This is the third series of lectures given at the Johns Hopkins Medical School under the Charles E. Dohme Foundation and comprises some eighty pages of very readable matter. Optical Isomers or Stereoisomers have hitherto been of interest chiefly to the chemist and more particularly to the specialist in organic chemistry. In the present treatise the importance of the subject is brought home to the physiologist, pharmacologist and general biologist. Even from a chemical point of view the existence of two or three compounds identical in composition and differing only in the spatial relationship of their constituent atoms is a most remarkable phenomenon. It is little short of amazing to learn that such very closely related compounds may actually exhibit definite and decided differences in physiological and pharmacological action.

The series begins with a brief historical sketch reviewing the early and fundamental work by Biot, Pasteur and others. The next chapter takes up the relation of Enzymes to optically active bodies. This is followed by two important chapters dealing with the decomposition of Isomers in living tissues and the pharmacological action of Optical Isomers and related phenomena to which Cushny has devoted his later years.

As is true of all collected publications, the work, while reasonably up-to-date, does not include some of the latest developments in this field. Thus, for instance, no mention is made of the interesting findings in regard to the difference of physiological action of Isomers in the field of Phyto-pharmacology, where it has been shown that a similar difference in response is exhibited by plants as well as by animals, as shown by Macht. Again, the present lecture being a somewhat dogmatic review of work along lines in which Cushny was specializing, it is not surprising that he is found to disagree with some of the experiences of other investigators, as for instance is exemplified in the study of the pharmacological effects of different camphors. The author's subject is a very complicated one and in the reviewer's opinion one which undoubtedly will play a very important rôle in the development of the pharmacology and chemistry of the future. It may be well to conclude with a quotation from an address by Cushny published elsewhere, to emphasize the importance of this thought.

"This optical activity is, in fact, the most persistent evidence of life which we possess. An optically active alkaloid or acid may be kept for centuries after the plant which formed it and the chemist who isolated it are dead, but it will still possess its optical activity, testifying that it was formed by some living thing either directly or indirectly. When we find an optically active substance in the earth, we may know at once that it arose through the agency of life. The petroleum we burn, for example, must have arisen from living tissues, for it is optically active. Not only is it the most persistent sign of life, but it is the most definite physical characteristic of life. No other can be measured in actual numbers in the same way." The recent discoveries concerning the photochemical effects of polarized light would have delighted the author.

DAVID I. MACHT.

Whys in Pharmacy.—A Compilation of Reasons Underlying the Principles of Pharmacy, Supplemented by a Table of Equations. By EDSEL A. RUDDIMAN, PH.M., M.D., Member of Committee for the Tenth Revision of the United States Pharmacopœia. 203 pp. Publishers, John Wiley & Sons Inc., New York City. Price $2.00.

The publication of this third edition has been found necessary due to the appearance of the United States Pharmacopœia X, and National Formulary V. The book is based on the material contained in these two Standards.

The author stated in the first edition of this Book that the teaching of the reasons for the use of certain ingredients and for mixing these in certain orders is one of the most important parts of the teacher's work. The book is not intended as a quiz compend, but as an aid to those who wish to get at the principles underlying the subject. All classes of preparations are considered by applying the "why" and giving the explanation.

The first division of the book deals with galenicals, followed by questions relating to chemicals, drug assays, a number of prescriptions, a few miscellaneous subjects, equations applying to reactions in U. S. P. and N. F. preparations. While the book is of greatest service to the student in giving him a better understanding or refreshing his memory, pharmacists will find therein answers to many problems arising in prescription practice and in pharmaceutical manufacturing.

Use the Christmas Seals in the aid of a good cause.