

INDEX

Abbott, Charles. See Tenterden, Lord Abbott, Francis, 186, 195-96 Abinger, Lord (James Scarlett), 88, 156, 166 Act of Union (with Ireland) (1801), 101 Act of Union (with Scotland) (1707), Advocate-General v. Oswald, 99 Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), 5 Alderson, Sir Edward Hall, Justice, 156-59, 164 Allen, John, 235 Allen, Robert, 12, 148, 173, 266 Allen v. Rawson, 168 Alvanley, Lord (Richard Arden), 99 apprentices for inventors, 177-78 required length of apprenticeships, specifications as replacement for, 177 - 78Arcana of Science and Art, 190 Arden, Richard. See Alvanley, Lord Arkwright v. Nightingale, 85, 147 public utility of invention in, 94 specifications in, 159 Arrow, Kenneth, 3, 202 Artizan, 194-95 Ashhurst, Sir William Henry, Justice, 85, 160 assignment, of patent rights, 209-10, 212, 216 under Patent Law Amendment Act, 225 - 26register of, 220-21

Assizes, 81, 133 Aston, Sir Richard, Justice, 96, 98 atmospheric engine, 231-47 development of, 236 under Fire Engines Patent Act, 238 IPR and, 231-32 license agreements for, 241-42 patent for, 42, 236-38 processes of, 236 Proprietors and, 245-47 purpose of, 231, 243 reconstruction of, 244 separate steam condenser and, 247-48 Attorney-General (of England and Wales), 37, 40-43, 51-53, 55, 57, 59, 63, 80, 110, 116, 127, 161 authorship requirements, under patent law, 161-68 Aylmer, Gerald, 50

Bainbridge v. Wrigley, 83
Baker, Walter, 110
Baxter v. Combe, 140–41
Beard, Richard, 228
Beard v. Egerton, 162–63
Beckford v. Hood, 98
Beeston v. Ford, 130
Beighton, Henry, 242
Belgium, foreign patents in, 69
Bell, Samuel, 90
Bell v. Heath, 90
Bentham, Jeremy, 85–86
Bently, Lionel, 97–98
Berry's Patent, 162
Bessemer, Henry, 70, 290



INDEX 317

Best, Sir William Draper, Chief Justice, 164, 267-68 Biagioli, Mario, 46, 92, 126 Biddin, George Parker, 277 Birch v. Wood, 215 Black, Joseph, 254 Blackstone, William, 132-33 Block v. McMichael, 131 Bloxam v. Elsee, 160, 167-68 Boldrin, Michele, 231-32 Boulton, Matthew, 13, 159, 187, 232, 263, 286. See also separate steam condenser Maberley and, 256-58 partnership with Watt, 232, 248-51, 258, 266-67, 292 Boulton v. Andrews, 261 Boulton & Watt. See Boulton, Matthew; separate steam condenser; Watt, **James** Boulton & Watt v. Bull, 101 methods as patents and, 151-53, 168 specifications in, 159 temporary injunctions in, 127 Bowman, Robert, 266 Bowman v. Taylor, 210-11 Bramah v. Hardcastle, 136 Brazil, patents in, 87 brevet d'invention, 87 Brewster, David, 196 Bridson v. Benecke, 161 The British Industrial Revolution in Global Perspective (Allen), 12 Broadberry, Stephen, 14 Brougham, Lord (Henry Brougham), 130, 158-59, 162 Brown v. Annandale, 164 Brown v. Kidston & Waters, 164 Browne, Thomas, 212-13 Brunel, Isambard Kingdom, 55, 132 Brunton v. Hawkes, 155 Bull, Edward, 256-57, 261 Buller, Sir Francis, Justice, 88, 92, 151, 157, 159-60 Bulnois v. MacKenzie, 134 Burdett v. Slaughter, 204-5 Burrows, James, 147-48

C 11 pleadings, in equity law, 114-17 Calley, John, 239, 244 Calley, Samuel, 244 Camden, Lord (Pratt, Charles), 76-77 Campin, Frederick, 57-58, 61, 219 capital-seeking, for patents, 267-68, 271 - 73Carmichael v. Combe, 140-41 Carpenter v. Smith, 166 Carpmael, William, 52-54, 57, 64, 186, 228 foreign patents for, 69, 164 as patent agent, 66, 68 patent law and, 81 Carpmael & Ransford, 66 Cartwright, Edmund, 266 Cartwright v. Eamer, 88 caveat systems oppositions in, 56–58 under patent administration, 1768-1852, 58-59, 229 as process, 44–45 Chancery. See Courts of Chancery Chanter v. Leese, 211 Charles II, 77-78, 106 chemical patents, at 1893 World's Fair, Churchman, Walter, 193 Clark, Greg, 285–86 Clegg, Samuel, 23-24, 62, 70, 171 Clerks of the Signet and Privy Seal Act (1535), 36Cobham, George, 2 Cohen, Wesley, 6-7 Coke, Edward (Lord), 108, 144-45, 177 coke smelting, patent for, 42 Collard v. Allison, 129 Collinge v. Bowman, 216 Common Bench Reports, 189 common law copyright under, 97 patent law under, 22, 75–78, 102–3, 112-26, 132-37 patent of invention under, 98-99, 102 patents under, 1660-1758, 112-26 Statute of Monopolies (1624), 98, 124 utility of inventions under, 93 contracts, patent rights and, 210



318 INDEX

Cooke, William Fothergill, 273, 277, 287 Copley, John. See Lyndhurst, Lord copyrights in Beckford v. Hood, 98 under common law, 97 literary, 97-98, 172 in Millar v. Taylor, 96 perpetual, 97-98 under Statute of Anne (1707), 96, 98 Cornish v. Keene, 91 Cottenham, Lord (Charels Pepys), 83 Course of Experimental Philosophy (Desaguliers), 238 Course of the Exchange, 271, 277 Court of Common Pleas, 101, 107, 123, 127, 132, 152, 161, 164 Court of Exchequer, 112-13, 123, 132, 137, 146, 161 Court of King's Bench, 90, 96, 110, 122-23, 132, 137, 147-48, 152, 161, 167-68 Courts of Chancery, 112-26 case indexation in, 114 development of technology through, 125-26 discovery requests in, 118 equity in, 113-14 injunctive relief through, 119-22 preparation of specifications and, 182 - 88purpose of, 142 security for patentees through, 113 temporary injunctions through, 121-22, 127 Crafts, Nicholas, 16, 138 Crane v. Price, 22, 143, 148-49 Cresswell, Sir Cresswell, Justice, 134, 163, 216 Crompton, Samuel, 49-50 Crossley v. Beverley, 217-30 Crossley v. Derby Gas Co, 130-31 Cubbitt, William, 220 Cusack-Smith, Thomas, 141

Dallas, Sir Robert, Chief Justice, 149, 159 Darby I, Abraham, 90–91, 125–26, 142 Darby v. Bartlett, 115 Darcy v. Allen, 102, 108

Davies, John, 68 Davison v. Beake, 242 deeds, patent rights and, 210 estoppel and, 210 Denmark, lack of patent system in, 9 Derby Rib, 147 Derosne, Charles, 216-17 Derosne v. Fairie, 88 Desaguliers, John Theophilus, 234–35, 238 D'Escherny, David, 183 Dickens, Charles, 33, 35 disclaimers, in patent law, 158 discovery requests, in patent law, 118 Dixon, Abraham, 69-70 Dollond, John, 165, 193 Dollond v. Champneys, 137, 144-48 new methods for patents and, 150 secret inventions in, 165 Donaldson v. Beckett literary copyrights in, 97, 172 property rights in, 77, 96 Donkin, Bryan, 132, 167-68, 198 Dunstar v. Williams, 116-17 Dutch, Cornelius, 241 Dutch Republic, patent system in, 18 Dutton, Harold, 20, 34, 76, 148-49, 207 - 8Duvergier v. Fellows, 267 Dwight, John, 116-17 Dwight v. Morley, 123 economic theory, patents and, 2-11

Edgeberry v. Stephens, 123, 144–45, 162
Eldon, Lord (John Scott), 88, 114, 126–28, 144, 165, 205, 220
Electric Telegraph Co. v. Nott, 135
Electric Telegraph Company (ETC), 271, 273–75, 277–78
financial performance of, 274
Ellenborough, Lord (Edward Law), 83, 152–53, 160, 169
Engineers' and Mechanics'
Encyclopaedia, 188
equity law
C 11 pleadings in, 114–17

cataloging of, 114-16



INDEX 319

in Chancery, 113-14 classical notions of, 113-14 discovery requests in, 118 origins of, 113 patents in, 1660-1758, 112-26 patents in, 1759-1852, 126-32 Erskine, Thomas, 152-53 estoppel, 210 in Oldham v. Langmead, 210 ETC. See Electric Telegraph Company Europe IPR systems in, 23 patent protections throughout, 69-70 patent protections throughout Europe, 69-70 exhibitions. See specific exhibitions experimental use, of inventions, 166-67 Eyre, Sir James, Chief Justice, 84–86, 98, 100-1, 152 Fallowfield, William, 48 Faraday, Michael, 55, 135 Farey, John, 39, 58, 62, 170, 217, 235 on licensing from patents, 219 on misleading specifications, 184 patent law for, 171 Farrie, John, 220 fees, for patents under patent administration, 1700-1767, 61-63 under patent administration, 1768-1852, 74 under Patent Law Amendment Act, in Scotland, 139 specification, 60-61 Finch, Heneage. See Nottingham, Lord Fire Engines Patent Act, 238, 242, 263 separate steam condenser under, 249-50, 263 Flinn, Michael, 233, 242-43 flying shuttle, patent for, 42 foreign patents, 69-70 in Beard v. Egerton, 162-63 in Belgium, 69 for Carpmael, 69, 164 in France, 69 in Haworth v. Hardcastle, 164

under Poole, M., 69 in Roebuck v. Stirling, 163 Forsyth v. Riviere, 165 Foster, Thomas, 77 brevet d'invention in, 87 early patent law in, 18-19 foreign patents in, 69 Industrial Revolution in, 13 patent law reform in, 19 patents derived from natural rights in, 86-87 privilèges in, 18-19 prizes for inventions in, 86 Franklin Journal, 198-99 Fulling of Caps Act (1553), 108 Garbett, Samuel, 187 George III, 39

Gibbs, Sir Vicary, Chief Justice, 94 Gibson v. Brand, 93 Gilbert, Davies, 262 Glorious Revolution, 111 Godson, Richard, 63, 154-55 Gómez-Arostegui, Tomás, 114-15 Gomme, Arthur, 44 Great Britain. See also Patent Law Amendment Act; Statute of Monopolies Act of Union in, 101 logarithmic growth of patents in, 17 natural rights in, 87-88 Offices of the Clerks of the Signet Act in, 51 patent system flaws in, 16-17, 21 prizes for inventions in, 86 Statute of Anne in, 96, 98 Great Exhibition at the Crystal Palace (1851), patented exhibits at, 7, 179 Green, George, 227 Green's Patent, 227 Grose, Sir Nash, Justice, 84, 154 Gubby, Helen, 79, 103, 118 Gupta, Bishnupriya, 14

Hadden v. Pirie & Co., 153–54 Hager, George, 204–5 Hamblin, Robert, 107



320 INDEX

Hamblin's Case, 107 Huddart v. Grimshaw, 152-53 Hamblin's Patent, 103 Hulme, Edward Wyndham, 46, 106 Hancock v. Somervell, 166 Hurry v. The Oil Gas Company, 140-41 Hardwicke, Lord (Philip Yorke), 42-43, Hutchinson v. Teychenne, 205 48, 89, 109, 114, 120, 127 Hardwicke Papers, 48-49 imitation costs, for inventions, 11 Hare, Richard, 213 improvements, to inventions Hargreaves, James, 266, 285 in Morris v. Bransom, 147 Harmar v. Playne, 128-29, 160 non-patentability of, under patent Harrison, James, 184-85 Harrison, Joseph, 113 in Staynforth v. Bashforth, 146 Hastings, John, 102-3 in Vanhammi v. Ludlow, 146 Hawksbee, Francis, 67-68 indicator, as invention, 289-90 Industrial Enlightenment, 15 Haworth v. Hardcastle, 164, 210 Hayward's Patent Cases, 81-82 access costs to knowledge and, 179-80 Heath, John, Justice, 100, 151, 211 for Mokyr, 15, 200-1 Heath v. Unwin, 216 as multifaceted phenomenon, 178-80 Henry VI, early patents under, 1-2 Industrial Revolution Hesse v. Stevenson, 99, 172 capital-intensive methods of Hill, Matthew, 225 production during, 14 Hill v. Thompson, 128 demand-side explanation of, 11-12 process innovation and, 149 economic growth as result of, 16 specifications in, 156, 159-60 in France, 13 US patent law influenced by, 144 innovation during, 14-15, 284 Hindmarch, William, 87, 211 origins of, 11-12 Hindmarch on Patents, 188-89 patents and, 11-20 The History of the British Coal Industry prime causes of, 17 (Flinn and Stocker), 233 steam condenser and, 150-51 Hodge, Paul Rapsey, 58 supply-side explanation of, 12, Holland. See Dutch Republic 14-15, 293 Holt, Francis Ludlow, 154 as sustained acceleration of output, Holt, Sir John, Chief Justice, 145 15 - 16Hooke, Robert, 235 trade secrets during, 289 Hoppit, Julian, 105 injunction relief, for patentees, 119-21 Hornblower, Jabez, 152 in Boulton & Watt v. Bull, 127 Hornblower, Jonathan, 259-62 for patent of invention, 128 Watt and, 260 temporary, 121-22, 127 Hornblower v. Boulton & Watt innovation judicial hostility in, 84-85 during Industrial Revolution, 14-15, monopolies in, 86 284 specifications in, 159 process, 148-50 Horton v. Maltby, 126-27 product, 148 House of Commons, 51 TFP and, 178 House of Lords, 45, 76-77, 97, 137, Institute of the Lawes of England 163-64, 216 (Coke), 108, 144-45 Howard, Edward Charles, 208-9, 229, intellectual property rights (IPR) alternative mechanism for, 9

Howard, Philip, 106, 115-16

atmospheric engine and, 231-32



INDEX 321

in Europe, 23 IPR. See intellectual property rights of inventors, 4 Act of Union and, 101 Locke on, 92 patents and, 92 Baxter v. Combe in, 140-41 under TRIPS, 5 Carmichael v. Combe in, 140-41 in United States, 5, 23 costs of court cases in, 141 Inventing the Industrial Revolution, the costs of patents in, 61-62 Patent System (MacLeod), 20-21 English patents in, 41 inventions. See also methods of Hurry v. The Oil Gas Company in, inventions, patents for; process 140 - 41innovation, for inventions patent cases in, 137-41 costs of, 202 Patent Law Amendment Act in, 288 experimental use, 166-67 patent law in, 101-2, 137-41 in France, prizes awarded for, 86 petitions for patents in, 40-41 in Great Britain, prizes awarded for, process innovation for inventions in, 165 imitation costs for, 11 specifications for patents in, 38-39, incentives for, 202 macroinventions, 13 Statute of Monopolies in, 101–2 microinventions, 13 model of, 3-4 James II, 240 non-rivalrous nature of, 3-4, 202 James VI and I, 101 under patent law, 78-79 Japan, patent law reform in, 5-6 under Patent Law Amendment Act, Jenks v. Halford, 99, 205 Johnson, Paul, 277 reduction of quality for, 65 Johnstone, David, 51-52 patent of invention compared to, 98-99 joint patents, 55 practical use of, 166-67 joint-stock companies, 273 private utility of, 93 fully registered companies, 266-79 product innovation for, 148 as investment opportunity, 278-79 public, 165-66 limited liability for, 272 public utility of, 93-94, 99 patents and, 268-71 inventors. See also technology, Joint-Stock Companies Act, 269 development of Jones v. Berger, 134 bypassing of patent systems by, 19-20 judicial attitudes, in patent law, IPR of, 4 78 - 85native apprentices for, 177-78 in Arkwright v. Nightingale, 85 in Bainbridge v. Wrigley, 83 natural rights of, patents derived from, 86-88 in Hornblower v. Boulton & Watt, partnerships with, 210 84 - 85under patent law, protections for, 3, in Liardet v. Johnson, 83 qualitative evidence for, 83-84 under Privy Council, 109-10 scire facias cases and, 83 public perception of, patent law Jupe, Robert, 156 influenced by, 161 Jupe v. Pratt, 156-57 rates of return for, 4 juries, in patent cases, 136-37 social contract for, 87-88 in Bramah v. Hardcastle, 136 Inventors' Advocate, 194, 227 in Morris v. Bransom, 136-37



322

Cambridge University Press 978-1-107-05829-3 - The British Patent System During the Industrial Revolution 1700–1852: From Privilege to Property Sean Bottomley Index More information

> Kanefsky, John, 259 Long, Clarissa, 25-26 Kay, James, 119, 128-29 Lord Chancellor, 38, 42-43, 45, 53-54, Kay, John, 125-26, 142, 285 57, 76-77, 83, 95, 107, 114, 117, Kay v. Bearcroft, 122 121-22, 126, 143 Kay v. Farrow, 119 Lord-Advocate (of Scotland), 140 Kay v. Marshall, 128-29 Loughborough, Lord (Alexander Kay v. Mills, 121-22, 127 Wedderburn), 77, 85, 94, 99, 127, Kay v. Tattersall, 119, 125 147, 152, 159 Kempe, John, 1 Lowther, James, 239-40, 242, 244, 246, Kenrick, William, 183-84 Kenyon, Lord (Lloyd Kenyon), 84, Lunar Society, 179 98-100, 136, 210 Lund, Benjamin, 67-68 Khan, Zorina, 7, 23, 78, 92, 226 Lund, Henry, 93 on development of patent law, 143 Lyndhurst, Lord (John Copley), 130 Kieve, Jeffrey, 275 Maberley, Stephen, 256 land rights, 95-96 deal over separate steam condenser, patent law compared to, 100-1 256 - 58Macclesfield, Lord (Thomas Parker), Landes, David, 106 45-46, 107 Langmead, Joseph, 100 MacFie, Robert, 288 Lavoisier, Antoine, 157-58 Law, Edward. See Ellenborough, Lord MacIntosh, Charles, 229, 287 Law of Patents (Hindmarch), 87 Mackintosh v. Monteith, 140 The Law of Patents for Inventions MacLeod, Christine, 20-21, 76, 106, (Phillips), 144 207 - 8Le Blon, James Christopher, 48 MacQueen, Hector, 138-39 Letters Patent for Inventions Act, macroinventions, 13 133 - 34commercialisation of, 13 specifications under, 158, 169 Madsen, Jakob, 178 Levine, David, 231-32 Mansfield, Lord (William Murray), 82, Lewis v. Marling, 167 88, 97, 136-37, 147, 168, 184, 238 Liardet v. Johnson, 103 Manton v. Parker, 93-94 Marshall, John, 128-29 patent as contract in, 88 specifications in, 90, 184 Maudslay, Henry, 197-98 May, Charles, 20, 52, 60, 62-63 licenses for atmospheric engine, 241-42 McCloskey, Deirdre, 14-15 development of technology and, 203, Mechanic's Magazine, 188-89, 191, 195 distribution rates for, 196-97 frequency of, 225 Meisenzahl, Ralf, 19-20 patent rights and, 210-11, 213-14, mercantilism, 43 Meres, John, 240-41, 243 for separate steam condenser, 251, methods of inventions, patents for, 253-54 149 - 50Lobban, Michael, 114 Boulton & Watt v. Bull and, 151-53, Locke, John, 92 168 Lombe, Thomas, 106-8, 122, 286-87 Dollond v. Champneys and, 150 London Journal of Arts and Sciences, 71, intangible benefits of, 155 191-95 restrictions on, 154-55

INDEX



INDEX 323

in Rex v. Wheeler, 155 in Scotland, 153-54 tangible manufacture for, 154-55 type of technology as factor in, 156-57 in United States, 154 microinventions, 13 Mill, John Stuart on patent law, 3 on rewards instead of patents, 86 Millar v. Taylor, 96, 121 Millington, John, 219 Millington v. Fox, 130 The Miner's Friend (Savery), 234 Mitford, John, 126-27 Mokyr, Joel, 13, 19-20, 178 Industrial Enlightenment for, 15, 200-1 monopolies. See also Statute of Monopolies in Hornblower v. Boulton & Watt, 86 patents as, critique of, 85 More, Samuel, 184-85 Morgan v. Seaward, 158-59 Morris, John, 147, 219-20 Morris v. Bransom, 118-19, 238 improvements to inventions in, 147 jury decision in, 136-37 Moser, Petra, 7, 291 Murray, William. See Mansfield, Lord Naismith, John, 43, 46-47 nanotechnology, patents for, 6, 11 Napoleonic Wars, 94-95 natural rights in France, patents from, 86-87 in Great Britain, 87-88 Neilson, James Beaumont, 139, 229, 287 Neilson, John, 99 Neilson v. Baird, 135 Neilson v. Fothergill, 211-12 Neilson v. Harford, 160-61 neoclassical economic theory, 10-11 the Netherlands. See Dutch Republic Newcomen, Elias, 245 Newcomen, Thomas, 125-26, 142, 207, 230, 286. See also atmospheric estimation of personal income, 246

patent rights for, 264 Savery and, 231-32, 244 Newcomen engine. See atmospheric engine Newsham, Richard, 99 Newsham v. Grev, 121-22 Newton, Isaac, 15 Newton, William, 58 Nickels' Patent, 72-73 North, Douglass, 3-4, 173 Nottingham, Lord (Heneage Finch), 205 novelty requirements, under patent law, 161-68 Nuvolari, Alessandro, 25, 193, 221, 290 Oldham v. Langmead, 100, 210 Oxford & Cambridge Universities v. Richardson, 127-28 Papin, Denis, 235 Parker, Thomas. See Macclesfield, Lord Parrott, Stonier, 242 partnerships, patent rights and, 210, 214 - 16through patent agents, 227-28 patent administration, 1700-1767, 42 - 50adaptation of, 172 application costs and, 44-46 balance of trade as factor in, 43 characteristics of, 50 employment as factor in, 43 fee structure in, 61-63 in Ireland, 61-62 personal connections as factor in, 42-43 residency factors for, 44 in Scotland, 61-62 specifications in, 46-48 patent administration, 1768–1852, 50–65 adaptation of, 172 caveat system under, 58-59, 229 characteristics of, 50 joint patents under, 55 patent fees under, 74 patent law reform under, 50-53 petitions under, 54, 73

government qualifications for, 239



324 INDEX

patent administration, 1768-1852 (cont.) legal construction of, 85-95 lengths of patents, 145-46 requirements for, 92 specification fees, 60-61 Mill on, 3 non-patentability of improvements patent agents, 65-72 activities of, 66-68 under, 146 Carpmael as, 66, 68 novelty requirements under, 161-68 development of agencies, 66 patent as contract under, 88 early, 66 practical use of inventions under, as journal editors, 71 166-67 partnerships through, 227-28 under Privy Council, 75, 106 patent protections abroad and, 69-70 process innovation under, 148–49 Poole, M., as, 66, 70-71 for public inventions, 165-66 public perception of, 71-72 public perception of inventors as patent as contract, 88 influence on, 161 The Patent Journal, 71 purpose of, 3 patent law. See also Courts of Chancery; scire facias cases in, 81, 83, 103 in Scotland, 137-41 judicial attitudes, in patent law; Privy Council for secret inventions, 165 standards of law reportage for, 147 authorship requirements under, under Statute of Monopolies (1624), 161 - 684, 22, 75 Carpmael and, 81 case statistics in, 1770-1849, 75-104 store of doctrine in, 144 case tables for, 82 technology development under, 4, under Charles II, 77-78 commercialisation of technology as in United States, development of, result of, 4, 10 143-44 Webster and, 81 under common law, 22, 75-78, 102-3, 112-26, 132-37 Patent Law Amendment Act (1852), development of, 143 33-34, 82, 173 disclaimers in, 158 assignment of patent rights under, discovery requests in, 118 225 - 27before Dollond v. Champneys, 144-48 fee restructuring under, 64 in Ireland, 288 early, 2 encouragement of invention under, limitations of, 173 78 - 79patent law reform as result of, encouragement of technological 64 - 65development under, 125 quality of inventions under, 65 experimental use of inventions registration of patents under, 226 under, 166-67 renewal of patents under, 226-27 Farey on, 171 specifications under, 188-89 in France, 18-19 patent law reform injunctive relief for, 119–22 amendments in, 56 inventors under, protections for, 3, in France, 19 in Japan, 5-6 in Ireland, 101-2, 137-41 under patent administration, in Japan, 5-6 1768-1852, 50-53 Khan on, 143 under Patent Law Amendment Act land rights compared to, 100-1 (1852), 64-65



INDEX 325

patent of invention inventions compared to, 98–99 law of injunctions for, 128 in Scotland, 101 under Statute of Monopolies (1624), 102	patentees. <i>See</i> inventors patents. <i>See also</i> copyrights; foreign patents; methods of inventions, patents for; patent administration, 1700–1767; patent administration, 1768–1852; petitions, for patents;
patent rights. See also copyrights; patent law annulment of, 213 assignment of, 209–10, 212, 216, 220–21, 225–26 benefits of, 203–4 in chemical industry, 11 contracts and, 210 deeds and, 210 development of technology and, 202–3 estoppel and, 210 exchange of, 216–17 as growing market, 208–9, 218–28	specifications, in patents abolitionists of, 287–88 annulment of, 213 in Brazil, 87 brevet d'invention, 87 capital-seeking for, 267–68, 271–73 chemical, at 1893 World's Fair, 8 under common law, 1660-1758, 112–26 as contract, 92 cost of goods in relation to, 45 costs of, 34–35, 44–46, 59–60 early, 1–2
historiography of market in, 207–9 legal insecurity of, 209 licenses and, 210–11, 213–14, 219 for Newcomen, 264 partnerships and, 210, 214–16, 227–28 under Patent Law Amendment Act, 225–27 reverse-engineering as influence on, 8 sales of, 203 secret inventions and, 204–5 strengthening of, 6–7 for trade secrets, 205–6 transference of, 209–18, 223–25 for Watt, 264	economic theory and, 2–11 in equity law, 1660–1758, 112–26 in equity law, 1759–1852, 126–32 etymology of, 1 in Great Britain, growth of, 17 under Henry VI, 1–2 history of litigated patents, 202–24 improvements to system for, 173–74 Industrial Revolution and, 11–20 IPR and, 92 in Ireland, 38–41, 61–62 joint, 55 joint-stock companies and, 268–71 legal construction of, 85–95 as monopoly, 85 for nanotechnology, 6, 11
The Patent System and Inventive Activity during the Industrial Revolution, 1750–1852 (Dutton), 20 patent systems	as natural right, of inventor, 86–88 through personal connections, 34 potential value of, 25–26 privilèges as, 18–19 under Privy Council, 115
in Denmark, 9 in Dutch Republic, 18 in Great Britain, flaws in, 16–17, 21 historiography of, 20–26 inventors' bypassing of, 19–20 in Switzerland, 9 in United States, development of, 9–10	for process innovations, 148–49 property rights and, 4, 95–103 public good for, 171 purpose of, 202 rates of, 35 rationale for development of, 2 registration of, 226 requirements for, 4–5



> 326 patents. (cont.) Poole, Moses, 51-52, 60, 62, 213 as Clerk of Inventions, 67 reverse-engineering as influence on, foreign patents under, 69 rewards in place of, 85-86 as patent agent, 66, 70-71 Poole & Carpmael, 66 in Russia, 87 for scientific instruments, 9 "A Poor Man's Tale of a Patent" (Dickens), 33 in Scotland, 38-41, 61-62 social benefits of, 1-2 Potter, John, 244-45 as social contract, 87-88 Practical Mechanics' Journal, 71, after South Sea Bubble, 246, 194-95 267 - 68A Practical Treatise on the Law of in Spain, 87 Patents for Inventions and of specifications as part of, 46-48, Copyright (Godson), 63 Pratt, Charles. See Camden, Lord stamp duties for, 44 private utility, of inventions, 93 for technology development, 2-3, 25 privilèges, as patents, 18-19 time lengths for, under Statute of Privy Council, 75. See also Courts of Chancery Monopolies (1624), 145 transfers of usage rights under, 5 challenges to patents and, 171 voiding of, 137 decline of, 124-25 for Watt, 150-52, 156 enforceability of patents under, 115 Glorious Revolution and, 111 Paul, Lewis, 43 Lombe and, 106-7 Payne, John, 42-43, 49, 73, 193 patent award rates under, 111-12 Pepys, Charles. See Cottenham, Lord Perceval, Spencer, 213 patent disputes under, 105-12 Perkins, William, 240, 243 patent law under, 106 perpetual copyrights, 97-98 in post-Restoration England, 115-16, Perpigna, Antoine, 87 142 Perry v. Skinner, 158 purpose of, 105 petitions, for patents, 35-42 rights of inventors under, 109-10 under Clerks of the Signet and Privy Royal Proclamations by, 111 Seal Act, 36 Wilkinson case and, 111 development history of, 173 Privy Seal Office, 51 before English law officers, 73 process innovation, for inventions, 148 in Ireland, 40-41 Hill v. Thompson and, 149 oppositions to, 56-57 in Ireland, 165 under patent administration, methods for, 149-50 1768-1852, 54, 73 patents for, 148-49 under Privy Council, 107-8 under Statute of Monopolies (1624), in Scotland, 39-40 149-50 stages of, 36-39 product innovation, for inventions, stamp duties for, 44 148 Pettit, Clare, 72 production, capital-intensive, during Phillips, Willard, 144, 154 Industrial Revolution, 14 The Philosophical Transactions of the property rights in Donaldson v. Beckett, 77, 96 Royal Society, 193–94 Pinchbeck, Christopher, 21 for land, 95-96, 100-1 Poole, James, 67-68, 102, 186-87 in Millar v. Taylor, 96

INDEX



INDEX 327

patent of invention and, 98–99, 102
patents and, 4, 95–103
Proprietors of the Invention for Raising
Water by Fire, 245–47, 286.
See also Newcomen, Thomas
Prosser, Richard, 58
Protheroe v. May, 213
Proud, John, 240–41
public good, for patents, 171
public inventions, 165–66
public utility, of inventions, 93
in Arkwright v. Nightingale, 94
in Rex v. Arkwright, 99

Reference Index (Woodcroft), 81-82, 188-89, 193, 221-22 list of journals in, 189-90 Rennie, John, 153 Repertory of Arts, 25, 71, 182, 188, 190-93, 195 distribution rates for, 197 Retrospect of Philosophical, Mechanical, Chemical and Agricultural Discoveries, 190 reverse-engineering, patents and, 8, 290 rewards, patents compared to, 85-86 Rex v. Arkwright, 163 Rex v. Eley, 99-100 Rex v. Mill, 158 Rex v. Wheeler, 149, 155 Ribright v. Hoffner, 120-21 Ricardo, John Lewis, 277 Ridgway v. Philip, 212 Roberts, Richard, 62, 206, 266, 287 Robey, John, 259 Robinson, Eric, 159 Robison, John, 249 Roebuck, John, 227, 248-49 Roebuck v. Stirling, 150, 163, 183 Rolt, Lionel, 235 Rooke, Sir Giles, Chief Justice, 151 - 52Rotch, Benjamin, 57 Ruscoe, Thomas, 54 Russell v. Cowley, 132

Sage v. Harrison, 121 Savery, Thomas. See also atmospheric engine Newcomen, T., and, 231-32, 244 partnerships for, 239-40 personal relationship with Watt, 231, 234 - 35Savory v. Price, 135 Scarlett, James. See Abinger, Lord scire facias cases, in patent law, 81, 83, 103 Scotland costs of court cases in, 141 costs of patents in, 61-62 English patents in, 41 methods as patents in, 153-54 patent cases in, 137-41 patent fees in, 139 patent of invention in, 101 petitions for patents in, 39-40 specifications for patents in, 38-39, Scott, John. See Eldon, Lord separate steam condenser, 150-51, 247-62, 292 atmospheric engine and, 247-48 deal with Maberley over, 256-58 development of, 150-51, 247-48 under Fire Engines Patent Act, 249-50, 263 license fees for, 251, 253-54 pricing strategies for, 255-56 purpose of, 231 Shannon, H., 276 Sherman, Brad, 97-98 Short, Edward, 245 Signet Office, 38-40, 51, 53-54 Small, William, 183 Smeaton, John, 247, 253 Smith, Adam, 85 Smith v. Dickenson, 80, 205 social contract, patents as, 87–88 in Liardet v. Johnson, 88 Solicitor-General (of England and Wales), 37, 40–41, 53, 55, 57, 59, 80, 161 South Sea Bubble, 246, 267-68

Southern, John, 290

Russell v. Ledsam, 134

Russia, patents in, 87



INDEX

328

Spain, patents in, 87 specifications, in patents, 46-48 advantages of, 291 amendments to, 158-59 apprenticeships replaced by, 177 - 78in Arkwright v. Nightingale, 159 in Bell v. Heath, 90 in Bloxam v. Elsee, 160 in Boulton & Watt v. Bull, 159 Chancery offices and, 182-88 defects in, 157 as discriminatory tool, 46 dissemination of, 181-82 distribution of, 188-99 fees for, 60-61 in Harmar v. Playne, 160 in Hill v. Thompson, 156, 159-60 in Hornblower v. Boulton & Watt, introduction of, 105 in Ireland, 38-39, 185 judicial influences on, 161 legal construction of, 88-90 under Letters Patent for Inventions Act, 158, 169 in Liardet v. Johnson, 90, 184 as misleading, 182-84 in Neilson v. Harford, 160-61 under Patent Law Amendment Act, 188 - 89preparation times for, 185 private utility in, 93 public good replaced by, 171 public utility as part of, 93 publication of, 188-99 reform of, 187-88 relaxation of criteria for, 159, 172 requirements for, 157-61 in Scotland, 38-39, 185 for Taylor, J., 158 technical knowledge gaps and, 180 - 81in Turner v. Winter, 160 for Watt, 151, 159, 171, 183 in Wilkinson v. Sunderland, 90 in Yerbury v. Wallace, 90 Statute of Anne (1707), 96, 98

Statute of Monopolies (1624), 4, 22, 75 common law right and, 98, 124 in Ireland, 101-2 new inventions under, 77 patents of invention under, 102 process innovation under, 149-50 time length of patent under, 145 Staynforth v. Bashforth, 123, 146 steam engineering, 13-14 Watt's influence on, 13, 259 Stevens v. Keating, 141 Stirling, William, 140 Stirlings v. Black, 140 Stocker, David, 233 Stocker v. Warner, 158 store of doctrine, in US patent law, 144 Strutt, Jedediah, 147, 219-20 Sullivan, Richard, 17, 34-35, 226-27 Sullivan v. Redfield, 144 Switzer, Stephen, 235, 238 Switzerland, lack of patent system in, 9 Talbot, Henry Fox, 68-70, 201, 228 Tartari, Valentina, 221 Taylor, John, 62, 189, 268 specifications for, 158 Taylor, Samuel, 44, 49, 59, 73 Taylor v. Hare, 100, 211 technology, development of through Chancery, 125-26 commercialisation of, 4, 10 costs of, 3 licenses and, 203, 220 methods of inventions and, 156-57 patent law and, 4, 125 patent rights and, 202-3 patents for, 2-3, 25 Templeton v. MacFarlane, 138 Tennant, Charles, 167 Tennant's Case, 167 Tenterden, Lord (Charles Abbott) (Chief Justice Abbott), 167 TFP. See total factor productivity Thompson, Smith, Supreme Court Justice, 144

Tindal, Sir Nicholas Conyngham, Chief

Tolozan, Jean-François de, 19

Justice, 91, 93, 149-50, 168, 211



INDEX 329

Tomlyn, George, 115-16, 118 Tomlyn v. Stephens, 127 total factor productivity (TFP), 16, as indicator of innovation, 178 trade secrets during Industrial Revolution, 289 patent rights for, 205-6 transfer of patent rights, 209-18, patent value as factor in, 225 Treasury, 36-37, 50-52, 59 Trevithick, Richard, 285 Triewald, Mårten, 235, 242 TRIPS. See Agreement on Trade Related Aspects of Intellectual Property Rights Tull, Jethro, 179 Turner, Thomas, 91-92, 214 Turner v. Winter, 88, 159-60, 169 The Unbound Prometheus (Landes), 106 United Kingdom (UK). See Great Britain; Ireland; Scotland United States (US). See also US Patent and Trademark Office development of patent system in, 9-10 Hill v. Thompson and, as influence on patent law, 144 IPR in, 5, 23 methods as patents in, 154

Van Hamme, John Aries, 123 Vanhammi v. Ludlow, 123–24, 146 Venetian Republic, patents in, 18, 293 voiding, of patents, 137

patent law in, development of,

store of doctrine, in patent law, 144

Universities of Oxford and Cambridge v.

Ure's Philosophy of Manufactures, 188

US Patent and Trademark Office, 6

143 - 44

TRIPS in, 5

Utynam, John, 1–2

Richardson, 165

usage rights, under patents, 5

Walker, George, 123 Walker, Peter, 245 Walker v. Congreve, 95 Watson, Francis, 106 Watson v. Pears, 84 Watt, James, 118, 131, 170, 230, 253, 287. See also Boulton & Watt v. Bull; separate steam condenser alternative inventions by, 248 Hornblower and, 260 indicator invention by, 289-90 Maberley and, 256-58 partnership with Boulton, 232, 248-51, 258, 266-67 patent rights for, 264 patents for, 150-52, 156 relationship with Savery, 234-35 Roebuck as partner, 227, 248-49 specifications for, 151, 159, 171, 183 steam condenser by, 150-51 steam engineering influenced by, 13, 259 WRI score for, 222 Webster, Thomas, 70, 155, 267 patent law and, 81 Wedderburn, Alexander. See Loughborough, Lord Wedgwood china, 42 Westhead, Joshua, 95 Westminster Review, 87 Weston, Ambrose, 81, 258, 260-61 Whitchurch v. Hide, 120 Whitehouse, Cornelius, 222 Whittle, Frank, 70 Wilkinson, Isaac, 125-26, 142 Wilkinson, John, 111, 254 Wilkinson v. Sunderland, 90, 145-46 Willes, John, 48 William III, 234, 240 Williams v. Williams, 205 Wilson, John, 229 Wilson, Thomas, 256, 260 Wolfe, Arthur, 102 Wollaston, Augustin, 47 Wollaston, William, 206, 290 Woodcroft, Bennet, 82, 187-88, 214 Reference Index, 81-82, 188-90, 193, 221 - 22



330

Woodcroft raw indicator (WRI), 221–23 reliability of, 222 for Watt, 222 Woodcroft v. Reyner, 225 Woolf, Arthur, 262 World Trade Organisation (WTO), 5 World's Fair (1893), chemical patents at, 8 WRI. See Woodcroft raw indicator Wright, Lemuel Wellman, 131, 208, 227, 230, 287

INDEX

Wright, Samuel, 213 Wright, William, 109 Wrigley, Tony, 243 WTO. See World Trade Organization

Yale, David, 114 Yates, Sir Joseph, Justice, 97 Yerbury v. Wallace, 90, 103 Yorke, Charles, 48, 171 Yorke, Philip. See Hardwicke, Lord

Zomer v. Gapper, 115