

Book Reviews

JACQUELINE KARNELL CORN, *Response to occupational health hazards: a historical perspective*, New York, Van Nostrand Reinhold, 1992, pp. xvi, 182, £31.00 (0-442-00499-5).

In 1970 the United States' Congress passed the Occupational Safety and Health Act. The Act's main provision was to establish a federal regulatory agency, the Occupational Safety and Health Administration (OSHA), responsible for inspecting workplaces, setting standards, enforcing the law, and educating employers, workers and the public. To British eyes, accustomed to decades of industrial health and safety regulation, the aim of assuring, so far as practicable, safe and healthy working conditions for every working man and woman in the nation, is unremarkable; in the U.S. it signalled a change of philosophy which was well-nigh revolutionary. Not only had Washington asserted the principle that employers were responsible for health and safety in their plants, it had also voted the resources to make it a reality. Although the impact of the 1970 Act is still hotly debated, there can be little doubt that it has done much to raise public awareness.

Until the late 1960s the federal government paid little attention to occupational health and safety. Previous initiatives—of the Progressive, New Deal, and Second World War eras—were not only infrequent but short-term. Inertia was the norm. In these circumstances responsibility was left either with State Legislatures, whose commitment was often half-hearted or non-existent, or with individual employers. If employees did not like the conditions in which they were expected to work, they were free to seek employment elsewhere. Of course this assumed not only that they could find an alternative job, but also that they were in a position to understand and assess the risks posed by the dusts and fumes which they might encounter.

Not surprisingly, the United States' record in safeguarding workers from the hazards of work was, until the 1970s, unimpressive. Repeatedly, knowledge of the existence of a danger failed to lead to the introduction of preventive measures. Clearly this reflected a culture and ideology which perceived health as a matter of individual rather than collective responsibility. Less clear, and still a matter of debate, is the extent to which *laissez-faire* principles merely provided an excuse for calculatedly sacrificing lives and health in the interests of profit. Yet tough health and safety measures capable of providing real protection for workers need not mean reduced competitiveness. Since 1970, as Corn shows, the cotton and PVC industries have shown increased production and productivity following the establishment of rigorous standards.

In recent years, a number of American historians have turned their attention to the history of occupational health in the United States. Jacqueline Corn, a previous contributor to the field, has provided a useful addition to the literature. Her book falls into two parts; first, there are overviews of government action before and after 1970, which include the areas of risk assessment and standard setting. These are followed by case studies of five health hazards: lead, asbestos, free silica, vinyl chloride, and cotton dust. The outcome is a valuable contribution to the growing corpus of policy-relevant or practical history, the aim of which is to place present-day concerns within an historical context in order that the mistakes of the past can be avoided and the lessons of the past learnt.

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J. R. BUSVINE, *Disease transmission by insects: its discovery and 90 years of effort to prevent it*, Berlin, Heidelberg, and New York, Springer-Verlag, 1993, pp. xii, 361, illus., DM 98.00 (3-540-55457-2).

Among the many important discoveries of the last 100 years, insect transmission of communicable disease rates high in its effects on disease control, and hence as a potential tool in preventive medicine. The present volume gives an account of the initial discovery of insect vector transmission in the battle for control of such diseases, and the subsequent applications of this acquired knowledge. It is written by a medical entomologist, now Professor Emeritus at the University of London, whose career has spanned the high hopes and later disappointments of the campaigns to combat those diseases by controlling, if not eradicating, their vectors. The young James Busvine was there, from the beginning of the enthusiasm for the insecticidal powers of DDT, through the dashed hopes of the anti-malaria campaign which had seemed so promising in the 1950s

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and 60s, to the more recent, “fairly successful”, attempts by the WHO to minimize the devastating effects of river blindness (*onchocerciasis*) in Central Africa by control of the aptly named vector, *Simulium damnosum*.

The author’s credentials are impeccable. Employed by ICI while writing his PhD thesis, just when the importance of the development of DDT as an insecticide was becoming apparent, he proceeded, via MRC grants, to become entomological adviser to the Ministry of Health during the Second World War; at the end of the war, he went to the London School of Hygiene and Tropical Medicine. He also served on WHO and FAO Expert Panels on Insecticides and Pest Resistance. With all this inside knowledge, it is inevitably the chapters on vector control in the post-war years which are most satisfying and impressive. They include immensely learned and very technical discussions of the mechanisms of pesticide resistance, and of evidence of DDT persistence in soil as revealed by gas-liquid chromatography—e.g., “These figures can be judged from the analogies in time: 1mg/l being equivalent to 1s in 2 3/4 h, while 1 femto g/l femtogram [*sic*] is equivalent to 1s in 317 million years!” (this in a section on the toxic hazards of DDT, p. 232).

The early years of the “discovery and 90 years of effort to prevent [insect transmission of disease]” are given low priority compared to the fifty post-war years of which Professor Busvine has such expert personal knowledge. In view of the ample existing literature on the earlier period, this is probably a wise decision on the part of the author. The discussion of the more recent “history”, of the pros and cons of current methods of vector control, of environmental effects, of the problems presented by the abilities of both the primary parasites and their vectors to develop resistance, is thorough, if occasionally a shade too technical to appeal to the average historian. It *will* be of absorbing interest to the reader with “a foot in both camps”: with a taste for the facts and figures behind today’s controversial and so far insoluble problems of vector control versus environmental concerns, and the questions of long-term ability to mutate on the part of both parasites and vectors, be they the *plasmodium* and mosquitoes of malaria, or the *Simulium* and *Onchocercas* of river blindness.

Some readers may not entirely agree with the author’s disclaimer in his Foreword that a “detailed index has not seemed necessary” in the presence of a “rather full list of contents” and “adequate references to published accounts”. An index, or at least cross-references to authors and their publications, would indeed have been welcome, and would have added to the book’s not inconsiderable value as a work of reference. An author index would have been especially useful.

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A. DOIG, J. P. S. FERGUSON, I. A. MILNE and R. PASSMORE (eds), *William Cullen and the eighteenth-century medical world: a bicentenary exhibition and symposium arranged by the Royal College of Physicians of Edinburgh in 1990*, Edinburgh University Press, 1993, pp. xiii, 256, illus., £27.50 (0-7486-0302-6).

William Cullen ought to be one of the best understood figures in the history of medicine. He was the subject of one of the finest medical biographies, John Thomson’s *Life*, he took the centre stage in Arthur Donovan’s *Philosophical chemistry in the Scottish Enlightenment*, and has appeared prominently in various theses and articles. Yet the Cullen literature is characterized by the variety of its interpretations. These are a product not simply of the historiographical biases of authors but of the intellectual richness of the world in which Cullen lived, its political complexity and, not least, the variety and depth of work of a man who died in 1790, a few weeks short of his eightieth birthday. A symposium and exhibition in 1990, which this book records, commemorated the two hundredth anniversary of Cullen’s death.

Varied in quality though it is, this is a valuable volume. The exhibition is well recorded. John Christie usefully surveys Cullen’s chemistry, making a strong claim for the consistency of his chemical work. Teaching, research, theorizing, and application were all related enterprises for a man who developed for himself the role of philosophical chemist. Michael Barfoot’s paper on the meanings of system in Cullen’s medical teaching is similar to Christie’s. Interpreted in isolation, Cullen’s various uses of the term system suggest incoherence, dogmatism or contradiction. But