THE ELEMENTARY GEOMETRY OF CONICS

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649461080

The Elementary Geometry of Conics by C. Taylor

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C. TAYLOR

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Trieste

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GEOMETRY OF CONICS

Cambridge
PRINTED BY C. J. CLAY M.A. AND SON
AT THE UNIVERSITY PRESS

THE ELEMENTARY

GEOMETRY OF CONICS

BY

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MASTER OF ST JOHN'S COLLEGE CAMBRIDGE

FOURTH EDITION REVISED AND ENLARGED

CAMBRIDGE
DEIGHTON BELL AND CO.
LONDON GEORGE BELL AND SONS
1883

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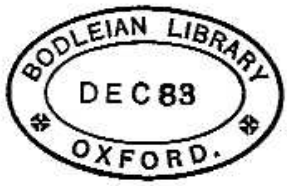
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PREFACE TO THE THIRD EDITION.

THE Geometry of Conics has been recast in the third edition, so as to serve as an introduction to a larger work now approaching completion.

The characteristic feature of the edition is the use of the Eccentric Circle, which contributes to a concise and uniform treatment of the three species of conics.

The Asymptotes of the hyperbola are shewn to be coincident with its self-conjugate diameters, and their properties are deduced from a limiting case of a property of conjugate diameters in general.

The principle that Chord-properties should be proved independently of Tangent-properties is still adhered to, although in the general rearrangement of the text it seemed no longer desirable to confine the two classes of properties to separate chapters.

The work now to some extent resembles my first work on *Geometrical Conics*, published in 1863; but the general chapter has been made more complete than I was then able to make it.

October 1879.

PREFACE TO THE FOURTH EDITION.

A FOURTH edition having been called for the work has been revised and in a measure enlarged by the insertion of some further corollaries (Arts. 40, 54, 59) and a chapter on Curvature and also of a Lemma on points at infinity and a Scholium on the metric properties of diameters which are needful for a right conception of the hyperbola in itself and in its relation to the ellipse.

The collection of Problems has been reconstructed by Mr J. S. Yeo, Fellow of St John's College.

A sketch of the history of this branch of Mathematics from the earliest times will be found in the Prolegomena to the work referred to in the preface to the third edition as approaching completion, and since published under the name of *An Introduction to the Ancient and Modern Geometry of Conics.*

November 1883.

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