

CONTENTS.

ix

ARTH.	PAGES
176—178. Problems on friction when the direction is known. Different methods of solution. Various examples . . .	112—120
179. Wheel and axle with friction	120—122
180—187. Friction in unknown directions. Two methods . . .	122—127
188—190. Examples. Rotation of bodies on a finite and an infinite number of supports. String of particles, &c. . . .	127—134

CHAPTER VI.

THE PRINCIPLE OF WORK.

191—195. Proof of the principle	135—138
196. The forces which do not appear in the equation of work . .	138—140
197. Work of a bent string See also Art. 493.	140—142
198. Infinite forces	142
199. Converse of the principle of work	142—143
200—201. Initial motion	143
202—204. Equations of equilibrium derived from work	143—146
205. Examples on the principle	146—148
206—213. The work function	148—152
214—225. Stable and unstable equilibrium. Analytical method .	153—159
226—228. Attracting or repelling atoms	159—161
229—234. Determination of stress in a simply stiff frame. Examples	161—168
235—236. Abnormal deformations	168—169
237—238. Indeterminate tensions. Theorems of Crofton and Lévy. See also Art. 368.	169—170
239—243. Geometrical method of determining the stability of a body. The circle of stability	170—174
244—246. Rocking stones. Examples	175—177
247—254. Rocking stones, spherical and not spherical to a second approximation in two and three dimensions	177—182
255—256. Lagrange's proof of the principle of virtual work . .	182—183

CHAPTER VII.

FORCES IN THREE DIMENSIONS.

257—259. Resultants of a system of forces. Conditions of equilibrium. See also Art. 331.	184—186
260—262. Components of a force	186—187
263—267. Moment of a force	188—190
268—269. Problems on equilibrium. Pressures on an axis, rods, spheres, rod on wall, curtain ring, &c.	190—194
270. Poinso't's central axis	194—195
271—278. The equivalent wrench. Analytical method	195—199
279—283. The Invariants	199—201