

author proposes that of each school day twenty minutes at the outset should be sacrificed to attention-gymnastics—in other words, to inducing the most intensely vigorous effort, under stimulation of active rivalry. She trains her scholars at remembering columns of numbers, a blackboard-full of shapes nearly alike yet all different, etc., seen for three seconds. The whole thing must be recalled seven minutes later in all its details. She trains them to recite verbatim, after seven or ten minutes, a whole page of prose read to them a single time, having first trained them in a method for doing this. One example that she gives, from 'Tom Brown at Rugby,' is very loose and rambling prose, almost as bad as, "So she went into the garden to cut cabbages." Some are the most inane extracts from the Court Journal, and still more nauseating stuff about New York society, paragraphs about meetings in country towns, with a lot of names of supreme mediocrity, price lists, etc. Then mixed with these are superb pieces of prose and verse. She compares the proceeding to opening the day with dumb-bell exercise. Something like this has been practised before, but here are elementary methods fully set forth, and others will suggest themselves. If teachers will only put them into practice, not fearing to expose their own stupidity, but keeping before their minds the beneficent results to be attained, they will assuredly do something to "make the next age better for the last."

Let us add that Miss Aiken quotes an excellent passage from Ribot's little book on attention, and that she incidentally leads us to believe that, in the remainder of the school hours, she is guided by an intelligent use of the principles of scientific psychology upon which effective teaching must be founded.

Some Ancient English Homes and their Associations, Personal, Archaeological, and Historical. By Elizabeth Hodges. Illustrated by S. J. Loxton. London: T. Fisher Unwin; New York: G. P. Putnam's Sons, 1895.

NINE essays make up this volume, of which the first is devoted to the two mansions of Wotton-under-Edge and Bradley Court; the first a large house which has been almost wholly destroyed, and the second a small country house half a mile distant from Wotton, and not of special importance. Another chapter deals with two houses—Kingsbury Hall, near Birmingham, and Hurley Hall, not far from Kingsbury, and connected with it in the family history. These two buildings are good examples of the very small English manor-house common in central England. In each case the house is described in a sketchy way, with but brief mention of details which seem interesting if one could know more of them. In each case, also, a single slight drawing explains the general character of the structure. The other chapters treat each of one manor-house or castle. The only illustration which gives anything interesting about the general design of the house is that of Little Sodbury at page 193, but there are several slight drawings of staircases, gateways, and the like which are attractive. In each case we get a rather informal account of family history and of family traditions, including ghost-stories, in preference to any architectural study. Being what it is, and being simply written, the book is as entertaining as one need wish, and one who reads it with care will have added a good deal to his sense of historical verity. The modern school of historians are inclined to reject archaeology, but the

historical student who makes excursions into archaeology will certainly understand his history the better for it.

Science and Art Drawing: Complete Geometrical Course, consisting of Plane and Solid Geometry, Orthographic and Geometric Projection, Projection of Shadows, the Principles of Map Projection, Graphic Arithmetic, and Graphic Statics. By J. Humphrey Spanton. Macmillan, 1895.

THE idea of teaching geometry to draughtsmen while their pencils are in their hands is in itself an excellent one, and, were it only well carried out, would seduce them into real mathematical thinking before they knew it. Moreover, some of the subjects here treated bear such stamps of the great geometers who established their theories as it would require a mind of more ingenuity than Mr. Spanton's to obliterate. Descriptive geometry and graphical statics, let the teacher do his worst, cannot but inculcate some genuine mathematics. With map projection it is different. The whole subject has never been very well treated, except by Herz, whose work is probably unknown to Mr. Spanton; and to call the few items here given "Principles" is ridiculous. The chapters on Elementary Metrical Geometry could not well be worse than they are. Thus, for the construction of a regular heptagon, three different methods are given. For one of these, the information is vouchsafed that it is not mathematically exact. That the problem itself is insoluble by rule and compass, the author, though a gold-medallist, does not seem to suspect. The Pythagorean proposition, to say nothing of such theorems as the 35th of the 3d Book of Euclid, will be sought in vain. The problems that are solved rightly are often solved clumsily. Let us say to the young draughtsman, if you want to be a master of your art, take the trouble to study geometry. You will be terribly handicapped in problems upon which bread and butter depend if you content yourself with any such smattering as this book affords.

The Soil: Its Nature, Relations, and Fundamental Principles of Management. By F. H. King, Professor of Agricultural Physics in the University of Wisconsin. Macmillan & Co. 1895.

WITHIN the compass of about three hundred pages, Prof. King has brought together a vast amount of important and interesting information regarding the origin and behavior of soils. With a right sense of perspective, he has dealt fairly with the older as well as with the very latest results of research, and has arranged all his facts in a convenient manner. The marvellous relations which soils sustain to water and the atmosphere, to the lowest and the highest forms of vegetable life, and, indirectly, to all animal life, are dealt with in an attractive way.

A few of the engravings cannot be truthfully called illustrations, for they themselves require to be explained. For instance, in the figure designed to show "the work of the common earthworm during a single night after a heavy rain," there is a picture of a good hunting-catch watch lying on the disturbed surface of the ground. In close proximity to the watch the soil is rather less disturbed than at a little distance, perhaps to be interpreted that the earthworms were more or less frightened by the ticking of the watch; but it is unlikely that a watch would be left out over night in a heavy

rain. It is probably inserted to show the size of the earthworm casts. Other cuts which leave much to be desired are those which attempt to show the distribution of roots. It is possible that some of the obscurity of the cuts comes from the reduction in size by a photographic process. Aside from these engravings and two bits of good poetry which are rather out of place, the book can be heartily praised. Examination of it will ensure a comprehensive view of the present condition of its many-sided subject.

BOOKS OF THE WEEK.

As You Like It. Hamlet. Julius Caesar. Macbeth. Richard II. Twelfth Night. (The Arden Shakespeare). Boston: D. C. Heath & Co. Each 45c.
Bacon, Rev. L. W. Irons and Polemics, with Sundry Essays in Church History. Christian Literature Co. Barlow, Jane. Strangers at Lisconnel: A Second Series of Irish Idylls. Dodd, Mead & Co. \$1.25.
Bender's Lawyer's Diary and Directory for the State of New York, 1896. Albany: Matthew Bender.
Benedict, J. E. Die Hochzeitsreise. Boston: D. C. Heath & Co. 25c.
Brue, Wallace. Clover and Heather. Edinburgh: Blackwood; New York: Bryant Union.
Cheyney, Prof. E. P. Social Changes in England in the Sixteenth Century. Boston: Ginn & Co. \$1.
Corson, Prof. Hiram. The Aims of Literary Study. Macmillan, 25c.
Dana, Prof. E. S. Minerals and How to Study Them. London: Chapman & Hall; New York: John Wiley & Sons. \$1.50.
Deazley, J. H. The Odes (Books III. and IV.) Epodes, and Carmen Saeculare of Horace. Translated into English Verse. London: Henry Frowde; New York: Macmillan.
DeFoe, Daniel. Due Preparations for the Plague. The King of Mirates. London: Dent; New York: Macmillan. Each \$1.
Emerson, R. W. Les Sur-Humains. Traduit de l'Anglais. 2d ed. Paris: Collin & Cie.
Flahack, W. F. Recollections of Lord Coleridge. Indianapolis: Bowen Merrill Co.
Friedländer, Max. Opern-Statistik der Deutschen Bühnen, 1894. Leipzig: Breitkopf & Härtel.
Graetz, Prof. H. History of the Jews. Vol. V. Philadelphia: Jewish Publication Society.
Grundgent, C. H. Selections for French Composition. Boston: D. C. Heath & Co. 50c.
Grosvenor, E. A. Constantinople. 2 vols. Boston: Roberts Bros. \$10.
Hazell's Annual for 1896. London: Hazell, Watson & Viney.
Headley, F. W. The Structure and Life of Birds. Macmillan. \$2.
Hole, Rev. S. R. A Little Tour in America. Edward Lush, Henrik. Prose Dramas. 2 vols. Lovell, Coryell & Co. \$1.
Isham, N. M. Early Rhode Island Houses: An Historical and Architectural Study. Providence: Preston & Rounds.
Jones, Prof. Henry. Browning as a Philosophical and Religious Teacher. Glasgow: James Maclehose & Co.; New York: Macmillan. \$2.25.
Kingsley, Charles. Yeast: A Problem. Macmillan. 75c.
Little's 1896 Annual. Boston: Estes & Lauriat. \$1.75.
Locke, W. J. The Demagogue and Lady Phayre. Edward Arnold. \$1.
Longfellow, W. P. P. A Cyclopaedia of Works of Architecture in Italy, Greece and the Levant. Scribner.
Lowell, Percival. Mars. Boston: Houghton, Mifflin & Co. \$2.50.
Lupton, J. H. The Utopia of Sir Thomas More. Oxford: Clarendon Press; New York: Macmillan. \$3.50.
MacLeod, Fiona. The Sin-Eater, and Other Tales. Chicago: Stone & Kimball.
Marden, O. S. Architects of Fate. Boston: Houghton, Mifflin & Co. \$1.50.
Masters, Caroline. The Shuttle of Fate. F. Warne & Maude, Capt. E. N. Military Letters and Essays. No. 1. Kansas City: Hudson-Kimberly Publishing Co.
McCormick, A. D. An Artist in the Himalayas. Illustrated. Macmillan. \$3.50.
Moch, Gaston. Autour de la Conférence Interpénétrationnelle. Paris: A. Collin & Cie.
Morfill, W. R. The Book of the Secrets of Enoch. Translated from the Slavonic. Oxford: Clarendon Press; New York: Macmillan.
Murray, J. A. H. A New English Dictionary on Historical Principles. Development—Dittanev (Vol. III.). Oxford: Clarendon Press; New York: Macmillan. 60c.
Old South Leaflets. 2 vols. Boston: Directors of the Old South Work.
Payne, W. M. Little Leaders. Chicago: Way & Williams. \$1.50.
Picot, Georges. La Lutte contre le Socialisme Révolutionnaire. Paris: A. Collin & Cie.
Reinhardt, C. W. Lettering for Draftsmen, Engineers, and Students. D. Van Nostrand Co.
Sears, Hamblen. Governments of the World To-Day. Meadville, Pa.: Flood & Vincent. \$1.75.
Tennyson, Lord. A Dream of Fair Women, and Other Poems. Locksley Hall, and Other Poems. 2 vols. Macmillan. Each 45c.
Teters, Wilbertine. The Snows of Yester-Year. Boston: Arena Publishing Co. \$1.25.
The Budh-Gaya Temple Case. Calcutta: W. Newman & Co.
The Green Bag. Vol. VII. 1895. Boston: Boston Book Co.
The King of Albania: A Romance of the Balkans. G. W. Dillingham.
The Marvellous Adventures of Sir John Maundeville, Kt. Illustrated. London: A. Constable & Co.; New York: Macmillan. \$2.
The Spectator in London: Essays by Addison and Steele. Illustrated. Macmillan. \$2.
The Universalist Register, 1896. Boston: Universalist Publishing House. 20c.
Watson, William. The Father of the Forest, and Other Poems. London: John Lane; Chicago: Stone & Kimball.
Winter, William. Brown Heath and Blue Bells: Being Sketches of Scotland. Macmillan. 75c.

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