decided to publish them separately with a memorial of the lifelong friendship and collaboration of the writers.

The memoir by Mrs. Laurence Humphry is full of interesting details. In a letter to Lady Stokes before their marriage we learn how the notable paper, "On the discontinuities of the arbitrary constants which appear in divergent developments" was finally brought to a successful conclusion. Stokes writes, " I have been . . . sitting up till 3 o'clock in the morning fighting hard against a mathematical difficulty. Some years ago I attacked an integral of Airy's and after a severe trial reduced it to a calculable form. But there was one difficulty about it, which, though I tried till I almost made myself ill, I could not get over, and at last I had to give it up and profess myself unable to master it. I took it up again a few days ago, and after a two or three days fight, the last of which I sat up till 3, I at last mastered it."

In speaking of these same letters Mrs. Humphry writes, " They are remarkable also from the curious place which he assigned to his original investigations ; it almost seems as if he considered them the height of dissipation and everything else a duty." One might quote almost at random from the letters to his numerous correspondents and give something worthy of notice. A considerable number of them are scientific papers of the highest value, although the results have of course been incorporated in the published memoirs of the time. But we may gather much from the tentative suggestions which may be made in a private letter but which one might not feel justified in publishing in a scientific paper. Whether we read through these volumes continuously or dip into them here and there, their perusal cannot fail to be of interest and value.

<div align="right">E. W. BROWN.</div>

Computation and Mensuration. By P. A. LAMBERT. The Macmillan Company, New York, 1907. ix + 92 pp.

THIS little volume is intended to help bridge the gap which frequently exists between the mathematics of the secondary schools offering advanced algebra and trigonometry for entrance to college and college mathematics proper. In colleges where algebra and trigonometry are taught as a part of the regular curriculum in mathematics the book might very readily be used as a review text preparatory to the work in the calculus. Opportunity to review and apply mathematical principles learned is given by

a set of 165 concrete problems of a grade which insures the arrival at definite results. The selection of the problems is based on the correct pedagogic principles that doing things promotes and sustains the students' interest, and that all work in mathematics should be consecutive.

That the text is written from the view-point of the instructor whose students are preparing for technical courses may readily be seen from the selection of the topics discussed. The following form a list representative of the contents of the ten chapters : Measurements, both direct and indirect, of lengths and areas; with special reference to the degree of accuracy possible in the computations based on the given data. Areas of rectilinear plane figures by the method of coordinates, with applications to problems in surveying. The prismoidal formula, with special reference to the computation of earthwork. Vectors, with applications to resultant forces and latitudes and departures in surveying. A chapter on the nature and applications of logarithms, which might have been strengthened by a more complete discussion of the slide rule and by the introduction of problems based on the system of natural logarithms. Approximations to the lengths of curved lines as problems in limits. Graphic algebra, including work in the solution of simultaneous equations and inequalities. Approximate areas, leading to the trapezoidal, Simpson's, and Weddle's formulas. Approximate volumes, with applications to the contents of vessels. A discussion of the results obtained by the use of the prismoidal formula when the volumes are those of revolution.

Throughout it is apparent that the author believes in the pedagogic value of accuracy, the proper arrangement of computations, and the intelligent interpretation of processes and results. It seems to the reviewer that, since the nature of the subjects considered holds the student continually responsible for concrete results, the answers to the problems should have been included in the text.

ERNEST W. PONZER.

Anfangsgründe der darstellenden Geometrie für Gymnasien. Von FRITZ SCHÜTTE, Oberlehrer am Gymnasium zu Düren. Leipzig, Teubner, 1905. 42 pp.

SINCE instruction in descriptive and constructive geometry was introduced into the German gymnasia in 1901, a number