BOOK REVIEWS


The principal author of this book is Professor Francesco Molfino of the Institute of Industrial Medicine of Genoa. The book is printed on art paper throughout in a large and clear type and the illustrations are of high quality and clearly reproduced. There is a good subject index. The quality of production is excellent; not only does it do justice to the country which produced Ramazzini, but British readers may well marvel at the production of such a treatise from a town which they know mainly as a seaport.

A clinical approach is used throughout. Each industrial disease is considered in turn under the following headings: historical notes, etiology, pathogenesis, pathological anatomy, symptomatology, diagnosis, prognosis, treatment, prevention, and legislation. The diseases themselves are arranged in groups, beginning with dust diseases of the lung. Then follow diseases due to physical agents, infective and parasitic diseases, diseases due to toxic agents, allergic conditions, occupational tumours, skin diseases, and diseases associated with fatigue and stress. The emphasis throughout is on clinical, physiological, and pathological aspects of the occupational maladies considered. Only brief accounts of prevention and legislation are usually given and there is generally no description of the industrial processes themselves. Little indication is given of the incidence of the various diseases in Italy. A list of references, included after each disease, is often a long one, and altogether there are about 1,200 references, but references in the English language are not numerous. The chief value of this book to the English reader will be in the references under each disease, which are mainly in Italian, French, and German. It is, however, a little disconcerting to find many names quoted in the text which are not mentioned in the list of references.

Unfortunately the opening section on silicosis is somewhat sketchy, but it would provide a reasonably well balanced account for a practitioner who wanted a brief general review of the subject. There is a series of 10 radiographs, clearly reproduced, most of them of advanced stages; the term “reticulation” (whose abandonment was recommended at the I.L.O. conference on pneumoconiosis in 1950) is little used and early stages are not well illustrated. There is no mention of standard films. Curiously, the clinical signs of the supervention of tuberculosis are omitted. A recommended safe maximum of 200 silica particles per c.c. is given, but there is no description of dust-counting techniques.

Asbestosis is similarly briefly described, with three good radiographs and four photomicrographs; incidence and prevention are scarcely mentioned. The occurrence of carcinoma of the lung as a complication is mentioned but no evidence is quoted.

Byssinosis and bagassosis are briefly described. There is no mention of fungus infections of the lung (“farmer’s lung”) but “baritinosis”—a benign pneumoconiosis of baryta workers—will be new to most English readers.

In the section on diseases due to physical agents there is a long discussion of the physiological processes and symptomatology of heat stroke, no doubt appropriate in a hot country.

The section on caisson disease is magnificent and should be read by all interested. There are excellent photographs of the working processes, a good account of the selection of employees, and a full physiological description with calculations of the distribution of gases in the blood according to Henry’s Law and calculation of decompression times. Ten radiographs are given showing osteo-arthritis, mainly of hip, shoulder, and knee, developing in caisson workers; small rounded areas of rarefaction near the epiphyseal line with patches of sclerotic thickening are considered to be characteristic and to differentiate this form of osteo-arthritis from others. The diver is not forgotten and a good account is given of physiological aspects of diving to different depths and of the hazards involved. Some aspects of aviation medicine are briefly described.

The polymorphism of the electrocution syndrome is adequately described. In first-aid treatment, Schaeffer’s method of artificial respiration is recommended because of the necessity of avoiding inhalation of vomited matter; there is no mention of the Holger-Nielsen method. Lumbar puncture is recommended when there is a rise in cerebrospinal fluid pressure, but no mention is made of the risk of producing a medullary pressure cone.

The account of nuclear physics and the production of different types of radiation is incomplete and too brief. No account of the blood changes caused by radiation is given, nor is there mention of the wearing of a standard dental film by those exposed to risk.

The short section on ocular diseases caused by radiant energy is by Professor Maione, assistant in the ophthalmic clinic of the University. The account is clinical and there is no description of working processes. Different types of goggles are mentioned but there does not appear to be a standard glass for different purposes, comparable to the British Standard specifications for welders’ glasses.

Under diseases caused by vibrating tools a description
is given of Raynaud’s phenomenon, which is said to occur more frequently in the left hand, and occasionally to progress to trophic changes; the statement that the condition commonly occurs at the end of the day’s work does not accord with published experience in this country. Disabling angioneurotic phenomena apparently qualify the sufferer for industrial disease benefit. Osteoarthritic manifestations in the elbow and wrist are briefly described.

The section on occupational deafness is by Dr. R. Castello, assistant in the Otorrino-laryngology Clinic of Genoa University. A good account is given of the aetiology and pathogenesis of the condition. The author does not believe that there is any difference between the types of deafness found in different noisy occupations, all having the same characteristic high-tone deafness ("C5 dip"). This is regarded as being generally sufficiently characteristic to differentiate it from presbyacusis. Prevention rests, in order of importance, on engineering measures to reduce noise production, the selection of employees who have no previous otopathology, periodic audiometry of exposed workers, and finally the provision of ear defenders. There is no mention of ultrasonic vibrations. Occupational deafness qualifies the sufferer for benefit payments in Italy by boiler-making and certain other specified occupations.

The section on infective and parasitic diseases contains clinical descriptions of foot and mouth disease, anthrax, Q fever, swine fever (erysipeloid of Rosenbach), swineherd’s disease (due to Leptospira pomona), glanders, and ankylostomiasis. At first sight this appears to be a rather strange collection, but it must be admitted that most of these are of occupational origin. Of rare occurrence in this country, they are no doubt more common in Italy; figures of incidence are, however, given only in respect of anthrax (823 cases of malignant pustule were notified in 1942), and Q fever of which 800 cases were recorded up to July, 1951. Ankylostomiasis appears now to be occurring in agricultural workers, but no figures of incidence are given.

The section on toxicology, of 260 pages, contains good and fairly detailed descriptions of the metallic and other inorganic toxic substances. The effects of organic phosphorus compounds are clearly described. Lead poisoning is described in detail, with rather surprising reliance in diagnosis on the x-ray appearances of a barium enema; four radiographs are reproduced, showing “saturnine colitis”, and there is a full description of “saturnine gout” which, however, does not appear to differ essentially from the ordinary form. There is a separate section on tetra-ethyl lead. The rarer metals, such as vanadium, are well described. The accounts of alcohols, ethers, aliphatic hydrocarbons and their halogenated derivatives, aromatic compounds, and organic solvents are all brief. They are not of much value for reference except that after each substance a useful list of the Italian literature (and some other references) is given. Unfortunately there is no indication of the incidence in Italy of poisoning caused by any of these substances, even in the case of lead.

The section which follows is devoted to allergic diseases; conjunctivitis, allergic rhinitis, asthma, and skin conditions occurring in agricultural and chemical workers and caused by such materials as pollens, seeds, woods, skins, turpentine, and various oils and their derivatives. Allergy due to physical agents such as heat, cold, and various radiations is briefly described.

A few pages are devoted to occupational carcinoma, including a short account of skin cancers. There is no description of pitch warts; lesions due to pitch and tar are rare in Italy owing to the small quantities of coal and its products which are used. Vesical and pulmonary carcinoma in relation to occupation are well described. Malignant conditions arising from luminising are briefly mentioned but no account of the important preventive measures is given.

The section on occupational skin diseases, by Dr. G. Farris, assistant in the dermatological clinic of the University of Genoa, is refreshingly different from most English accounts of the subject. After demolishing the Anglo-Saxon school which separates causative substances into the two main groups of primary irritants and sensitising substances, Farris describes the skin lesions themselves in detail and works back to the occupational aetiology. This clinical approach produces an admirable and well balanced result. Under the aetiological groupings of mechanical, physical, chemical, and biological agents a wide variety of occupational skin conditions is described. In this classification there is little mention of "industrial dermatitis", which clearly appears as a grouping of conditions for legal purposes rather than as an occupational disease entity in itself. The clinical approach of this article is to be commended. A brief account of preventive measures includes a reference to barrier creams, but no account is given of the different types of cream or the principles of their composition.

The book concludes with a chapter on fatigue and stress. There is a full discussion of the physiology and biochemistry of muscular work; psychological aspects receive little mention. The syndrome of acute physical fatigue is described, with accounts of cardiovascular changes caused by exertion, including axillary vein thrombosis. In the respiratory system, emphysema and spontaneous pneumothorax caused by exertion are described. An account is given of effort albuminuria and skeletal changes of occupational origin. Miner’s nystagmus is described and then follows an account of permissible hours of work and posture at work. Psychological aspects—the "will" to work—are not considered, nor are the so-called stress conditions affecting senior executives. Older and disabled workers and rehabilitation are not dealt with.

This new book will undoubtedly provide a useful general review of industrial medicine for general practitioners and senior students. From the above account it will be seen that many sections are dealt with in a somewhat different manner from that usually given in English textbooks; the relative importance of different diseases is different in Italy. The author’s clinical approach to the subject merits further attention in this country, but the book will be mainly of value here
because of the full lists of Italian (and some other) references given under each subject.

L. G. Norman


Since the National Insurance Act came into force in July, 1948, the Ministry of National Insurance has collected much information on the nature and extent of sickness and injury forming the basis of claims for benefit. Some of this has been published in the Ministry's annual reports but additional information for 1950 has now been tabulated and distributed to those likely to be interested. It has not been officially published, partly because it is rather too specialized for the Ministry's annual reports, but more especially because, in the words of the report, "without an appreciation of the fields which they cover, and the sources of information on which they depend, they may be misinterpreted."

For this reason it is important that deductions should not be made from the tables without due regard to the notes and definitions given. These explanations are given in a brief but very clear introduction; the "working populations" covered by sickness and injury insurance are defined in detail, together with explanations of groups excluded, spells of illnesses not covered, age limits, etc.

The statistics do not purport to give any measure of the morbidity of the whole population or of a representative sample of it." They are based for the most part on information obtained from random samples of persons receiving sickness or injury benefit and refer only to the insured working population. Hence, in general, there are excluded some 20,000 self-employed persons in small-income groups, members of the armed forces, non-industrial civil servants, and about half the married women in employment who have the choice whether or not to contribute towards sickness benefit. The approximate populations covered by these figures are:

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<tr>
<th></th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Sickness</td>
<td>14,350,000</td>
<td>5,850,000</td>
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<tr>
<td>Injury</td>
<td>13,300,000</td>
<td>6,550,000</td>
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The number insured for injury is somewhat lower for men and higher for women, as self-employed persons are excluded for injury benefit while a proportion of employed married women choose to be excluded for sickness benefit.

Benefit is not usually paid for spells of illness lasting less than four days, so that these short spells do not appear in the Ministry's figures. All breakdowns into causes of illness are based on the medical certificates, furnished in support of claims to benefit, and "not always indicated with precision." "Now that the certificates are being used as a basis for these statistics, it is very much hoped that practitioners will appreciate the importance of showing on each certificate the cause of incapacity as accurately as they know it at the time of issue. As the standard of precision of certification improves, so will the value of the statistics increase."

In 1950 there were approximately 7½ million spells of certified incapacity due to sickness or injury totalling about 200 million lost working days. Just over 10% of the spells were due to accidents or prescribed diseases. The tables relating to injury benefit do not include much of the time lost in long term injury cases since injury benefit is in no case paid for more than six months from the date of the accident or development of the prescribed disease. Benefit for pneumoconiosis and byssinosis does not normally appear in the industrial injury tables.

Some idea of the field covered can be obtained from the following summary of the tables. Figures for sickness benefit are given for different areas for "new claims" starting in 1950 together with the number of days of incapacity for spells of sickness. The latter is also given in fuller detail for men and women separately according to age and cause, with total and median duration, etc. Injury benefit figures are shown in similar detail separately for industrial accidents and for prescribed diseases. These are also analysed by site of injury and by industry or occupation. Unfortunately, no analyses of the populations at risk by industry or occupation are available, although age analyses are included. (The 1% tables of the 1951 census give a breakdown of the total population by occupation but for some occupations this varies considerably from their insured populations.)

For anyone interested in obtaining this report or in receiving further explanation on any aspect, contact should be made with the Medical Department or the Statistics Division of the Ministry of Pensions and National Insurance at 10, John Adam Street, London, W.C.2.

Nancy Goodman


All those who are familiar with the Bulletin of Hygiene will welcome this collection of abstracts on pneumoconiosis. The original suggestion that such a collection should be made was put forward by Professor E. J. King, and the work of selecting the relevant abstracts was carried out by Dr. E. L. Middleton. The result is a miniature history of the subject which is of great interest and value. Abstractors in the Bulletin of Hygiene are always careful to give a fair idea of the content and value of the paper reviewed. Anyone coming fresh to the subject, and wishing to acquire a thorough knowledge of it in the shortest possible time could not do better than read this book. We look forward to the second volume, which will bring the history up to 1950, with the keenest anticipation.

B. M. Wright