

special features a pharmacist should know in regard to this most important modern science.

Criticism of a point or feature here and there may be offered as is always the case of any work done by mere man. For instance, the author says in his introduction that "Bacteriology must not be made discouragingly difficult to the pharmacist," and yet in his very first chapter on the history of the science he mentions the names of no less than 92 persons with a date and a reference to their accomplishments. If the average pharmaceutical student of bacteriology learns the names of five of the great discoverers in the realms of this science he has gone the limit.

While nearly all of the book is written in a simple yet dignified style the short chapter on the Range and Distribution of Microbes appears to be too simple, almost childish, with much repetition, and includes several statements very subject to doubt.

It would seem also as though the arrangement of chapters could have been improved.

However, on the whole the book is fine and will undoubtedly find a wide circulation in this country.

E. N. GATHERCOAL.

METHODS OF ORGANIC ANALYSIS. By Henry C. Sherman, Ph. D. Professor of Food Chemistry in Columbia University. Second Edition, rewritten and enlarged. Illustrated. Cloth, 8vo. \$2.40 net. The Macmillan company, New York.

Organic Analysis may be treated as a mass of subjects arbitrarily arranged, or, following the new system of organic chemistry, it may be logically developed into system similar to the ones we have followed in our inorganic chemistry. The latter, needless to say, is the satisfactory teaching method, and Professor Sherman has followed it well in this new edition, just off the press.

Beginning with the alcohols, the book takes up in succession their oxidation products and allied substances, the aldehydes and acids, and the carbohydrates, the fatty acids and their derivatives, fuels, proteins, including grains and milk, and preservative agents. The treatment in each case is such that the book may be used not only as a manual for students, but as a practical working handbook for the commercial laboratory.

In extending the scope of the work, the new matter includes "a chapter on solid and liquid fuels, and sections on industrial alcohol, drying oils, crude petroleum, the new international methods of glycerin analysis, and quantitative methods for the testing of enzymes." The results of the latest researches have been embodied in these chapters, much of the work having been done in the Havemeyer Laboratories by Professor Sherman and his students.

The bibliography following each chapter is admirably arranged in two divisions: first, a list of available works of reference; second a chronological list of articles bearing on the subjects treated in each chapter. The bibliography contrasts vividly with a manual which the writer had occasion to examine some time since, in which frequent mention was made of well known analytical

methods, and others not so well known, without a single reference being given which would make it possible to check up results, or even to secure details of the method.

In the writer's opinion, the chapter on Ultimate Organic Analysis should have been left at the beginning of the book, as in the first edition, as a few exercises in ultimate analysis give the student facility in the quantitative handling of organic substances.

We congratulate Professor Sherman on his revision of his most excellent textbook, and hope that it will find as extensive a use in class room and laboratory as it deserves.

GEO. D. BEAL.

THE REVISED PHARMACEUTICAL SYLLABUS, as outlined by the Faculty of the Philadelphia College of Pharmacy. Mimeograph copy; 80 pages, 8 x 15 inches.

The revisions that are taking place in matters pharmaceutical are hopeful signs of the time. The interest manifested in the revision of the Pharmaceutical Syllabus portends well for the future and is important as pointing to the professional pathway that pharmacy in America is destined to travel.

The first edition of the Pharmaceutical Syllabus was intended to cover the period from 1910 to 1915, but an earlier revision was deemed necessary and this is now in process and in charge of a National Committee of 21 composed of 7 members appointed by the Conference of Pharmaceutical Faculties, 7 appointed by the National Association of Boards of Pharmacy and 7 by the American Pharmaceutical Association.

The faculty of the Philadelphia College of Pharmacy have outlined the instructions to pharmacy students as given in this pioneer of the American schools of pharmacy and present to the National Committee on Syllabus this mimeographed book of 80 pages each 8x15 inches as a basis for the proposed revision. In doing so a signal service has been rendered and this valuable "constructive criticism" merits the careful consideration of the National Committee and should have an important influence in shaping the revision.

As a preface, Mr. George M. Beringer, in his dual capacity as Chairman of the Board of Trustees of that college and as a member of the National Committee on Syllabus, contributes a letter of transmission. In this a number of general topics are presented and several important issues are raised. The use of the word "pharmacology" as synonymous with "pharmacy" as is done throughout the first edition of the Syllabus is questioned and it is argued that modern correct usage differentiates these as having separate and distinctly different applications and that pharmacology is more correctly and specially used as the synonym of pharmacodynamics.

The two years' course as outlined in the first edition of the Syllabus is characterized as a fundamental error and a plea is presented in favor of a re-arrangement of the instruction outlined into a three years' course. It is argued that the instruction necessary for pharmacy students is more than can be properly imparted by the teacher or mastered by the student in the time allotted and that the welfare and success of the student as well as the professional advancement of