Edgeworth points out—the variations between two given series of index numbers according to different systems are within the range of probable error, and therefore inconclusive. What an amount of controversy might have been saved by general recognition of this fact.

To those interested in the theory of averages mention may be made of the appendices, in which are detailed the elementary propositions relating to the arithmetic, geometric and harmonic means, with single and multiple weighting.

The logical method of the work is admirable, its index most complete, but it leaves the reader with the impression that further work must be done and that no one solution will cover what is really a considerable number of independent problems.

J. M. GAINES.

NOTES.

THE closing (October) number of volume 3 of the *Transactions* of the AMERICAN MATHEMATICAL SOCIETY contains the following papers: "On the groups of order p^m which contain operators of order p^{m-2}," by G. A. MILLER; "On the circuits of plane curves," by C. A. SCOTT; "Note on the real inflexions of plane curves," by C. A. SCOTT; "La théorie des plaques élastiques planes," by J. HADAMARD; "Covariants of systems of linear differential equations and applications to the theory of ruled surfaces," by E. J. WILCZYNSKI; "On the rank, order and class of algebraic minimum curves," by A. S. GALE; "On superosculating quadric surfaces," by H. MASCHKE; "Algebraic transformations of a complex variable realized by linkages," by A. EMCH; "On the determination of the distance between two points in space of m dimensions," by H. F. BLICHFELDT; "A definition of abstract groups," by E. H. MOORE; notes and errata: volumes 1, 2, 3.

THE October number (volume 24, number 4) of the *American Journal of Mathematics* contains: "On systems of linear differential equations of the first order," by M. BÔCHER; "On the quaternary linear homogeneous group and the ternary linear fractional group," by T. M. PUTNAM; "On cardinal numbers," by A. N. WHITEHEAD; "On a method of constructing all the groups of order p^m," by G. A. MILLER; "Non-euclidean