SCIENTIFIC BOOKS

Electroanalysis. By Edgar F. Smith. P. Blakiston's Son and Co., Philadelphia. 1918. Pp. 344, 47 figs.

This book is so well known that a brief mention of the fact that a new, sixth, edition of this national standard had appeared would suffice. Compared to the fifth edition which appeared in 1911, a number of additions to the text have been made, so that "in its present form there is presented the most recent and complete picture of the subject to which the book is devoted." "The book brings together all that has been found reliable, by the test of experience and offers simultaneously the latest results gathered in recent years from widely removed centers.''

The first edition of the book appeared at Philadelphia in 1890 and comprised 116 pages. In reviewing the book at that time Ira Remsen wrote:

> Chemists will find this little book an excellent guide to a knowledge of the methods of quantitative analysis by electrolysis. As the author has himself contributed not a little to our knowledge of these methods, he is especially prepared for a work of this kind.

Up to 1890 text-books on analytical chemistry paid very little if any attention to electrolytic methods. The appearance of Dr. Smith's book marked the opening of a new era in quantitative analysis. The book was welcomed by chemists throughout the country and abroad and within a very few years thousands of determinations were annually made by electrolytic methods.

In 1901 Smith and his students, notably F. F. Exner, introduced the rotating anode with high currents and high voltages. Determinations which had formerly required two to four hours were reduced to five to ten minutes —and the quantities that could be accurately determined were more than threefold the quantities by the older methods.

The adoption of electroanalytic methods has been so rapid and so widespread that to-day it is hard to find a laboratory that does not include a complete outfit for electrolytic determinations. Apparatus builders are now placing upon the market standard equipments, saving much time and expense.

The wide scope of the book as it appears to-day is evident from the following brief summary of the contents: The first part of the book is devoted to the selection and description of suitable apparatus, a historical sketch and a very clear outline of the important underlying theories. The second or special part of the book (about 250 pp.) is devoted to the determination and separation of metals, halogens and nitric acid; the use of the mercury cathode; the electroanalysis of natural sulfides, arsenides, chromite, etc. Among the most recent additions to the text may be mentioned the paragraph on the use of Gooch's platinum-coated glass in place of solid platinum, the quantitative determination of cobalt as Co_3O_4 from ammonium fluoride-nitric acid solutions; and the description of the improved double mercury cup in which "hundreds of halides have been successfully analyzed."

One of the characteristic features of Smith's book as compared with other books on analytical chemistry, is the inclusion in the text of tables recording in detail actual experiments carried out according to the methods suggested. Of interest and value, furthermore, are the detailed literature references, a welcome guide to all who care to investigate the subject more fully. There is no attempt made to supply a "recipe" for every determination and every separation. Where accurate methods have not yet been propounded it is frankly acknowledged that such are lacking. Perhaps, too little space is devoted to the rotating cathode, used to advantage at times in place of the rotating anode. In a number of the large commercial laboratories the rotating cathode has been chosen in preference to the rotating anode on account of simplicity of mechanical layout.

The subject matter throughout the book is presented in so masterful a style that it can not fail to inspire confidence not only in the young student but also in the analyst of "many and varied experiences." To the student, the teacher and the analyst the book is an indispensable guide. As a chemical publication

Smith's "Electroanalysis" will always remain one of the American classics.

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REPORT OF THE COMMITTEE ON GENERIC TYPES OF THE BOTANICAL SOCIETY OF AMERICA

AT the recent meeting of the Botanical Society of America at Baltimore the appended report was submitted. The proposed regulations for fixing generic types were accepted with the suggestion that they be published and distributed among botanists for their consideration. These regulations, being a part of a proposed Code of Nomenclature, should await the formulation of the latter for final adoption. The second part of the report, dealing with the Permanent Committee on Nomenclature, was adopted and the action recommended was authorized.

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REPORT OF THE COMMITTEE ON GENERIC TYPES

At its last meeting the society authorized the president to appoint a committee of three upon Generic Types. The members appointed were N. L. Britton, A. S. Hitchcock (chairman) and B. L. Robinson. Dr. Robinson declined to serve and it was found impracticable to obtain a representative from the Gray Herbarium. The remaining members, after some preliminary work, felt that it would be desirable to have the committee enlarged to represent a wider field of American botany. They therefore asked the incoming president, Dr. Trelease, to appoint J. M. Greenman as the third member of the committee and to add two other members, Leroy Abrams and Witmer Stone. The president felt that he did not have authority to enlarge the committee but suggested that the committee ask Messrs. Abrams and Stone to cooperate with it. This was done and these two have served on the committee as if they were members, and the report herewith submitted has received their approval. The committee, as now constituted, represents botanical institutions at Washington, New York, St. Louis, Philadelphia, and on the Pacific Coast.

The members of the committee were first asked to indicate their attitude toward the question of type species. Should the application of generic names be determined by type species; or should a generic name be applied to a generic concept independent of particular species?

The prevailing opinion being in favor of type species, there was sent to the members of the committee, a circular outlining the methods which might be used for selecting type species. Wishing to obtain advice and cooperation from competent botanists throughout the country the circular was sent to about fifty members of the Botanical Society.

It was overwhelmingly established that the botanists were in favor of the two fundamental principles: (1) The application of generic names shall be determined by type species; (2) The type species shall be the species or one of the species included in the genus when originally published (publication of genera of seed plants dating from the issue of Linnæus' "Species Plantarum" in 1753). In addition the opinion was prevailingly in favor of rules approaching those finally agreed upon by the committee.

Circular 5 contained a set of proposed regulations for fixing generic types and a few minor changes were made, resulting in the regulations as included in our report.

The committee makes two recommendations, (1) the adoption of a set of regulations for fixing generic types, and (2) the appointment of a permanent committee on nomenclature.

REGULATIONS FOR FIXING GENERIC TYPES.

INTRODUCTION

Rules of nomenclature should commend themselves as being reasonable and they should be as definite in their application as is consistent with reasonableness. In preparing the regulations the committee consulted other codes of nomenclature, the most important of which are the following: