all been accorded their due place in the selection of the papers included.

T. S. SCOTT


Thanks to the high standards of safety the number of deaths from electric shock in this country has increased only slowly despite the remarkable increase in the use of electricity. What contribution has medicine to make to this problem? In essence, no different from other industrial accidents and diseases—prevention, treatment, and study of the late sequelae—although rather like the migraine aura, the picture might appear distorted by gross change in one or more dimension.

The international symposium held in Paris three years ago heard contributions from doctors and engineers. The doctors considered first the collection of statistics to relate the various electrical and physical parameters of an accident to the immediate consequences and the development of complications. Whether an attempt should be made to collect comprehensive data on every accident or whether it would be preferable to define a problem and then plan an investigation to attempt to find a solution was unfortunately not considered. After a review of present-day knowledge of the physiological effects of electric current, the meeting next went on to consider the pathological sequelae of electrical accidents. The paper by Professor Andreuzzi on 'Cardiac Disorders, Nervous Disorders and Sensory Disorders' ranged widely but unfortunately is not sufficiently critical and does not allow the interested reader to make up this deficiency as there are no references. The papers by Drs. Hossli and Hauf give a good review of first aid to victims of electrical accidents; the second of these papers is carefully documented.

The technical section contains reports on prevention of electrical hazards and work planning, on protective equipment, on prevention of low voltage electrical accidents, and on safety training and education. An interesting comment on this section will bear on many aspects of industrial accident and disease prevention in the coming years. This concerns difficulties encountered by migrant workers in the European Economic Community. It was suggested that they should not be actively handicapped by unnecessarily large differences between the various national safety regulations.

W. R. LEE


This second volume in the series edited by Dr. A. Stolman sets out to present background knowledge of selected subjects and techniques and new developments.
relevant to toxicology and toxicological problems. Its range, however, is more limited than the title suggests, since this volume is mainly concerned with the application of techniques for the detection and identification of drugs and poisons in animals. It will therefore be of more interest to the forensic toxicologist.

The largest section, which occupies nearly half the book, is on the absorption, distribution, and excretion of poisons and their metabolites. This section is well referenced and there is useful data to be found, particularly on drugs. For example, five pages have been devoted to thalidomide, compared with the average of about two-thirds of a page per compound. There is, however, no apparent system in the way compounds were selected for inclusion in this section; red phosphorus is included, but not white, and the classification attempted: 'Gases and Vapours', 'Volatile Liquids', 'Drugs extractable by Organic Solvents from Aqueous Acid Solution', etc. does not seem helpful. Also, the relevance and completeness of the information given varies greatly from compound to compound. This seems to be the least successful part of the volume.

There is a good section on the use of infra-red spectrometry. It is mainly concerned with the estimation of volatile organic compounds in expired air, but it also contains information on the application of the technique to the study of samples obtained from body fluids and tissues.

The section on the analysis of biological specimens for basic drugs is poorly referenced. It contains some information on the use of gas liquid chromatography but more details of the method would have been appreciated.

The fourth section deals with rapid methods of toxicological analysis and describes the use of ion-exchange chromatography and ionophoresis in the investigation of clinical problems. The materials and solvents used, and the methods of preparing samples for chromatography are well presented and assessed. This chapter also contains a good description of reversed phase chromatography and its application to the separation of barbiturates at elevated temperatures. Many references are given to similar techniques, and these make up for a lack of certain practical details.

The fifth chapter on developments in spectrography is concerned only with sample preparation for metal analysis. Full descriptions with many references are given to the destruction of organic matter and the isolation, concentration, and enrichment of the metal samples.

The application of thin layer chromatography to toxicology is well presented in the last section. Here the newcomer to the technique will find a good introduction and many details of the various experimental procedures involved, together with much data in the form of tables on the separation of drugs and compounds of toxicological interest. This chapter best fits the format suggested by the editor in the preface and fulfills the aims set out by him for the book.

M. S. Rose