stimuli. In the case of George Fox and the Quaker healers, this belief in Divine intervention was clearly implied in the "Book of Miracles", and the same may be said of many modern healers who believe their success is due to the operation of 'spirit doctors', with whom they are in some mysterious manner connected but whose powers they in no wise control.

For those who want a clear summary of the state of spiritual healing in George Fox's day, Dr. Cadbury's volume is essential, and he is to be congratulated on the care with which he has prepared his scattered material and the fascinating manner in which he has presented it. E. J. DINGWALL

## 11 STUDY OF MOLECULAR STRUCTURE

Contribution à l'étude de la structure moléculaire Dédiée à la mémoire de Victor Henri par R. Audu-bert, R. F. Barrow, M. Burawoy, C. A. Coulson, L. Couture, M. de Hemprinne, M. L. Delwaulle, J. Duchesne, J. Franck, F. François, P. Goldfinger, H. v. Halban, M. B. Hall, A. Kastler, V. Lasareff, J. Lecomte, M. Letort, M. Magat, C. Manneback, J. P. Mathémat. A. Mertang, H. Moureu, M. Niclause J. P. Mathing A. Mertens, H. Moureu, M. Niclause, L. Pauling, M. H. Pirenne, I. Prigogine, B. Rosen, H. Sponer, M. J. Stallcup, P. Sue, H. W. Thompson, E. E. Gogo, A. D. Walsh, E. Warhurst, K. Wieland, R Wurmser. Préfacé par L. Brillouin et par J. Duniesne. Pp. xiii+314. (Liège : Maison Desoer, 1948.) N.p.

'HIS volume has been prepared in commemoration of Victor Henri, who died in 1940. V. Henri occupied the chair of physical chemistry at the University of Liège for almost ten years, and he developed there a remarkable school of molecular spectroscopy, kinetic chemistry and photochemistry. The twenty-seven papers in this book elaborate topics in which he was interested. The concept of predissociation was introduced by V. Henri following his discovery of a diffuse appearance in the discontinuous structure of certain spectra, and so it is particularly pleasing to record that two of the papers in this collection are devoted to this subject.

No attempt will be made here to discuss the papers in detail, but some trends may be noted. A large proportion of the papers are concerned with spectroscopy, and the majority of these discuss work on the infra-red and Raman spectra, while a few are devoted to the ultra-violet and visible regions. There are two papers on reaction kinetics. The equilibrium postulate which occurs in the theory of absolute reactionrates is examined in one paper, while the other is concerned with the possibility of systematizing the treatment of certain chain reactions. The editorial committee has not attempted to present a balanced review of molecular structure, and, as a result, an examination of subjects such as X-ray diffraction, electron diffraction and dipole moments is not made in this volume. Theoretical papers on the atomic radius of carbon, cross-terms in the potential functions of polyatomic molecules and the calculation of bondlengths are included. These contributions illustrate recent advances which have resulted from the extension of the work of Mulliken, Pauling and others. The paper presented by Burawoy, entitled "The Supposed Existence of Non-localised Electrons, Resonance and Stereomerism", is in sharp contrast with

Burawoy argues that the theory of this series. resonance is in disagreement with numerous facts, and he supports the view that all constitutive changes are accounted for by inductive electronic displacements.

Inspection of the list of names of contributors should be sufficient to recommend this work, but it must be admitted that much of the substance of some of these papers has appeared elsewhere.

E. F. G. HERINGTON

## 716 THE BRITISH PHARMACOPEIA

The British Pharmacopœia 1948

Published under the direction of the General Council of Medical Education and Registration of the United Kingdom. (Published for the General Medical Council.) Pp. x13–914. (London : Constable and Co., Ltd., 1948.)

"HE British Pharmacopœia" was first published

in V664, and revisions appeared in 1874, 1885, 1898, 1914 and 1932. The seventh edition, which was issued in 1948, is a great advance on its pre-devesors. The world is much indebted to the Pharmacopœia Commission and particularly to its chairman, Prof. J. A. Gunn, and to its secretary, Dr. C. H. Hampshire, both of whom have served the Commission for many years. They helped to produce the edition of 1932 and have been primarily responsible for the issue of six addenda during the difficult days of the War and for the fine book now before us. A large number of other people have made lesser contributions, and more than fifty papers have been published in scientific journals to record the results of investigations undertaken at the request of the Commission.

This Pharmacopœia represents more work than any of its predecessors; it is good to know that most of this work was undertaken from a sense of public duty without hope of personal gain. The book has grown from 713 to 914 pages. One innovation is the admission of a number of substances still protected by patent rights; another is the inclusion of the structural formulæ of many organic substances. The list of tablets was greatly extended in the addenda and has now been still further increased, so that there are about fifty different preparations of this sensible type. The 1932 edition contained only six 'injections', and the number has now grown to seventy-five. This reflects a change in therapeutics ; but the increase is not as large as appears at first sight, since some preparations (such as pituitary extract) have joined this group by changing their names, and others (such as neoarsphenamine) have for long been given by injection without the dignity of a separate monograph.

Doses are still given both in the metric and Imperial systems. It is to be hoped that the Commission will soon decide that the time has at last come to drop the older system altogether, as other pharmacopocias have done; the present state of affairs is confusing and absurd. New drugs are generally described in grams or mgm., older drugs in drachms or grains. The older physicians have always been reluctant to learn metric doses and have taught the older system to their juniors. If the Commission took a strong line, there would no doubt be a bitter outcry at first; but the final result would be good.

J. H. GADDUM