

## Contents

Foreword.....	vii
Introduction.....	ix
The Beginning of the Theory of Elasticity from Galileo to Jacob Bernoulli .....	1
The Second New Science in Galileo's <i>Discorsi</i> .....	17
Huygens's <i>Horologium Oscillatorium</i> and Newton's <i>Principia</i> .....	41
Newton's <i>Principia</i> .....	51
The Science of Mechanics in the Eighteenth Century .....	71
The Discovery of Rigid Body Dynamics.....	85
Johann Bernoulli's Work on the Theory of Gravitation and the Weight of the Atmosphere .....	105
The Kepler Problem from Newton to Johann Bernoulli.....	123
Daniel Bernoulli.....	137
Leonhard Euler: Mathematician, Physicist, Engineer .....	157
The Principle of Relativity in Euler's Work .....	167
Euler, the Principle of Relativity and the Fundamentals of Classical Mechanics .....	179
Euler's <i>Anleitung zur Naturlehre</i> .....	185
Euler's Work in Physical Optics .....	197
Euler's Writings on Optics, Electricity and Magnetism.....	211
The Distance of the Fixed Stars and the Riddle of the Sun's Radiation.....	225
Johann Heinrich Lambert .....	233
Pierre Louis Moreau de Maupertuis.....	255

Editor's Notes .....	269
References .....	283
Illustration Credits .....	315
Index of Names .....	317
Index of Subjects.....	325