absolutely up to date in a field of applied science in which such a large volume of research is being published yearly. Although the author has brought his subject up to the very latest word in certain fields, the book would be benefited by considerable "sifting," as it stands, and will no doubt require considerably more in the future.

A feature of the book which may appeal to many teachers and students is the etymology of many terms, given in footnotes. The book is well illustrated and the text fortified with many valuable tables, taken from numerous sources, all of which are acknowledged.

The author's style is not as uniform as one might wish, suggesting that the various sections of the subject matter were prepared at different times and not re-written for publication. This is borne out by the considerable amount of tautology in the text, which in a few cases has led to diametrically opposing statements.

Although the author has prepared the chemical sections of his text for students with no foundation in organic chemistry, he does not hesitate to introduce structural formulas in the chapters on the composition of carbohydrates, proteins and fats. This may give the text some appeal to students with more advanced chemical training, but the reviewer questions whether it is possible to teach enough organic chemistry in a few pages of text to make heterocyclic structural formulas intelligible to students who have only the most elementary chemical training. Incidentally, the structural formulas for the sugars are not those most generally accepted by biochemists at the present time and the author's explanation of the gamma sugars is hazy.

L. S. PALMER

BOOKS RECEIVED

February 1, 1931-February 15, 1931

- JAMES C. MUNCH. "Bioassays. A Handbook of Quantitative Pharmacology." The Williams and Wilkins Company, Mt. Royal and Guilford Aves., Baltimore, Maryland. 958 pp. \$10.00.
- Wo. OSTWALD. "Kolloidwissenschaft Elektrotechnik und Heterogene Katalyse." Sonderausgabe aus den Kolloidchemischen Beiheften. Verlag von Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany. 113 pp. RM. 5, unbound.
- ALFRED RIECHE. "Alkylperoxyde und Ozonide. Studien über Peroxydischen Sauerstoff." Verlag von Theodor Steinkopff, Residenzstrasse 32, Dresden-Blasewitz, Germany. 172 pp. RM. 10, unbound.
- ALFRED WAGNER, ALFONS M. BURGER AND F. ELZE, Editors. "Die Riechstoffe und ihre Derivate." Erste Abteilung: Aldehyde der aliphatischen Reihe. Zweite Abteilung: Aldehyde der alizyklischen Reihe. Dritte Abteilung: Aromatische Oxyaldehyde mit gesättigter Seitenkette—Zweiwertige Oxyaldehyde—Äther aromatischer Oxyaldehyde mit gesättigter und ungesättigter Seitenkette—Aroxylalde-

hyde. Vierte Abteilung: Patentregister—Patentverzeichnis—Autorenregister und alphabetisches Sachregister. A. Hartleben's Verlag, Singerstrasse 12, Vienna, Austria. 1431 pp.

"Tables Annuelles de Constantes et Données Numeriques de Chimie, de Physique, de Biologie et de Technologie." Table des Matières des Volumes I à V. Années 1910 à 1922. McGraw-Hill Book Co., Inc., 370 Seventh Ave., New York. 382 pp.