A SECOND CORRECTION

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In my paper in the present volume these Transactions (vol. 35, pp. 274–304 and 557–558), the Example 5 on page 304 is erroneous and Postulate 5 on page 301 is redundant. That is, Postulates 1, 2, 3, 4, 6, 7 (without 5) form a set of independent postulates for the "informal" system of *Principia Mathematica*.

The proof of 5 from 1, 2, 3, 4, 6, 7 is as follows.*

6a. If a+b is in T and a not in T, then b is in T. (From 6.)

6b. If a not in T and b not in T, then a+b not in T. (From 6.)

7a. If a is in T, then a' is not in T. (From 7.)

3a. If b is in T, then a+b is in T.

For, by 7a, b' is not in T. But by 3, b'+(a+b) is in T. Hence by 6a, a+b is in T.

4a. If b is in T, then b+a is in T.

For, by 3a, a+b is in T, whence by 7a, (a+b)' is not in T. But by 4, (a+b)'+(b+a) is in T. Hence by 6a, b+a is in T.

5a. If a is not in T, then a' is in T.

For, suppose a' not in T. Then by 6b, a'+a not in T, whence by 6b, a'+(a'+a) not in T, contrary to 3.

5. If a, b, etc. are in K, then (b'+c)' + [(a+b)' + (a+c)] is in T.

Case 1; a in T. By 4a, a+c is in T. Hence the theorem, by 3a (twice).

Case 2: b in T. By 7a, b' is not in T. If c is in T, then by 3a, a+c is in T, whence the theorem, by 3a (twice). If c is not in T, then by 6b, b'+c is not in T, whence by 5a, (b'+c)' is in T, whence the theorem, by 4a.

Case 3: a not in T and b not in T. By 6b, a+b not in T, whence by 5a, (a+b)' is in T. Hence the theorem, by 4a and 3a.

The proof is thus complete. It can also be shown that 1, 2, 3a, 4a, 5a, 6a, 7 form a set of independent postulates equivalent to the set 1, 2, 3, 4, 6, 7.

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