

in Dublin itself. There are several cases of invisible ghosts. One, if invisible, was ponderable, for when it jumped on the handle bar of a bicycle the rider was compelled to pedal down a steep hill. Of apparitions before, at, and after death, and of the banshee, there are, as might be expected, numerous examples. The compilers present the stories without comment, and of course do not guarantee their genuineness.

*Biological Relations of Optically Isomeric Substances.*

By Prof. Arthur R. Cushny. (The Johns Hopkins University School of Medicine, the Charles E. Dohme Memorial Lectures, Third Course, 1925.) Pp. viii + 80. (London: Baillière, Tindall and Cox, 1926.) 9s. net.

In this short monograph the late Prof. Cushny has given an account of the pharmacological behaviour of those drugs which exist in an optically isomeric form. Starting from Pasteur's work on the separation of the two forms of tartaric acid by means of the differences in their crystalline form, the author describes how optical isomers can be separated by combining them with another substance which is itself optically active or by means of physical agents, such as heat, which in certain cases lead to the development of different properties by the two isomers. The relation of enzymes to optical isomers and the fate of the latter in the living tissues are then dealt with. Following a section on their pharmacological action, to our knowledge of which the author himself contributed by his researches, the final and most interesting chapter is devoted to some general aspects of this subject. It appears probable that the specific activity of a drug depends on three factors: the general structure of the molecule, some special grouping, such as the alcoholic OH in the side chain of the acid in hyoscyamine, and, finally the presence of an asymmetric carbon atom. It is the latter which leads to a chemical combination between the drug and the cell, but it is on the second property that its specific action chiefly depends.

*The Life of Buddha as Legend and History.* By Dr. Edward J. Thomas. (The History of Civilisation Series.) Pp. xxiv + 297 + 4 plates. (London: Kegan Paul and Co., Ltd.; New York: Alfred A. Knopf, 1927.) 12s. 6d. net.

DR. THOMAS makes a first-hand contribution to the subject, based on a wealth of new material: while at the same time he gives to the layman a fascinating biography of a personality mysterious and real, and, to the philosophic mind, perhaps the most attractive among all religious reformers. The account of Buddha's life in the first chapters provides perhaps the most interesting reading—as a story. The discussion of our literary sources of Buddhism in the introduction, and the analysis of the text in the appendix, allow the specialist and the scholar from the neighbouring fields of history and sociology to obtain a real glimpse into the foundations of our knowledge of Buddhism.

Most interesting and valuable, however, are the chapters discussing Buddhism as a religion and a

philosophy, in its kernel of history, and in its aura of myth. The last chapter, containing a comparison between Buddhism and Christianity, shows how, in the light of modern scholarship, most 'parallels' and 'borrowings' vanish. While Seydel found fifty parallels, van den Bergh was reduced to nine, E. V. Hopkins to five, Garbe to four, Charpentier to only one, and "other scholars reject all connexion." The dogma of diffusion which has become of late so fashionable in anthropology, tends to disappear from history, that is, from the discipline which has full means of proving or disproving diffusion.

*Recent Advances in Biochemistry.* By John Pryde. Pp. viii + 348. (London: J. and A. Churchill, 1926.) 12s. 6d. net.

THIS excellent little book, a companion volume of "Recent Advances in Physiology," which we have already noticed in these columns, gives an up-to-date account of our knowledge on certain selected biochemical problems. It should be useful both to the advanced student and to the worker who wishes to keep abreast of his own subject in branches with which he may not be directly familiar, without the necessity of referring to the original work. Apart from chapters on the biochemistry of the proteins, fats, and carbohydrates, interesting accounts are given of the biochemistry of phosphorus and sulphur compounds, of the vitamins, and of hæmoglobin and related pigments: in each case the latest work, at the time of writing, has been included. The author has purposely omitted any account of the mechanisms of tissue oxidations and the chemistry of the internal secretions, since both have been dealt with in the companion volume: instead, he has included two extremely useful chapters on the chemical basis of specific immunological reactions and on chemotherapy, subjects which are not often included in text-books of biochemistry: they are, however, among the most interesting of those dealt with in this volume. We can confidently recommend this book to all those interested in this subject.

*An Introductory Course of Mathematical Analysis.* By Charles Walmsley. Pp. vi + 293. (Cambridge: At the University Press, 1926.) 15s. net.

DR. YOUNG in his preface to this book explains that it was written to meet the needs of first-year students at Aberystwyth, many of whom arrived entirely ignorant of trigonometry, while others were proposing to take mathematical honours. Only the university authorities can judge of the success with which this staggering problem has been solved, but Mr. Walmsley has evidently been more concerned with the latter class than with the former, and his work will probably be useful chiefly as an introduction to Hardy's "Pure Mathematics."

So far as it goes, the treatment is thorough and sound: special attention is paid to inequalities and inequations, and a good feature is the proof of the addition theorems for the trigonometrical functions defined by their series.