

jumble? The large-type sections that connect these masses of confused notes are still more perplexing. Here, also, the commonplace-book predominates, but the extracts are worked up into some semblance of a continuous exposition. It is very seldom, however, that one can read a page on end without losing the thread. The reason soon becomes obvious. What is offered as a book is really nothing more than a transcript of rough jottings, in which Dr. Bastian had from time to time recorded his ideas in a form just sufficient to preserve a record for his own use. The sentences are often not even grammatical, and in brief the volume is only the roughest of rough note-books printed without revision. In spite, therefore, of the enormous labour and learning which it attests, the whole must be pronounced a failure, for the elementary reason that it is not a book. We trust that the publication may be useful to the author in helping him to get his superabundant material better under control, and so to produce hereafter something that is a book and can be read.

The ethnological picture-book is designed for young people, and its illustrations of cosmogonic and cosmographic ideas, of various conceptions of the future life and so forth, are well calculated to excite their curiosity and stimulate their interest in such things.

#### OUR BOOK SHELF.

*Experimental Chemistry for Junior Students.* By J. Emerson Reynolds, M.D., F.R.S. Part IV. Organic Chemistry. (London: Longmans, Green, and Co., 1887.)

THIS volume on organic completes the author's course of experimental chemistry. Whatever may be the opinions on the three previous volumes, there is no doubt this is the most rational attempt to treat organic chemistry practically—as a thing for students actually to do—that has as yet appeared. There is scarcely an experiment in the book that a student will be unable to do from the description given, and the order in which they are taken and general arrangement is the natural order of synthesis, proceeding from the less complex and easy to the most complex and least known.

The author begins with destructive distillation, and the production of alcohols, their salts, &c. The fourth chapter deals with metallic compounds or organo-metallic bodies. In the description of the manufacture of zinc ethide the method of making from zinc,  $C_2H_2I$ , and iodine might have been given, as the action is much quicker than with the Cu—Zn couple and the yield greater. The current of  $CO_2$  can also be dispensed with advantageously. Two experiments here we must take exception to as being rather dangerous for beginners—sealing up sodium with zinc ethide, and in Experiment 691 making mercuric ethide as a sort of starting-point material. The author cautions against inhaling the vapour of this substance, as it is “supposed to be poisonous.” We thought it was quite settled that it is about the most dangerous substance one has to deal with; and we certainly do not agree with the author that the method of employing mercuric ethide for making zinc ethide is the easiest of all methods for making the last-named substance.

In the remainder of the little book there is nothing either in arrangement or process to which objection can be taken, and undoubtedly it should be most useful to students attending a course of organic lectures. As a rule English students stop off with organic before they have really made its acquaintance; very few indeed continue its study long enough for it to be of any use to them.

Most of the works in England where “organic chemistry” is the rule are obliged to obtain the services of German chemists; the English student's acquaintance with the subject generally stopping at the knowledge that there are such things as hydrocarbons, or “hydrocarbides,” as the author of this book calls them.

Perhaps when such practical instruction is given in our schools as the course outlined by this book, we may begin to produce students who can go into “a works” and be trusted not only to follow a process but to originate new ones.

W. R. H.

*The Farmer's Friends and Foes.* By Theodore Wood, F.E.S. (London: Swan Sonnenschein, Lowrey, and Co., 1888.)

THIS is a well-meant and well-put-together little volume, giving an account of the life-history of most of the animals which, for good or for evil, come across the path of the British agriculturist. Throughout, the attempt is made to prove that, when it is necessary for the saving of a crop to destroy any animal, it is far better to trust to Nature, as being more competent, than to man; but then this seems to beg the whole question, as it presumes that man has not already very much interfered with Nature's regulations.

The volume is, in part, the result of personal investigation, but the author quotes freely from all our best-known writers on the subjects of which he treats.

The figures are good. A table of contents would have added to the usefulness of the work, especially as the index is not very detailed. The volume may be safely placed in the hands of all interested in the subject.

*The Story of Creation.* By Edward Clodd. (London: Longmans, Green, and Co., 1888.)

THE author of this book does not pretend to make his readers acquainted with new facts and ideas. His object is to present a popular exposition of the theory of evolution, using the word evolution in its widest sense. The work is divided into two parts—one descriptive, the other explanatory. In the descriptive part he begins with a chapter on matter and power. He then considers the distribution of matter in space, and gives a general account of the sun and the planets, of the past life-history of the earth, and of present life-forms. In the explanatory part he discusses the questions relating to inorganic evolution and to the origin of life and life-forms, and sets forth in logical order the arguments which are held to establish the truth of Darwin's theory of the origin and development of species. A final chapter is devoted to social evolution, including the evolution of mind, society, language, art and science, morals, and theology. The book is vigorously written, and well illustrated; and readers who have had no special scientific training will find that it enables them to understand and appreciate some of the greatest and most fruitful generalizations of modern science.

#### LETTERS TO THE EDITOR.

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to insure the appearance even of communications containing interesting and novel facts.]

#### Botanists and the Micromillimetre.

I NOTICE that in a review of a “Manual of British Discomyces” which appeared in NATURE on February 9 (p. 340), and apparently also in that work itself, the word *micromillimetre* is used as equivalent to the thousandth of a millimetre.