

Cambridge University Press

978-1-107-63767-2 - Experimental Physics: A Text-Book of Mechanics, Heat,
Sound and Light

Harold A. Wilson

Index

[More information](#)

INDEX

- Aberration, spherical 334
 Absolute expansion of mercury 147
 Absolute scale of temperature 212
 Absorption spectra 345
 Acceleration 13
 ,, of gravity 33
 Achromatic lenses 351
 ,, prisms 348
 Adiabatic change 202
 Air pumps 161
 Angular momentum 94
 Apertures, flow of liquid from 125
 Atwood's machine 25

 Balance 87
 ,, wheel 141
 Balancing rotating bodies 89
 Barometer 122
 Beats 258
 Bi-prism, Fresnel's 373
 Blackburn's pendulum 270
 Boyle's law 151
 Bubbles, soap 128

 Calorie 164
 Calorimeter 166
 Camera, photographic 356
 Candle, standard 298
 Carnot's heat engine 206
 Cavendish's experiment 100
 Centre of mass 68
 Change, of state 171
 ,, adiabatic 202
 ,, isothermal 202
 Circle, motion in a 15
 ,, force on a body moving in a 44
 Coefficient of cubical expansion 144
 ,, of linear expansion 138
 ,, of restitution 32
 Colour 353

 Compensated pendulum 141
 Complementary colours 355
 Composition of forces 38
 ,, of two perpendicular vibrations 266
 Compound pendulum 80
 Conduction of heat 191
 Convection of heat 190
 Couples 67
 ,, power of 92
 Critical temperature 186
 Crucial experiment 4

 Density of the earth 104
 ,, of gases 158
 ,, of water 149
 Derived units 8
 Diagram, indicator 53, 202
 Diffraction 380
 ,, gratings 386
 Diffusion 131
 Dilatometer 145
 Dimensions 9
 Direct vision prisms 348
 Dispersion 335
 Dispersive power 348
 Displacement 10
 Distribution of energy in spectrum 400
 Double refraction 391
 Dynamical unit of force 27
 Dyne 27

 Elasticity 105
 Energy 54
 ,, distribution of, in spectrum 400
 ,, of light 397
 ,, of rotating bodies 91
 Engine, Carnot's heat 206
 ,, heat, efficiency of 216
 Equivalent, of heat, mechanical 194

Cambridge University Press

978-1-107-63767-2 - Experimental Physics: A Text-Book of Mechanics, Heat,
Sound and Light

Harold A. Wilson

Index

[More information](#)

INDEX

403

- Erg 51
 Evaporation, latent heat of 182
 Expansion of mercury, absolute 147
 „ coefficient of cubical 144
 „ coefficient of linear 138
 „ of liquids with rise of temperature 145
 Experiment, Cavendish's 100
 Eye 357
- First law of motion 21
 Floating bodies 119
 Flow of liquids from apertures 125
 Focal lines 320
 Foot-pound 52
 Force, dynamical unit of 27
 „ moment of a 63
 „ on a body moving in a circle 44
 „ on a body moving with a simple harmonic motion 47
 „ on a body immersed in a liquid 116
 Forces, composition of 38
 „ parallel 65
 Fresnel's bi-prism 373
 „ zones 382
 Fundamental units 7
 Fusion, latent heat of 172
- Gas, pressure of, at constant volume 155
 „ thermometers 159
 „ volume of, at constant pressure 156
 Gases 151
 „ density of 158
 „ kinetic theory of 218
 „ liquefaction of 188
 „ specific heat of 198
 Glass 347
 „ magnifying 359
 „ thermometer, mercury in 133
 Gratings, diffraction 386
 Gravitation 99
 Gravity, acceleration of 33
 Gyroscope 94
- Harmonic motion, simple 16
 „ „ „ force on a body moving with a 47
- Heat 133
 „ conduction of 191
 „ convection of 190
 „ engine, Carnot's 206
 „ engines, efficiency of 216
 „ latent, of evaporation 182
 „ latent, of fusion 172
 „ mechanical equivalent of 194
 „ specific 165
 „ specific, of gases 198
 Huygens' principle 376
 Hydraulic press 112
- Iceland spar 391
 Impulse 31
 Inclined plane 43
 Indicator diagram 53
 Inertia 27
 „ moment of 74
 Infra-red radiation 399
 Interference of light 372
 „ of sound 257
 Isothermal change 202
- J*, Mayer's calculation of 200
- Kater's pendulum 85
 Kilogram 7
 Kinetic theory of gases 218
 Kundt's tube 263
- Lantern, magic 364
 Latent heat of evaporation 182
 „ „ of fusion 172
 Laws of motion, first 21
 „ „ „ second 28
 „ „ „ third 28
 Lenses 325
 „ achromatic 351
 Levers 58
 Light, energy of 397
 „ interference of 372
 „ nature of 296
 „ polarization of 395
 „ rays of 296
 „ reflexion of 302
 „ refraction of 306
 „ sources of 294
 „ spectrum of white 336
 „ ultra-violet 399

Cambridge University Press

978-1-107-63767-2 - Experimental Physics: A Text-Book of Mechanics, Heat,
Sound and Light

Harold A. Wilson

Index

[More information](#)

404

INDEX

- Light, velocity of 366
 Lines, focal 320
 Line spectra 339
 Liquefaction of gases 188
 Liquids, expansion of 145
 „ flow of, from apertures 125
 „ force on a body immersed in 116
 „ pressure in 109
- Machine, Atwood's 25
 Machines 57
 Magic-lantern 364
 Magnifying glass 359
 Manometer 121
 Mass, centre of 68
 Maxim, of physical science, general 2
 Mayer's calculation of J 200
 Mechanical equivalent of heat 194
 Melde's experiment 286
 Melting point 172
 Mercury, absolute expansion of 147
 „ -in-glass thermometer 133
 Metre 6
 Microscope 361
 „ vibration 287
 Mirrors, spherical 315
 Moment of a force 63
 Momentum 28
 „ angular 94
 Monochord 285
 Motion in a circle 15
 „ first law of 21
 „ second law of 28
 „ third law of 28
 „ simple harmonic 16
 „ of a violin string 288
 „ wave 226
 Musical notes 245
 „ scale 251
- Nature of light 296
 Nicol's prism 393
- Organ pipes 290
- Parallel forces 65
 Pascal's principle 111
 Pelton's wheel 126
 Pendulum, Blackburn's 270
 „ compensated 141
- Pendulum, compound 80
 „ Kater's 85
 „ simple 48
 Phonic wheel 250
 Photographic camera 356
 Photometers 299
 Physical science, general maxim of 2
 Pipes, organ 290
 Plane, inclined 43
 Polarization of light 395
 Pound 7
 „ foot 52
 Poundal 35
 Power 56
 „ of couples 92
 „ dispersive 348
 Press, hydraulic 112
 Pressure 107
 „ of gas at constant volume 155
 „ in liquids 109
 „ in sound waves 242
 „ of vapours 178
 Principle, Huygens' 376
 „ Pascal's 111
 Prism, achromatic 348
 „ direct vision 348
 „ Fresnel's bi- 373
 „ Nicol's 393
 „ refraction by a 311
 Pulleys 59
 Pumps, air 161
- Radiation, infra-red 399
 Rays of light 296
 Reflexion of light 302
 „ of sound 254
 Refraction, double 391
 „ of light 306
 „ by prisms 311
 „ of sound 256
 „ at a spherical surface 324
 Resonance 273
 Restitution, coefficient of 32
 Rigid body, rotation of 73
 Rotating bodies, balancing 89
 „ „ energy of 91
 Rotation of a rigid body 73
- Saturated vapour 179
 Scalars 10

