

guard some piece of faith as such, then the more wordy our logic the better. And the delight in "naming our tools" may be carried to any length without fear of unpleasantness. It need commit us to no more than did Mr. Micawber's plan of docketing his unpaid bills. Here, however, it must be left an open question whether the modern practice of ignoring so many carefully-made divisions is an improvement or the reverse. Both views are at least respectable. In any case the elaborate details of the machinery by which our religious creeds are to be kept sacred contain much that ought to be of interest to all. What with *criteria per quod* and *secundum quod* (pp. 168, 191), with different "spheres" of truth (pp. 175, 202, 203), and different kinds of certainty (pp. 161-68), with truths which are "not intrinsically evident, but nevertheless extrinsically evident, or, rather, evidently credible" (p. 200), one may learn to admire heartily the care and cleverness employed so freely in mediæval times by those who felt the need of warding off awkward questions. It is certainly no light problem, how logic may be taught without encouraging the dangerous practice of doubting what we are told.

There are other signs of hard work in this book, besides the patience with which the author has studied the scholastic doctrines. For teaching purposes there is nothing so useful as examples, and here the examples given are numerous, mostly new, and sure to be helpful to the learner. Only those who have tried know the real difficulty of clearly illustrating statements so general as those of logic without some appearance of triviality. In this respect also Mr. Johnstone has succeeded unusually well.

ALFRED SIDGWICK.

#### OUR BOOK SHELF.

*Light and Heat.* By the Rev. F. W. Aveling, M.A., B.Sc. (London: Relfe Bros., 1887.)

THIS is an elementary text-book intended to cover the syllabus of Light and Heat for the London Matriculation Examination. Being written more in the form of notes than as an ordinary book, it will be of considerable service for examination-purposes. Many of the definitions, however, are far from concise, and many phenomena which admit of easy explanation are left unexplained. On p. 98 we are told that the specific heats of gases are inversely proportional to the square roots of their densities, whereas they are in inverse proportion to their densities; had a simple explanation of this relation been given, the mistake would not have occurred. The important subject of thermo-dynamics is disposed of in four pages at the end of the book: this is not as it ought to be, seeing that the relation between heat and work often enters into previous discussions, and is, moreover, the basis of the modern theory of heat.

The sketches are of a rough-and-ready kind, such as a student would be expected to make in an examination, and, as such, give many useful hints. The coloured plate of spectra, however, is as useless as the majority of similar ones, as practically no explanation of the meaning of a spectrum is given; dark lines are shown in the spectrum of potassium, but these are no doubt due to a mistake of the lithographer. Such exhibitions as these, which are far too common, show a want of respect for the labours of those who have done so much to further our knowledge of spectrum analysis.

A large number of good numerical problems, with answers, are distributed throughout the text, and several typical ones are fully worked out.

A. F.

*Animals from the Life.* By H. Leutemann. Edited by Arabella B. Buckley. (London: Stanford, 1887.)

THIS work, which forms a charming introduction to the study of zoology, is just the thing for young children who have a turn for the subject, and at the present time, since presents are being made on all sides, would make a very useful and enjoyable gift. From it they will be able to become acquainted with the various forms of living creatures without having to make a laborious study of natural history, which few care to do. A great amount of knowledge can be gained by merely looking at the illustrations, which are got up in a very intelligent and accurate style; they are 255 in number, and well coloured, and represent animals, including birds, insects, fish, &c., as they are found in their natural state.

The accounts of the various forms and habits of the different animals (each plate having about a page and a half of letterpress with it), are written so very clearly and in such a natural way that anyone who peruses this book will find plenty that will be extremely interesting.

In adapting the original text to the wants of English children, Miss Buckley has had to alter it in many places, English examples and references being substituted for German ones.

*The Vegetable Lamb of Tartary.* By Henry Lee. (London: Sampson Low, 1887.)

IN former times it was generally believed that there existed in the East a mysterious "plant-animal," variously called "the vegetable lamb of Tartary," "the Scythian lamb," and "the Barometz," or "Borometz." The usual explanation of this notion is that it originated from certain little lamb-like toy figures constructed by the Chinese from the rhizome and frond-stems of a tree-fern. Mr. Lee, however, holds that the idea came into Europe from Western Asia, and that it referred in the first instance to the cotton-pod. This theory he works out thoroughly in the present little work, and in the course of his argument he has brought together many curious and interesting facts, the significance of which is made more plain by a number of good illustrations. In a separate chapter Mr. Lee treats of the history of cotton, its uses by ancient races in Asia, Africa, and America, and its gradual introduction among the nations of Europe.

#### 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.]

#### The Royal Horticultural Society.

THE affairs of the Royal Horticultural Society alluded to in the last issue of NATURE (p. 145) have lately obtruded themselves upon public attention, but it is probable that some readers of NATURE may consider that they have little concern with such a body. They may look on horticulture in the light of a pleasant pastime, or of a more or less profitable commercial enterprise, they may regard flower-shows as a means for the display of fashionably-dressed ladies, or they may look on the Royal Horticultural Society as an association for the production and distribution of medals and certificates of more commercial than scientific importance. But there are other considerations beyond these, and whilst naturalists may be indifferent to much of the past history and much of the present work of the Society, to the internal dissensions and to the action of the landlord Commissioners towards their unfortunate tenants, the scientific work of the