

tions in half-tone and line. The photographs are of very unequal value, and it would have been better if the author had given some indication in cases where they had been retouched. The line-drawings are better, except those of the tribal marks, the value of which is impaired by over-reduction. The principal criticism, however, that may be brought against the illustrations as a whole is that they have very little organic connection with the text.

PHYSIOLOGICAL PATHOLOGY.

A Text-book of Pathology for Students of Medicine. By Dr. J. George Adami and Dr. John Macrae. Pp. x+759+plates. (London: Macmillan and Co., Ltd., 1912.) Price 25s. net.

THE appearance of a text-book of pathology which is intended for the use of medical students, and comprises so many of the admirable features of Prof. Adami's larger work, is a very welcome event. "The Principles of Pathology" has taken its place as the standard work on pathology in the English language, but a system of pathology occupying two large volumes is inevitably beyond the powers of the average student, who is obliged, within a limited space of time, to acquire a reasonable knowledge of the numerous subjects of the final examination. The full and detailed treatment which is accorded to the subject in the larger work is, moreover, unsuited to the student at the outset of his studies in pathology. In spite of the authors' claim that the new book is no mere epitome, we are glad to recognise in an abbreviated form many of the best features of the larger work. The articles on inflammation and on the general pathology of tumours are instances in point.

To the student who has received a sound training in the general principles of the biological sciences this book will make a direct appeal. To the medical student the study of pathology should form the natural sequence to the study of chemistry, of physics, of physiology, and anatomy. A work in pathology should be no mere catalogue of the morbid changes in various organs. The student who has been taught to base his views on conclusions to be drawn from experimental facts will find this method of teaching continued and exemplified in this text-book of pathology. The sections which deal with general pathology are written in a most attractive manner, and afford a delightful introduction to the subject. The portion of the work devoted to special pathology is of necessity somewhat brief. Such omissions as occur will, however, be readily filled by the knowledge derived from a practical experience of the subject.

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The essential object of this work is, we imagine, to afford an introduction to the subject. This object has been successfully attained. To those who merely seek a compressed epitome of morbid anatomy this book is entirely unsuitable.

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VEGETABLE ALKALOIDS.

The Plant Alkaloids. By Dr. T. A. Henry. Pp. vii+466. (London: J. and A. Churchill, 1913.) Price 18s. net.

THE alkaloids of plants have long offered a most interesting and attractive, if always difficult, field of research to both chemists and physiologists. The subtle chemistry of the vegetable cell evolves no objects more fascinating to study than these "vegetable alkalis," as Sertürner first termed them; bodies usually of highly complex chemical structure, and often of appalling potency in their physiological effects. Of the problems which they offer, one in particular—that of their chemical constitution—has received a large amount of attention during the last two or three decades, and much progress has been made with it. How much is perhaps scarcely realised until the results are collected and collated, as in the book under notice, in such fashion that a bird's-eye view of the whole field can be readily obtained. Then the reader notes that "alkaloids of unknown constitution" form only one group out of nine, and that group not a remarkably large one; whilst in the case of several members even of this group—for example, the aconites, colchicum, and ergot—knowledge of their structure is beginning to accumulate.

When, however, the chemical structure of an alkaloid has been elucidated, there yet remains a problem of great general importance, namely, how its chemical constitution is correlated with its action on the animal system. What is the deft arrangement of atoms which confers upon strychnine its tetanising action, convulsing all the muscles of the body; and what, on the other hand, is the arrangement in curare, a drug which paralyzes the motor nerve endings without affecting the excitability of muscle? Many useful observations have been made on this question, but the difficulties are great, and progress slow. A comparatively simple case is quoted where two investigators, after studying the relation between the mydriatic action and the chemical constitution of the tropëines, were forced to the conclusion that no generalisation could be made which would explain all the results they obtained.

Another question which has been much debated is the mode of formation of the alkaloids in the plants. The view mostly favoured is that they,