

ment seems to be the favorite application. Sometimes chancroids are excised by means of the knife or scissors, occasionally Ricord's paste is employed.

#### REVIEW.

*A Manual of Histology.* Edited and prepared by THOMAS E. SATTERTHWAITE, M.D., of New York, in association with fifteen other known authorities, with one hundred and ninety-eight illustrations. 8vo. pp. 478. New York: W. Wood & Co., 1881. Montreal: Dawson Bros.

This volume represents the work of American histologists, and may fairly claim in more than one respect to be purely American in its character, proving that there are many thoughtful minds in this country eminently fitted to make original and independent histological investigations. Taking the form of a text book it will be found to contain all the essential facts usually described in works of a like nature. The editors treat their subjects in a thorough practical manner, avoiding unnecessary details so as to keep their work within reasonable bounds, and, therefore, they have developed a book which will be valuable to the student of histology. That the authors have been successful in their efforts causes no surprise, as the majority of them are practical teachers, and, therefore, conversant with the subject in all its details. The chief editor has wisely omitted the subject of optical principles and details of microscopes, etc., which usually in kindred works occupy too much space; inserting only such information and methods of working as are absolutely required, and with which the student must be familiar if he expects to be successful in his examination of the various tissues. Of the illustrations more than one hundred are original, the balance being copied from other works; they are for the most part clear and well defined. Each chapter is accompanied by a Biographical Index which forms a very useful guide to the literature of the various subjects. Dr. Satterthwaite is responsible for the first nine chapters. The apparatus required, use of the microscope and the methods of preparing objects are explained, so that no one should fail to successfully perform the mechanical portion of his investigations. The blood is very thoroughly treated in chapter III., and in the next epithelium. Chapters V., VI. and VII. include the connective substance group, comprising the Mucous, Fibrous, Adenoid, Bone and other tissues.

Chapter VIII. gives a clear description of the teeth from an histological standpoint, and chapter IX. an extended description of the general histology of the nervous system.

Chapter X., On Muscular Fibres, by Dr. Wright of Harvard University, contains much interesting original matter. Dr. Wenets, New York, in chapter XI. deals with blood vessels and their structure, the endothelial layer being specially described; his views in regard to the latter are that from this layer desquamation takes place as a normal process; that these detached portions on separation resemble ordinary leucocytes, and the nuclei of these cells appearing as free granules in the blood are identical with the bodies known as microcytes or hæmetoblasts.

Chapter XII., The Lymphatic System, by Dr. Birdsall, New York. All the latest information on this most important subject is here presented, and we fully agree with the writer that this system has not as yet received that attention from histologists which its importance should demand.

Dr. Mayer of New York follows in chapters XIII. and XIV. on the liver and biliary apparatus and the kidney. They contain the evidence of the author's ability, the views expressed being the results of personal investigation into the minute anatomy of these organs. Dr. Simes, University of Pennsylvania, devotes the next two to the male and female organs of generation, and Dr. Westbrooke of Brooklyn, one on the respiratory tract. Chapter XVIII. gives much that is original on the skin by Dr. Robinson of Bellevue Hospital. The remaining chapters treat of the following subjects: the central nervous system, the eye, the ear, the nasal fossæ, the mouth and tongue, the alimentary canal, the spleen, pancreas, etc. The thick cutis vera, by Dr. Warren, is now for the first time described as a distinctive portion of the skin; the author's discovery of the fat columns explains certain pathological changes hitherto not much understood—the urinary excretory passages and supra renal capsules. The last chapter is on the mammary gland, and is one of the best descriptions on this subject to be found anywhere.

In conclusion, we consider this volume to be an exceedingly valuable text book; it is practical throughout, and therefore for the purposes of the student well adapted to aid him in his studies. We have no hesitation in recommending our readers to give it a place in their libraries.