HISTORY OF MODERN MATHEMATICS

DAVID EUGENE SMITH

MATHEMATICAL MONOGRAPHS

EDITED BY MANSFIELD MERRIMAN AND ROBERT S. WOODWARD

No. 1

HISTORY OF MODERN MATHEMATICS.

BY

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FOURTH EDITION, ENLARGED.
1906

ILLUSTRATED &

PUBLISHED BY

E-KİTAP PROJESİ & CHEAPEST BOOKS



www.cheapestboooks.com

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Istanbul
ISBN:
978-625-6014-14-5

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Mansfield Merriman and Robert S. Woodward.

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EDITORS' PREFACE.

The volume called Higher Mathematics, the first edition of which was published in 1896, contained eleven chapters by eleven authors, each chapter being independent of the others, but all supposing the reader to have at least a mathematical training equivalent to that given in classical and engineering colleges. The publication of that volume is now discontinued and the chapters are issued in separate form. In these reissues it will generally be found that the monographs are enlarged by additional articles or appendices which either amplify the former presentation or record recent advances. This plan of publication has been arranged in order to meet the demand of teachers and the convenience of classes, but it is also thought that it may prove advantageous to readers in special lines of mathematical literature.

It is the intention of the publishers and editors to add other monographs to the series from time to time, if the call for the same seems to warrant it. Among the topics which are under consideration are those of elliptic functions, the theory of numbers, the group theory, the calculus of variations, and non-Euclidean geometry; possibly also monographs on branches of astronomy, mechanics, and mathematical physics may be included. It is the hope of the editors that this form of publication may tend to promote mathematical study and research over a wider field than that which the former volume has occupied.

December, 1905.

AUTHOR'S PREFACE.

This little work was published about ten years ago as a chapter in Merriman and Woodward's Higher Mathematics. It was written before the numerous surveys of the development of science in the past hundred years, which appeared at the close of the nineteenth century, and it therefore had more reason for being then than now, save as it can now call attention, to these later contributions. The conditions under which it was published limited it to such a small compass that it could do no more than present a list of the most prominent names in connection with a few important topics. Since it is necessary to use the same plates in this edition, simply adding a few new pages, the body of the work remains substantially as it first appeared. The book therefore makes no claim to being history, but stands simply as an outline of the prominent movements in mathematics, presenting a few of the leading names, and calling attention to some of the bibliography of the subject.

It need hardly be said that the field of mathematics is now so extensive that no one can longer pretend to cover it, least of all the specialist in any one department. Furthermore it takes a century or more to weigh men and their discoveries, thus making the judgment of contemporaries often quite worthless. In spite of these facts, however, it is hoped that these pages will serve a good purpose by offering a point of departure to students desiring to investigate the movements of the past hundred years. The bibliography in the foot-notes and in Articles 19 and 20 will serve at least to open the door, and this in itself is a sufficient excuse for a work of this nature.

Teachers College, Columbia University,
December, 1905.

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