ably and when the book comes out he could appropriately name it "Metaphysics."

W. F. MAGIE

PRINCETON, N. J.

ANHYDROUS ALUMINUM CHLORIDE

Anhydrous Aluminum Chloride in Organic Chemistry. By CHARLES ALLEN THOMAS. In collaboration with Mary Baluk Moshier, Herbert E. Morris and Ross W. Moshier. American Chemical Society Monograph Series, No. 87. xiii + 972 pp. New York: Reinhold Publishing Corporation. 1941. $15.00.

AT last there is available a real encyclopedia of the manifold uses of anhydrous aluminum chloride in organic chemistry. Excellent monographs and review articles by Calloway, Groggins, Kränzlein, Montagne, Nenitzescu and others, have appeared within recent years, and have been most helpful, but nothing which has attempted to cover the field with the comprehensiveness and thoroughness of the present volume. Its author and his collaborators have rendered to all organic chemists a service which is sure to receive their grateful appreciation and sincere commendation. As the most complete and up-to-date handbook of the subject, it should be in the chemical library of every educational and research institution concerned with the field of organic chemistry, as well as of those corporations whose industries depend in any way upon the use of anhydrous aluminum chloride.

When "anhydrous aluminum chloride" is mentioned to an organic chemist, there rise instinctively and immediately before him the well-known and ubiquitous "Friedel-Crafts Reactions," and 378 pages of the volume are devoted to syntheses based upon such reactions. It is entirely fitting, therefore, that a portrait of Charles Friedel appears as the frontispiece, and one of James Mason Crafts upon page 76, and that a brief historical sketch (7 pp.) of these two distinguished chemists follows an excellent summarized and generalized introduction.

In addition to the pages occupied as noted above, separate chapters are devoted to the Physical Properties of aluminum chloride (45 pp.); the Mechanism of the Reactions Catalyzed by it (20 pp.); Addition Reactions (140 pp.); Aldehyde Syntheses; Aromatic Halogenation; Dehydrating Condensations (32 pp.); Dehydrogenation Condensations and Reduction Phenomena (20 pp.); Miscellaneous Condensations (20 pp.); Aromatic Rearrangements and Migrations (24 pp.); Effect of Aluminum Chloride on Aromatic Compounds (22 pp.); Aluminium Chloride in Aliphatic Chemistry (60 pp.); Polymerization (26 pp.); Aluminum Chloride in the Petroleum Industry (23 pp.); Preparation, Manufacture and Purification of Aluminum Chloride (24 pp.); and Notes on the Application of Aluminum Chloride (storage, transportation, particle size, etc.). In addition to complete author and subject indexes, there is an index of some 1,400 U. S. and foreign patents. References to the original literature appear throughout the text, the total number of such citations amounting to several thousand.

Paper, binding and presswork are up to the usual high standards of the publishers.

The two main purposes of the American Chemical Society Monograph Series are stated to be: (1) to present the knowledge available upon the chosen topic in a form intelligible to those whose activities may be along a wholly different line, to the end that other chemists may realize how closely their own investigations may be connected with other work which on the surface appears far afield; and (2) to promote research in the branch of science covered, by furnishing a well-digested survey of the progress already made, and by pointing out directions in which investigation needs to be extended. Both of these purposes are well served in this latest addition to the series.

MARSTON T. BOGERT

COLUMBIA UNIVERSITY

SCIENCE TWENTY-FIVE YEARS AGO

BOTANY AS A NATIONAL ASSET[1]

IN connection with the organization of the National Research Council, I feel that American botany is offered a great opportunity of which we should take advantage. As a member of the council I wish to acquaint you with its purpose, so far as botany is concerned. Since the organization of the council was stimulated by the desire to develop a program of national preparedness, the natural first impression would be that, so far as botany is concerned, it is merely the problem of more efficient food production and distribution. This would stamp the enterprise at once as a problem of practical agriculture, in connection with which botanical investigators who are dealing with the fundamental problems of plants would have little or no part. Nothing is further from the intention of the council. The chairman has recently outlined the work of the council briefly as follows:

[1] Concluding part of the presidential address before the Botanical Society of America, given in New York in December, 1916, and printed in the issue of SCIENCE for March 9, 1917.