on "Plant Processes from Laboratory Experiments" by C. M. Stine.

It is rarely the case that any book is free from error, and inasmuch as the author of the present work has stated that he will welcome suggestions, additions or corrections, a few criticisms may be noted. In the chapter on "Synthesis of Medicinals" it is stated (page 223) that the alkaloids are "all either primary, secondary or tertiary substituted ammonia derivatives, most of them the last," but in view of the complexity of plant alkaloids such a definition is certainly not sufficiently comprehensive to be of much value to the student. No uniformity has been observed in the termination of the names of the alkaloids mentioned, and, although in English it is a generally accepted rule that the names of all organic bases should end with the syllable *ine*, we find such variations as morphine, narcotin and papaverin, atropine and atropin, pilocarpin, spartein, caffeine, etc. The typographical errors in this chapter are also somewhat numerous. Thus on page 232 "acetphenitidin" should be acetphenetidin, "antpyrine" should be antipyrine, on page 234 "physostegmin" should be physostigmine, on page 235 "hyescin" is evidently intended for hyoscine, on page 237 "erythol tetranitratc" should be erythrol tetranitrate, and on page 238 "theophyline" should be theophylline. Another typographical error that has incidentally been noted occurs on page 213, fourth line from the top, where "hydrobarbons" should read hydrocarbons.

The formula for quinine, as given on page 241, is neither empirically nor structurally correct, as part of the formula has been omitted. The structural formula given for morphine (page 231), which is that of Pschorr, has now been discarded, as its constitution is believed to be more correctly represented by the somewhat modified structure proposed by Gulland and Robinson.

Notwithstanding the few imperfections, which can easily be eliminated in a subsequent edition, the book contains much of interest. It will doubtless be found useful to those who are entering upon a career of research and especially helpful to such students of chemistry as have not received adequate guidance and instruction from their teachers respecting the fundamental methods and principles that are so essential for success. F. B. POWER.

*Essentials of Pharmacy*, by Clyde M. Snow, Ph.G., A.M. Professor of Pharmacy, University of Illinois, School of Pharmacy. Second edition, 752 pages. Cloth. C. V. Mosby Company, St. Louis. $5.50.

This book originally brought out in 1919 is now in the second edition made necessary because the first printing is exhausted. The fact that the book has gone into the second edition is evidence that it is a success.

At first glance one might be inclined to call the book a quiz-compend since the text is presented by the question and answer method. However, a closer inspection reveals that each subject is treated quite as exhaustively as in the standard textbooks. In fact, one finds that the preparations of the Pharmacopœia and National Formulary are accorded more attention than in other textbooks, which no doubt reflects the author's favorite field of endeavor in educational work. Since the questions and answers are in logical sequence the volume is of especial value to the student and to the candidate for registration. Because of the very complete index of some 31 pages it forms an excellent addition to the library of the teacher and to the equipment of the practicing pharmacist, since it is possible to readily find information on any involved question in pharmacy.

A timely addition is made to this second edition in the introduction of some sixteen pages on the subjects of alligation and measurement of gases which must prove of very considerable value to the student, since he usually experiences much trouble in these phases of pharmaceutical instruction.—GUSTAV BACHMAN.

*A Systematic Hand Book of Volumetric Analysis or the Quantitative Determination of Chemical Substances. By Measure Applied to Liquids, Solids and Gases.* Eleventh edition. By Francis Sutton, F.I.C., F.C.S. Revised throughout with additions by W. Lincolne Sutton, F.I.C. and Alfred E. Johnson, B.Sc., Lond., F.I.C., A.R.C. Sc.I. P. Blakiston's Son & Co., 1924. Price $9.00.

This new edition of the popular work on volumetric analysis which has so long been a standard is welcomed with a great deal of interest. It is practically the same size as the tenth edition and its scope as revealed by examination of the table of contents is about the same. There has been some rearrangement and much revision of the subject matter and some changes which result in nine parts instead of seven as in the tenth edition. Parts 1, 2, 3, and 4 are identical in scope with those of the previous edition. Part 5 of the old edition which was on applied methods of analysis is separated into two parts consisting of