CONTENTS

CHAPTER		PAGE
	PREFACE	V
I.	COMPOSITION OF FORCES. RESULTANTS	I
II.	RESOLUTION OF FORCES. RECTANGULAR COMPONENTS	18
III.	CONCURRENT FORCES. GRAPHICAL LAWS OF EQUILIBRIUM	31
IV.	MOMENTS. PRINCIPLE OF THE LEVER	45
V.	PARALLEL FORCES. COUPLES. CONDITIONS OF EQUILIBRIUM	71
VI.	CENTRE OF GRAVITY	91
VII.	THE LINK POLYGON	117
VIII.	STRESS OR FORCE DIAGRAMS.	132
IX.	STRESS AND STRAIN. ELASTICITY	160
X.	SIMPLE BEAMS. BENDING MOMENT AND SHEAR FORCE	194
XI.	BENDING MOMENT AND SHEAR FORCE. FURTHER EXAMPLES	221
XII.	MOMENT OF RESISTANCE. DESIGN OF BEAMS	240
XIII.	INTRODUCTION TO THE PRINCIPLES OF COLUMN CALCULATIONS	282
XIV.	CALCULATION METHODS FOR LOADED FRAMES. METHOD OF SECTIONS	308
XV.	GRAVITY RETAINING WALLS	331
XVI.	REVISION EXAMPLES. ABRIDGED SOLUTIONS	365

CHAPTER		PAGE
XVII.	TEST PAPERS. WORKED SOLUTIONS . . .	387
	APPENDIX I : SELECTED LIST OF BRITISH STANDARD SPECIFICATIONS	420
	APPENDIX II : FABRICATION OF STEELWORK . .	423
	ANSWERS TO CHAPTER EXERCISES	426
	INDEX	442