differences between mixtures and compounds, analysis, synthesis, and chemical study of a substance; in successive chapters are given descriptions of the metals taken by families and by groups so as to avoid unnecessary duplication, extending from the alkalies to iron, nickel, and cobalt. Following the descriptive portion of each chapter are sections prescribing "Laboratory Work;" these sections consist chiefly of series of questions and in them lies the principal claim to originality for the volume. The queries are intended to make students think for themselves, but sometimes are singularly elementary; thus, following several pages describing the character of the metal magnesium, students are asked—"Is magnesium a metal?" "Is it heavy or light?" "What is its color?" (p. 47). After comparing granite and mercuric oxide, students are asked—"How could you make mixtures?" Yet some of the queries are difficult and would require examination of larger treatises.

To use this volume for instruction, the students must have previously become acquainted with the gaseous elements, the principal acids of inorganic chemistry and the rudiments of qualitative analysis, yet the primary principles of chemistry are laid before them with minutiae that would seem unnecessary had they mastered them previously. At the same time students are directed to make certain experiments, and the instructions given are hardly sufficient. On page 5, for example, students are told to heat HgO in a hard glass tube and to collect the gas evolved over water, but how to arrange this is not mentioned, nor is there any wood-cut of apparatus to illustrate the operation; indeed, illustrations are entirely wanting throughout the volume.

A blemish in the manufacture of the book is due to the carelessness of the printer; paper of uniform color and glaze is not used throughout; page 112 is of a bluish tint, and page 113 of a decided yellow hue. There is no index.

<div style="text-align:right">H. CARRINGTON BOLTON.</div>

ERRATA.

In Vol. 22, page 573, line 23, for "sodium acetate" read "sodium arsenate;" page 576, line 28, for "really" read "nearly."