

CONTENTS

vii

PHYSICS

WORK OF FIRST YEAR	PAGE
Measurements	191
Practical Measurements in Areas	195
Practical Measurements in Volumes	196
Measurement of Mass, Density, and Specific Gravity	196
Preliminary Problems for Home Solution	198
Experiments to be Performed	198
HYDROSTATICS	200
Experiments	201
Relation between Pressure and Depth	202
Pressure Depends Only on Depth, etc.	202
Pascal's Principle	202
Pressure the Same in all Directions	203
Water Seeks its Own Level	203
PNEUMATICS	204
Air Has Weight	204
Air Exerts Pressure	204
Boyle's Law	207
Gases Press in Every Direction	208
MECHANICS	209
Levers	209
Inclined Plane, The	209
Pulleys	209
WORK OF SECOND YEAR	212
HEAT	212
Sources of Heat	213
Expansion of Solids, Liquids, and Gases	213
Temperature	214
Thermometry	214
Anomalous Expansion of Water	217
Latent Heat	217
Specific Heat	218
LIGHT	220
Light Travels in a Straight Line	221
Shadows	222
Plane Mirrors	222
Images	223
Refraction	224
Dispersion	226