CONTENTS

	Page
Preface to the English edition	vii
Notation	V111

I. FUNDAMENTAL EQUATIONS

§1.	The strain tensor	1
§2.	The stress tensor	4
§3.	The thermodynamics of deformation	8
§4.	Hooke's law	10
§5.	Homogeneous deformations	13
§6.	Deformations with change of temperature	15
§7.	The equations of equilibrium for isotropic bodies	17
§8.	Equilibrium of an elastic medium bounded by a plane	26
§9.	Solid bodies in contact	30
§10.	The elastic properties of crystals	36

II. THE EQUILIBRIUM OF RODS AND PLATES

§11.	The energy of a bent plate	43
§12.	The equation of equilibrium for a plate	45
§13.	Longitudinal deformations of plates	52
§14.	Large deflections of plates	57
§15.	Deformations of shells	61
§16.	Torsion of rods	-65
§17.	Bending of rods	72
§18.	The energy of a deformed rod	75
§19.	The equations of equilibrium of rods	79
§20.	Small deflections of rods	86
§21.	The stability of elastic systems	94

III. ELASTIC WAVES

§22.	Elastic waves in an isotropic medium	98
§23.	Elastic waves in crystals	103
§24.	Surface waves	105
§25.	Vibration of rods and plates	109
§26.	Anharmonic vibrations	115

IV. THERMAL CONDUCTION AND VISCOSITY IN SOLIDS

§27.	The equation of thermal conduction in solids	119
§28.	Thermal conduction in crystals	121
§29.	Viscosity of solids	122
§30.	The absorption of sound in solids	124
§31.	Highly viscous fluids	130
	Index	133