Book reviews


Since dermatitis is the most common industrial disease, a book dealing with this subject is clearly of interest to the occupational physician. The first edition of Dr. Fisher’s book dealt comprehensively with the subject of dermatitis due to both occupational and non-occupational causes but was probably of greater value to the dermatologist than as a reference book for the occupational physician. The second edition is much more comprehensive and will be exceedingly useful to those practising medicine in industry.

There is a new chapter devoted specifically to industrial dermatitis. In it the question of ‘hardening’ by the worker to industrial skin hazards is dealt with, the use of patch testing with particular reference to new industrial compounds is stressed, and among hazards those in the plastics field are particularly well covered. The prevention of occupational dermatitis is dealt with rather briefly.

The chapter on non-eczematous dermatitis has been enlarged and includes a full discussion of purpuric, urticarial, and lichenoid eruptions. It also deals with specific conditions such as zirconium granuloma. Another example of the detailed nature of this edition is a new and fascinating chapter on the subject of aquatic contact dermatitis.

The book’s scope has been greatly increased by inclusion of material from two groups of dermatologists with a special interest in contact dermatitis, namely the North American Contact Dermatitis Research Group and the International Contact Dermatitis Research Group. This has enabled much material to be included on the basis of personal communication before formal publication. The research groups have emphasized the value of a battery of patch test substances in the investigation of contact dermatitis, and a new chapter is added to this second edition on the use of patch test series of this type.

This is an excellent book with a wealth of references concerned with dermatitis. It has an appendix listing more than 800 contact allergens, their source in the environment, and concentrations recommended for patch testing; and colour photographs, some not too natural in tone however, add to the interest of the book. Dr. Fisher’s book is strongly recommended as a work of reference for occupational physicians and can be read easily and with interest.

C. J. STEVENSON


This booklet of about 150 pages with as many Russian references will be of very great interest to anyone living outside the Eastern bloc who is concerned with the control of air pollution. It is written with great lucidity, which makes reading a pleasure, and gives a broad picture of air pollution studies and control procedures in the USSR.

The first chapter deals with legislation and the history of Tsarist and Soviet organization for pollution control. Following a Council of Ministers decree in 1948, maximum allowable concentrations for 10 substances were confirmed in 1951 as indicators for the evaluation of the purity of urban air. An annex to this report presents the current list of single-occasion and 24-hour average limits for 114 substances. Examples of 24-hour average values are 50 µg/m³ for sulphur dioxide and 0.7 µg/m³ for lead, except for the sulphide for which 1.7 µg/m³ is permitted.

Brief summarized results of numerous studies are given, covering epidemiology related to environmental measurements and analysis of animal tissues following prolonged exposure to polluted atmospheres. Inevitably this section has to cover too much ground for the available space; for example, one finds on facing pages criteria for zoning non-industrial built-up areas and the standard formula for calculating maximum ground level concentrations downwind of a single source of emission. It is to be hoped that much more detailed information will be forthcoming in English to allow assessment of the validity of the reported results.

The second chapter deals with the principles adopted for setting the air quality standards in which emphasis is placed on functional changes that are not necessarily deleterious but still regarded as unacceptable. One criterion is that habituation to harmful substances must be considered as a harmful sign and is proof that the concentration in question is above the permissible level. Particular reference is made to the effect of a pollutant
on temporary desynchronization of the \( \alpha \)-rhythm caused
by light signals, though it is stressed that morbidity
surveys, while difficult to interpret, are not neglected.

Pollutants are provisionally divided into three groups:
those that affect the organs of smell, those that affect
the trigeminal nerve, and those predominantly producing
resorptive effects (eg, carbon monoxide).

It is a pity that in the list of maximum permissible concentra-
tions no indication is given of the predominant effect of each substance, though results of experimental
and full-scale studies are reported in detail for six pollu-
tants.

Other chapters cover sources of atmospheric pollution
and systems for their control, details of the present
Soviet organization for control, and international co-
operation through the Council for Mutual Economic Assistance.

The report concludes with seven annexes which, in
addition to the list of maximum allowable concentrations,
cover health protection zones around industry, informa-
tion to be obtained during plant inspections, a question-
naire for members of the public, a form for registering
eye injury from foreign bodies, a specimen record for
medical examination, and a summary on the use of animal
data.

The volume as a whole whets the appetite for more
information from the USSR and leaves a number of
questions unanswered. For example, with reference to
road transport, how can diesel-powered vehicles be banned
from built-up areas of most towns without causing acute
service difficulties, and how do Moscow, Riga, and
Leningrad effectively prevent the use of petrol-containing
lead if it is available elsewhere?

The principal item for regret is that practically no
information is given on the actual concentrations of
pollutants prevailing in Soviet cities today, so it is not
clear how necessary or how successful the control pro-
grammes have been.

R. J. SHERWOOD

Review of Experiment, Design, and Statistics in
Penguin Modern Psychology Texts. Edited by B. M.

This is a short book which attempts to cover a lot of
ground. The subjects considered include statistical
inference, descriptive statistics, the normal distribution,
chi squared, parametric and non-parametric tests, design
and analysis of experiments, and carrying out and writing
up experiments. It will be clear from the length of the book
and the subjects covered that there is a lot that has
had to be omitted. Analysis of variance, for example, is not
mentioned and thus the discussion of experimental
design is necessarily incomplete.

Indeed, the approach of the whole book is somewhat
superficial. But it is clearly intended for beginners, and
this superficiality may well be justified in that this book
will not put students off statistics for life! As Professor
Foss remarks in his foreword, 'Colin Robson says he is
not a Statistician (with a capital S). He is however a very
good teacher'. This seems to be indeed the case; his book
does give the impression that statistics and experimental
design are really quite enjoyable!

Anyone who reads this book carefully and works through
the examples will have acquired a useful acquaintance
with statistics in relation to psychology, but this book
must not be regarded as an adequate text book of
statistics.

R. F. GARSIDE

Anglo-American Corporation (Central Africa) Limited.
Annual Report on the Medical Services of Nchango
Consolidated Copper Mines Limited for the year 1972
(Pp. 25; 19 tables; no price stated). Prepared by
W. E. F. L. Glatthaar, Group Medical Adviser,

Anglo-American Corporation of South Africa Limited.
Medical Consultant's Report for 1972. (Pp. 58; 36
Tables; no price stated). Prepared by J. L. C. Whit-
combe, Medical Consultant, PO Box 61587, Mar-

Rand Mines Limited. Report for the year 1972 on the
Health Department. (Pp. 25; 23 tables; no price
stated). Prepared by J. H. Marks, Group Senior
Medical Officer, PO Box 62370, Marshalltown,

The medical services provided by three different mining
companies in Africa are very similar. All employ full-time
medical officers and state registered nurses. Medical
services are based at mine hospitals which also provide
for the community at large and work in close collabora-
tion with the public health services, as infectious diseases
still play a large part in morbidity and mortality. In
Zambia no serious outbreaks of any major infectious
diseases occurred except for a small outbreak of acute
viral hepatitis among an expatriate population with no
common source of infection. A minor outbreak of
schistosomiasis occurred among 80 school children after
swimming in a heavily snail-infested pool. The incidence
of gastroenteritis and diarrhoea remains high and
although there was an outbreak of cholera in Angola,
the Zambian Mines Medical Service successfully intro-
duced anti-cholera measures. Measles continues to cause
many deaths in the region and inoculation against it was
continued. Malnutrition remains high especially in the
non-mining population. Health education still plays a
prominent part.

The relevant statistical findings (all rates per 1 000
employees per annum) in each report are as follows:

Incidence and mortality rates for diseases are not
recorded in the Nchango Copper Mines report. The
number of shifts lost from disease was 180 838 (6:08) and
from accidents 46 345 (1:56).

Employees of the Anglo-American Corporation of
South Africa had a disease mortality rate of 1:38; and of
217 deaths, the main causes were meningococcal menin-
gitis and acute respiratory and cardiac diseases. The