

for further work whether in physics or mathematics or theoretical mechanics by beginning with a general course which includes the elements of many branches of mechanics than by beginning with a thorough course in any one branch.

Professor Cellérier's Cours de Mécanique was in many ways an interesting and most valuable book when it appeared. We are inclined even now to recommend it to all who wish to follow the method in general use among engineers—the method of starting mechanics with a discussion of statics.

EDWIN BIDWELL WILSON.

YALE UNIVERSITY,  
May 10, 1902.

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### KIEPERT'S CALCULUS.

*Grundriss der Differential- und Integral-Rechnung.* Von Dr. LUDWIG KIEPERT. I. Theil: *Differential-Rechnung.* 9<sup>te</sup> Auflage. II. Theil. *Integral-Rechnung.* 7<sup>te</sup> Auflage. Hannover, Helwingsche Verlagsbuchhandlung, 1900–1901.

A work which has gone through so many editions in a country where so much attention is given to mathematical instruction should have its merits; nor in this case will the reader fail to discover them. These are clearness of statement, carefully drawn illustrations in great number, minute explanations, warnings against probable mistakes on the part of the student. Nevertheless from the very fact that we have a ninth reproduction of an older work there is a certain clinging to tradition which impairs the usefulness of the book.

For example, it gives the student a better idea both of the theory and the range of application, if the differential and integral calculus be treated simultaneously; moreover, he begins at once to know something of integration, a matter of great practical importance. Again, a subject so rich in applications to the various sciences and industrial arts should be presented along with these applications. Thus can the subject be made alive to the student rather than a dead and tiresome exercise in formula grinding. It may be, however, that a problem book, used in conjunction with the text, will supply this deficiency, and of course every good teacher will add problems of his own.

The first volume has an introduction concerning functions, limits, infinitesimals of various orders, continuity, the binomial theorem for positive integral exponents, geo-