note, in this respect in his "Introduction to the Study of the Compounds of Carbon" and it seems to me that it would be exceedingly difficult to place a better elementary text in the hands of the student. In fact, we are not in need of elementary text-books in organic as in inorganic chemistry. The student of organic chemistry begins with a fair knowledge of general and theoretical chemistry and a text like Bernthsen, Krafft or Richter properly used and supplemented by lectures would be far better than a small elementary book. What the organic student is most in need of is a good laboratory book, something the nature of Levy or Fischer. It is to be sincerely hoped now since organic chemistry is gaining ground in our Universities that it may not suffer from scores of poor text-books as inorganic chemistry has done.

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A DETAILED COURSE OF QUALITATIVE ANALYSIS. BY ARTHUR A. NOYES pp. 80. Boston: A. D. Maclachlan, Agent, 214 Clarendon St. 1894. Price $1.

This small book of eighty pages aims to present a complete course in inorganic qualitative analysis, so arranged as to be easily followed by the student. The author follows Fresenius, in the main, as to the methods, but has modified them in some particulars. The book is divided into two parts; *viz.*, a clear, concise description of the procedure of the analysis, followed by a series of notes of explanation upon the process.

The main feature of the book, is these explanatory notes. In these the author has sought to instruct the student in all the precautions to be taken to insure accuracy, the possible sources of error, the defects in the processes, the conditions requiring a variation of the procedure, etc.

In one case thirteen, and in others nearly as many, separate notes of this kind are given. It takes, for example, fourteen pages of the book to explain how to deal with the elements of the iron group. While these notes are an excellent feature for students who have become familiar with the usual procedure, it is to be feared that the complexity of conditions they discuss, may confuse the beginner. The description of the procedure is, in most cases, incomplete without the notes, as the appearances

to be expected from the substance tested for are not given. One is obliged to hunt among the notes for the color or appearance of precipitates, etc.

But one test for each metal is given, as a rule, and nowhere are confirmatory tests given. The author plunges the student at once into the separations of the groups, omitting the usual preliminary tests for individual metals, except as they come in the separation. While there is some truth in his statement, that too much of this work is a waste of time, several confirmatory tests for each substance should be found in a complete course in qualitative analysis. Only the more difficult reactions are written out for the student.

There is neither index nor table of contents, which seriously impairs its usefulness for ready reference. While we have pointed out what seem to us its defects, especially for beginners, we must regard its main features as excellent, because of the full explanatory notes. Its chief claim to novelty is in this one feature.

E. H. BARTLEY.