

mand for and interest in the information regarding the different groups, and to their biological significance, many users of Dr. Doflein's book will doubtless agree with the reviewer that the non-pathogenic groups are all too inadequately represented. The Ciliata are especially unfortunate in coming up last for presentation in a volume rapidly approaching a thousand pages. One feels that the extensive and important recent work on the Radiolaria is very incompletely presented in the 18 pages mostly consisting of a perfunctory list of radiolarian families. In fact a new edition of Bütschli's *Thierreich* monograph is sorely needed to make possible a well-coordinated critical review of the whole group of Protozoa and this is a task which in the present state of the science can only be undertaken by a group of specialists. All protozoologists, biologists and pathologists will be profoundly grateful to the author for the book even with these minor limitations. It will also prove a stimulus to further research and greatly facilitate it. Problems requiring further elucidation are continually suggested in its pages.

The book is, beyond all question, the best illustrated work that has come from Fischer's famous press. This is due to the wise selection of figures, the inclusion of many original sketches made especially for the work, and to the uniformly careful preparation of the drawings, as well as to the high degree of technical skill in the reproduction. The only drawback is the reflection from the highly glazed paper which is very trying to the eyes.

An English translation of the work, revised to date, is in preparation by Col. Leslie in conjunction with Dr. Doflein. This will be especially welcome to English readers, since it makes the work available for instruction in academic and medical classes.

The book is fittingly dedicated to "meinem lieben Lehrer und Freund Richard Hertwig in Verehrung und Dankbarkeit," and comes logically from the laboratories at Munich, the foremost center in the world for protozoological research along comprehensive lines.

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Allen's Commercial Organic Analysis. Volume I. Introduction, Alcohols, Yeast, Malt Liquors and Malt, Wines and Spirits, Neutral Alcoholic Derivatives, Sugars, Starch and its Isomerides, Paper and Paper-making Materials, Vegetable Acids. By HENRY LEFFMANN and W. A. DAVIS, editors, and E. F. ARMSTRONG, J. L. BAKER, G. C. JONES, E. SCHLICHTING and R. W. SINDALL, contributors. Fourth edition, entirely rewritten. Philadelphia, P. Blakiston's Son and Co. 1909. Pp. x + 576. Price \$5.00.

It is eleven years since the last American edition of this well-known work was published. When we consider the very rapid advances which have been made in this field during recent years and also that the third edition was prepared so hastily as to prevent a thorough revision, the need of a thorough rewriting of the whole book is evident. The revision has been very thorough and a large amount of new material has been added.

No one individual can be thoroughly familiar by personal experience with the great variety of analytical methods presented in a book of this kind and the editors have very wisely secured the help of several expert chemists for the preparation of different sections of the book. The introduction (83 pages) treating of general methods of analysis and the determination of physical constants is by William A. Davis; Methyl and Ethyl Alcohol (47 pages), by G. C. Jones; Malt and Malt Liquors (32 pages), by Julian L. Baker; Wines and Potable Spirits (39 pages), by G. C. Jones; Yeast (21 pages, wholly new), by E. Schlichting; Neutral Alcoholic Derivatives, as Ether, Esters, Aldehydes, Chloroform, etc. (57 pages), by Henry Leffmann; Sugars, Analysis of Urine, Starch, Dextrin, Flour, Bread, Cellulose, etc. (180 pages), by E. Frankland Armstrong; Paper and Paper-making Materials (20 pages, new), by R. W. Sindall and Acid Derivatives of Alcohols, as acetic acid, vinegar, oxalic, succinic, malic, tartaric and citric acids (83 pages), by Henry Leffmann.

The book is one which should be in every chemical library and which no chemist engaged in the examination of foods can afford to be without.

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