with the smaller real part can be developed by the method of successive approximations exactly as the solution corresponding to the exponent with the larger real part is developed in my article in the Transactions, provided that $R\varkappa < 1 - k$, *where* $\varkappa$ *is the difference of the exponents at* $x = 0$ *so taken that* $R\varkappa > 0$.

By using this theorem we deduce the

SECOND THEOREM OF COMPARISON: *If the conditions of the first theorem of comparison are fulfilled, and if moreover both equations have the same exponents, and both satisfy restriction* (A); *and if* $\bar{y}_1$ *and* $\bar{y}_2$ *are the solutions corresponding to the smaller exponent; and if* $\bar{y}_1$ *vanishes when* $x = \bar{x}_1 > 0$, *but not in the interval* $0 < x < \bar{x}_1$, *then* $\bar{y}_2$ *will vanish at least once in this interval provided that* $\varkappa < 1 - k$.

Finally I should like to mention a fact which had escaped my notice until after my paper in the *Transactions* was printed, namely that the class of singular points which I there discuss under the name *regular* can be brought into very close connection with the class of singular points previously studied by Kneser (*Crelle's Journal*, Volumes 116, 117, 120; *Mathematische Annalen*, Volume 49). This can be done by replacing the independent variable x, which I use, by z where $x = e^{-z}$. Although many of my results can be deduced by this method from those previously found by Kneser and *vice versa*, the results in the two cases are by no means coextensive, nor does either include the other. I shall come back to this matter more at length on a subsequent occasion. It may be noted that the method of successive approximations can also be applied directly to Kneser's case.

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NOTE ON THE ENUMERATION OF THE ROOTS OF THE HYPERGEOMETRIC SERIES BETWEEN ZERO AND ONE.

BY DR. M. B. PORTER.

(Read before the American Mathematical Society, February 24, 1900.)

IN the May number of the BULLETIN for 1897, the writer gave a solution of the problem of enumerating the real roots of $F(\alpha, \beta, \gamma, x)$ between zero and one which depended on two well known theorems of Sturm—there referred to as [A]