

abandoned; yet the author, while fairly stating other views, decidedly leans toward his own—a position which would be perfectly proper in a memoir, but which is out of place in a student's text-book. It is the occasional outcrop of personal bias in the retention or defence of opinions with which the author's name has been associated, either as an originator or a supporter, which constitutes the most serious, in fact, the only serious, defect in this work. Other defects are of minor importance, or unavoidably spring from the immensely wide field covered. The writer of a text-book should ruthlessly sacrifice his most cherished theories if they do not accord with the latest research.

The next section is devoted to the three germ layers of the developing ovum, leading us to the embryo in the third section and the foetal membranes in the fourth. Through all these pages the author sustains his plan of maintaining a critical attitude, and, as far as possible, verifying his statements by his own observation. Each mammalian structure is introduced by a brief and clear statement of its mode of appearance in the fishes, amphibians and reptiles, rendering these chapters as valuable to the general as to the special student. Duval, in his recent monograph on the placenta of the Rodentia, speaks in high terms of Professor Minot's work upon the placenta, but differs with him in regard to the so-called ecto-placenta, holding that he has mistaken the ecto-placental columns and tubes for the uterine glands.

The latter half of the work is given to the general development of the foetus and the organology or special development of each of the systems and organs of the body. Here, again, the accuracy and breadth of treatment. The pages simply bristle with information upon every subject treated, giving a thoroughly encyclopædic character. The chapter upon the development of the brain alone is the most complete which has yet appeared, and is thoroughly up to date. One minor protest must be entered here, that is against the use of the Anglicized German term "aulages" for the beginnings of structures. As pointed out by Hurst, Parker and others, we have already an excellent term in the English "rudiment." A

"rudimental structure" is, properly speaking, an incipient structure, although often improperly used to designate a disappearing or "vestigial" structure.

The bibliography is very complete. The author shows the utmost readiness to give full acknowledgment to his authorities, and appreciates the importance of acquainting the student with the literature at every step. We know of no other work so full of references. Yet there is a matter which certainly should be remedied in a future edition of the work—the titles are referred to by volume numbers and pages, and not by date; this omission renders it very difficult to keep in mind the historic development of the subject. It is safe to say that four out of five persons in this country who will use this book will not be able to consult periodical files for the date.

In conclusion, we would repeat our high opinions of this work. It is certain to find its way into every medical and biological laboratory in the country, carrying with it the author's spirit of thoroughness in investigation and breadth of view in treatment, and cannot fail to exert a widespread influence upon American embryological research.

NOTES AND NEWS.

THE Congress of Evolutionists held the last week in September, in Memorial Art Palace Chicago, was a decided success and in every way a most satisfactory series of meetings. The Congress extended through three days—three sessions each day. The hall assigned to this Congress was well filled during all the sessions and crowded during some of them. After the opening address by B. F. Underwood, the Chairman, in which was sketched the progress of evolutionary thought, a paper on "Social Evolution and Social Duty," contributed by Herbert Spencer, was read, after which Edward P. Powell gave an address on "Constructive Evolution." During the Congress questions in "Biology" were treated by Dr. M. L. Holbrook, Dr. Edmund Montgomery and Rev. John C. Kimball. Edwin Hayden, Dr. Duren J. H. Ward, Mrs. Sara A. Underwood, Prof. T. J. Burrill, and Miss Mary Proctor (daughter of the great astronomer) paid tributes to "The Heroes of Evolution." Psychology as related to Evolu-

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tion was the subject of addresses by B. F. Underwood, Dr. Herman Gasser, Dr. John E. Purdon and Harvey C. Alford. Sociology was considered by Rev. A. N. Somers, Bayard Holmes, M. D., Mrs. Florence Griswold Buckstaff and Miss Mary A. Dodge ("Gail Hamilton"). "Religion as Affected by Evolution" was the subject of papers and addresses by Dr. Charles T. Stockwell, Rabbi Emil G. Hirsch, Rev. Howard MacQueary, E. P. Powell and others. Rev. M. J. Savage, Dr. Lewis G. Janes, C. Staniland Wake, Revs. Jenckin L. Jones and H. M. Simmons presented papers on "The Morals of Evolution." "Economics as Related to Evolution" was considered by James A. Skilton and others. An interesting feature was a symposium on this subject in the form of brief papers from Mr. John Fiske, Dr. Edmund Montgomery, Dr. R. W. Shufeldt, Benj. B. Kingsbury, F. M. Holland and others. There was not a note of discord during the entire Congress. A committee was appointed at a special meeting held last Sunday evening to arrange for another Evolution Congress in 1894.

—Those who are familiar with the volumes of Appleton's "International Education Series" will remember among them two on "The Mind of the Child," by W. Preyer, professor of physiology in the University of Jena; and the same author has now issued a smaller book on the same subject entitled "Mental Development in the Child," which has been translated into English by H. W. Brown, and published in the same series. The work is designed especially as an aid to mothers in training their young children; but we confess that we cannot see what mothers are to gain from it. It contains, to be sure, many sensible observations; but they are mostly commonplace, while on the other hand the book is full of doubtful physiological speculations expressed in technical language. Take, for instance, the following remarks about self-consciousness: "There are several grades of consciousness, lower

and higher, which have different seats—in the higher animals, particularly in the spinal marrow, cervical marrow, and brain. The highest grade, self-consciousness, so-called, which does not necessarily imply a strong self-esteem, has its seat in the gray substance of the cerebral cortex. It is therefore properly called the cortical *ego*." (p. 155). There is much more in the book of a similar sort; yet the reader must not think that there is nothing better. Professor Preyer has evidently been a close observer of very young children, and is familiar with their wants and ways; and he gives a fairly intelligible outline of their mental growth during the first three years of their lives. His remarks on the acquisition of language and on the manifestations of thought and reasoning before language is acquired are perhaps the best things in the book and are well worthy of attention from students of psychology. But the book cannot be accepted as a satisfactory treatise on the subject with which it deals.

—W. F. Yocum, A. M., D. D., accepted the position of Vice President and Professor of Philosophy and Political Economy in Florida Agricultural College, Oct. 1, 1893.

—Miss Mary Proctor, daughter of the late Richard A. Proctor, is delivering courses of lectures on astronomy to children, under the management of Major J. B. Pond, Everett House, New York.

—The Eleventh Congress of the American Ornithologists' Union will convene in Cambridge, Mass., on Tuesday, November 21, 1893, at eleven o'clock A. M. The meetings will be held in the Nash Lecture-room, University Museum, Oxford street. The reading of papers will form a prominent feature of the meetings. Associate as well as Active members are earnestly requested to contribute. Titles of communications and applications for membership should be sent to the Secretary, Mr. John H. Sage, Portland, Connecticut.

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