all independence, and, instead of following the dictates of his own judgment, he becomes the expounder of the comments of the annotator.

Nor do we commend the plan of appending a vocabulary to the text. This, again, is supposed to save the time of the pupil. But the advantage is more apparent than real. The exercise involved in turning up the word in a good dictionary, selecting its English equivalent, and observing the quotations which exemplify its uses, is lost, and a familiarity with differences in meaning between words which are closely allied is not attained. We do not know of any better plan for boys to adopt in the preparation of their Latin lesson than to provide themselves with a dictionary, such as "Smith's," a grammar and a good text without note or comment. The teacher, if he be qualified for his post, will, when the author is read in class, elucidate all difficult passages, review points in grammar which may not have been observed by the pupil, and communicate that attractiveness to the subject, which can never be done so effectively as by the living voice of an earnest and inspiring teacher.

Holding these views we do not look with much pleasure upon the books mentioned at the head of this article. They are doubtless good of their kind, but if the student has an adequate knowledge of Latin grammar, the most of the notes are unnecessary. The same objection, however, cannot be taken to those of a geographical, historical, or archæological character, for they are certain to arouse the interest of the student, and a classical dictionary of biography and geography, or a hand-book of Roman antiquities is not always easily obtained. The maps and plans are very good and must prove helpful to the student. But whilst we commend the effort to prepare a graduated reader from the first book of the "Gallic War," and confess that the editors have been particularly successful in their gradual introduction of passages in oblique narration, there is a serious defect in the notes and vocabulary, in as far as there are many words, the quantities of whose vowels are not marked, and must necessarily be doubtful to the beginner. We are of opinion that where notes and a vocabulary are annexed to an addition of a Latin author, the marking of all the vowels by broad and distinct lines ought to be a special feature. And surely this ought to be the case in a geographical index, but it is here that the omissions are most noticeable.

Notwithstanding the many editions of the Latin classics that have appeared during the last twenty years, we must express our preference for the Oxford texts. And if the study of the Latin language is, as we believe it to be, one of the best means of cultivating the intellect and refining the taste, it ought to be pursued on such a plan as will best conduce to this result. And surely that plan cannot involve the adoption of measures by which every difficulty, as it occurs, is solved for the student, and no opportunity is left for sharpening his intellect by grappling with obstacles which demand for their conquest all the resources of his knowledge and ingenuity. With the Oxford texts, a lexicon, a grammar, and, if possible, a dictionary of geography, biography, and archæology, he should be well equipped for the work of preparation for his class, and he will soon learn that the training thus acquired will be of infinite service to him as he proceeds; success will attend his efforts, and the pleasure which springs from success will be his portion.

A Course of Quantitative Analysis for Students, by W. N. Hartley, F. R. S, Professor of Chemistry, etc., Royal College of Science, Dublin. London, MacMillan & Co., and New York, 1887. This is a capital little book of about 240 pages. The preface opens with the quotation from Fresenius, "One may be a good analyst without having tried *every* method, or determined *every* body." It opens with practical instructions in general manipulation, directions and cautions. Then it takes the student directly into quantitative analysis, the subjects chosen first being admirably adapted to the demonstration of the atomic theory and the discovery of chemical formulæ. We cannot do better, to give an idea of the practical value of the work to the reader, than noting the subjects in order: 1. Determination of lead in litharge. 2. Determination of the weight of magnesium equivalent to 108 parts of silver. 3. Determination of water and copper in crystals of copper sulphate. 4. Of the composition of copper oxide. 5. Copper equivalent to 108 of silver. 6. Iron equivalent to 108 of silver or 31.65 of copper. 7. Estimation of sodium in rock salt. 8. Estimation of chlorine in rock salt. 9. Estimation of sulphuric acid in sulphates. And so on for the first third of the volume. Then follows a section on volumetric analysis, concluding with: 31. Estimation of phosphoric acid. 32. The estimation of sugar. 33. The analysis of urine. Then follows a section on *Technical Analysis*, which is succeeded by over sixty pages on the analysis of alloys and complex minerals, the whole closing with a set of useful chemical tables. The whole subject is treated in a concise, simple, and most admirable manner.

A Treatise on Algebra, by Charles Smith, M. A, of Cambridge University. London, MacMillan and Co., and New York, 1887. This is a fine volume of over 570 pages, got up in the usual good typographical form of MacMillan & Co. It conveys the impression of being well adapted to the algebraic student. It treats the subject of indices, surds, imaginary and complex quantities pretty fully and very neatly, but we would prefer seeing a much larger selection of well graduated exercises in these chapters. As usual in many algebraic treatises, these subjects are left until quadratic equations are mastered. The chapters following treat of: 15, square and cube roots; 16, ratio and proportion; 17, the progressions; 18, systems of numeration; 19, permutations and combinations; 20, the binomial theorem; 21, convergency and divergency of series; 22, the binomial theorem—any index; 23, partial fractions, indeterminate co-efficients; 24, exponential theorem, logarithms, logarithmic series; 25, summation of series; 26, inequalities; 27, continued fractions; 28, theory of numbers; 29, indeterminate equations; 30, probability; 31, determinants. The titles of these chapters indicate their scope. The treatment of each subject is very concise and orderly. The chapter on determinants will make it interesting to some of our