

SCIENTIFIC BOOKS.

Die Elemente der Entwicklungslehre des Menschen und der Wirbelthiere. Von OSCAR HERTWIG. Jena, Gustav Fischer. 1900. 8vo. Pp. vi + 406, mit 332 Abbildungen im Text.

This work is an abbreviated reissue of the author's well-known 'Lehrbuch'—the new work being about one-third the size of its parent. There is otherwise exceedingly little change, for there is no important modification of the general plan or of the style of treatment or in the point of view from which the author treats his subject. There has been no effort at all to recast the work so as to render it more suited to the requirements of embryological study in the laboratory. The text is taken from the 'Lehrbuch,' with here and there modifications of the phraseology, and with connecting new short parts to supply the place of some of the elided portions. The figures are nearly all from the 'Lehrbuch.'

Those who are familiar with the larger textbook will therefore have a very good conception of the character of the new volume and will find again the familiar merits and defects.

The author has been one of the foremost of embryological investigators, confining, however, his original researches to a few fields. On such topics as the history of the genital products he writes with full mastery of the subject, and his fine gift for the understanding of morphological problems, and his rare ability as an expositor, have combined to render all such parts of the volume of the very highest excellence. Unfortunately he seems to have been indifferent to the study of many other aspects of embryological study, and to have been satisfied with a somewhat vague acquaintance with many important parts of the science. This general defect shows very strongly in the absence of original illustrations, and in the fact that a large proportion of the minority of original figures are diagrams. Of these diagrams some are strangely incorrect, as, for instance, those of the development of the middle germ layers and those of veins. These diagrams indicate developmental processes, which are diametrically opposed to the observed facts. Equally unfortunate are his diagrams of the foetal envelopes in birds and in mammals, since they are

in part quite erroneous. As some of the figures are copies after inaccurate originals, there is need for still further revision: thus in Fig. 144, the amnion and chorion are wrongly represented, and the epithelium of the chorion is not only misdrawn but is labeled *decidua reflexa*. There are in the text also deficiencies which would certainly be corrected if the author's study of the embryonic conditions were made to a larger degree at first hand, for example, and notably in the case of the liver, the veins, the thymus, the pharynx and its appendages, the brain and certain other parts.

But though one may regret these and other deficiencies, some of which are very difficult to excuse, it remains true that the book deserves far more praise than fault-finding, and it ought to have a generous and hearty welcome, so that further editions may be called for soon, in which the author will have an opportunity to make the much-needed improvements. It is with regret that the reviewer finds himself obliged to qualify his recommendation of a work which he has found very helpful and stimulating.

C. S. MINOT.

Studies of American Fungi: Mushrooms, Edible, Poisonous, etc. By GEORGE FRANCIS ATKINSON, Professor of Botany in Cornell University, and Botanist of the Cornell University Agricultural Experiment Station. Andrus & Church, Ithaca, N. Y., U. S. A., publishers. 8vo. Pp. i-vi, and 1-275, with 76 plates and over 150 text illustrations. Price, \$3.00, postpaid.

In the publication of this book, which has just come from the Genesee Press, Rochester, N. Y., it seems desirable that the author should call attention to some of its features, the importance of which might at first be overlooked. In this connection it may not be out of place to first make some general statements regarding the book, a few of which are adapted from the introduction.

Since the issue of my 'Studies and Illustrations of Mushrooms,' as bulletins 138 and 168 of the Cornell University Agricultural Experiment Station, there have been so many inquiries for them, and for literature dealing with a larger number of species—it seemed desirable to