(page 28) he speaks of "the quantity $\sqrt[b]{a}$, of which we have above shown the existence." We are told further (page 28) that in case of continuous magnitude the presence of quantities other than the rational is necessarily imposed by the assumption of the infinite divisibility of such magnitude, "for otherwise the division into parts would be necessarily limited." This sounds very clear and simple; and yet we are troubled by the fact that infinite divisibility in M. Dassen's sense seems to us to imply not necessarily a continuum, but only an aggregate everywhere dense in itself, for the representation of which the rational numbers suffice.

Enough has probably been said to indicate the character of M. Dassen's philosophy and the mathematical knowledge on which it is based, so that we may refer anyone interested in its further development to the remaining two chapters of the book itself, which have to do with directed quantities in the plane and in space respectively. In an appended note the author pays his respects to the work of Tannery and Kronecker regarding the founding of analysis on the concept of the positive integer alone, and pronounces it quite useless and a mere jugglery of symbols, "at which one is justly shocked." From what precedes, the fact that he has entirely missed the real object of such work is not surprising.

Before closing, we would, however, refer to a feature of the work which is of considerable interest. The author has scattered through the text a very large number of historical data. These are quite independent of his philosophy and seem to be drawn from reliable and often not easily accessible sources.

<div align="right">J. W. YOUNG.</div>

A Treatise on Differential Equations. By ANDREW RUSSELL FORSYTH. Third Edition. Macmillan and Co., 1903.

IT is not an easy matter to review a book which, like the present one, has been before the public so many years, the first edition having appeared in 1885 and the second in 1888. That this treatise has many virtues has been quite conclusively shown by its success. In fact in English-speaking countries the domain of differential equations has, since 1885, been synonymous with the name of Mr. Forsyth, at least in the minds of that great category of students whose knowledge comes from text-books only.