

Shall I feel the dew on my throat, and the stream
Of wind in my hair? Shall our white feet gleam
In the dim expanses?
Oh, feet of a fawn to the greenwood fled,
Alone in the grass and the loveliness;
Leap of the hunted, no more in dread,
Beyond the snares and the deadly press:
Yet a voice still in the distance sounds,
A voice and a fear and a haste of hounds;
O wildly laboring, fiercely fleet,
Onward yet by river and glen
Is it joy or terror, ye storm-swift feet?
To the dear lone lands untroubled of men,
Where no voice sounds, and amid the shadowy
green,
The little things of the woodland live unseen."

It is in this chorus above all that Mr. Murray finds the personal expression by Euripides, now safely in Macedonia, of the relief of escape from the fierce ambitions, the rivalries, the "arid irreligion" of that fourth-century Athens whose weaknesses were so unsparingly summed up by Thucydides—the Athens where, "inferior characters succeeded best. The higher kinds of men were too thoughtful and were swept aside."

Mr. Murray includes in his volume a spirited translation of the "Frogs" of Aristophanes, which contains the classic criticism of Euripides. The English reader who can read his Aristophanes in Rogers would probably, like ourselves, have preferred a third play of Euripides. It is to be hoped that the translator will give us a second volume containing the "Medea" and the "Alcesteis." To the three plays of the present work is added a useful appendix on the "Lost Plays" of Euripides, and a commentary with some discussion of obscure passages.

Light Waves and their Uses. By A. A. Michelson. (Volume III. of the Octavo Series of the Decennial Publications of the University of Chicago). Chicago: University of Chicago Press. 1903. Pp. 166. With 108 figures in the text and 3 colored plates.

Waves and Ripples in Water, Air, and Ether. By J. A. Fleming. E. & J. B. Young & Co. 1902. 12mo, pp. 299. With 85 figures.

Professor Michelson's book is devoted exclusively to an account of his own researches, the great importance and beauty of which are well known. This compact outline of them in a handsome dress will be welcomed by everybody who is interested in optics. This investigator's whole course of thought and of experimentation has been the logical result of his looking at the action of all optical instruments from the point of view of interference. We only wish that the exposition had been even more strictly autobiographical than it is.

Professor Fleming's little volume embodies six lectures delivered to a juvenile audience at the Royal Institution. Two are devoted to water waves, two to air waves, two to Hertzian and other ether waves. In the first two of these three divisions the author displays a charming power of making things plain. How, for example, a group of waves can have a velocity much less than that of any of the waves that compose it is rendered entirely obvious. Here, too, we find various most interesting observations which, though already printed, were novelties to us and are certainly not easily accessible, unless one is provided with files of such things as *Parson's*, *Cassier's*, and *Harmsworth's Magazines*, of various technological periodicals,

and of other sources to which there is no admission for any rational being except on business. But when he comes to Hertzian waves, Professor Fleming is seriously handicapped by two circumstances unfavorable to lucid exposition. In the first place, he is himself in the very thick of the struggle to advance this subject. We are aware that people who consider the matter hastily often reason that active investigators ought to produce the most easily comprehensible expositions, because clear thought always produces clear expression. But this reasoning involves two very false assumptions—that clear expression is the only thing required to render an exposition easily intelligible, and that those who first succeed in thinking out a problem think the solution in the clearest possible way. The truth is, that every invention, in its first workable form, is unnecessarily complicated; and that which is complicated is hard to understand, however clearly it be explained. But, in the second place, Professor Fleming's mind is full of the new electron theory. Now this theory, at the present moment, seems to be somewhat in the condition of the Copernican hypothesis before Kepler. That is to say, it seems to offer an immense simplification in one respect, while it leaves the details quite as complicated as before, if not more so. These two circumstances appear to us to have decidedly weighted down the author's explanation of wireless telegraphy. We take the liberty of doubting whether the juvenile audience really understood it. At any rate, we are confident the matter might have been rendered more comprehensible without the sacrifice of any important feature.

Real Things in Nature: A Reading Book of Science for American Boys and Girls. By Edward S. Holden, LL.D. Macmillan. 12mo, pp. xxxviii, 443. Illustrated.

Most of the matters of common knowledge with which these pages are filled are such as we used to learn from six or eight different elementary treatises. They have stood the tests of time and usage, and are generally accepted as facts that every one should know. The book is constructed for youths of eight to twelve or fourteen years; its articles are short descriptions, explanations, or narratives on topics of Astronomy, Physics, Meteorology, Chemistry, Geology, Zoölogy, Botany, Physiology, and the early History of Mankind. The items are well selected, fairly well treated, and tolerably well illustrated; they are full of entertainment, and are easily verified by means of observation, experiment, or reference to literature. A mastery of the contents of the work will give a pupil an excellent start in the way of an education.

In general this reading-book is to be commended. There are cases in which the lettering of drawings is not clear, and some of the figures need retouching. On page 286 a peculiar knob or pompon stands up from the top of the skull of the gorilla, like the apple to be shot from the boy's head in the old story. The Bad Lands are illustrated in more than ordinary badness, on page 138, by having the picture placed wrong side up. On page 212, again, the toad and other objects are made to cast their shadows vertically upward. The prattle on Natural Selection might have been advantageously

displaced by something less subject to criticism and better adapted to the class of readers using the book. Sooner or later pupils will learn, if they do not know already, that it is incorrect to say, as Dr. Holden does on page 262, "The dandelion bears a solitary flower at the end of the stalk."

Three Centuries of English Book-trade Bibliography, etc. By A. Growell. With a List of the Catalogues, etc., published for the English Book-trade from 1595 to 1902, by Wilberforce Eames. 8vo, pp. 195, xv. New York: Published for the Dindin Club. 1903.

Every studious reader discerns the value of an alphabetized catalogue with subject-index, as a guide to the book he seeks. The librarian, and perhaps the amateur collector of rarities, asks for more of detail; he wants to know the size and shape of a given book, when and where it was printed, with other information about author, printer, or publisher. It is for this class that the above work has been written and compiled. With Mr. Eames's addition, it is practically a catalogue of English catalogues of books. Yet it is not all dry reading, for it contains curious items about books and bookselling that will be of interest even to the cursory and careless reader. The growth of the curt catalogues first issued by German printers, the book fairs at Leipzig and afterwards at Stourbridge (near Oxford) in England, the Company of Stationers at London, the early English critical book-trade journals, the licensing of printed books, old book auctions, and book-trade bibliography receive brief but discriminating notice.

The real need of a book like this is fairly indicated by the steadily increasing estimates of the number of early books. Hain's catalogue warrants the estimate that at least six million copies of books were printed in the fifteenth century, but Vander Linde and Deakins give good reasons for the belief that the number in that period was about one-half greater. In the beginning, English contributors to bibliography were few in number. One curiosity is *Weekly Memorials* [not *Mementos*, as quoted by Charles Knight] for the *Ingenious* (London, 1683), the first critical literary journal in the English language; but its review of contemporaneous books is more amusing than instructive.

BOOKS OF THE WEEK.

- Ashley, Roscoe L. American Government. The Macmillan Co. \$1 net.
- Blair, Emma H., and Robertson, James A. The Philippine Islands, 1493-1803. Vol. V. Cleveland, O.: The Arthur H. Clark Co.
- Brigham, Clarence S. The Fourth Paper presented by Major Butler, with other papers edited and published by Roger Williams in London, 1652. Providence, R. I.: Club for Colonial Reprints.
- Burns, Eliza B. Pure Phonics for Home and Kindergarten. Burns & Co.
- Chambers, E. K. The Medieval Stage. 2 vols. Oxford: The Clarendon Press. \$8.35 net.
- Charles, Cecil. Miss Sylvester's Marriage. The Smart Set Publishing Co. \$1.00.
- Crowninshield, Frederick. Tales in Metre and Other Poems. Robert Grier Cooke.
- Davis, William S. The Saint of the Dragon's Dale. The Macmillan Co. 50c.
- Dellitzech, Friedrich. Babel and Bible. Translated by Thomas J. McCormack and W. H. Carruth. Chicago: The Open Court Publishing Co. 75c. net.
- Dickens, Charles. A Tale of Two Cities.—Hard Times.—Martin Chuzzlewit. London: Chapman & Hall; New York: Henry Frowde. 1s. 6d. net each.
- Dussaud, René. Notes de Mythologie Sryenne. Paris: Ernest Leroux.
- Ellierson, Mrs. C. C. The Vigilantes. Walker-Ellierson Publishing Co.
- Fite, Warner. An Introductory Study of Ethics. Longmans, Green & Co.

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