method of preventing the disease seemed to be the encouragement of the general level of resistance to infection among the population. The prevention of massive infection was acknowledged to be important, but, in general, measures directed towards improved social and economic conditions seemed likely to be more immediately rewarding in their results than any possible attempt at the elimination of infection. The clinical application of vaccination by BCG was only just starting to be investigated on a considerable scale. In treatment of individual cases of the disease, rest and general hygienic measures were the only generally applicable methods. These were supplemented in suitable cases of pulmonary disease by various forms of medical and surgical collapse treatment, and in other forms of disease by surgical removal of diseased organs or operations designed to immobilize affected structures.

To-day in many countries a steadily diminishing incidence of childhood infection has led to more frequent primary infections of adolescents and young adults. The immediate effects of such infections are, on a statistical scale, different from those which follow childhood infection, progressive disease of the lungs following as an immediate sequel very much more frequently. Consequently, again on a statistical scale, the pathogenesis of pulmonary tuberculosis in the young adult has changed. In prevention, it follows that methods aimed at the avoidance of infection are more immediately rewarding than in the past, and the dangers to the adolescent and young adult of contact with open disease are more obvious. In treatment, the development of effective antibacterial drugs has revolutionized the position and, hand in hand with technical advances in surgery, has made possible forms of treatment which in combination may be so effective that for some patients they might almost warrant the description 'curative', a term which, in the past, no one has been bold enough to use in connexion with this disease. It is relevant to remark, however, that these recent developments in treatment have had a paradoxical effect on the demand for hospital accommodation and trained staff. Whereas the introduction of the sulphonamide drugs and of penicillin has resulted in a much smaller demand for hospital beds for the treatment of acute infections such as pneumonia, the treatment of tuberculosis by modern methods remains a lengthy affair, needing the co-operation of larger numbers of highly trained medical and ancillary workers than were necessary for the simpler methods of treatment available in the past. The problems of minimizing the economic effects of this long-continued disease upon the patient and his family, and of his rehabilitation to as normal a life as is possible for him at the end of his treatment, remain unchanged.

Dr. Brice Clarke's book discusses these problems, especially as they are related to the design and administration of tuberculosis services. It attempts to cover the vast field in a way that will be helpful to those working in these services, including in short compass not only the epidemiological aspects which are dealt with by McDougall's "Tuberculosis, a Global Study", but also, though less completely, the field of pathogenesis covered by A. R. Rich's monograph. Some aspects are of necessity dealt with rather briefly, and, in particular, the section dealing with bacteriology is so sketchy that it is difficult to decide for whom it is intended; but adequate bibliographies at the end of each chapter minimize

such deficiencies. There are some *ex cathedra* statements with which not everyone will agree. Many of the tables and graphs are not provided with legends adequate to make them self-explanatory, and in any future edition this defect could well be remedied. On the whole, this is an adequate and useful summary of much work in the several fields of study relevant to the problems of those engaged in tuberculosis and public health services. J. G. SCADDING

THE EXTRA PHARMACOPŒIA (MARTINDALE)

The Extra Pharmacopœia (Martindale), incorporating Squire's Companion
Twenty-third edition. Vol. 1. Pp. xxii+1352.
(London: Pharmaceutical Press, 1952.) 55s.

THE "Extra Pharmacopœia (Martindale)" has for long been the best book of reference for those who require quick access to the essential facts about medicines. The first edition appeared in 1883 and was followed by twenty-one more editions during the next sixty years. Publication was interrupted by the Second World War, and the world has had to wait eleven years for the twenty-third edition. Vol. 1, which has now appeared, is complete in itself and gives an account of practically all the drugs available in Great Britain and many foreign drugs as well. It contains more than a million words and looks like its immediate predecessor; but it is slightly larger in all dimensions and weighs about 40 per cent more. It incorporates an old rival in the form of "Squire's Companion to the British Pharmacopœia". This new edition includes four thousand abstracts, nearly three-quarters of which are from the past ten years, and a therapeutic index giving references to the medicines used in about seven hundred and fifty forms of illness.

Never has therapeutics advanced so rapidly as during the past ten years, and the editors are to be warmly congratulated on the way they have brought this book up to date. The official name of each drug is followed by its chemical name, molecular weight and trade names. Physical properties, such as solubility and stability, are briefly summarized. The dose is given and there are sections on toxic effects, antidotes, contra-indications and uses. The numerous abstracts give a clear idea of the value of the evidence about the effects of the different drugs in practical medicine. There are, for example, about forty abstracts on methonium compounds which give a clear picture of the rather uncertain state of our knowledge about them. Up-to-date information of this kind is given about all the latest drugs, the names of which are too numerous to mention. It has not been possible to give a list in the preface of all the new substances included, but a select list of about a hundred and fifty of them looks most impressive. Special sections are devoted to antibiotics (ninety-nine pages), immunological products (fifty pages), blood transfusion (thirty-one pages), ligatures and legislation.

This great work has been produced under the editorship of T. C. Denston, followed by K. R. Capper, with half a dozen assistants and a few expert advisers—S. L. Ward has been associated with this book since 1923. It is wonderful that so much has been done so well by so few. J. H. GADDUM