tion of the volume is devoted to the hydrolases (carbohydrases, nucleases, and amidases). This section continues on into Volume III, without a break, to take up the proteases and "thrombase" (including a discussion of blood coagulation).

Volume III then goes on with the desmolases, including a lengthy discussion of alcoholic fermentation. Following this are found chapters on a wide variety of enzymes which participate in oxidation-reduction reactions, including such typical representatives as the cytochromes, peroxidase, catalase, and hydrogenase.

The latter part of Volume III is devoted to lengthy sections on assimilation in plants and bacteria, antienzymes, model enzymes, the place of enzymes in medical chemistry (including cancer), and finally, a large section on the industrial uses of enzymes. Included in the more than 200 pages devoted to this subject are discussions of such representative topics as the use of enzymes in the baking, fermentation, fat, milk, and pharmaceutical industries.

Volume IV, as mentioned above, is largely made up of a bibliography of over 6,000 references, some of them referring to early 1940 literature. The inclusion of many references under subnumbers, obviously added at a later date, indicates the effort of the authors to make these volumes completely up to date. Included also are complete author and subject indexes and, finally, three pages of corrections.

This set of four volumes represents an extremely valuable addition to the chemical literature. It is essentially a compendium of information, no effort having been made to be critical of the cited literature. To the enzyme chemist, as well as to the general biochemist, it is well worth possession.

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A textbook of bacteriology and immunology. **Joseph M. Dougherty and Anthony J. Lamberti. St. Louis: C. V. Mosby, 1946. Pp. 360. (Illustrated.)**

This small, attractively bound book is described in the Preface as an effort "to simplify the various phases of bacteriology and immunology, for the purpose of securing the interest and enthusiasm of the average student." The guiding philosophy is stated as "the resolution of all difficulties from the viewpoint of the student." Bacteriology and immunology are covered in only 313 pages; a section of 31 pages on parasitic protozoa follows. The text is written in a clear, straightforward style, and there are especially helpful chapters on the microscope, quantitative titrations, and the blood. Otherwise, the book generally follows outlines that are traditional.

Unfortunately, a considerable amount of the limited textual material is given over to technical directions for laboratory work, and still more space is devoted to descriptions of the older rather than of the newer concepts of microbiology. Attention to historical matters, and omission of much relatively new information, is especially noticeable in the chapters on the pathogenic microorganisms and on immunity. For example, no mention is made of active immunization against tetanus. In the immunology section the diagrams showing Ehrlich's side-chain theory, which were so conspicuous a feature of early treatises on immunity, are reproduced. The reviewer had never again expected to see these pictures in a modern textbook or to find the inaccurate ideas prevailing in the infancy of immunology again set forth in detail. At the same time, the basic physicochemical phenomena now recognized as actually responsible for *in vitro* antigen-antibody reactions are not clearly described. The fundamental subject of hypersensitivity is not discussed at all, and although there are separate chapters on filtrable viruses and on rickettsiae, nothing is said about such common virus infections as measles, influenza, or encephalitis, or about endemic (flea-borne) typhus.

The reviewer is in sympathy with the commendable aims of the authors to present a brief text that promotes the cultural values inherent in the study of bacteriology and that simplifies matters so that the average student can easily comprehend them. This book, however, omits so much of the newer, significant knowledge that it leaves the reader with an inadequate understanding of various phases of up-to-date microbiology. Even so, it does succeed in condensing much useful information and doubtless will appeal to undergraduate students, for whom it was designed.

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The Svedberg, 1884–1944. **A. Tiselius and Kai O. Pedersen. (Eds.) Uppsala, Sweden: Almqvist and Wiksells, 1945. Pp. 731.**

This is a contribution to commemorate the 60th birthday of the distinguished Swedish scientist, The Svedberg. There are 55 chapters or papers (mainly in the field of chemistry and chemical engineering) by 70 authors: 37 papers are in English, 11 in German, 5 in Swedish, and 2 in French. Because this volume was projected and prepared during the war years when free communications with colleagues in other lands were difficult, if not impossible, all but two of the authors are Swedes, although Dr. Svedberg's great contributions to chemistry and to chemical industry are known the world over. Some of the chapters give us glimpses of Dr. Svedberg's challenging life and extraordinary labors and achievements. Hardly anything makes Dr. Svedberg as happy as "planting a young seedling and watching it grow."

This volume, published by the aid of 21 Swedish industrial organizations in honor of an outstanding scientist in the field of chemistry and chemical engineering, is a reminder that the size of a country is no measure of the caliber of that country's citizens, be they scientists or statesmen.

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