young doctors of philosophy in writing their dissertations and which makes abominable reading! So while the book was undertaken in a praiseworthy attempt to bring the subject of organic chemistry into closer relationship to the modern conceptions of physical chemistry, it is hardly a success in this respect and is only of average value and in part badly written as an ordinary text-book of organic chemistry.

UNIVERSITY OF CHICAGO,
November 16, 1907.

JULIUS STIEGLITZ.

A TEXT-BOOK OF ORGANIC CHEMISTRY. By A. F. HOLLEMAN, PH.D., F. R. A., Amsterdam, Professor Ordinarius in the University of Amsterdam. Translated from the Third Dutch Edition by A. J. WALKER, PH.D., assisted by OWEN E. MOTT, PH.D., with the coöperation of the author. Second English Edition, Rewritten. New York: John Wiley & Sons. London: Chapman and Hall, Limited. 1907. 8vo. xv + 589 pp. Price, $2.50.

According to the author's preface to this second English edition of his text-book on organic chemistry, the chief changes made are in the chapters on the constitution of benzene and on pyrrole. In presenting the vexed question of the constitution of benzene the plan is adopted of giving all three of the most prominent formulae, Kekulé's, von Baeyer's and Thiele's, with an explanation and a very brief criticism of each.

There is legitimate ground for a wide divergence of opinion in regard to the best order of arrangement for the presentation of the facts of organic chemistry. It seems to the writer, however, that with the facts of isomerism and the theories of structure, stereoisomerism and tautomerism,[1] the fundamental point which must be most clearly understood by the student for a working acquaintance with organic chemistry is the difference in behavior between saturated and unsaturated compounds. This difference is brought out most effectively from the experimental and theoretical side, by a study of the properties of the unsaturated hydrocarbons. The point of view acquired there is most useful, in fact, essential, in the study of the reactions of the aldehydes and ketones as unsaturated compounds, in which absorption reactions play an extremely important rôle, in which the smaller degree of stability of the addition products involves no difficulty in presentation after a thorough discussion of the olefines and acetylenes, and in connection with which relative instability, a further fundamentally important point of view for organic as for inorganic chemistry may so easily be developed; namely, the conception of organic reactions as reversible ones, which should be treated

[1] This question is treated on p. 305, and the discussion is restricted to the 1:3 diketones. It is a question affecting very many important classes of organic compounds (acid amides, nitroparaffins, mono-aldehydes and ketones and their hydrazones and oximes, phenols, etc.), and it seems to the writer that *in a book of this class*, it ought to be taken up as a part of the question of isomerism at as early a point as possible.

on the basis of the equilibrium laws. A modern comprehension of the behavior of organic acids and their derivatives, the esters, amides, nitriles, etc., it seems to the writer again, is altogether impossible without a preliminary knowledge of the behavior of aldehydes, ketones and olefines, unsaturated bodies whose absorption products are so far more stable than the absorption products of the derivatives of the organic acids, which nevertheless must play an important rôle in the proper theoretical treatment of their reactions. Yet we find in Holleman's text the order of treatment exactly reversed, the acids with their most complex behavior first, the olefines with their well-defined simple properties treated only after such complex unsaturated bodies as the nitriles, isonitriles, acids and their derivatives, aldehydes and ketones. There is room, it is believed, for a text-book on organic chemistry in which the reactions are treated on the basis of our equilibrium laws in a very simple and elementary but efficient way with the aid, not of hypotheses, but of well-known simple facts.

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THE UNIVERSITY OF CHICAGO,
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POISONS, THEIR EFFECTS AND DETECTION. By A. WYNTER BLYTH AND M. W. BLYTH. London: Charles Griffin & Co., 4th Ed. 1906. 8vo. xxxii + 772 pp. Van Nostrand Company. Price, $7.50 net.

The announcement by the publishers of a forthcoming new edition of this standard work aroused great interest among analysts and toxicologists, and they awaited the appearance of the work with the curiosity natural to the interval of ten years between editions. The fact that Blyth's poisons is the only comprehensive work of its kind in the English language should make a new edition doubly valuable.

The fourth edition carries an additional name upon its title-page—that of Meredith Wynter Blyth, Public Analyst for the Boroughs of Brighton and Eastbourne. This would lead one to conclude that the presence of poisonous substances in food products and the relations of such materials to the public health would receive more attention than was accorded them in the third edition. In this, however, we suffer a very great disappointment, for this phase of the field of the toxicologist and investigator is practically ignored, there being essentially no change in the subject-matter treated, the additions and alterations being mainly in the arrangement and elaboration of contents of the old edition. However, these changes in the manner of presentation and the addition of newer and better methods of chemical analysis are sufficiently numerous and extensive to justify the claim of the publishers that the fourth edition is "thoroughly revised, enlarged, and rewritten."

The work is divided into nine "parts" as follows: I. Introductory, the old Poison-Lore, the Growth and Development of the Modern Methods