ELEMENTARY MANUAL FOR THE CHEMICAL LABORATORY. BY LOUIS WARNER RIGGS, PH.D. New York: John Wiley and Sons. 1904. vi + 138 pp. Price, $1.25.

This manual is "the author's attempt to answer the much debated questions: What subjects shall be taught and how shall they be presented in a one-year course in chemistry"? It is assumed "that there shall be at least sixty hours of recitation work and one hundred and twenty hours of laboratory practice."

Forty-two pages are allotted to general chemistry, including the study of twelve non-metals and five metals with some of their compounds. Thirty-nine pages contain more than thirty exercises in volumetric analysis, while qualitative analysis is taught in fifty-two pages. The complete gravimetric analysis of crystallized magnesium sulphate is the only one of its kind. The book not only contains directions for laboratory practice, but indicates, also, under the rubric, "Text-book Lesson," the topics which the student is expected to prepare for recitation, by studying any "large-sized standard text-book." The modern theory of solution is brought early to the attention of the student and its teachings are followed consistently. It is clear that mastery of the work laid out in this manual will insure the acquisition of more chemistry than one can usually crowd into a one-year course, but it is not so evident that the questions, which led to its preparation, have been satisfactorily answered. L. B. HALL.

A LABORATORY MANUAL OF ORGANIC CHEMISTRY FOR BEGINNERS. BY PROFESSOR DR. A. F. HOLLEMAN. Translation from the Dutch by DR. A. JAMIESON WALKER. New York: John Wiley and Sons. xiv + 78 pp. Price, $1.00.

This book was originally written as a practical complement to the lectures on organic chemistry given in the Universities of the Netherlands. It contains concise directions for more than three hundred experiments to illustrate properties, reactions, and general principles connected with the chemistry of the more important carbon compounds. It is a comprehensive introductory guide to laboratory work for the general student, and not essentially a handbook of "Organic Preparations." The experimental directions, although in a few instances less detailed than might be desired, are usually clear and sufficiently definite to be easily

followed by the beginner. Many of the experiments are suitable for the purposes of lecture illustration. The experiments follow the order of the text of the author's well-known "Text-book of Organic Chemistry" that has also been lately made accessible to English readers by the same translator and publishers. The "Laboratory Manual," whether used as intended by its author as an appendix to his "Text-book, or employed as a source of material to supplement the laboratory work in more specialized courses in "Organic Preparations," will doubtless meet a want in this translation, as it has in the original. S. P. MULLIKEN.

EXPERIMENTS ARRANGED FOR STUDENTS IN GENERAL CHEMISTRY. By EDGAR F. SMITH AND HARRY F. KELLER. Fifth Edition. Phila.: P. Blakiston's Son and Co. 94 pp., interleaved. Price, 60 cents.

This is one of the very few laboratory manuals for beginners in chemistry which attempt to illustrate the principles as well as the descriptive side of the subject, and to provide the basis for a really thorough and serious study of the science in both of these directions. The value of a set of laboratory exercises can be judged only by actual use and the fact that this book has reached its fifth, revised, edition shows that the authors have achieved an unusually successful solution of the problem. Teachers who are not already familiar with the work should not fail to examine it seriously. ALEX. SMITH.

CORRECTIONS.

In the paper by Andrew A. Blair on the "Bismuthate Method for the Determination of Manganese":

Page 798, lines 18 and 19, read: "The proportion is 280 : 55 or 1 : 0.19643," instead of "56 : 55 or 1 : 0.98214."

In the foot-note, read 279.5 : 55 or 1 : 0.1968.

In the Alcohometric Tables by E. W. Morley:

Page 1189, the sp. gr. of alcohol of 47 per cent. at 22° should be 0.91892 instead of 0.91992.

Page 1190, the sp. gr. of alcohol of 82 per cent. at 16° should be 0.84199 instead of 0.84189.

Page 1191, the sp. gr. of alcohol of 74 per cent. at 22° should be 0.85641 instead of 0.85621.

Page 1193, line 3 of text, read 0.00010 instead of 0.0010.

Copies of Professor Morley's Alcohometric tables, printed on heavy paper, may be obtained of the Librarian or Editor at ten cents each. Stamps will be accepted.