GROUP THEORY REVIEWS
IN THE
JAHRBUCH ÜBER DIE FORTSCHRITTE DER MATHEMATIK

BY PROFESSOR G. A. MILLER.

A few erroneous statements found in a recent volume of the JAHRBUCH ÜBER DIE FORTSCHRITTE DER MATHEMATIK and relating to the theory of groups led the present writer to make a brief survey of the other volumes of this series for the purpose of determining the reliability of the reviews relating to this particular subject. As these reviews are so widely read and so frequently referred to, it seems desirable to note here a few of the instances of inaccurate or misleading statements found therein, since some of these instances may be instructive and since such a notice may tend to prevent a repetition of these particular errors. The fact that a few of the many reviewers failed to maintain the high standards of this classic series should not be surprising, and a knowledge of their shortcomings can only increase the usefulness of this series, which has had no serious competitor, since its inauguration about half a century ago, in its field of providing critical reviews of the entire current mathematical literature relating to important advances.

The erroneous statements mentioned above are found on page 164 of volume 44 (1918) and relate to the possible sets, or systems, of independent generators of a finite group whose order is a power of a prime. It is there stated that the number of the operators in such a set is equal to the index of the commutator subgroup. In the following sentence the equally incorrect statement is made that a system of independent generators of such a group can be obtained by taking one operator from each of the co-sets with respect to the commutator subgroup. According to these statements the cyclic group of order p^m, p being a prime number, would have a set of p^m independent generators, since the commutator subgroup of this group is the identity. On the contrary, it is well known that only one operator can appear in such a set of generators.

These statements are so obviously incorrect that one might be inclined to attribute them to a harmless and amusing over-