

Hansen method of isolation, produce on potato agar and on sterile straw, pycnidia and pycnospores like those found growing with the perithecia on the wheat plant.

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SCIENTIFIC BOOKS

A BRIEF SURVEY OF SOME RECENT CHEMICAL LITERATURE

NOTWITHSTANDING the extraordinary demands which have been made upon the chemists of this and other countries during the recent years, there has been a considerable number of contributions to chemical literature. It has, however, also been a period in which reviewers were difficult to secure and the editor's table has accordingly been filled with an accumulation of material which the writer has been asked to pass in brief review. He has regretfully to confess to responsibility for a further considerable delay in the accomplishment of the undertaking. As a result, a number of the titles mentioned below will be recognized as already familiar; but it may, nevertheless, be useful to recall them.

In the field of inorganic chemistry Alexander Smith's "Inorganic Chemistry" (The Century Co.) has appeared in its third edition, in which the well-known character of that work is strictly maintained, the changes being chiefly those of amplification. Other standard texts which have recently appeared in revised form are: Holleman-Cooper's "Text-book of Inorganic Chemistry" (5th edition, John Wiley & Sons); Newell's "Inorganic Chemistry for Colleges" (D. C. Heath & Co., 2d edition), and Cady's "Inorganic Chemistry," which has appeared in a simplified form, under the title "General Chemistry" (McGraw-Hill Book Co.). In none of these has there been any marked change in the manner in which the subject is treated. Professor H. G. Byers, of the University of Washington, has contributed an interesting new volume ("Inorganic Chemistry," Charles Scribner's

Son's) which is more or less frankly constructed along the lines of Alexander Smith's texts, and, in scope, lies between his "College Chemistry" and the larger work mentioned above. It is rather a pity that the publishers saw fit to dress this material in a garb so exactly like that of Professor Smith's books that, in appearance of the printed page, the books are indistinguishable, which creates an unwarranted impression of reproduction of material, in view of the general similarity of treatment.

In the "Principles of Chemistry" of Dr. Joel H. Hildebrand (The Macmillan Co.) there is to be found a volume which has real freshness and originality of treatment of its subject matter. With a minimum of descriptive matter, for which the student is referred to existing texts, the fundamental concepts are clearly stated and well illustrated for beginners. The book contains much for the consideration of thoughtful teachers.

Two texts for secondary schools are to be found in the editor's collection, one by Dr. B. W. McFarland, of New Haven ("A Practical Elementary Chemistry," Charles Scribner's Sons), which presents a thoughtfully arranged course of instruction in which the laboratory forms the central feature, and another by Charles E. Dull, of Newark ("Essentials of Chemistry," Henry Holt & Co.), which has appeared since the beginning of the war and in which particular stress is laid on the importance of the science, through the use, as examples, of the chemistry of common things.

Laboratory manuals to accompany the texts of Newell and of Byers have been issued by the publishers of these texts; also one to accompany the well-known text-book of McPherson and Henderson (Ginn & Co.). Other manuals by W. A. Noyes and B. S. Hopkins (Henry Holt & Co.), W. J. Hale (The Macmillan Co.) and W. M. Blanchard (D. Van Nostrand Co.) make no reference to any specific text. All of these manuals are carefully prepared, and while each has some particular points of excellence, the material is presented along well-recognized lines. The "Laboratory Study of Chemistry," by H. R.

Smith and H. M. Mess (Henry Holt & Co.), on the other hand, is out of the ordinary. The authors combine with the directions for experimentation a large amount of interesting information, much of which is not to be found in the ordinary text-books, but which should serve to awaken scientific curiosity and stimulate interest in the work itself. The scheme of instruction as laid down is exacting and calls for teaching of a high order. Whether or not one cares to adopt the procedure as a whole, the book will be found to be full of helpful suggestions and well worth study.

In the field of organic chemistry, the well-known "Organic Chemistry for Advanced Students" of Professor J. B. Cohen (Longmans, Green & Co.) appears in a second edition, in which the material formerly included in two volumes is divided into three, dealing, respectively, with "Reactions," "Structure" and "Synthesis," with the purpose of grouping together to better advantage allied subjects and affording a more logical sequence. The rearrangement of the subject matter has given opportunity to bring the material up to date, and the new volumes seem to fully maintain the standard of the earlier edition as one of the notable works on organic chemistry. The book is written for advanced students and is not designed to have the sort of completeness which belongs to a work of reference, although these volumes will be found valuable in that respect as well. Professor Cohen had also prepared somewhat earlier a "Class-book of Organic Chemistry" (The Macmillan Co.) designed for medical students, and others who are not intending to make chemistry a profession, which merits attention as a carefully planned and simplified course.

Professor J. T. Stoddard's "Introduction to Organic Chemistry" (P. Blakiston's Son & Co.) has appeared in a second edition and Professor E. P. Cook has prepared a little manual entitled "Laboratory Experiments in Organic Chemistry" to accompany it. Both are characterized by a simplicity and directness of statement which is welcomed by beginners.

Among the text-books on analytical chemistry which have appeared during the last few years are to be found several new editions of well-known works. These include a fourth English edition of Treadwell-Hall's "Analytical Chemistry, Volume II., Qualitative Analysis" (John Wiley & Sons), a standard authority; a sixth edition of A. A. Noyes' "Qualitative Analysis" (The Macmillan Co.), a manual based upon what is, perhaps, the most painstaking and thorough series of investigations ever undertaken as a background for the perfection of analytical procedures; and a second edition of Mahin's "Quantitative Analysis" (McGraw-Hill Book Co.), a manual which has already received deserved recognition. A less familiar manual which is in its second edition is that by Edmund Knecht and Eva Hibbert, entitled "New Reduction Methods in Volumetric Analysis" (Longmans, Green & Co.). It is of the nature of a monograph, dealing almost wholly with the applications of titanous chloride as a quantitative reducing agent. Other recent works in their first editions include an "Elementary Qualitative Analysis" by Professors Dales and Barnebey (John Wiley & Sons), a straightforward presentation of the subject, but without striking features; "Methods in Metallurgical Analysis," by Professor C. H. White, a work of somewhat uneven merit (D. Van Nostrand Co.); "An Advanced Course in Quantitative Analysis," by Professor Henry Fay (John Wiley & Sons), another manual based upon a long series of investigations; and a "Volumetric Analysis," by A. J. Berry (Cambridge University Press, England), a manual prepared for a college course in analytical chemistry, in which the general discussion of the subject appears to excel the directions for analysis.

Teachers of stoichiometry are already familiar with Dr. R. H. Ashley's "Chemical Calculations" (D. Van Nostrand Co.), of which a second edition has recently appeared. Errors have been corrected, but no change has been made in the subject matter.

Along the lines of what is commonly known as physical chemistry, the editor's collection

included the following: "Outlines of Theoretical Chemistry," by Dr. F. H. Getman (John Wiley & Sons), which is in its second edition and has been revised and enlarged, notably with respect to atomic structure, colloids, electromotive and photochemistry which has, no doubt, added to the usefulness of a work already respected. The literature relating to colloids has been extended by a second edition of Dr. M. H. Fischer's translation of Wolfgang Ostwald's "Handbook of Colloid-Chemistry" (P. Blakiston's Son & Co.), to which "Notes" have been added by Emil Hatschek, but without essential change in the nature of the material. A further new work is that entitled "The Chemistry of Colloids," by Dr. E. B. Spear (John Wiley & Sons), Part I. of which is a translation of Zsigmondy's "Kolloid-chemie," and Part II. is on "Industrial Colloidal Chemistry," written by Dr. Spear, with a chapter on "Colloidal Chemistry and Sanitation," by Dr. J. F. Norton. The subject is brought up to date in an easily readable fashion and is of interest to both the general and technical reader. Dr. F. P. Venable in his "Brief Account of Radio-activity" (D. C. Heath & Co.) has contributed in about fifty pages an entertaining and somewhat popularized summary of the phenomena of radio-activity and their influence upon our notions of atomic structure.

The editor's table contained but one volume on industrial chemistry, now become familiar, namely, Dr. Allen Roger's "Elements of Industrial Chemistry" (D. Van Nostrand Co.), an abridgment of the larger work by Rogers and Aubert. Both have an established place in chemical literature.

The fact that Dr. Phillip B. Hawk's "Practical Physiological Chemistry" (P. Blakiston's Son & Co.) has reached its sixth edition is sufficient evidence of its usefulness in "schools of medicine and science" for which it was written. The entire work has been revised and brought up to date.

"The Chemistry of Farm Practice," by T. E. Keitt, which is included in the Wiley Technical Series, has for its purpose the imparting of a "knowledge of the fundamental

chemistry required for intelligent agriculture" and its applications to the art and to the problems of the agriculturist. The story is told in non-technical language. In the same field there has appeared a "Laboratory Manual of Agricultural Chemistry" by Hedges and Boyant which is apparently a useful little book for agricultural institutions, although open to some criticism as to the accuracy of some of its methods for the standardization of volumetric solutions.

A distinct contribution to contemporary literature is to be found in Dr. F. J. Moore's "History of Chemistry" (McGraw-Hill Book Co.), a volume which holds the interest alike of the layman and the scientist, and deals with its subject in a scholarly fashion.

In line with the current effort to supplant German reference works by English equivalents, "The Chemist's Year Book" for 1918-1919, edited by F. W. Atack (Sherratt & Hughes, London), is worthy of note. The present is the fourth edition of this work and is the result of a thorough revision of the last edition. It seems to deserve a place in all laboratories and libraries.

Finally, and again in line with the trend of the times, is a volume entitled "Chemical French" by Dr. Maurice L. Dolt (Chemical Publishing Co.). The author seeks to enable students who have little or no previous knowledge of French to read chemical literature in that language through the medium of this volume and, accordingly, includes instruction in grammar in the earlier portions. The latter portion is devoted to selections from standard and current journal literature. The book contains 398 pages, a length which seems to be somewhat out of proportion in an auxiliary work of this sort; otherwise it is likely to render real service.

H. P. TALBOT

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,

ORGANIZATION OF THE AMERICAN SECTION OF THE INTERNATIONAL GEOPHYSICAL UNION. II

The first general meeting, for preliminary organization, of the American Section of the