

Foundations of the Theory of Groupoids and Groups

Preface to the English edition

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PREFACE TO THE ENGLISH EDITION

In the thirties the theory of sets started to exert considerable influence upon the majority of mathematical branches. This happened especially in case of algebraic disciplines where it finally led to the study of general algebras. At that time the author of this book consequently applied the set-theory in laying the foundation of the theory of groups. He started from the congruences on groups and the decompositions of the carrier of a group, which describe these congruences. Thus an extensive theory of decompositions of sets and factoroids on groupoids was originated. In outline it was developed during World-War II, at a time of scientific isolation. A natural consequence of this isolation is a remarkable originality of conception which remained devoted to employing decomposition of a set as the fundamental concept, whereas other authors treated similar problems by means of relations.

This book is not intended to be an introduction into the study of general algebras, not even of binary systems. Nevertheless it shows one of the ways to gain an idea of the elementary notions of binary systems. It is a clear way even if, owing to the nature of the subject, not always simple.

The object of the present book is, as it was already stated, the theory of decompositions of sets and its application to binary systems. It has the chief characteristics of originality and is unique in the literature. Thus it suggests topics which might yield a new approach to and aspect of the theory of general algebras.

It is in these properties that the actual value of BORŮVKA's book consists. We therefore believe that it is most helpful and worthy of merit on the part of the Publishing House VEB Deutscher Verlag der Wissenschaften to publish this new edition.

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