and are therefore now to be regarded as known functions. When $|\rho|$ is sufficiently large the determinant of the coefficients in (12) is not zero, so the E_i's can be uniquely determined. It is plain that for ρ in S_k they are analytic in ρ and bounded as ρ becomes infinite.

BOWDOIN COLLEGE,
October, 1916.

ON NOTATIONAL EQUIVALENCE.

BY PROFESSOR EDWIN BIDWELL WILSON.

IN reply to my query* to Dr. Poor "Why not make the work short?" he states† that brevity was not his aim, that one of his purposes was to exhibit the Burali-Forti and Marcolongo notation. I must accept that answer and admit my error in assuming that his only aim was to derive as directly as possible some transformations which are needed in certain studies in applied mathematics. It is, however, difficult for me to admit many of his other contentions. I have no desire to enter upon any polemic in regard to these matters, but it does seem that further explanation from Dr. Poor would be valuable to all who are interested in vectorial methods.

1. He states: That the use of words, such as grad, div, rot, is hampering seems to be a matter of opinion, since they may be used interchangeably with other symbols.

I hold that because two sets of symbols may be used as interchangeably as these and ∇ is no criterion at all that one is not more hampering than another. For instance, 94 and XCIV are equivalent symbols, so are 8 and VIII, and also 752 and DCCLII. Yet for the arithmetical operation of multiplying eight and ninety-four the Arabic notation is far superior to the Roman (or Greek); indeed so marked is the superiority that one may well wonder how far mathematics would now be advanced had no better system than the Roman been devised.

May we not fairly maintain that notationally Arabic and Roman numerals are not interchangeable? Is it true that two notations in terms of which premises and conclusions may both be stated are for that reason interchangeable? To

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* Wilson, this BULLETIN, vol. 22, April, 1916, p. 336.

† Poor, this BULLETIN, vol. 22, July, 1916, p. 503.