

1898. "Beweis eines von Herrn Dedekind angegebenen Satzes." *Göttinger Nachrichten*, page 1.

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1892. "On a theorem of Sylvester's relating to non-degenerate matrices." *Proceedings of the American Academy*, page 46.
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H. E. HAWKES.

An Elementary Text-book on the Differential and Integral Calculus. By WILLIAM H. ECHOLS. Professor of Mathematics in the University of Virginia. New York, Henry Holt and Company, 1902.

IN this book Professor Echols has made a commendable and, on the whole, a successful attempt to establish the principles of the differential and integral calculus with proper regard to modern ideas on the subject, pointing out carefully the limits under which the processes can be applied and giving examples of exceptional cases, such as Weierstrass's example of a continuous function which has no determinate derivative, and Pringsheim's example of a function for which Maclaurin's series is absolutely convergent and yet does not represent the function. One would like to see also, however, an example in which $\partial^2 z / \partial x \partial y$ and $\partial^2 z / \partial y \partial x$ are different — a case of peculiar interest in some of the applications.

The book is far more comprehensive than the usual text-books, and should therefore be useful for consultation by