

fever, and is known as the Widal-Grüber test. The book of Rostoski contains the details of the test, and a critical review of the value and of the limitations of its application. Special attention is given to the relation of typhoid serum to paratyphoid micro-organisms, and it is justly urged by the author that in all cases of suspected typhoid the serum of the patient should be tested not only with the cultures of typhoid, but also with those of paratyphoid.

The technique of the test has recently been improved in such a manner that living micro-organisms are not longer needed for it. Thus it can be performed by every physician to whom the facilities of a laboratory are not accessible.

Also the details of these improved methods are given in the book.

Attempts were also made to apply the test for early diagnosis in tuberculosis. However, the nature of the micro-organism is so different from any other one that at present very few authors recommend the application of the agglutination test for this purpose.

In the course of plague, cholera, dysentery, paradysentery, glanders and many other diseases, the serum does develop bactericidal or agglutinating properties. Such sera have found application for the identification of the individual micro-organism, but thus far are of little value for clinical purposes.

In a special chapter the mechanism precipitating formation is described, and the forensic test of human blood is given in great detail.

In addition to the translation of the German text, Dr. Balduan has added Wilson's study of Grüber-Widal's reaction, containing a set of drawings illustrating the microscopical appearance of the reaction.

P. A. LEVENE.

THE TEXTILE FIBRES: THEIR PHYSICAL, MICROSCOPICAL, AND CHEMICAL PROPERTIES. BY J. MERRITT MATTHEWS, PH.D., Head of Chemical and Dyeing Department, Philadelphia Textile School. New York; John Wiley and Sons. 8vo. vii + 288 pages, 69 figures. Cloth. Price, \$3.50.

The publication of this book may be looked upon as an event worthy of record in the annals of textile literature. In our textile libraries will be found many volumes contributed from Germany,

France and England, but American publications along this line, possessing scientific merit, are comparatively rare. This American publication will, therefore, be received by many with interest and satisfaction. The author has succeeded in presenting the important facts in regard to the textile fibers, which have been discovered and noted by previous investigators and writers, together with many observations of his own, in a well-written and well-illustrated volume. The first chapter is devoted to the classification of the fibers. The source and properties of the various fibers and their action with chemical reagents is then discussed with detail, and their chemical composition is given as far as is known at the present time. A chapter is devoted to the mercerization of cotton and another to artificial silk. The book concludes with a discussion of the qualitative and quantitative analysis of the textile fibers. This analytical portion constitutes nearly a quarter of the book and is one of its most valuable features, and will undoubtedly prove a great aid to the textile chemist in solving the problems which often confront him.

The statement, "The subject of textile fibers has been lamentably neglected by chemists," made by the author in his preface is unfortunately too true, for the study of the physical properties of the textile fibers has been carried much farther than their investigation from a purely chemical point of view. Many important and unsolved problems present themselves along this line, and it is hoped that this book will prove to be an incentive, as well as an aid, to their future investigation. L. A. OLNEY.

LECTURES ON IRON FOUNDING. BY THOMAS TURNER, Professor of Metallurgy in the University of Birmingham. London: Griffin and Company; Philadelphia: J. B. Lippincott and Co. 1904. 136 pp. Price, \$1.50.

The book embodies a course of five lectures delivered at the School of Metallurgy of the University of Birmingham. The author discusses very concisely and in an interesting manner the fundamental facts as to the metallurgy of cast iron. The lectures deal consecutively with the following subjects: "Blast-furnace construction and practice, and the chemistry of the process"; "Iron founding"; "The relationship between chemical composition and physical properties of cast iron." The chemistry of the subject is made a leading feature of the book. In all metallurgical literature it is difficult to find a work which deals more concisely