

# CONTENTS

CHAPTER	PAGE
I. AREAS, VOLUMES, WEIGHTS, DISPLACEMENT, ETC. . . . .	1
II. MOMENTS, CENTRE OF GRAVITY, CENTRE OF BUOYANCY, DISPLACEMENT TABLE, PLANIMETER, ETC. . . . .	45
III. CONDITIONS OF EQUILIBRIUM, TRANSVERSE METACENTRE, MOMENT OF INERTIA, TRANSVERSE BM, INCLINING EXPERIMENT, METACENTRIC HEIGHT, ETC. . . . .	90
IV. LONGITUDINAL METACENTRE, LONGITUDINAL BM, CHANGE OF TRIM . . . . .	144
V. STATICAL STABILITY, CURVES OF STABILITY, CALCULA- TIONS FOR CURVES OF STABILITY, INTEGRATOR, DYNAMICAL STABILITY . . . . .	174
VI. TROCHOIDAL WAVE THEORY . . . . .	228
VII. CALCULATIONS OF WEIGHTS—STRENGTH OF BUTT CON- NECTIONS, DAVITS, PILLARS, DERRICKS, SHAFT BRACKETS . . . . .	242
VIII. STRAINS EXPERIENCED BY SHIPS—CURVES OF LOADS, SHEARING FORCE, AND BENDING MOMENT—"SMITH" CORRECTION—EQUIVALENT GIRDER . . . . .	278
IX. HORSE-POWER, EFFECTIVE AND INDICATED—RESISTANCE OF SHIPS—COEFFICIENTS OF SPEED—LAW OF COM- PARISON . . . . .	316
X. SCREW PROPULSION . . . . .	361
XI. PROPULSION BY WIND . . . . .	384
XII. THE ROLLING OF SHIPS . . . . .	388
XIII. THE TURNING OF SHIPS—STRENGTH OF RUDDER HEADS	422
XIV. LAUNCHING CALCULATIONS . . . . .	442
APPENDIX A. SUNDRY PROOFS, TCHEBYCHEFF'S AND BROWN'S DISPLACEMENT SHEET, ETC., AND MISCELLANEOUS EXAMPLES . . . . .	451
B. TABLES OF LOGARITHMS . . . . .	478
SINES, TANGENTS AND COSINES . . . . .	483
SQUARES AND CUBES . . . . .	485
C. SYLLABUS OF EXAMINATIONS IN NAVAL ARCHITECTURE . . . . .	493
D. SPECIMEN QUESTIONS OF THE BOARD OF EDUCATION EXAMINATIONS AND ANSWERS . . . . .	497
BIBLIOGRAPHY . . . . .	519
INDEX . . . . .	523