

ELEMENTS OF DYNAMICS

(KINETICS AND STATICS)

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ELEMENTS OF DYNAMICS

(KINETICS AND STATICS)

WITH NUMEROUS EXERCISES

A TEXT-BOOK FOR JUNIOR STUDENTS

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PREFACE

IN the following pages I have tried to exhibit the Elements of Dynamics in the simplest form which the subject seems to admit. It is throughout a strictly elementary work, and is designed to be put into the hands of any Student who has read the first Four and the Sixth Books of Euclid's Geometry, Algebra to the solution of Quadratic Equations, and Plane Trigonometry as far as the solution of Triangles. It seems to me desirable that a boy when equipped with this amount of Elementary Mathematics, should enter on the study of Dynamics somewhat earlier in school life than is now the custom.

In placing at the threshold the pure Geometry of Motion, irrespective of the cause of that motion, and then founding the entire science of Dynamics, in its Kinetic and Static branches, on Newton's 'Three Laws of Motion,' I have, like many recent writers on the subject, followed the system advocated by Professors Thomson and Tait; and there seems to be now an almost universal consensus of opinion that this is the most philosophical and the simplest method of proceeding.