It is shown that by transformations the consideration of one form for purposes of distribution may be replaced by that of one or more other forms, and that it is possible to reduce all the forms until they possess the same number of members. On account of such transformation it is sufficient to keep s fixed in G(s) in treating the problem of distribution.

While the notation is rather complicated, the analytic expression for the frequency of the forms in draw groups seems to be a result fundamental in the theory of "collective quantity" (Kollektivgegenstand) in general, and for problems of statistics in particular, as drawings  $z_h$  are representative of any events back of which lies that mode of origination that belongs to problems of chance. The work appears to the reviewer to be of considerable importance for the mathematics of statistics.

H. L. RIETZ.

Elementary Treatise on the Differential Calculus. By W. W. JOHNSON. New York, John Wiley and Sons, 1908. x + 191 pp.

IF phrases current in the present political situation be allowed in reviewing a text in the calculus, the best possible way to describe the impressions made on the reviewer by the present volume would be to say that it is very plainly written from the viewpoint of the "stand-patter" who refuses to be convinced of the value for purposes of instruction in the calculus of the methods of limits and function theory as promulgated by the "progressives," or of the "insurgent," methods of modern disciples of the Perry movement. And the analogy goes further than the stand-pat attitude taken on the method of rates; for it applies throughout to the contents of the 7 chapters of the volume of 191 pages.

The new text is in great part an abridgment of the author's larger treatise on the differential calculus. The contents are very similar to the old, but seemingly compounded in a more digestible form for beginners. The attitude on rates having been taken, the author naturally makes a maximum use of the student's geometric intuition in explaining the fundamental notions of the differential calculus, a point of view sometimes lost sight of by those who, regardless, hold fast to rigor of demonstration.

The derivative, or differential coefficient, is defined as the relative rate of increase of the function as compared with the