in relation to the rehabilitation of patients with cardiovascular disease. For this purpose presentation and discussion were conducted under the five headings of "Emotions", "Work", "Practice of Cardiovascular Rehabilitation", and "Teaching and Research", and these form the separate chapters of the book.

Time and space were too short for a fully supported dissertation from any one contributor on any of the very numerous aspects brought up and ventilated. However there are over 500 references.

No one will be surprised that diametrically opposed opinions were expressed about almost everything and that although many questions were raised few could be dogmatically answered. A notable exception was the general agreement that the definition of rehabilitation should include restoration of both mental and physical activity. With this no one could take exception, and indeed most people would agree that the mental aspect of rehabilitation is as important as the physical aspect.

The conference underlined the absence of a simple clinical test for gauging the physical stress that an individual may experience without harm and pointed out that the patient's own opinion on the effects of work that he has just done or attempted to do may be quite inaccurate in terms of too little or too much, depending to some considerable extent on his mental attitude.

Everyone will agree with Dr. Benton when he states "that a man with a catheter threaded into his heart, a Courmand needle in his femoral artery, a continuous infusion running into his arm vein, a catheter in his urethra, feet on the pedals of a bicycle, and lying on his back on a fluoroscope table in a darkened room, must be considered as being in somewhat other than a basal state!" But it is surely to be hoped that some of these methods of investigating reaction to work load, together with more accurate methods of estimating work load itself, may lead, as so often in the past, to the dispensing with these complicated procedures and the establishment of simpler accurate tests.

With so little known and agreed on the basic factors it is reassuring to hear from Dr. Franco that 70% of all acute "coronary" cases occurring in his factory return to work, often without change of job (only 5-7% are retired) and more recently from Dr. Hellerstein* that 75% of all subjects attending his (and other) cardiologist work classification units return to competitive work to the satisfaction of themselves and their employers.

The importance of cardiologist, general practitioner, industrial medical officer—as well as the general public—becoming rehabilitation minded is stressed. In this connexion the undergraduate is the main target. The role of medical school, work classification unit, public health authority, and industry in education and research is discussed and progress reports of some of the recently initiated programmes are briefly given.

This book has the advantages of brevity. The disadvantages are met by the very adequate bibliography. It is an excellent introduction to the problems of cardiovascular rehabilitation in the U.S.A. today and to some of the ways in which these problems are being tackled.

AUBREY KAGAN

*H. K. Hellerstein (1958) *Circulation*, p. 114.

Report of the Survey of Paraplegic Mineworkers. Under the direction of Alan G. Hardy. (Pp. 82). London: Coal Industry Social Welfare Organization. 1957.

This report reviews 497 mine workers, 97% of whom had been underground workers who suffered from traumatic paraplegia. In the main the report examines the social problems attendant upon and the welfare services available for this condition.

It is surprising to learn the degree of independence achieved by these men. Despite half the cases having complete paraplegia (the other half had varying degrees of partial paraplegia) only 27 men were confined to the house. No fewer than 409, or 83%, were able to go out alone.

There are many other tables in the report concerned with nursing care, bladder and bowel control, etc., but probably one of the most useful functions of the report is to spotlight the inconsistencies shown by various ministries and local authorities, both with regard to procedure and speed of action. The inconsistencies are particularly applicable to speedy provision of motorized wheel chairs, widening of doors, provision of hand rails, and charges by local authorities for the provision of mattresses and bedding. A standard procedure should be laid down which allows prompt attention to these matters instead of the frustrating delays which now obtain.

The degree of cooperation between the National Coal Board and the National Union of Mineworkers is highly commendable in the way that washing machines, television sets, and holidays are provided.

Finally, there is a plea for the provision of facilities for paraplegics who are willing and able to earn a living.

This report may have a limited appeal to industrial medical officers but some of the problems which are spotlighted are applicable to other forms of disability and other industries.

R. A. TREVETHICK

L'Acide Sulphurique et ses Dangers (Sulphuric Acid and its Dangers). By A. Vallaud and P. Salmon; Foreword by Dr. Henri Desoille. (Pp. 180; 71 figures, 1 colour plate. Fr. fr. 300.-) Paris: Institut National de Sécurité pour la Prévention des Accidents du Travail et des Maladies Professionnelles. 1957.

This useful monograph forms one of a series on the practice of industrial hygiene, prepared by l'Institut National de Sécurité in France. Previous monographs dealt with benzol, carbon monoxide, dermatoses in the metal industry, and chlorinated solvents. The authors of the present volume, A. Vallaud and P. Salmon, are respectively chief of the technical services and engineer to the Institute. In six chapters they give a remarkably complete account of the dangers attending the manufacture, handling, and use of sulphuric acid in industry, beginning with a recapitulation of the physico-chemical properties of the acid, and the conditions under which accidents arise. Though they are not medically qualified, they also deal with the toxicology and treatment of acute and chronic poisoning by sulphuric acid. This section is adequate but not authoritative, and the authors are

on much firmer ground when they discuss the safety measures which should be put into operation in places where the acid is handled and transported, and also the methods of preventing fire and explosion. There is a particularly full account of the various materials which are acid-resistant and so can be used for acid containers, pipes, and joints. These materials range from the metals and alloys to glass, enamels, rubber, ebonite, and the various plastics, including polyvinyl chloride and polytetrafluorethylene (P.T.F.E. or teflon). The authors state that it resists sulphuric acid of all strengths and oleum (20%) up to high temperatures. Its only disadvantage, they say, is its high cost. Perhaps it would have been better to define what is meant by high temperatures, because in the region of 200°C. P.T.F.E. begins to decompose and give off toxic gases.

The methods of storing, handling, and transport of sulphuric acid are given in great detail, and in the section on tank wagons reference is made to the manual on acid handling issued in 1950 by the Imperial Smelting Co. of Avonmouth. The dangers of emptying acid from such wagons by compressed air is emphasized and the special I.S.C. tank-wagon designed for emptying by gravity and pumping is commended.

A final chapter describes the principles of construction and maintenance of factories in which sulphuric acid is made and handled. An appendix gives details of the laws and regulations in force in France relating to the corrosive acids. The book is well produced and arranged, and for those who understand technical French terms it is clearly written. It is illustrated with 71 photographs and line drawings, some of them in colour. Of unusual interest are the photographs of an insect *Sirex Gigas* L. and a lead acid container through which it has burrowed. The insect is found in regions where conifers grow, and lays its eggs in these resinous woods. The insect, after maturation, forces its way out by tunnelling through the wood, and if a lead pipe or container is in the way it will go through the lead as well. Leakages of acid have been reported as a result of the insects' activity, and it is recommended that all resinous wood used in chemical factories to support lead containers and pipes should be treated with insecticides.

The authors say in their concluding paragraph that the book is designed to be read by management, foremen, and workers; but it would be equally useful for other groups of people who are concerned with industrial hygiene. It is obvious that if it is to be widely read in this country, it should be translated into English.

A. I. G. McLAUGHLIN

Recent Outbreaks of Infectious Diseases. By S. Leff. (Pp. ix + 408; 2 figures. 35s.) London: H. K. Lewis. 1957.

Among the most exciting parts of the history of medicine are the stories of epidemics. Cholera in Broad Street or Hamburg, the odd escapes of the brewers who probably drank no water, or of the classy inhabitants of Altona are as good an introduction to epidemiology as is the Devonshire colic story. Devotees of Snow or George Baker are often reluctant to admit that the epi-

demics of today are exciting too. Dr. Leff's book should convince them that they are. It is divided into three parts: recent outbreaks of virus disease, of bacterial disease, and some good examples of disease due to relatively inert substances, lead poisoning, and atmospheric pollution. The inclusion of this latter section (a new and welcome departure in a book of this type) is not reflected in the title which is in consequence misleading.

Among the infections pride of place is given to the big threat of smallpox and most of the really interesting facts about recent explosions are described. Localized outbreaks of polio, Q fever, psittacosis, and Bornholm disease follow. The enterics and food poisoning are given a large section and diphtheria a relatively short description, though the fascinating series of cases in South Staffs in the early 1950s are described in detail.

Outbreaks of non-infectious disease are often just as much of a challenge to the epidemiologist as are the infections. Exciting examples, such as retrolental fibroplasia, are not hard to find and it is a pity that the author has limited himself to lead and to fog. Almost all of these community case histories have been published before and Dr. Leff is clear in his references, but it is the bringing together of stories so dissimilar yet with so many common features that is the particular usefulness of this book.

There are two conflicting features which the author has tried to reconcile: one is the "text book" aspect of the book, the formal description of the disease, its diagnosis and treatment. The other, and much more interesting aspect, is the description of the outbreaks themselves. It is possible that some details (and even some descriptions) may have been sacrificed for the sake of providing a bit of text book revision. This is a pity for the main work is exciting and useful.

E. M. BACKETT

Industrial Health: A Survey in Halifax. A report by H.M. Factory Inspectorate and recommendations of the Industrial Health Advisory Committee. (Pp. 20. 1s. 6d.) London: H.M. Stationery Office. 1957.

In this country advances in occupational health and welfare have usually followed the raising of standards set by the more enlightened employers. After a time lag of variable duration the legislature has accepted these standards as minimum requirements but in the interval further progress by the enlightened has been made. It is therefore not unexpected that there should be a wide disparity between environmental conditions and medical services in the good and not so good factories and it is not surprising that the progress of industrial health should be a series of steps rather than a continuous steady trend.

The report by H.M. Inspectorate of a survey of industrial health in Halifax illustrates how poor conditions in many factories and workshops can be and there is reason to believe that conditions in Halifax are not untypical of those existing throughout the country. This report is at one and the same time a criticism of the Inspectorate that the conditions revealed could be so bad, and a tribute to its integrity that no attempt has been made to suppress or gloss over information which the