describing the nature of the disease in so far as this is now understood, its diagnosis and pathology. The currently recommended practice relating to the selection and supervision of workers is briefly considered also.

This book, to which 12 authors have contributed, is the first written in the English language to give a full account of all aspects of industrial hygiene relating to beryllium, and will certainly be appreciated by many readers. References to published work are listed at the end of each chapter and number nearly nine hundred in all.

T. G. FAULKNER HUDSON

Health in the Rubber Industry—a Pilot Study. Rubber Manufacturing Employers' Association. By H. G. Parkes. (Pp. 203; 42s.) Manchester: Megson. 1966.

This well produced book gives the results of the pilot study during 1958 and 1959 of sickness absence in the rubber industry carried out by the Rubber Manufacturing Employers' Association Health Unit. Fifty-two of the 120 firms in the Association collaborated in the study. The Unit was notified of the spells of sickness absence lasting more than three days occurring among 59,000 men and women, 70% of those employed in the industry.

Absences were notified after the termination of the spells. The method of ensuring that each spell was recorded (especially among those who retired or resigned during sickness absence) is not stated; nor is it clear whether long absences were curtailed after a pre-determined duration in order to counteract the effect of different retirement policies in different firms and occupations.

The combined results from all the firms are presented as case rates per 1,000 persons and (calendar) days per 1,000 persons per annum for men, single and married women in 11 five-year age groups, 15 occupation groups ranging from storemen to commercial staff, and 17 diagnostic groups (some subdivided). About 8% of the spells are classified as 'ill-defined' and not referred to the appropriate disease groups, probably because symptoms are included in this group. The diagnoses coded were those from *final* medical certificates.

There are some very interesting tables and graphs of internal comparisons by age, sex, marital status, and occupations. Good use is made of the techniques of age standardization and the comparison of the actual rates of sickness in occupational groups with the rates 'expected' in these groups if they had had the age distribution of the entire male population of all the occupation groups. Men employed in latex mixing, dipping, and extruding have higher rates of sickness absence than other groups, especially from bronchitis, diseases of the stomach and duodenum, and skin diseases. Commercial staff have particularly favourable rates. It is recognized that some of the variations between occupational groups could be due to differing sick pay arrangements. There must also be concealed some interesting effects due to location of employment.

The external comparisons with London Transport data are less useful because, as is pointed out, the latter

refer to 1949/52. In addition, the London Transport data refer to spells commencing and are curtailed at 182 days' duration; there are also important differences in the diagnostic grouping. Some of the data (especially for women) in both studies are so sparse that comparisons must be treated with caution.

This is a valuable addition to the small number of studies of sickness in specific industries.

P. A. B. RAFFLE

Artificial Lighting in Factory and Office. CIS Information Sheet 11, Smp. September, 1965. (Pp. 61; 58 figs; \$2.) Geneva, Switzerland: International Occupational Safety and Health Information Centre (CIS), International Labour Office.

Lighting in the factory and office is discussed under the headings of required intensity, choice of lamps and fittings, installation planning, colour treatment, and maintenance. Further sections deal with special techniques, glare control, and the diagnosis and remedy of complaints. Australian standards of illumination are quoted for six tasks and a comparison is made of filament, fluorescent and mercury vapour lamps. Fittings are considered in respect of glare control and ceiling reflection. The shading of filament and fluorescent units is described in detail. Three main types of installation, uniform general, general plus supplementary local, and localized lighting are described with reference to height, spacing, light direction, and the elimination of reflection. Recommended reflection factors for coloured ceilings, walls, furniture, and floors are quoted. A method of estimating the depreciation of ageing fluorescent lamps is described. Special techniques for examining shiny surfaces, irregularity detection, UV fluorescence, magnification, and luminous background devices are briefly dealt with. Glare elimination is discussed in detail referring to shielding angle (recommended values quoted) and diffusing fittings. The final section deals briefly with common faults leading to discomfort and fatigue.

M. K. MOLYNEUX

Operational Research and the Social Sciences.

Ed. by J. R. Lawrence. (Pp. 669; 115s. 6d.) London: Tavistock Publications. 1966.

This bulky, difficult, and important book is one of the outcomes of an international conference held in Cambridge in 1958. The conference was organized by the Operational Research Society to bring O.R. scientists and social scientists together to explore common ground and discuss how they might work more closely together.

The idea of O.R. is not difficult to grasp; though for some, like the present reviewer, there comes a point where the mathematics inhibits a really intimate acquaintance. Experience has amply confirmed the belief on which O.R. was founded—that the scientific method is useful for the solution of the practical problems of complex organizations. Dr. Lawrence, in his preface, assumes that social scientists are also 'concerned with using their abilities to effect improve-