occupational nail disorders. This well-illustrated book is of less than 200 pages and is an invaluable source of information concerning nail disorders due to both systemic and local causes and should prove most acceptable to occupational health physicians.

C. J. STEVENSON

How Man Moves. By Sven Carlsöö. (Pp. viii + 198; 89 figs; £3.25.) London: Heinemann. 1972.

This is a textbook of kinesiology covering movements of the body from fetal activity right through to geriatric changes. It gives kinesiological recording and measurement techniques, and then goes through the main mechanics of standing, sitting, the gait, the arm, and finishes with analyses of movement in sports (golf, weight lifting, and archery) and work (lifting, slipping, and manual handling in a factory).

The best chapter by far is the one on Sven Carlsöö's own specialty, namely, 'Analysis of the Gait'. The chapters on industrial applications, such as lifting and the difference between manual and electric typewriters, are weak in that they give no positive methods of how to lift, nor do they stress the pitfalls to be avoided.

In industrial medicine our textbooks are well indexed and references have either been numbered or named in the text. In this book, although there are 8 pages of references at the end, they are alluded to in the text in a most unsatisfactory way, for example, 'a German study from the middle of the 1950s', or again, 'Japanese, Polish and Danish studies have all shown that . . .'. In other words, one has to become a detective and sort out all the German authors and then decide which of them wrote a paper in the 1950s. It makes one realize how important is the system of putting the author's name and date after a statement in the text for finding the reference at the end of the book.

In summary, this book could be recommended to someone wishing to study body movement in detail, but it would not be very useful to an industrial medical officer wanting to know about the various lifts that are needed in industry and the correct methods of carrying them out.

J. R. GLOVER

Genetic Disorders: Prevention, Treatment and Rehabilitation. Report of a WHO Scientific Group. World Health Organization Technical Report Series No. 497. (Pp. 46; 40p.) Geneva: WHO. 1972.

The WHO Technical Report Series is the medium through which are published the views of the groups of experts convened to advise on technical and scientific matters relevant to medicine and public health. From time to time during the last decade various problems relating to human genetics have been considered. In November 1971 a group met to discuss 'Genetic disorders: prevention, treatment and rehabilitation', and this is their report. It is divided into sections covering the epidemiology of genetic disease, the prevention and treatment of defective genotypes, the resources necessary for this, and the consequences of treatment and prevention of genetic disorders at the population level.

It is recommended that medical genetic services,

including counselling clinics and registers, be provided at each major medical centre, that increased efforts should be made to educate physicians and the general public in their work, and that provision be made for considerable increase in the obstetric and laboratory facilities needed for prenatal diagnosis. In research, special attention should be given to techniques of prenatal diagnosis, follow-up of children born after amniocentesis, population screening, heterozygote detection, changes in frequency of genetic disease following the introduction of counselling services, the effects on the fetus of inborn errors of metabolism in the mother, identification of environmental agents that affect the manifestation rate of genotypes predisposing to multifactorial disorders, identification and monitoring of environmental pollutants, and development of methods to control germinal mutation rates. The appendices discuss the frequency of genetic disorders, list a number of the hereditary diseases eligible for prenatal diagnosis, and estimate the approximate proportion of genetic traits with significant effect on genetic fitness.

The message of this report will be familiar to all working in clinical genetics, though there would be disagreement on several points of detail and emphasis. Its usefulness will be for administrators and others concerned with planning the efficient development of the health services in the future, who, for instance, may not be aware of the newly emerging possibilities in therapy involving prophylaxis through substrate reduction, cofactor supplementation, metabolite and enzyme replacement, removal of toxic products, and dietary supplements. For here are summarized the major trends, the growing points of the subject, which are likely to be of most use in ensuring that preventive medicine receives its optimal contribution from clinical genetics. It is unfortunate that this report series does not document its statements so that those whose attention is caught by a particular point can go back to the original literature on which it is based. But the major criticism of this report is in its title, for it includes very little on rehabilitation either of the patient or, more important, of his family. There are as yet very few studies of the impact of genetic disease on families. Those that there are show how heavy is the burden that falls on the parents, ranging in effect from family stability and finance to the utilization of their leisure, quite apart from that on the patient. Here there is a host of untouched problems. The technical report series could perhaps devote attention to this in a future number.

D. F. ROBERTS

Air Sampling Instruments for Evaluation of Atmospheric Contaminants, 4th ed. Prepared by American Conference of Governmental Industrial Hygienists (Pp. 585; \$12.50.) Copies available from American Conference of Governmental Industrial Hygienists, PO Box 1937, Cincinnati, Ohio 45201, USA. 1972.

This edition is a revision and extension of three previous editions published in 1960, 1962, and 1966. The volume is organized into five major parts. The first part is about the basic considerations in sampling air in the working or

living environment for some chemical, physical or biological properties of airborne contaminants. The second part deals with the calibration and working principles of air-sampling instruments. It includes discussions on airflow metering and the production of monodisperse test aerosols.

The third and fourth parts consist of discussions and descriptions of what the authors term 'sample system components' and 'sample collectors', that includes air movers and samplers, sampling probes for ducts and stack sampling, sequential and tape samplers, filter media and filter holders, inertial and gravitational collectors, electrostatic and thermal precipitators, and gas and vapour samplers. The fifth part comprises discussion and descriptions of direct reading instruments such as colourimetric indicators and those for analysing airborne particles, gases, and vapours. The volume also includes a comprehensive glossary of terms and tables of conversion factors and equivalents and of atomic weights.

The coverage of this work is comprehensive. It is well illustrated and contains all the relevant literature references. The performances of the instruments described are those quoted by the manufacturers. Therefore they have to be checked for reliability, the authors warn. The addresses of all the manufacturers, whether based in the USA or not, are given. However, the list of distributing agents includes only those based in the USA.

This is undoubtedly an invaluable book for anyone concerned with the measurement of airborne substances.

F. F. CINKOTAI

Beyond Plastic Surgery. By Charles Beaver Edwards. (Pp. 135; illustrated; \$12.95.) Detroit: Wayne State University Press. 1972.

This is an account of the use of cosmetic prostheses in making good deficiencies, either congenital or acquired, in various parts of the body. The author has had a unique training for this type of work, being essentially an artist who obviously possesses much skill in sculpture. The book, presumably directed towards workers in the field of prosthetics, has considerable technical detail relative to the construction and colouring of prosthetic appliances. It is surprising, though, that latex is used almost exclusively for the prostheses. In this country, hard acrylic or silicone have largely replaced latex on account of their more durable qualities.

The creation of an artificial ear is taken as a basic model in the art of prosthetic construction and is given due emphasis. The method of duplicating the patient's natural ear in each case seems unnecessarily painstaking, although obviously the ideal. When it comes to applying prostheses in facial defects, the author uses the technique of modelling the head ('portrait sculpture') rather than the standard method of making a face mask. His method does demand considerable skill such as he possesses as a sculptor but which would be difficult to acquire by someone lacking his gifts.

The chapter on artificial hands is the best in the book. He rightly stresses the value of cosmetically acceptable prostheses in persons who have either lost a hand or who have been born without one. He shows some beautiful results. The type of prosthesis used, namely a slip-on, flexible glove, is similar to that employed for a number

of years by Dr. J. Pillet of Paris, who prefers silicone to latex.

There are one or two medical inaccuracies, e.g., regarding the nomenclature of skin malignancies. The text is well written and the photographic reproductions are of moderate quality. There must inevitably be a small market for such a book with its emphasis on the sculptor's skill. This is not what the average technician requires.

D. A. CAMPBELL REID

Air Pollution and Respiratory Disease. Edited by W. W. Holland. (Pp. 163; \$20.) Technomic Publishing Company, Westport, Conn., USA. 1972.

Evelyn, writing about London in 1661, stated that 'catarrhs, phthisicks, coughs and consumptions rage more in this one city than in the whole earth besides' because of smoke from coal. This volume is a review of the literature on atmospheric air pollution and respiratory disease up to 1971 and it is clear that we still do not know, for certain, whether Evelyn's assertion is true or false. Seven authors contribute chapters on measurement of air pollution, on the effects of smog in London, the USA, and Japan, on mortality and morbidity in different countries, on lung cancer, on the effect that pollutants have on resistance to bacterial and viral infection, and on measurement of pulmonary function.

This review gives a useful account of the present state of play in the competition between cigarette smoke and urban pollution for the title of Public Enemy No. 1 in the causation of both chronic bronchitis and bronchial carcinoma. Its contributors deal with subjects as mundane as the siting of atmospheric sampling apparatus and as ethereal as the effect of mucus from the garden snail on inhibition of haemagglutination by influenza virus in the presence of ozone.

The literature on atmospheric ozone, NO_2 and SO_2 , is reported, but there is no mention of such important occupational pollutants as asbestos or di-isocyanates. Indeed, the emphasis is on pollution of the external atmosphere rather than of the internal environment of a factory; but in collating widely dispersed references and bringing together the expertise of Drs. Bennett, Clifton, and Waller, and of Professors Miller, Pemberton, and Semple, Professor Holland has produced a valuable source book. An index would have enhanced its value.

The publishers are to be congratulated on the format and the highly legible type, but the heavy underlining of every bacterial name tends to impede the even flow of the eye in chapter 10. Printers' errors are commendably few and make no material difference to the meaning.

G. L. LEATHART

Occupational Disease in California Attributed to Pesticides and Other Agricultural Chemicals 1970. (Pp. 33; 10 tables; copies available free on request as long as supply lasts from: The Bureau of Occupational Health and Environmental Epidemiology, State of California, Department of Public Health, 2151 Berkeley Way, Berkeley, California 94704.)

Previous reports have been reviewed in earlier issues of the Journal (25, 157, 1968; 27, 294, 1970; 29, 345, 1972) and