Book Reviews

Antiseptics, Disinfectants, Fungicides, and Chemical and Physical Sterilization. George F. Reddish, Ed. Lea & Febiger, Philadelphia, 1954. 841 pp. Illus. $15.

This new treatment of antimicrobial agents appears as a worthy successor to McCulloch's *Disinfection and Sterilization.* Like its predecessor from the same publisher, Reddish's book should become a standard and useful reference in its field.

The scope of the book is indicated by its eight parts: introduction; methods of testing; antiseptics; disinfectants, fungistats and fungicides; preservatives; chemical and physical sterilization; and pasteurization. "The grouping of the chapters in their respective categories," prefaces the editor, "has been somewhat of a problem." Thus, the part on antiseptics is subdivided on the bases of both chemical families (mercurials, alcohols, and so forth) and uses (surgical antiseptics, antiseptic powders, virucidal agents, and so forth). However, the major established subject areas that have been selected, exclusive of antibiotics and other chemotherapeutic drugs, are well covered. A separate chapter is accorded sterilization by ionizing radiation, although nonionizing radiation, sonic oscillation, desiccation, pressure, and other developmental or minimally important areas are relatively neglected.

The 30 contributors, one half from commercial organizations, give the diversified subject matter an authoritative treatment unattainable by a single author. The prefaced promise and excellent example in text of the editor for "interpretations and evaluations of the subject matter by each contributor" unfortunately are not always followed, and several chapters are preponderantly documentary.

The inclusion of comprehensive treatment of terminology and methodology should lead toward standardization where it is sorely needed. General agreement on definition of terms, not only by the 30 representative contributors, but also by several leading organizations to which the chapter was submitted prior to publication, should go far toward dispelling the vagueness and varied use that have clouded such words as *antiseptic.* Pertinent methods of testing are presented in detail and are evaluated. The phenol coefficient test receives deserved but fair criticism: "impractical and unscientific" for nonphenolic disinfectants, "meaningless" for skin antiseptics, but "still satisfactory for the testing of phenol-like compounds for use on inanimate objects."

The book is organized, and should find its greatest usefulness, as a handbook for practical application of antimicrobial agents. For this there is a very definite need. To the reviewer, however, it falls short in not interpreting, either critically or comprehensively, the physiological action of these agents. But one short chapter is devoted specifically to theory and this primarily to consideration of the genetic basis of resistance. Some chapters (for example, phenolics) fail entirely to consider mechanism of action and others do so superficially. Even the chapter on thermal resistance of microorganisms is devoted primarily to quantitation of death and dismisses basic mechanism of hydrothermal death in a short paragraph. In these respects, the science of the subject has given way to technology.

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The Chemical Structure of Proteins. Ciba Foundation Symposium. G. E. W. Wolstenholme and Margaret P. Cameron, Eds. Little, Brown, Boston, 1954. xii + 222 pp. Illus. + plates. $6.

This book includes the papers and verbatim records of questions and discussions that ensued at a symposium held 1–3 Dec. 1952. The report is a mine of practical information for anyone concerned with the actual operations of research on its subject. This results from the very practical level of presentation and discussion. The subjects discussed include methods of fractionation for proteins, amino acids, and peptides; C-terminal and N-terminal amino acids; methods of cleavage of peptide chains (chemical and enzymatic); acyl migrations within a peptide chain; the peptides of tissues as well as those derived from proteins by partial hydrolysis; the structure of protamines and the relationship of electron optical and chemical studies of collagen.

The difficulties and disappointments that have come to the reporters appear along with the triumphs. Pathways with no visible outlet are explored for some distance, and some of the obstacles to progress are assayed. The participants obviously were delighted to have arrived at the same point along different paths and were at a loss to understand why this meeting did not always occur.

The 16 formal papers range from 4 to 17 pages, and the discussion records occupy 2 to 4 pages each. The papers are simple in form and are as easily read as any collection on this subject. The presentation is quite topical, for practically every author emphasizes as much of what he hopes to do (and has by now attempted) as what has been done.

The permanent value of the publication is likely to be inspirational rather than definitive, for it tells the story of developing method and understanding. It is regrettable that 15 months were needed to bring the report through the press. Editing and manufacture are well done, but perhaps a less costly form would have been appropriate to insure a wider distribution among those who would benefit most from owning the book.

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