student who cannot obtain more than a one or two per cent. yield in the preparation of chemically pure sodium chloride, for example, will never make his living as a chemist. The synthesis of inorganic compounds is just as important a subject in that field as the synthesis of compounds in the organic field, but strange to say there are few very satisfactory text-books on this subject. We are overcrowded with volumes relating to the analytical side of inorganic chemistry, and but few teachers seem to have considered the other. But sometimes it requires more chemical knowledge and skill to build up a compound than it does to analyze it. The author has chosen his synthetic examples with good taste, and in most cases he gives methods which are of a practical nature. Another point of convenience and instruction which makes this volume something more than a mere recipe book is that the description of every preparation is accompanied by a clear explanation of the chemical reactions entering into the process, together with simple tests by means of which the purity of the compound obtained may be ascertained. There is one feature, however, which might be somewhat improved upon, and that is, references to the literature of the subject. this edition, these are very limited, and consist for the most part of references to the author's own text-book on inorganic chemistry. Of course the majority of the methods described in this book, especially with regard to the details of precautious and the manner of manipulation, are original; but, nevertheless, there are other methods and other ideas on the same subject which should not be ignored, and a larger enumeration of references to the latest chemical literature would reuder the book more valuable and useful.

But on the whole, Dr. Erdmann has given us a book full of valuable matter, and his practical suggestions scattered so lavishly throughout the description of each preparation will be welcomed with delight by both teacher and student, and the volume deserves its title of "guide" in every sense of the word.

J. MERRITT MATTHEWS.

## ERRATUM.

In the July (1889) issue, page 624, in lines 10, 7, and 4 from bottom, for "s =" read "S =".