which is seen in some of the early work of the fifteenth century; and his aim has been to bring out characteristics rather than finished details. Frankly, however, as to furnishing good likenesses of the men portrayed, the results are very unsatisfactory.

As a general summary, the work is a fair presentation of the claims of France, it is delightfully written, and it is worthy of careful reading by everyone of mathematical tastes. The study of the nineteenth century will be particularly helpful to the student; it is hardly intended as mathematics, but it is very well-written history.

DAVID EUGENE SMITH

## SECRIST ON STATISTICAL METHODS

An Introduction to Statistical Methods, Revised Edition. By Horace Secrist. New York, The Macmillan Company, 1925. xxxiii+584 pp.

The most notable developments in mathematics have had their origins in attempts to solve difficult practical problems. The purpose of mathematics is not to make easy things hard but to make hard things easy. If it sometimes seems to the layman that the former is true, this is because, with the powerful tools at hand, the mathematician frequently undertakes difficult things. The association between mathematics and difficulty is so close that the illusion is created that there is a necessary connection, and that, to avoid difficulty, one must at all costs avoid mathematics. This illusion is rather common among the economic-business group of statisticians.

There is a large section of Secrist's book which contains no mathematics, and there is no objection to its exclusion from this portion, for here the ideas portrayed are so simple that they can be conveyed easily by pictures and numerical illustrations. This part, perhaps seventy-five per cent, is intended for the use of those who have not studied, or at least are not still accustomed to the use of high school algebra. So far as the reviewer is qualified to pass on this phase of the work, it appears to be a valuable contribution. It is fair to say that it does not possess distinct literary merit or marked individuality of approach. The author is rather over fond of quotation. Especially when some difficult point is to be explained, or a critical remark to be made, it is usually somebody else who is invoked to do it; so that at times it almost seems that we have a compendium of what various authorities have said, Fisher, Bowley, Mitchell, et al., and sometimes Pearson and Pearl, but nevertheless a very useful one, handy as a reference book-notably Chapter XVI on indexes-up to date, and easy to read.

The other and newer part of the book deals with more difficult ideas. Rightly again, in view of the type of student for which the book was written, only the simplest of these are presented; but now it would seem to have been better for the author to have demanded a minimum of mathematics, certainly some algebra, and probably some analytics. In