

monoxide might have been emphasised on p. 42, and in Experiment 49 on p. 64 the copper carbonate used would probably have the composition  $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$  rather than  $\text{CuCO}_3$ , as stated. The book is just large and detailed enough for its purpose, is written in a clear and interesting style, and can be recommended.

*Equilibria in Saturated Salt Solutions: a Summary of the Results of the Study of the Heterogeneous Equilibria which exist in Aqueous Solutions of Electrolytes.* By Prof. W. C. Blasdale. (American Chemical Society Monograph Series.) Pp. 197. (New York: The Chemical Catalog Co., Inc., 1927.) 4.50 dollars.

PROF. BLASDALE'S book is a phase rule study of the conditions of equilibrium in saturated aqueous solutions of neutral salts, including, however, one chapter in which acid and basic salts are considered. The restriction of the scope of the book to aqueous electrolytes is a clear benefit, since the number of examples available is already sufficiently large, if not indeed excessive, and any attempt to include other systems would have made it necessary to write a different and probably a much larger book. Starting, therefore, with a chapter on water, the author goes on to consider the properties of saturated aqueous solutions of a single salt which forms one or more hydrates, and then passes to systems of greater and greater complexity, until in the final chapter a climax is reached in the consideration of six-component systems derived from water and salts which yield six different ions, the principal example cited being the calcium-containing minerals of the Stassfurt salt deposits.

In certain places the author makes a half-hearted attempt to discuss the structure of salt-hydrates in the light of modern theories of valency; but since the phase rule has the great merit of being independent of all theories of valency, these paragraphs add but little to the value of the narrative. The subject is, however, treated in a simple and logical manner, the printing and paper and general 'get up' of the volume (which includes 78 excellent diagrams) are attractive, and the book can be heartily commended to the general reader, and even more emphatically to those directly interested in industrial problems in which the crystallisation of aqueous salt solutions plays an important part.

T. M. L.

*Trattato di chimica generale ed applicata all'industria.* By Prof. Dott. Ettore Molinari. Vol. 2: *Chimica organica.* Parte prima. Quarta edizione riveduta ed ampliata con la collaborazione del Prof. G. Bargellini. Pp. xxiii + 660. (Milano: Ulrico Hoepli, 1927.) 45 lire.

THIS volume, published a few months after the death of the author, has been prepared with the help of Prof. Bargellini, who has revised the sections dealing with the theory of the aliphatic compounds.

The general scheme of the earlier editions has been retained, a few alterations only being made in the arrangement of the subject matter. The tables of statistical data, which form a character-

istic feature of the work, are, in many cases, extended to include those for the year 1925. Ample reference is made to such recent developments as the manufacture of methanol from carbon monoxide and hydrogen, but in certain cases, for example, the preparation of absolute ethyl alcohol by the benzene process, more detailed description seems desirable.

In general the proofs have been carefully read, but obvious slips, all of which appeared in the preceding edition, occur in the table on p. 262 and on pp. 16, 79, 89, 585, and 595. No index is provided, but a complete index to the volume on organic chemistry is to be supplied with Part 2, which is already in the hands of the printer.

The steady demand for new editions is evidence of the welcome reception accorded to the book, and the price is commendably low. T. H. P.

### Photographic Technique.

*La Technique photographique.* Par L.-P. Clerc. Tome second. Pp. xxi-xxxvi + 461-850. (Paris: Paul Montel, 1927.) 2 vols., 90 francs.

THE first volume of this work was noticed a short time ago (*NATURE*, Aug. 20, p. 256), and this second is in every sense a continuation and completion of it. The pages in the two volumes are numbered consecutively throughout and at the end is an index to the whole. The subjects included in this second volume are the various printing methods, classified according to whether the sensitive compound is a salt of silver, a salt of iron, or a chromate; these are treated of in considerable detail. The last section includes methods of reproduction, enlarging, projecting images (lantern slides), stereoscopic work, and photography in colours. Then follow shorter chapters on cinematography, photo-mechanical processes, and radiography. The first appendix is a chronology of processes and their applications, and the second appendix is a bibliography classified according to subjects. Thus the two volumes form a complete treatise on technical photography from the general point of view, and the large experience that M. Clerc has had, and his painstaking study of the subject, are a sufficient guarantee of trustworthiness and wise selection. As we remarked with regard to the first volume, the figures are all illustrative and nearly all seem to be original, but we think that the number in the second volume might have been somewhat increased with advantage. Taking the work as a whole, it is much to be commended as a rather large general manual of the subject.

C. J.

*Photographic Facts and Formulas.* By E. J. Wall. Pp. vii + 386. (London: Chapman and Hall, Ltd., 1927.) 16s. net.

PROBABLY every earnest student has a method of making extracts and cuttings relative to the subject that he studies, and of classifying them for ready reference. This volume is a reprint of such a collection put into a convenient form to meet the needs of the average photographer. It goes rather