

by the author is often disregarded in the attempt to secure brevity. The most satisfactory series of reviews in this respect known to the writer are those of the *Jahresbericht über die Fortschritte der Chemie* during the years of its prosperity. It is to be hoped that, instead of shortening the abstracts by authors, the editor and reviewers of the *Centralblatt* will attempt to make the other abstracts more complete, and will succeed in inducing more authors to coöperate by promptly furnishing abstracts of their own work.

Provided the abstracts are made complete in the sense just referred to and also in the sense that they cover all articles published on physical chemistry, and provided a detailed index is prepared for each volume, the periodical will undoubtedly be of great service to physical chemists and of permanent value to the science by bringing together in one place all the current literature pertaining to it.

A. A. NOYES.

A LABORATORY MANUAL OF PHYSIOLOGICAL AND PATHOLOGICAL CHEMISTRY. By DR. E. SALKOWSKI. Translated by W. R. ORNDORFF, A.B., PH.D. First Edition. New York: John Wiley and Sons. pp. ix + 263. Price, \$2.50.

The greater number of so-called manuals of physiological chemistry are little more than a collection of methods for the preparation of a number of highly complex substances occurring in the animal organism, together with an outline of special tests for the identification of the same. In the work before us the subject is presented in a far more scientific and logical manner. The first part of the book is devoted to the qualitative examination and study of a number of the more important tissues, glands and secretions, together with pathological transudates and cystic fluids and such important physiological processes as gastric, salivary and pancreatic digestion and putrefaction.

The second part of the work deals with the quantitative analysis of a few simple chemical compounds and of such material as meat, milk, blood, urine, feces, etc. It presents a number of interesting quantitative methods and contains a great deal of information of value to the diagnostician and to the experimental physiologist. The appendix contains the usual list of reagents, with directions for preparing the same; tables of specific gravities and atomic weights; an index and an absorption spectra chart for the blood pigments.

It would seem, however, that the clearness of even the best medical writings must always be obscured by the tinge of mediaeval scholasticism. To Latinize seems to be the besetting weakness of the medical profession. Thus it happens that even in this excellent and thoroughly modern book we find yellow mercuric oxide referred to as "hydrargyrum oxydatum flavum via humida paratum". It is very doubtful if these antiquated terms really serve any useful purpose. It is the opinion of the writer that they tend rather to befog and mystify the mind of the student and at best they only tend to preserve the traditions of an age that was altogether unscientific in its mode of thought.

In its entirety, however, the book is a valuable contribution, and the translator certainly deserves the thanks of American students for putting into their hands so excellent a guide to laboratory work in physiological chemistry.

J. H. KASTLE.

DIRECTIONS FOR LABORATORY WORK IN PHYSIOLOGICAL CHEMISTRY. By HOLMES C. JACKSON, PH.D. Second Edition. New York: John Wiley and Sons. 1903. pp. vi + 148. Price, \$1.25.

The first portions of the book deal with the carbohydrates, fats, proteids and other substances occurring in the animal organism. This is followed by directions for laboratory work on muscular and nervous tissue, digestive processes, milk, blood and bile, and about one-third of the book is devoted to the examination of urine and urinary analysis. One good feature of the book is that in connection with the laboratory work direct questions are asked, the correct answering of which by the student will greatly assist in his proper comprehension of the subject under consideration. It seems to be very difficult for any writer on chemical subjects nowadays to escape the wiles and allurements of physical chemistry. So we find in the work before us that the author has explained the acidity of the urine to medical students as "attributable to the presence of dissociated hydrogen ions,"—whatever these may be, and has pointed out the value of cryoscopic and conductivity methods in urinary analysis. In our humble opinion it will be a long time before the average student in the great majority of American medical schools has any proper appreciation of the ion, much less the "dissociated ion," and for him Δ will doubtless remain somewhat of an enigma for some time to come.

J. H. KASTLE.