Industrial Dust, 2nd ed. By Philip Drinker and Theodore Hatch. (Pp. x + 401; 148 figures. 71s. 6d.; \$10.00.) New York, London and Toronto: McGraw-Hill Book Co. Inc. 1954.

This second edition of a book which on its first appearance was greeted as a standard work is a welcome event. In the past 20 years or so a great amount of work has been done on all aspects of the dust problem in industry. Readers of this journal are well aware of the many extensive medical studies that have been carried out. Side by side with these there have been important investigations of the nature of various dusts, of methods of sampling and examining dusts, including microscopic methods, and of the mechanics of dust particles. New methods for the control of dusts have been devised and old ones improved, and the principles of air filtration have been investigated and applied to respiratory protective devices.

The results of recent work are incorporated in this new edition which contains nearly 90 more pages than its predecessor. In general arrangement the new edition is much the same as the old one, but some parts are much expanded and here and there some paragraphs have been dropped.

The initial chapter on the physical properties of dusts, fumes, and mists contains much new material. The earlier discussion of the effects of dusts and fumes upon man is much extended, and there is in addition a new chapter on dust retention by man. A new chapter on the appraisal of dustiness deals with such considerations as frequency of sampling, weighting of dust exposures, the volume of a sample, and the accuracy required. Sampling instruments are discussed in the light of recent investigations and there is a valuable comparison of such instruments. In the examination of airborne dusts the determination of particle size is of great importance, and this topic is discussed at some length. The remaining chapters on control of the dust hazard, local exhaust systems, air-cleaning apparatus, filtration, and dust respirators and air masks have all been overhauled and largely re-written.

A vast amount of work has gone into the preparation of this new edition with the result that the book is thoroughly up to date. As is well said in the authors' preface, control of the dust hazard in industry is the joint duty of the physician and the engineer. The book is written from the engineer's standpoint, but it will be invaluable also to the industrial doctor who so often has to appraise the value of a dust control system. The book is well worthy of its distinguished authors. It is well produced and well indexed.

THOMAS BEDFORD

Modern Occupational Medicine. Edited by A. J. Fleming, C. A. D'Alonzo, and J. A. Zapp. (Pp. 414; 44 illustrations, 1 in colour. 75s.) London: Henry Kimpton. 1954.

This book is a collection of papers written by 20 members of the staff of the American firm E. I. du Pont de Nemours and Company. It is an account of the service provided in an important but limited field of

industrial medicine by a group of men whose opinions are naturally influenced by the special nature of their work and environment. This explains the choice of some subjects and the important omissions from a book whose title leads one to expect a more informative and comprehensive study than is actually given. Many of the papers are in fact little more than a competent précis of information that can now be found in several modern textbooks, but the editors explain their concise form by the fact that the book is intended to be "useful to physicians, executives, safety engineers, and chemists in industry".

In his introductory chapter the Medical Director describes the functions of an occupational medical service, which to be adequate must include an exhaustive annual medical examination for every worker and provide a full-time physician for every thousand individuals employed. The need for medical staff on this scale becomes apparent when it is appreciated, for instance, that there are well over 200 items in the form of signs and symptoms or diseases to be recorded for every prospective employee. It is advocated that every initial examination should include a chest radiograph, a blood count, an audiogram, and a Wassermann test or its equivalent; in addition routine electrocardiograms are recommended on all applicants of 40 years of age or over. The Company employs 130 full-time and 36 part-time physicians.

The latter half of the chapter entitled "History of Industrial Medicine" is devoted to the admittedly notable contributions made by the United States during the twentieth century including an enthusiastic tribute to Dr. Gehrmann, the du Pont Medical Director. English pioneers in the field are sadly neglected in this paper and the work of Sir Thomas Legge, for example, is dismissed in a few words.

In a comparatively long paper Dr. Foulger discusses the factors that produce what he terms "stress", or slight deviations from the "normal" in otherwise healthy workers, and simple practical means of estimating this state. The principle that Dr. Foulger has so long advocated is commendable but his methods of estimation are still controversial and generally unacceptable.

There follow three chapters that describe the investigation of the toxicity of new chemicals, the protective devices available for workmen, and the important contribution made by an industrial hygiene laboratory in maintaining a healthy factory environment. These are admirably concise accounts of valuable assets to a medical service in a chemical industry.

The chapters on "Physical Environment", "Fatigue", "Implant Feeding" (canteens), and "Chemical Health Hazards" contain items of interest but are too brief to provide much more than a summary of established knowledge. Dr. Fleming, for example, gives an authoritative account of chemical hazards but has only half a page to spare for lead, mercury, or phenol compounds, while a whole chapter is devoted by one of his colleagues to chemicals affecting the carotid sinus. "Industrial Noise" and "Radioactive Hazards" are subjects that must now be included in any book of this kind and