a very noteworthy contribution to the study of sources in the history of mathematics.

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A First School Calculus. By R. WYKE BAYLISS. London, Longmans, Green and Company, 1915. xii + 288 pp.

THE pedagogical method used in this book is distinctly different from any found in the usual elementary calculus text. The author, a mathematical master at a boys' preparatory school in England, aims to teach the calculus to the youths by means of the question and answer method. Simple and definite questions on concrete problems concerning matter supposedly familiar to the youthful students are used to develop and fix the fundamental principles of the calculus. There are 180 pages of questions and suggestions; the answers to these cover 100 pages.

An equivalent of a meager high school course in mathematics seems sufficient as a prerequisite. Much of the work could be done orally; a private student might make considerable headway by using the text. Graphical work is minimized and included almost entirely among the answers.

No attempt is made to introduce rigor in the derivation of formulas. For example, the formulas based on the exponential function are developed from a practical consideration of the rate of increase of a sum of money placed at compound interest (continuous)—a concept with which all the students are supposed to be familiar. Or they are advised to draw a figure and use this to derive a formula. Or tables of trigonometric functions may be used to get average rates of increase and thus lead to general formulas. All of which, thoroughly rough and ready, seems like substituting a butcher's cleaver with a fairly dull edge for the scalpel in a surgical operation.

In the integral calculus much time and labor is saved by the following definition of integral: "We have seen that the symbol $D^{-1}f(x)$ denotes the expression for the *amount* of a quantity when its rate of increase is denoted by $f(x)$. The *amount* $D^{-1}f(x)$ is called the **integral** of the function $f(x)$." After which formulas may be applied in large chunks. And there is an everlasting amount of formal differentiating and integrating to be done.

The evaluation of the definite integral is arrived at through