

OUR BOOK SHELF.

Text-book of Zoology. By Dr. J. E. V. Boas. Translated by J. W. Kirkaldy and E. C. Pollard. Pp. xviii + 558; with 427 figures. (London: Sampson Low, Marston, and Co., Ltd., 1896.)

THE "Text-book of Zoology," by Dr. Boas, which is now presented to English students in this country in the form of a translation by Miss Kirkaldy and Miss Pollard, has this advantage over many similar books at present in use, that it is complete in one volume. The translators have done their work well in keeping closely to the German text, and in forming clear and concise English sentences made up of English words. Regarded simply as a translation of a German book, it is far better than most of its predecessors, and the translators may be congratulated upon their share of the work. But the book is not one which English teachers will be able to recommend to the "beginners in the study of zoology" who attend their classes, notwithstanding many excellent features which may be found in several chapters. It would be difficult for them to heartily recommend to their students, as a guide to their studies, a book which classifies *Limulus* with the Entomostraca, and *Peripatus* with the Annelida; nor can they consider it to be complete, even for elementary work, in the absence of any account of such important forms as *Balanoglossus*, *Rhabdopleura* and *Phoronis*.

Apart from these blemishes of primary importance, there are many others which detract very considerably from its value as a text-book for students. The description of *Amphioxus*, for example, is so short, and the figures so poor and inaccurate, that no beginner could possibly recognise the importance and interest of the group to which it belongs. The same may be said of the group Tunicata, which is described in four pages at the end of the Vertebrata, and illustrated by only four very poor figures.

The book, moreover, is disfigured by many strange blunders and inaccuracies, of which a few may be given. The rich animal fauna of the deep sea does not "resemble the cave fauna." *Alcyonium* is never dimorphic; there is no chitinous perisarc in Millepora, which is calcified; *Hirudo medicinalis* is not indigenous in England. Nor is the book thoroughly up to date in many particulars. The account given of the gills of Lamellibranchiata might have been written fifteen years ago. The results of Leche's important work upon the succession of mammalian teeth are not even briefly mentioned. Nor can the account of the epidermal structures of Vertebrata be said to be complete when no reference is made to Prof. Weber's extremely important observations on the scales of Manis.

It is possible, however, that some teachers in this country may find the book useful for occasional reference. Some of the diagrammatic figures are new and fairly accurate. The introductory chapters on cells and tissues and on embryology are excellent, and some of the chapters on vertebrate animals are better than in any modern text-book of zoology with which we are acquainted.

The Antichrist Legend: a Chapter in Christian and Jewish Folk-lore. Englished from the German of W. Bousset, with a Prologue on the Babylonian Dragon Myth. By A. H. Keane. Crown 8vo. Pp. xxxi + 307. (London: Hutchinson and Co., 1896.)

AT various intervals certain well-meaning individuals, with enthusiasm inversely proportional to their knowledge, attempt expositions of such extremely difficult texts as the Books of Daniel and Revelation, and they glibly profess to explain the Antichrist, and are impressive on the Beast. They little realise that, as Bousset says, "to understand Revelation we need a fulness of

eschatological and mythological knowledge." One has only to glance through Bousset's erudite work to be convinced that it is only by the most patient and learned research that such problems can be solved, and so we welcome Mr. Keane's translation of this valuable study, and hope (probably in vain) that the latter-day prophets will cease to yield to the temptation of giving free play to their fancy, and will investigate the historical growth of legendary beings, and thus eventually become students of folk-lore. It is evident, from the researches of Bousset and Gunkel, that Belial, the Antichrist, and the numerous other variants of Christian and pre-Christian authors, are adaptations of the ancient Babylonian Dragon myth. Mr. Keane goes a step further back, and attempts to account for the origin of this myth. He suggests that it refers to the first settlements on the low-lying plains of Chaldæa, when man had to contend against the periodical freshets of the Euphrates and Tigris, caused by the melting of the snows of the watersheds, and against huge crocodiles which infested the estuaries. "There could be no peace or progress until the waters were quelled (confined within their banks, and diverted into irrigation canals), and until their presiding genius (the reptile or dragon, "lord of chaos") was overthrown. . . . Then the foremost champions engaged in these contests acquired their apotheosis in the minds of a grateful posterity, while the vanquished enemy assumed more and more the form of unearthly monsters and demons hostile to man. Such memories easily passed on from generation to generation until they acquired consistency and permanency in the written records of the cultured Babylonian peoples."

LETTERS TO THE EDITOR.

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The Utility of Specific Characters.

I TRUST you will give me space—not to continue this discussion—but to correct an error in Mr. Dyer's last letter to you. Mr. Dyer states that I consider that Prof. Weldon's investigation of the crab's carapace "does not satisfy the canons of scientific inquiry." I have made no statement to that effect, and am surprised that Mr. Dyer should put such a phrase into my mouth.

I am, I believe, almost as fully acquainted with the details of Prof. Weldon's work, and the laborious measurements carried out by him in the laboratory at Plymouth and in University College, as is Mr. Dyer. I have never spoken of nor regarded the actual results obtained by Prof. Weldon as otherwise than interesting and valuable. My difference with Prof. Weldon is, as I explained (I thought with sufficient clearness) in my first letter to NATURE on this subject, one as to the interpretation put by him on these results. I do not consider that he is warranted in declaring that a particular frontal proportion of the carapace is effective in securing the survival of those crabs possessing it. Moreover, I do not agree with him in holding it to be "absolutely illogical" (as he expressed himself at the Linnean Society) to entertain the hypothesis that one or more structures in a "surviving" or "naturally-selected" organic form may be effective in bringing about that survival or selection whilst other structures may vary concomitantly with these and be inoperative in effecting the survival.

E. RAY LANKESTER.

Utrecht, September 18.

The Position of Science at Oxford.

ON my return to Oxford my attention has been called to an article which appeared in your issue of July 9 last, bearing the above title. (By science is meant, of course, natural science.) I do not wish to discuss the whole of the article. It is for the most part temperately written, and contains some useful criticism by which we in Oxford may profit.