A SECOND CORRECTION

BY

EDWARD V. HUNTINGTON

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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* For valuable suggestions in this connection I am indebted to Professor Alonzo Church and Dr. K. E. Rosinger.

HARVARD UNIVERSITY,
CAMBRIDGE, MASS.
May 29, 1933.