

Index

Author's note on the index; I appreciate a good index in a book but really good indices are hard to come by. The index is basically a word association game played between the author and the reader. If you are looking for a specific telescope or a class of telescopes and you don't find a reasonable entry in the index then please drop me a line at the address listed in the Preface. I would appreciate it and future readers would too.

- Aberdeen University 47, 48
 aberration of starlight 74
 active optics 17, 19, 96, 197, 199
 adaptive optics 17, 18, 19
 aerial camera lens 85
 aerial telescope 92, 182
 Air Force Avionics Laboratory 23, 87, 91, 131, 173
 all spherical Newtonian telescope 66
 all-sky camera 47, 48, 49, 50
 alt-az mount 43, 79, 80, 82, 83, 84, 87, 95, 102, 120, 130, 132, 134, 137, 138, 144, 146, 165, 184, 192, 196, 197, 198, 204
 aluminized mylar mirror 14, 15, 16
 Amundsen–Scott Station 81
 Angel, Roger 8, 9
 Antarctic telescope 81
 APT (Automated Photoelectric Telescope) 27
 Archenhold Observatory 148, 149, 184
 Arecibo 1000' radio telescope 180
 Arizona State University 106
 Astro Met Corporation 2
 Astrometer 52
 atmospheric distortion compensator 18, 19
 atmospheric distortion monitor 18
 aurora camera 47
 Automated Photoelectric Telescope Service 27, 114
 automated telescope 23, 27, 79, 85, 87, 88, 91, 113, 125, 134, 137, 160, 192, 197, 198, 199, 204
 see also unattended telescope
 Auzout, Adrien 182
- Babcock, Horace W. 18, 93
 Baker Super-Schmidt camera 46
 Baker, James G. 44, 46, 91
 ball and groove drive 123
- Barlow, Peter 10
 barn-door drive 116, 118
 Barthelmy, Scott 83
 Bast, Dwight 129
 beer can telescope 209, 211
 Bell Laboratories 76, 77
 bentwood telescope 99
 bent Cassegrain telescope 42, 43
 bent Newtonian 44
 bent refractor telescope 57
 Berry, Richard 184, 208
 beryllium mirrors 4
 Bester, Manfred 137
 black hole 21, 189, 190, 191, 192
 Blair, Robert 10
 Blue, Carl 97
 Boffat of Toulouse 165
 Bologna Multiple Mirror Telescope 195
 Borra, Ermanno F. 12
 Bosscha Observatory 187
 bowling ball mount 93, 118, 120
 Boyd, Louis 113, 114
 brachyt telescope 34, 157
 Bradley, James 74
 Bragg diffraction 6
 Bray, Max 39, 42, 85
 Breezy Hill, *see* Stellafane
 Brixner, Berlyn 66
 Brocious, Dan xvii
 broken Newtonian 44
 Brown University 106, 107, 109
 Buchroeder tri-schiefspiegler telescope 39
 Buchroeder, Richard xvi, xvii, 39, 66
 Bunner, Dr Alan N. 199
 Burnham, Shelburne Wesley 123
- Canan, Patric 2
 Capri solar observatory 164

INDEX

- Carle, Jackson T. 2
 Carlisle, Jim 138
 Cassegrain–Newtonian 146
 Cassel, Dr Edith 201
 catadioptric Cassegrain telescope 66
 catadioptric Herschelians 37
 catadioptric Newtonian telescope 67
 CCD Transit Instrument 72
 Celestron 28, 43, 62, 70, 105, 106, 107, 131
 central flash 20
 ceramic foam mirror 2
 ceramic mirror 2
 Cerenkov radiation 189, 191, 192, 193
 CERGA interferometer 97, 125, 127, 204
 chain drive 114
 Charles, Jeff 49, 50, 51
 clepsydra 125
 Climax Observatory, Colorado 113
 Cloudcroft Observatory 1.22 m (48 in) 87, 88, 173
 Cock, Guillermo 16, 18
 Coe, Steve xiv, 130
 coelostat 164, 165, 167, 168, 171
 Common Telescope 93, 94
 computer operated telescopes, *see* unattended telescopes *and* automated telescopes
 convertible telescopes 58
 Cook, Rick xvii
 Cornell University 19, 200
 Cosmic House 200, 201, 202
 cosmic-rays 3, 188, 189, 190, 192, 193, 200, 201, 202, 203
 coude telescope xv, 39, 85, 94, 161, 162, 163, 178
 coude–Cassegrain telescope 160
 Cox, Robert 129
 Craig, Reverend John 79, 80, 96
 Crayford Manor House Astronomical Society 102
 Crimean Astrophysical Observatory 199
 CTI (CCD Transit Instrument) 72
 curved secondary mirror holder 44, 69, 130
 curved-bolt drive 115, 118, 119
 curved-rod drive 115
 Custer, Clarence Jr 157
 Cutting, Gerard 117

 Dall, Horace 65, 66, 129
 Dall–Kirkham telescope 65, 66
 Danilovicz, Ed 44, 45, 69, 116
 Dayton Museum of Natural History 65
 de Romana, Fernando 125
 DFM Engineering 115
 dialyte telescope 55
 dialytic telescope 55, 56
 diamond optics 30

 diffracting telescope 6, 20, 60
 Dilworth telescope 26, 66
 Dilworth, Donald xvi, 2
 Dobson, John xvi, 28
 Dobsonian mount 103, 132
 Dobsonian telescope 79, 87, 120, 138, 184
 Dodson, Steve 115, 132, 135
 Dollond, Peter 52
 dome seeing 162
 double cone tube 23, 79, 96
 double field telescope 52, 62, 63, 64, 206
 double refractor 187
 double-arm drive 118
 Dover Heights, Australia 14
 Draper, Henry 123
 Dunham, Dr David 20
 Dunlop, E. 3

 East Valley Astronomy Club xvii, 28
 Edwards Optical Company 205, 206
 Einstein Ring 21
 el-el mount 39, 42, 84, 85, 86
 Elliot, James 19
 Ells, Jack W. 102, 103
 Erector Set™ telescope parts 101, 110
 ESO (European Southern Observatory) 19
 ETC (Explosive Transient Camera) 82
 Euler, Leonhard 10
 European Southern Observatory 19
 exploding black holes 189, 191, 192
 Explosive Transient Camera 82

 Faix, Louis J. 112
 Faller, Jim 16
 Fangrow, Tom 103, 124, 126
 FAR telescope 39, 42, 85
 farm machinery telescope parts 104
 fifty foot interferometer 55
 Fingerhut, Bob 212
 fish-eye lens 48
 Fisher, Harold 124
 Fisher, Richard 207
 fishing reel drive 121
 floating telescopes
 air bearing 93
 mercury 94, 173, 181
 oil bearing 93
 Poncet platform 185
 water 93
 fly's eye telescope 21, 188, 201, 202
 folded refractor 64
 folding telescopes 129
 forty foot telescope 21, 22, 79, 142
 Foucault siderostat 181
 Foucault, J.B. Léon xvi
 Four Foot Melbourne Reflector 99

INDEX

- four-axis mount 89, 91, 131, 134, 136, 139
 Fred Lawrence Whipple Multiple Mirror Telescope 19, 95, 185, 186, 191, 196, 297
 Fred Lawrence Whipple Observatory 190
 Fresnel lens 61
 Fresnel zone plate 20, 61
 Funds for Astronomical Research telescope 39, 85
 fused Pyrex[®] mirror 6
 fused silica mirror 8
- Gadsden, Dr Michael 47, 48
 Galilean telescope 205, 206
 gamma-ray bursters 82
 gamma-rays 3, 180, 188, 189, 190, 191, 192, 193, 203
 gaseous mirrors 19
 Gatorfoam™ telescope tube 101
 Gavin, Maurice V. 15
 Genet, Russell 27
 Gerrish polar telescope 173, 176, 177
 Gerrish, W. P. 176
 glasses-mounted telescopes 206
 Goodyear Aerospace Corporation 139
 Gordon, Brent 160
 Graham, George 74
 gravitational lens 20
 grazing incidence mirror 7
 Great Melbourne Reflector 99, 100, 142
 Great Paris Refractor of 1900 94, 181, 182, 184
 Great Treptow Refractor 148, 149, 180, 184
 Green Bank, West Virginia 30, 72, 73, 77
 Greenwich Observatory 74
 Gregory, John 63, 64, 146
 Gregory-Maksutov telescope 63
 Group 128 23
 Grubb polar refractor 166, 167
 Grubb Reflector 99
 Grubb, Sir Howard 166
- Haig, G. Y. 116, 118
 hairbrush mirror mount 7
 Halbach, Edward A. 176, 178
 Hale 200 inch telescope 71, 155, 171, 180
 Hale, George Ellery 168, 169, 171
 Halley, Edmond 184
 Hamon cam drive 115, 133
 Hamon, Andre 115
 Hartness House turret telescope 150, 151
 Hartness, James 150
 Harvard Observatory 44, 46, 93, 94, 113, 176, 177
 Hawking, Stephen W. 189
 Heliometer 52
 heliostat 164, 165, 167, 168, 170, 192
 Hendrix, D.O. 30
- Hers, Jan 106
 Herschel, Caroline 22
 Herschel, Sir William 1, 21, 22, 122, 142
 Herschelian eyepiece 21, 23
 Herschelian telescope 23, 24, 38
 Heumann, Sylvain M. 66
 Hevelius, Johannes 92, 93, 182, 183, 184
 Hextek Corporation 8
 High Altitude Observatory 206, 207
 Hill, E. G. 102
 Hill, John M. 8
 Hindle, J. S. 37
 hiss drive 124, 126
 Holcomb mount 23
 Holcomb, Amasa 23
 hologram mirror 19
 Hooker 100 inch (2.54 m) telescope 53, 94
 horn antenna 72, 73
 Horn-d'Arturo, G. 195
 hose clamp drive 116
 Hotten, Kevin 115
 Housekeeper, Dick 118
 hub cap camera 49, 50
 Hubble Space Telescope 128
 Huygens, Christiaan 92, 93, 182
 hydraulic drive 124
 hydrostatic oil films 93
- Illinois Astrofest 93
 infinite axis mount 91, 184
 inflatable telescope 16
 Infrared Spatial Interferometer 137, 204
 International Occultation Timing Association 20
 IR interferometer 137
 IR interferometry 136
 IR telescope 4, 58
 ISI (Infrared Spatial Interferometer) 137
- Jansky, Karl 76, 77
 JANZOS array 202
 Johns, Fred L. 62, 65
 Johnson, Steven W. 39
 Johnson, Tom 63
 Jones, Ed 37
 Jones, Robert T. 66
- Keck 10 m telescope 199
 Kelly, Bob 101
 Kiepenheuer-Institut Für Sonnenphysik 162, 163, 164
 Kitt Peak xiii, 4, 72, 82, 97, 170, 171, 174
 Knab, Oscar xvii, 24, 35, 38, 39, 40, 157, 159, 173, 175
 Kuiper Airborne Observatory 20, 58, 60, 93
 Kutter, Anton 34, 37

INDEX

- Labeyrie, Antoine 97, 125
 lake mirror 15
 Landecker, Dr Peter 202
 laser-ranging telescope 4
 Lassell, William 122, 141, 142
 Laune, Ken 199
 Laval University 12
 lawnmower mount 130
 Leighty, William C. 160
 Leonard, Arthur 33
 Leviathan of Parsontown 143
 Levy, David xvi, xvii, 120, 121, 208, 211
 Lindsay, Wesley N. 64, 65, 205
 Lippershey, Hans xiv
 liquid optics
 flat mercury 10
 radial gradient 13
 refracting 10
 rotating mercury 12
 water 13, 14, 15
 lithium fluoride mirror 5
 Lloyd's mirror 14
 Lockheed Corporation 18
 Loewy, Maurice 161, 182
 Lowell Observatory 104, 125, 206
 lunar ranging telescope 188, 189
 LURE (Lunar Ranging Experiment) 188, 189
- Macalester College 8
 Maksutov telescope 63, 65
 Mangin mirror 3, 13, 66, 67
 Marshall, Oscar S. 155, 156
 Marth, Albert 141
 Martin, John F. V xvii
 Mathews, Tom 28
 Mauna Kea 199
 Maxwell submillimeter radio telescope 19
 Mayall Telescope 4
 McConnell, Cheryl 212
 McDonald Observatory 194
 McMath solar telescope 97, 170, 171
 Meccano™ telescope parts 101, 110
 medial telescope 3, 66, 67, 68
 Medlock, Kevin 36, 211, 213
 Melsheimer, Dr Frank 115
 Menzel, Donald 125
 mercury mirror 10, 12, 13
 merry-go-round telescope 142, 144
 Mersenne telescope 64, 65, 205
 Mersenne, Marin 64
 metal matrix composites 4
 metal mirrors
 beryllium 4
 mercury 10
 speculum 1, 3, 4, 8, 22, 99, 143, 195
- Tokyo Laser Rangefinder 4
 X-ray telescope 5
 meteor camera 15, 44, 46, 47, 48, 49, 50
 Michelson, A. A. 53, 54
 Mintaka, the talking telescope 209
 MMT, *see* Fred Lawrence Whipple Multiple Mirror Telescope
 Mobsby, Eric 7, 8
 Moonwatch Program 46
 Moonwatch telescope 87
 Mount Haleakala 188
 Mount Hopkins 19, 27, 114, 186, 190, 191, 196, 197, 198
 Mount Lemmon 1.52 m (60 in) 58
 Mount Stromlo Observatory 99
 Mount Wilson Observatory 18, 30, 53, 54, 55, 94, 138, 167, 168, 169, 170, 172
 multiple lens telescope 21, 188, 189
 multiple mirror telescope 3, 5, 10, 19, 186, 188, 190, 194, 195, 196, 197, 199
 see also Fred Lawrence Whipple Multiple Mirror Telescope
 mylar, aluminized 14, 15
- NASA Goddard Space Flight Center 82, 83
 Nasmyth telescope 43, 89, 146, 148
 Nasmyth, James 43, 146
 National Optical Astronomy Observatories 171, 174
 National Radio Astronomy Observatory 32, 61, 72, 73, 76, 77, 180, 204
 National Science Foundation 206
 New Technology Telescope 19
 Newton, Isaac I, 78, 141
 Nidey, Professor Russ 184, 185
 NOAO (National Optical Astronomy Observatories) 170, 174
 NRAO (National Radio Astronomy Observatory) 30, 32, 61, 72, 76, 77, 180, 204
 NTT 19
- O'Dwyer, Steve 28, 29
 obsidian mirror 1, 2
 off-axis Cassegrain telescope 29
 oil-film bearings 93
 One Hundred Meter Transit Instrument 30
 one-axis telescope 30, 74, 76, 77, 194
 Optical Research Corporation 87, 90
 Optical Sciences Center 4
 optical machining 6, 67
- Paller, Leroy xvii
 Palomar 5 m (200 in) Telescope 71, 155, 170, 180

INDEX

- Paris Observatory xvi, 161, 162
 coudé refractor xv, 162
 Great Refractor of 1900 94, 181, 182, 184
 long focal length refractor 182
 Parker, Tim 161
 Parsons, William, *see* Rosse, Third Earl
 Pasachoff, Dr Jay 185
 Pawlick, Joseph 33
 Pease, F. G. 54
 Pedrick, Don 211, 212
 Pennsylvania State University 193
 Perry, Joe xvi, 25, 26, 132, 133
 Perspex™ optics 3
 Pfund telescope 136, 137
 Phoenix Astronomical Society xvi, 113
 Photographic Zenith Tube 12
 Pic-du-Midi Observatory 162
 Piini, Ernie 57, 100
 pinhole telescope 60, 209
 plastic optics 3
 Pock, Tom 114
 pocket telescope 129
 polar siderostat 165
 polar telescope 166, 176
 pole mounted telescope 92, 183
 Poncet mount 49, 101, 102, 103, 125, 132, 184, 185
 Poncet platform 87
 Poncet, Adrien 101, 184, 185
 Porcelain tube 97
 Porter Garden Telescope 95, 96
 Porter's Folly telescope 155
 Porter, Russell W. xvi, 95, 96, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158
 Pratt, Chris 1, 2
 primordial black holes 188

 radio telescope 4, 14, 19, 32, 73, 74, 76, 77, 78, 122, 180, 198, 204
 Raether, Don 97
 rail mounted Newtonian 26, 129
 Rapidly Moving Telescope 82, 83
 Reams, Weyman 98, 99
 Reber, Grote 77, 78, 180
 Reed, Mike 95
 Regiomontanus 83
 Resick, Carl 125
 Rimfire Site 28
 Ritchey, G. W. 8
 Riverside Telescope Makers Conference xv, xvi, 1, 2, 13, 28, 34, 36, 49, 58, 98, 106, 120, 125, 136, 138, 139, 158, 161, 208, 211
 RMT (Rapidly Moving Telescope) 82
 Roach, Jack 115
 Robinson, Harald 199

 Rogers, A. 55
 roof mounted observatory 178
 Rorke, C.D. 101
 Rosse, Third Earl (William Parsons) 1, 4, 8, 122, 142, 143, 144, 195
 rotating mercury mirror 12
 Römer, O. 52

 Sacramento Peak Observatory 18, 67, 173
 Saguaro Astronomy Club xiv, xvii, 49, 58, 113, 125
 Salomon, F. 35
 San Jose Astronomical Association 1, 36, 113, 211, 212
 sand drive 123, 124
 Sandia National Laboratories 191, 192, 193
 Sasian, Dr Jose 34, 36, 39, 120, 123
 Schaffer, Richard 120
 schiefspiegler telescope 34, 35, 36, 37
 Schmidt 3, 28, 30, 65, 70, 181, 205
 Schmidt–Cassegrain 62, 70, 206
 Schroeder, Jeff 138
 Schultz, Sherman W. 8, 9
 Schupmann (medial) refractor 3, 66, 67, 68
 Schupmann, Ludwig 66
 Schur, Chris 49
 Schwaar, Pierre 144
 Scottish mount 116, 117, 118, 119
 seeing monitor 17, 18, 19, 72
 segmented glass mirrors
 epoxied 8, 9
 separate 195
 Sellers Jon 212
 Serrurier truss 96, 99, 197
 setting circles projected into eyepiece 64
 siderostat 82, 94, 137, 153, 164, 165, 166, 170, 176, 181
 Simpson, J. W. 158
 Six Inch Transit Instrument 75
 Six Meter Telescope 99, 180
 Slade, Brian xiv
 Smith, Bruce 122
 Smithson, Robert C. 18
 Smithsonian Astrophysical Observatory 27, 196
 Smithsonian Institution 190, 196
 Snow solar telescope 167, 168, 169, 170
 solar eclipse telescope 20, 57, 60, 83, 106, 125, 209
 Solar Power Tower 192, 193
 solar telescope 14, 18, 28, 29, 57, 67, 97, 113, 162, 163, 165, 166, 167, 169, 171, 173, 174, 191, 192, 206
 Solar Thermal Test Facility 191, 192
 solar wind 128
 solar-powered telescope 125

INDEX

- solar-stellar connection 206
 solid Schmidt 30
 South Pole Optical Telescope 82
 South Pole telescope 81
 space satellite tracking systems 23, 25, 28, 31,
 43, 46, 58, 82, 87, 88, 89, 91, 97, 116, 131,
 139, 146, 184, 188, 198, 200, 211
 spaceborne radio telescope 19
 spaceborne telescope 4, 6, 127, 128, 180, 199
 Spectroscopic Survey Telescope 194, 196
 speculum, *see* metal mirrors
 spherical mount 92
 spin-cast mirror 9, 199
 split objective lens 52
 SPOT (South Pole Optical Telescope) 82
 Springfield mount 64, 89, 153, 155, 156, 157,
 158, 160, 161
 Springfield Telescope Makers 150, 153, 154,
 155
 Springfield tri-schiefspiegler telescope 157, 159
 Spry, Reg 100
 SST (Spectroscopic Survey Telescope) 194
 Star Instruments, Inc. 8
 Star Wars 19
 steel band drive 114
 Stellafane xvi, 105, 117, 132, 136, 144, 150, 151,
 153, 154, 155, 199
 Sternburg Observatory 182
 Stevens, B. A. 124
 Stevens, Jim 58, 59
 Stiles, Phillip J. 106
 Strategic Defense Initiative 19
 SXA metal matrix composites 4
- Table Mountain Observatory 87
 talking telescope 209
 tangent arm drive 115
 Tarnutzer, Andreas 165, 166
 Taylor, MaryJane 81
 thick mirror Schmidt 30
 Thompson, Chuck 93
 three-axis mount 46, 47, 86, 87, 90, 95, 132
 Tokyo Observatory
 3.8 m metal mirror 5
 ceramic zenith tube 97
 Tombaugh, Dr Clyde xvii, 104, 130, 208
 Tomer, Andrew 134, 136
 torquetum 83
 tower telescope 168, 170, 172
 Townes, Charles H. 137
 trailer-mounted telescope 129, 131, 132, 133,
 134, 135, 136, 137, 144, 145, 158
 Treptow 148, 180, 184
 tri-schiefspiegler Springfield 157, 159
 tri-schiefspiegler telescope 37, 39, 40, 41
 Trott, David 118
- tubeless Cassegrain telescope 26
 Turku University Observatory 196
 turret telescope 149, 150, 151, 152, 153, 154
 twenty foot interferometer 53
 twenty foot telescope 142
 twin astrograph 187
 Tyson, Ed 88
- unattended telescope 27; 72, 81, 82, 113, 114,
 128
 see also automated telescopes
 United Kingdom Schmidt 181
 United States Air Force 23, 28, 43, 46, 87, 91,
 131, 200
 Université Laval 12
 University of Arizona 4, 196
 University of Bologna 195
 University of California at Berkeley 137
 University of Chicago 42
 University of Florida 81
 University of Hawaii 188, 189
 University of Strathclyde 15
 University of Texas 193, 194
 University of Utah 201, 203
 University of Washington 122
 unobstructed catadioptric Herschellian 37
 unobstructed Newtonian 36, 37, 120
 uranostat 164, 165
 US Naval Observatory 10, 12, 75
 UV telescope 19
- vacuum solar telescope 173, 174
 vacuum formed mirror 15, 16
 Van Raalten, J. 110
 Väisälä, Yrjö 196
 Vela satellites 180
 Very Large Array 61, 77, 180, 204
 Very Long Baseline Array 180
 Vélez, Rafael López 109
 vibration dampers 93, 106, 107, 108, 109, 132,
 170, 198
 VLA, *see* Very Large Array
 VLBA, *see* Very Long Baseline Array
 Volna, Bill 132, 134, 144, 146
 Vukobratovich, Daniel 4
- Waddell, Dr Peter 15, 17
 Wagner, Andrew 106
 Wall, John xvi, xvii, 3, 55, 56
 wall-mounted telescope 157, 175
 water pump drive 125
 water-clock 124, 125
 Wehler, Randall 86
 Wessling, Richard J. 39
 Whipple Telescope, *see* Fred Lawrence Whipple
 Multiple Mirror Telescope

INDEX

- White Sands Missile Range, New Mexico 28, 191
wide field patrol camera 44
Wilkinson, A. W. 67
Willard Berton C., xvii
wobbling secondary mirror 58
Wolter, C. 68
Wood, R. W. 12
wooden telescope 21, 76, 86, 98, 99, 142, 161, 176
Woods, A. L. 39, 41, 115
Wright-Patterson Air Force Base 23, 91
X-ray telescope mirror 5, 7
Yerkes Observatory 180, 184
Yolo telescope 33, 34, 36
Zahn, Johann 34
Zeiss 187
zenith sector 74
zenith telescope 10, 12, 13, 72, 74, 97, 98, 195
Zodiacal Light camera 49
Zullo, Frank 117