

Index

- Aeronautical Research Council 69
Aitken, A. C. 67–8
Aitken, Hugh 10
AL1 (integrated circuit) 115–16, 121–6, 129–30
Alexander Graham Bell Museum (Baddeck) 189
Alexander, Douglas 62
Allison, David 135
American Statistical Association 57
American Psychological Association 52
American Heart Association 80
analog computing devices 45
Annals of Science 161
Antique Wireless Association Electronic-Communication Museum (Bloomfield) 188
Antique Radio Relay League Museum of Amateur Radio (Newington) 188
Apple company 115
Apple computer 96
Archives Center (NMAH) 184
Aristotle 59
Armstrong Whithworth company 65
Armstrong, William 187
arrhythmia 79
Artefacts: Manifesting Medicine 1
Artefacts 3, 5
Arthur M. Sackler Gallery 177
Arts & Industries building 178
Aspray, William 45
Aston, Francis 36
Atlantic cable 138
atomic structure 33, 36
audion 20, 21
Austria: Post- und Telegraphen-Museum (Vienna) 188

Badash, Lawrence 27
Baird, Spencer 178
Bakelite 83, 84
Bakken Library and Museum (Minneapolis) 101, 106, 176, 189
Bakken Chair in Biomedical Engineering 100
Bakken, Earl 75–106, 76, 78, 89, 106, 176
Bakken Education Center 103
ball discharger 14
Baltimore Museum of Art 176
Bank of America 141, 148
Bankers Trust 121
Barkla, Charles 37
Bartlett, Florence 176
Bassett, Ross 4

Bassett, Ross xiii
Battison, Edwin 3
Bell Canada Telephone Historical Collection (Montreal) 188
Bell, Alexander Graham 138–9, 146–7, 179
Bell, Gwen 151
Bemidji, MN 98
Bernstein, Felix 51
Beyer, H. G. 178
Bijker, Wiebe 77
Biomedical Engineering Center, University of Minnesota 100–1
bipolar configuration 91
Birla Industrial and Technological Museum (Calcutta) 187
Birmingham Museum of Science and Industry 187
black box 4, 140, 151
Blackett, Patrick 37
blinking red light 83, 95, 97
blocking oscillator circuit 87
Blok, A. 11–12
blue baby 80, 95
Blue Cube 158
Bohr, Niels 34, 163–5
Boysel, Lee 115–26, 129–30
Bradbury Science Museum (Los Alamos) 189
bradycardias 77
Bragg, William H. 31, 33, 36, 39
brain drain 100
Breed, Charles 62
Breit, Gregory 161–72
Bridgman, Roger xv, 5, 135, 141
British Telecom Museum (Taunton) 188
British Museum 176
British Telecom Collection (Oxford) 188
British Empire Exhibition 25–40
British Engineers' Association 31
Bromley, Allan 45
Bryce, James 61
bubble oxygenator 80, 95
Bud, Robert 8
Buscemi, V. 13
Bush, Vannevar 45, 50, 58, 62, 64, 67, 70

California Institute of Technology 126
Cambridge Instrument Company 66, 68
Cambridge University Engineering Laboratories 66
Canadian Forces Communications and Electronics Museum (Kingston) 188
Cannon, Walter 1
carbon-zinc battery 99

- cardiac pacemaker 75–106
cardiac pacing 87, 92–93, 103
Cardiac Pacemakers, Inc. 78
cardiovascular medicine 84
cardioverter 79
Carnegie Foundation 60
Cartesian 120, 121
Cauer, Wilhelm 4, 45–70, 58
Cavendish Laboratory 25, 33–4, 37, 39
CDC-3600 159
CDC-3800 156, 158–9
CDC-6600 156, 159
Centre National d'Etudes de Telecommunication (Issy) 188
Ceruzzi, Paul xiii, 5
Chadwick, James 37, 39
Challenger 158
Chiba Museum of Science and Industry (Ichikawa-Ciry) 187
China Museum of Science and Technology (Beijing) 186
Civil War (US) 178
Clancy, Tom 159
Clark, George 182
Cohen, Victor William 166, 168
Cold War 87, 158
Collection of Historical Scientific Instruments (Cambridge) 188
Columbia River Maritime Museum 175
Columbia University 59, 161, 164–5, 168, 172
Columbia machine 58–61
Commonwealth Fund 60
Computer Museum (Boston) 189
Computer Design 121
Computer Museum 151, 160
Computerworld 121
Cone, Clarabel 176
Cone, Etta 176
Congress (US) 177–8
Conservatoire National des Arts et Métiers (Paris) 27, 76, 186
Contributions from the Museum of History and Technology 1
Control Data Corporation 156, 159
Cooley, Sam 172
Cooke, William 136, 138
Corning Glass Works 120
correlation coefficients 52, 56
Cossons, Neil xii
Courant, Richard 49–50, 57, 69
Cray, Seymour 5, 151–60, 154
Cray Research 156
CRAY Y-MP 156
CRAY X-MP 156
CRAY-1 153
CRAY-2 156
Crew, Spencer xii
Croarken, Mary 67
cymometer 11, 14, 18

Dale, Chester 177
Daly, George 61
Darwin, Charles 175

Darwin, Charles 66, 68
Day, Hughes 79
de Forest, Lee 8–9, 20–2
defibrillator 78–9, 103
Dehomag company 58, 61, 70
Department of Overseas Trade 31
Department of Scientific and Industrial Research 38–9
Descartes, René 85
Deutsches Museum xiii, xiv, 76, 184–6
Deutsches Postmuseum (Frankfurt) 188
Deutsches Röntgen-Museum (Remscheid) 189
Deutsches Rundfunk-Museum (Berlin) 188
Deutsches Technik Museum (Berlin) 187
Devonshire, Duke of 27
Devonshire Commission 27
Dewey, John 60
differential analyzer 45, 67
Digital Equipment Company 130
Dirac, Paul 164
Discovery Museum (Sacramento) 190
Dolond, John 3
Douglas Aircraft 117
Dow Corning 87
Dyke, G. B. 18–19

Eastern Airlines 121
Eckert, Presper 140
Eco, Umberto 144
Edison effect 7–8, 10, 16, 22
Edison Institute 187
Edison National Historic Site (West Orange) 190
Edison, Thomas A. 4, 7, 179–80, 183, 187, 190
Edison Winter Home and Museum (Fort Myers) 190
Ediswan Company 19
Educational Board 60
Einthoven galvanometer 10
Eklund, Jon xiii, 5, 138
electrocardiograph 78
Electrodyne Co. 83
electroencephalograph 79
electrolytic detector 9–10
electrolytic rectifier 15
electromyograph 79
electron spin 163
Electronic Design 124
Electronics 125
Electrum: das Museum der Elektrizität (Hamburg) 189
Elektromuseum Heinrich-Mayer-Haus (Esslingen) 189
Elektrotechnisches Museum der HASTRA (Hannover) 189
Elkington & Co. 187
Elster, Johann 20–1
Elzen, Boelie 153
Engineering 66
ENIAC 4, 140, 140, 147
ERMA 148
Exhibition of Pure Science 25–40
External Ballistics Department 68

- Fairchild Semiconductor 116–20, 127
 Faraday Society 38
 Faraday, Michael 189
 Farmer, Moses 179
 Farnborough 68
 Fehlhammer, Wolf Peter xiv
 Ferguson, Eugene 151, 153
 Fiesler Aircraft 51
 Finn, Bernard xiii, 136
 Fleming, John A. 3–4, 7–22
 Fleming valve 7–22, 8
 Food and Drug Administration 98, 100
 Ford, Harrison 159
 Forman, Paul xiii, 5
 Four-Phase Systems 115–30
 Fox, Marvin 168, 170
 Franck, James 37
 Franklin, Benjamin 178
 Freer, Charles 177
 Freer Gallery of Art 177
 French Cable Station Museum in Orleans (Cape Cod) 190
 Frische, Carl 166
 Furman, Seymour 93
- Galambos, Louis 77
 Galileo 76
 garage 82, 102, 105
 Gauss algorithm 46–7
 Geitel, F. K. Hans 20–1
 Gelijs, Annetine 87
 General Electric 68, 190
 George Gustav Heye Center 177
 Georgetown Energy Museum (Colorado) 190
 Gerlach 167–8
 Gimingham, Charles 19
 Girard, Alexander 176
 Glasgow Art Gallery and Museum 187
 Glazebrook, Richard 31, 38
 Goode, G. Brown 178
 Gordon, Robert 2, 3
 Gorham, John 170
 Gorter, Cornelius 172
 Gott, Vincent 81
 Göttingen 37, 48–9, 51, 58, 61, 69–70
 Göttinger Mathematische Institut 57
 Grant, Ulysses 178
 Gray, Elisha 138–9, 146–7, 179
 Gregory, Richard 144
 Guericke, Otto von 28
 Guidant Corp. 78
 gunnery computer 45
- Hamburg University 163, 166–7
 Hamel, Geotg 46, 47
 Hammet, William 182, 183
 harmonic telegraph 138
 Hartree, D. R. 36
 Harvard University 64, 188
- Harvey, William 85
 Harwood Academic Publishers xii
 Havilland aircraft company 68
 Hawkes, Herbert 59–60
 heart rhythm 77, 86, 103–4
 heart monitor 79
 heart block 80–1, 84, 90, 92, 104
 heart-lung machine 80
 Hearts Content Cable Station (Newfoundland) 189
 Helmholtz, Hermann von 143, 144
 Henty Ford Museum and Greenfield Village (Dearborn) 182–3, 187
 Henry, Joseph 136
 Henry, Joseph 178
 Hermundslei, Palmer 82, 102
 Hershel 2
 Hertzian waves 12, 13
 Het Nederlands Postmuseum (The Hague) 188
 Heye, George 177
 high-tech industry 104
 Hilbert, David 49
 Hindle, Brooke 2
 Hippel, Eric von 126
 Hirshhorn Museum and Sculpture Garden 177
 Hirshhorn, Joseph 177
 Historical Electronics Museum (Baltimore) 190
 Hitler, Adolph 51
 HMS Vernon 65
 Hoff, Ted 126, 128
 Hollerith, Herman 138, 148
 Hong, Sunghook xiii, 3, 7
 Horle, L. C. F. 181–2
 Hounshell, David 3
 Houston, Edwin 179
 Hull, Clark 46, 51–58
 Hungarian Museum for Science and Technology (Budapest) 186
 Hunter, Samuel 91, 93, 97, 104
 Hydro Hall of Memory (Niagara Falls) 189
 hyperfine splitting 165
 hypothermia 95
- IBM 46, 58–61, 70, 117, 119–21, 126, 130
 IEEE 128
 implantable pacemaker 103
Information Age exhibition 135–49
 Institute of Physics 38
 Institute of Human Relations 58
 Institute of Mathematics and Mechanics 46, 50
 Intel 115, 117, 121–30
 interdisciplinary collaboration 104
 International Congress of Applied Mechanics 67
 iron lung 95
 Istituto e Museo di Storia della Scienza (Florence) 187
- Jeffrey, Kirk xiii, 2, 4
 Jenkins, Reese 3
 jigger 19, 22

- John Bull locomotive 76
 Joint Computer Conference 127
Journal of the American Medical Association 84
 Julian, Desmond 79
- Kasson, John 97
 Kauffmann, Walther 34, 37
 Kaye, G. W. C. 26–7
 Kellogg, Jerome 167
 Kelvin 62, 187
 Kevles, Bettyann 77
 Kidder, Harold C.
 Kidwell, Peggy 59
 Klein, Felix 49
 Klep, Rolf 175
 Koehler, S. R. 178
 Kranzberg, Melvin 2, 77
 Kreher, Louise 97
 Kress, Samuel 177
 Kronig, Ralph 163
 Kuhfeld, Ellen 99, 101
- Landesmuseum für Technik und Arbeit (Mannheim) 187
 Large Scale Integration 126–8
 Latimer, Margaret 2
 Lavoisier, Antoine-Laurent 76
 Lawrence Livermore Laboratory 153
 Lempfert, O. Carol 176
 Leontief, Wassily 64
 Library of NMAH 184
 Library of Congress 162
 Lillehei, C. Walton 76–104, 102
 Lincoln, Abraham 178
 Lockyer, Norman 27
 Lodge, Oliver 31
 Loomis, Richard 179
 Los Alamos National Laboratory 189
 Lowkrantz, Gunne 61
 Lubar, Steven 3, 135
 Lyons, Henry 8, 31, 36
- MacKenzie, Donald 153
 MacLauren, Malcolm 182
 Madsen Electric Company 190
 Magdeburg hemispheres 28, 29
 magnetic resonance 161, 163
 magnetic moments 161–72
 magnetic detector 9–11, 12, 13
 Mallock, R. R. M. 49, 64–9
 Mallock's calculating machine 68
 Manley, John 167–8, 170
 Marconi Company 9–22
 Marconi, Guglielmo 9
 Marconi valves 21
 Marum, Martnus van 189
 Marvin, Cloyd 116
 Maskelyne, Nevil 14
 Mathematical Laboratory, Cambridge 66, 68–9
 Mathematics Division, NPL 69
 Mauston, Warren 91–3, 97, 105
 Maxwell, James Clerk 26, 187
 Maynard, George 178–80
 Mayo Clinic 100
 McDonnell-Douglas 121
 McGill University 37
 Mead, Carver 126
 Medical Alley 78, 100
 Medical Alley Association 99
 Medical Device Amendments 98, 100
 Medtronic Europe 101
 Medtronic, Inc. 75–106
 Mellon, Andrew 177
 Menlo Park 183, 187
 mercury battery 99
 mercury-zinc battery 87
 Merzbach, Uta 135
 metallic filings detector 9
 Meteorological Office 31
 Meyers, George 176
 Michigan, University of 117, 170
 microprocessor 115, 126
 Million Fund 38
 Millman, Sidney 167–8, 170, 172
 Ministry of Supply 68
 Minnesota, University of 75–6, 82, 91, 99–100, 102
 Minnesota Mining & Manufacturing 87
 mirror galvanometer 18
 mission statement 101
 Mission/Medallion Ceremony 101
 MIT Museum 63, 65, 188
 MIT 50, 62, 64, 68
 MIT Radiation Laboratory 87
 Mix und Genest 46–7, 51
 modernity 86
 Moduit, Patricia de 183–4
 molecular beams 161–72
 Moore, Gordon 117, 126–30
 Moore's law 128
 Morse, Samuel F. B. 136–8, 140, 145–7
 Morton, Alan xvi, 2, 4
 MOS technology 116–20, 125
 Motorola 130
 Motorola Museum of Electronics (Schaumburg) 190
 Mountain View 117
 Multhauf, Robert 1
 Musée Ampère et de l'Électricité (Poleymieux) 189
 Musée Branly (Paris) 189
 Musée de la Poste et des Voyages (Amboise) 188
 Musée de Radio-France (Paris) 188
 Musée des Arts et Métiers (Paris) 184, 186
 Musée des Postes et Télécommunications (Brussels) 188
 Musée d'Histoire des P.T.T. d'Alsace (Riquewihl) 188
 Musée Historique d'Électricité Labadie (Longueuil) 189
 Musée National des Techniques (Paris) 186
 Musée National des PTT (Tunis) 188
 Museo de Tecnología (Mexico City) 186

- Museo di Storia della Scienza e della Technica Leonardo da Vinci (Milan) 186
- Museo entel de Telefonía (Buenos Aires) 188
- Museo Postal-Telegrafico (Santiago) 188
- Museo Postal y Telegrafico "Doctor Ramon J. Carcano" (Buenos Aires) 188
- Museo Storico PT (Rome) 188
- Museo Tecnológico "Ingeniero Eduardo Latzina" (Buenos Aires) 186
- Museu de Ciências (Sao Paulo) 187
- Museu de Telefone (Sao Paulo) 188
- Museum Boerhaave (Leiden) 186
- Museum für Verkehr und Technik (Berlin) 187
- Museum of Broadcast Communications (Chicago IL) 188
- Museum of Communication (Edinburgh) 188
- Museum of History and Technology 179, 185
- Museum of Incandescent Lighting (Baltimore) 190
- Museum of Independent Telephony (Abilene) 188
- Museum of International Folk Life 176
- Museum of Science (Johannesburg) 186
- Museum of Science and Industry (Manchester) 187
- Museum of the Cavendish Laboratory (Cambridge) 187
- Museum of the History of Science (Oxford) 187
- Museum Wharf, Boston 151
- Muzeo Postal (Mexico City) 188
- Muzeul Tehnic "Prof. Ing. D. Leonida," Naciolen Politechniceski Muzei (Sofia) 186
- Muzeum Techniko NOT (Warsaw) 186
- myocardial wire 80–1, 86, 89
- Narodni Technicke Muzeum (Prague) 186
- NASA 153
- National Air and Space Museum 156, 158, 158, 159, 160, 185
- National Council of Science Museums 187
- National Cryptologic Museum (Fort Meade) 190
- National Gallery of Art 177
- National Heart Insitute 80
- National Institutes of Health 80
- National Museum of African Art 177
- National Museum of American History xi, xii, 46, 55–6, 61, 135, 178–9, 185
- National Museum of Science and Technology (Ottawa) 186
- National Museum of the American Indian 177
- National Museums of Scotland (Edinburgh) 186
- National Physical Laboratory 26, 31, 37, 66, 68–9
- National Research Council 55
- National Science Centre (Delhi) 186
- National Science Museum (Tokyo) 186
- National Security Agency 153
- Nature* 26, 67
- Naval Tactical Data System (NTDS) 151, 152, 153, 156, 160
- Nazi 51, 69
- neon flasher 84
- New York State Museum (Albany) 187
- New England Museum of Wireless and Steam (East Greenwich) 189
- New York University 164–5
- Newcomen 76
- Nobili, Leopoldo 136, 138
- Nodon rectifier 10, 14–15, 22
- Norsk Teknisk Museum (Oslo) 186
- Northwestern Hospital 82
- Noyce, Robert 126–8, 130
- nuclear moment 163, 165
- Old Timers Association 179
- Onizuka Air Force Base 156, 158
- open-heart surgery 79–80, 83–4, 95, 97
- Optical Society 38
- oscillation transformer 19
- Oscillations Sub-Committee 69
- Pacific Bell Museum and Archives (San Francisco) 189
- Palace of Industry 29, 31
- Palace of Engineering 29–31
- Parliament (British) 176
- Parsons, Charles 187
- part-number-problem 127
- Patent Office (US) 177, 179
- Pauli, Wolfgang 163
- Pavek Museum of Broadcasting (Minneapolis) 189
- Pearson correlation coefficient 52, 56
- Pegram, George 164
- Pelis, Kim 2
- Petzold Hartmut xiv, 2, 4, 54, 56–7, 59
- Physical Society of London 26, 37–8
- Physical Review* 163
- physiological integrators 79
- Pinch, Trevor 77
- Plato 56, 59
- polio 95
- Polytechnic Museum (Moscow) 186
- Popular Electronics* 87, 96
- Post- og Telegrafmuseet (Copenhagen) 188
- Postamuseum (Budapest) 188
- Posti-ja Telemuseo (Helsinki) 188
- Power House Museum (Sydney) 186
- Priestley, Joseph 178
- Progressive Education Association 60
- pulse generator 81, 83–4, 90–1, 93, 96, 102
- punched cards 58, 59, 60, 61
- Pure Science Exhibition 32
- quantum mechanics 36
- Rabi, I. I. 5, 161–172
- RCA 182
- red blinking light 95, 105
- regression equations 52, 53
- Reich, Max 48
- Reid, Constance 49
- Rhees, David xvi, 2, 4, 99, 101, 103, 104
- Robbins, Warren 177
- Rockefeller Foundation 49, 50, 67
- Rodgers, William 59–60
- Romare, O. E. 55

- Röntgen, Wilhelm 37
 Roosevelt, Franklin 175
 Rosenberg, Nathan 87
 Rosenwald, Lessing 178
 rotary converter 14
 Roth, Norman 90–1, 93, 104
 Royal Society British Empire Exhibition Committee 31, 35
 Royal Society, 12, 18, 31–2, 38, 66–7
 Royal Air Force 68
 Royal Establishment 68
 Royal Institution 9
 Royal Aircraft Establishment 68
 Royal Institution (London) 189
 RTE Broadcasting Museum (Dublin) 188
 Rutherford, Ernest 11, 33–7, 39
- Sackler, Arthur 177
 Sacramento Museum of History, Science & Technology 190
 Safe Medical Devices Act 100
 Sanburn company 83
 Schenectady Museum 190
 Schlossmuseum (Linz) 189
 Schuster, Arthur 31
 Schweizerisches PTT-Museum (Bern) 188
 Science Museum (Newcastle) 187
 Science Museum (London) xiii, xiv, 4, 8, 22, 31, 35–6, 40, 76, 184–6
 Scotchcraft epoxy 87
 semiconductor 115–30
 Sewell, Jane Eliot 77
 Sherman, Roger 161
 Shiers, George 10
 Siemens Forum (Munich) 189
 Signetics 120
 Silastic silicone rubber 87, 90
 Silicon Valley 99
 Silicon Valley 115, 158
 Simultaneous Equation Solver 63
 Singer Sewing Machine Company 62
 siphon recorder 144–5
 slide rule 47
 Sloane, Hans 176
 Smith, F. E. 31
 Smithson, James 177–8
 Smithsonian Institution xiv, 1–2, 76, 176–85
Smithsonian Journal of History 1–2
 South Kensington Museum 27
 South Carolina Museum (Columbia) 187
 Special Loan Collection of Scientific Apparatus 27–9
 Sperry 151
 spirometer 79
 St. Jude Medica 78
 Stern, Otto 161–8
 Stoney 34
 stored-program computer 45
 Suffolk Museum 177
 Swan, Joseph 187
 Swinton, Campbell 31
- Taborsky, Edwina 144
 tachycardias 86
 Taylor, John B. 164, 166
 Technisches Museum (Vienna) 186
 technology transfer 87
 Technorama da Schweiz (Winterthur) 186
 Tecknicke Muzeum (Brno) 186
 Teflon 81
 Tekniikan Museo (Helsinki) 186
 Teknisk Museum (Helsingor) 186
 Tekniska Museet (Stockholm) 185–6
 Telecommunications Museum of Canada (Brantford) 188
 Telefonmuseet (Copenhagen) 188
 Telegraph Historical Association of North America 179
 Telemuseum 185
 Tempio Voltiano (Como) 189
 Tesla Museum (Belgrade) 190
 tetralogy of Fallot 80
 Texas Instruments 115, 183
 Texas, University of 59
 Textile Museum 176
 Teylers Museum (Haarlem) 189
 Thomson, J. J. 4, 25–40
 Thomson, William 187
 Thomson, Elihu 179
 Thorndyke, E. L. 59
 Thurstone 52
Time 95
 titanium 103
 Tokyo Electric Power Company Electrical Museum (Tokyo) 189
 Tolochenaz, Switzerland 101
 Torquay 64
 Torrey, Henry 168, 170
 Toumey, Christopher 77
 Trachtenberg, Alan 2
 transistor 75–106, 115–30
 Transistor-Transistor-Logic 128
 Trinity College, Cambridge 65
 tungsten valve 19
 Turner, Gerard 2
- ultrasound imaging 79
 United Airlines 121
 United States Air Force 156
 United States Army Signal Corps and Fort Gordon Museum (Augusta) 190
 Univac 151, 152
 University College, London
 University Hospital (Minnesota) 82
 University of Minnesota Medical School 82
- vacuum tube 9, 77, 101, 140
 Vail, Alfred 136, 138
 Veeder counter 54
 velcro 101
 Veterans Administration Hospital, Minneapolis 98
 Visvesvaraya Industrial and Technological Museum (Bangalore) 187

Volta, Alessandro 189
 Vulkan dockyard 58

 Wales, Prince of 30
 walkie-talkie 87
 Wallace, William 179
 Wangensteen, Owen 79
 Wanlas, Frank 117
 Warner, Deborah 3
 Washington, George 178
 Watkins, J. E. 178
 Watson, Paul 181
 Watson, Thomas 59–60
 Watt, James 2, 76
 Wehlnet 20
 Wells, H. G. 59
 Western Union 183
 Western Museum of Mining and Industry (Fort Collins) 190
 Weston Electrical Instrument Company 183
 Wheatstone bridge 47, 49
 Wheatstone, Charles 136, 138
 white box 75, 84, 92, 94, 96, 106
 White House 1798
 White, John 2

 Whitney, Eli 3
 Widener, Joseph 178
 Wiechert 34, 37
 Wiener, Norbert 50
 Wilbur, J. B. 62–64, 63
 Wilkes, Maurice 66, 68–9
 Willach, Rolf 3
 Williams, David 102
 Wilson, Leonard 80
 Wilson, C. T. R. 36
 Wingard, Franklin 182
 Wisconsin, University of 52, 55
 Wood, Benjamin 58–61, 58
 World War I 31, 37, 65, 69
 World War II 78–9, 87, 104, 161

 Yale University 58
 Yokogawa Museum of Measurement (Tokyo) 189

 Zacharias, Jerrold 167, 172
 Zech, Theodor 58
 Zeppelin company 51
 Zoll, Paul M. 79–80, 83, 89–90