

as the foundation of that side of medical and surgical practice which is based on a sound knowledge of regional anatomy. The incomplete recognition of the physiological aspect of anatomy is, we think, the weak part of the book, and it is especially shown in the scanty notice which is taken of the action of the muscles and their association with the movements of the joints.

To enable both these lines of anatomical study to be pursued, the student is accustomed to employ at least two text-books; the one in connection with his systematic work, the other as a guide to the dissection of the body. Prof. Macalister apparently expects, as, indeed, he states in his preface, that his text-book should stand in the place of the two customarily employed. We doubt, however, whether this expectation will be fulfilled. For his text-book, in addition to what is essential in topographical description, by containing an account of the microscopical structure of tissues and organs, a section on embryology, and a detailed description of the bones, is necessarily a work of considerable size and weight, and too cumbersome to be conveniently carried to and fro by the student, as is required with a dissecting-room manual. On the whole, therefore, we prefer the old and well-accustomed lines on which text-books have for so long been written, to Prof. Macalister's modified plan.

But whilst expressing our inability to regard the method which has been followed in the descriptive anatomy of the soft parts as an improvement on the customary arrangement of systematic text-books, we recognize with pleasure the clearness of the descriptions and the many suggestive hints, both morphological and practical, which the book contains. The volume is profusely illustrated with upwards of eight hundred wood-cuts, about one half of which are original figures.

#### OUR BOOK SHELF.

*A Treatise on Ordinary and Partial Differential Equations.* By W. W. Johnson. (London: Macmillan, 1889.)

WE have read Prof. Woolsey Johnson's work with some interest: his style is clear, and the worked-out examples well adapted to elucidate the points the writer wishes to bring out. He appears to recognize Boole, but, so far as the text is concerned, does not acknowledge the existence of Mr. Forsyth's fine work. We do not say that he was under any obligation to do so, but nowadays we are so accustomed to see a list of authors upon whom a writer has drawn that we missed it here. "An amount of space somewhat greater than usual has been devoted to the geometrical illustrations which arise when the variables are regarded as the rectangular co-ordinates of a point. This has been done in the belief that the conceptions peculiar to the subject are more readily grasped when embodied in their geometric representations. In this connection the subject of singular solutions of ordinary differential equations, and the conception of the characteristic in partial differential equations may be particularly mentioned." This is certainly the most prominent feature of the early chapters, and it is, to our mind, clearly put before the student. Reference is duly made to Prof. Cayley's work in the *Messenger of Mathematics* (vol. ii.), which initiated the present mode of treatment of the subject, but not to Dr. Glaisher's "Illustrative Examples" (vol. xii.), nor to Prof. M. J. M. Hill's paper (London Math. Soc. Proc., vol. xix.), in which the theorems stated by Prof. Cayley are proved. This paper, though read before the Society, June 14, 1888, may not have reached

the author before his work was in the printer's hands: we do not say that a perusal of it would have called for any further notice than a reference. Symbolic methods come in for their due meed of recognition and employment. The author satisfies himself with referring the student to the table of contents for the topics included and the order pursued in treating them. The work consists of twelve chapters divided up into twenty-four sections: i. (1) discusses the nature and meaning of a differential equation between two variables; ii. (2, 3, 4) equations of the first order and degree; iii. equations of the first order, but not of the first degree, (5) singular solutions (discriminant, cusp-, tac-, and node-loci), (6) Clairaut's equation, (7) geometrical applications, orthogonal trajectories; iv. (8) equations of the second order; v. (9, 10) linear equations with constant coefficients, in (10) symbolic methods are employed; vi. (11-13) linear equations with variable coefficients; vii. (14, 15) solutions in series; viii. (16) the hypergeometric series; ix. (17) special forms of differential equations, as Riccati's equation (due reference is made to Dr. Glaisher's classical paper in the *Phil. Trans.* for 1881), Bessel's equation, and Legendre's equation (reference is made to text-books and memoirs); x. (18-20) equations involving more than two variables; xi. (21, 22) partial differential equations of the first order; xii. (23, 24) partial differential equations of higher order. Examples for practice are added at the end of each section. Though Prof. Johnson cannot lay claim to have made here any additions to our knowledge of the subject, he has produced an excellent introductory hand-book for students, and this, we expect, was the object he proposed to himself in its compilation. We have omitted to state that all use of the complex variable is eschewed.

*The Land of an African Sultan: Travels in Morocco* 1887, 1888, and 1889. By Walter B. Harris, F.R.G.S. (London: Sampson Low and Co., 1889.)

A GOOD deal has been written about Morocco lately, and Mr. Harris's volume is an interesting, although not a very important, contribution to the literature of the subject. He describes first a journey through northern Morocco, then a journey with H.B.M. Special Mission to the court of the Sultan at Morocco city, next a visit to Wazan and a ride to Sheshuan; and in a final chapter he sums up the impressions produced upon him by the Moors and their country. In the chapter on his ride to Sheshuan, he describes a place which had been "only once before looked upon by Christian eyes." Mr. Harris does not pretend to have produced an exhaustive work on Morocco; but he presents clearly what he himself has had opportunities of observing.

*Wayside Sketches.* By F. Edward Hulme, F.L.S., F.S.A. (London: Society for Promoting Christian Knowledge, 1889.)

THIS is a pleasantly conversational book on all sorts of subjects more or less connected with natural history or country life: birds, caterpillars, flowers, snow-crystals, and the forms of clouds, all come in for a share of attention. Without having any scientific pretensions of its own, the book may well serve to rouse a first interest in many branches of science. The numerous illustrations are very good indeed.

#### LETTERS TO THE EDITOR.

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#### Influenza.

THE following paragraph, taken from Sir David Brewster's "Life of Sir Isaac Newton," is not uninteresting at the present time:—