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Patent Practice in London - Local Internationalism: How Patent Law Magnifies the Relationship of the United Kingdom with Europe, the United States, and the Rest of the World

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PATENT PRACTICE IN LONDON - LOCAL INTERNATIONALISM:
 HOW PATENT LAW MAGNIFIES THE RELATIONSHIP OF THE
 UNITED KINGDOM WITH EUROPE, THE UNITED STATES,
 AND THE REST OF THE WORLD

Thomas K. McBride, Jr.*

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Patent Practice in London: Local Internationalism

“My, you ought to seen old Henry the Eighth when he was in bloom. He was a blossom. He used to marry a new wife every day, and chop off her head next morning. And he would do it just as indifferent as if he was ordering up eggs.”¹

* The author wishes to thank the editors and staff of the International Law Review, especially Laura Milnichuk and Anthony Cartee. Thanks also to Sarah Guyton and Norman Balmer for their helpful review and useful comments in expanding the article to its present state.

¹ MARK TWAIN, THE ADVENTURES OF HUCKLEBERRY FINN 153 (Bantam Dell 2003) (1965). Furthermore, Sir BOSS, a character in Mark Twain’s CONNECTICUT YANKEE IN KING ARTHUR’S COURT, also states that, “[A] country without a patent office and good patent laws was just a crab, and couldn’t travel anyway but sideways and backways.” MARK TWAIN, A CONNECTICUT YANKEE IN KING ARTHUR’S COURT 41 (Bantam Books 1981) (1889). Or consider the use of the phrase, “It’s the economy stupid,” popularized by James Carville, political strategist for the 1992 presidential campaign. This message reflects the importance of economy to the people’s political good will, and that this importance is greatly affected by patent laws. Thus, international commerce is bolstered by good sound international patent

Henry the Eighth famously struggled with producing a male heir to settle the future legitimacy of his Kingdom.² Nonetheless, Elizabeth I subsequently proved that a female heir could magnificently succeed in expanding Great Britain in the sixteenth century.³ Yet the rise of the divine right of monarchs was dramatically transformed in the seventeenth century, as abuses of royal prerogative and privilege were tempered by the rise of Parliament.⁴ Such exemplary constitutional transformation occurred when the law of patent grants of sovereign monopolies moved from a gift by the Queen to an enterprise authorized by parliamentary act.⁵

Constitutional transformation continues to sweep through Europe today.⁶ Although specialized patent lawyers practice in many jurisdictions, some areas in Europe are more fertile than others.⁷ England today, under Elizabeth II, acts as a focal point for international trade and a gateway to broader European markets.⁸

laws. Cf. Edward Walterscheid, *Conforming the General Welfare Clause and the Intellectual Property Clause*, 13 HARV. J.L. & TECH. 87 (1999) (generally discussing the harmonious relation between promotion of the welfare and promotion of intellectual property seen in the United States Constitution).

² See, e.g., ERIC DELDERFIELD & D. V. COOK, *KINGS AND QUEENS OF ENGLAND AND GREAT BRITAIN* 68-70 (2d ed. 1970) (discussing the best known fact that Henry VIII had six wives and completed the religious Reformation of England with constitutional change making King the head of the Church of England).

³ See, e.g., *id.* at 74-76 (discussing the significant transformations under Elizabeth I).

⁴ See, e.g., Malla Pollack, *Purveyance and Power, or Over-priced Free Lunch: The Intellectual Property Clause as an Ally of the Takings Clause in the Public's Control over of Government*, 30 SW. U. L. REV. 11, 20-80 43-45 (2000) (providing historical background on the financing of British government); Louise Halper, *Measure for Measure: Law, Prerogative, Subversion*, 13 CARDOZA STUD. L. & LIT. 221, 228-35 (2001) (discussing relations between monarch and parliaments and placing Shakespearean theater in a social context focused on economic monetary issues).

⁵ English Statute of Monopolies, 1623, (21 Jac. 1, c. 3 (Eng.)). See also, the English Petition of Right, 1628 (reaffirming Parliament's long-familiar rights and complaining about royal usurpations, especially with respect to the mode of taxation). Charles the First contrived to rule from 1629 to 1640 without Parliament and managed to finance his rule in part by the sale of monopolies. This long rule without Parliament led to Civil War and the execution of the King in 1649. Charles II and James II took part in the Civil War, and Oliver Cromwell played regent, but ultimately Parliament would establish supremacy and abolish royal prerogative with the 'Glorious Revolution' when William and Mary accepted the English Bill of Rights in 1689. See, e.g., GEORGE ANASTAPLO, *THE AMENDMENTS TO THE CONSTITUTION* 24-28 (John Hopkins University Press 1995) (discussing these events and setting out the documents of 1628 and 1689 in an appendix).

⁶ This can be seen both internally to the United Kingdom with issues involving the reform of the House of Lords, and externally to the United Kingdom with issues involving ratification of the new European Union Constitution. On reform of the House of Lords, see "The House of Lords Completing the Reform: A Government White Paper Presented to Parliament by the Prime Minister By Command of Her Majesty 7 November 2001" available at <http://www.dca.gov.uk/constitution/holref/holreform.htm>. On ratification of the new EU Constitution the latest country by country information can be viewed online at http://www.unizar.es/euroconstitucion/Treaties/Treaty_Const_Rat.htm.

⁷ See, e.g., an excellent summary of the U.K. law and the English Court System available at <http://www.eurolegal.org/british/UKcourtsys.htm> stating:

London has long been a world centre for international trade where businessmen from overseas make contracts. To this day more international trade contracts are negotiated in London, or through brokers dealing on London markets, or on the trade terms of London markets, than applies to any other single place in the world. The pre-eminence of London is of particular significance in aviation and shipping, banking, the international sale of goods, particularly commodities and insurance and reinsurance.

⁸ *Id.*

Patent practice provides an illuminating example of how one specialized area of law acts as a microcosmic lens reflecting the broader legal culture in which it developed. Moreover, patent practice magnifies economic policies that impact commercial planning and licensing of intellectual property, all of which intimately relates to international and domestic trade contracts and sales of goods.⁹ This article will discuss the basic similarities and differences between British (especially English) and European patent law systems, as well as reflect American patent perspectives, to better understand international intellectual property reforms and conflicts of law.¹⁰

The first section of this article will discuss the basics of patent law ranging from the international patent systems and how they compare to domestic patent systems, especially how the United Kingdom compares to other European countries and the United States.¹¹ The second section will discuss specific British practice systems and reflect on issues important to British patent attorneys with pending cases before the House of Lords.¹² The third section will bring in American references to the British and European systems, providing a bridge from the early common law of the United Kingdom to the present commercial world of the European Union.¹³ The fourth section will conclude the article with a discussion looking towards the future, including European community patents and general constitutional trends in global commerce and international patent law.¹⁴

I. Patent Law Basics

“Invention is the easy bit. Innovation, by contrast, is the genuinely difficult part.”¹⁵

A review of some basics of patent law provides a background for analyzing the systems of practice in England. These basics include the laws governing patents in the relationships among England, the rest of Europe, and globally. These basics also include the retained national law in Europe, which governs the enforcement of European patents, and has led to dramatically different treatment of

⁹ See generally FRED WARSHOFKY, *THE PATENT WARS: THE BATTLE TO OWN THE WORLD'S TECHNOLOGY* 3 (John Wiley & Sons, Inc. 1994) (noting the growth in economic importance of patents).

¹⁰ Note that while Scotland has its own legal system, several treaties bind Scotland through the United Kingdom. However, the majority of patent cases have been under English law. Thus, British and English may be used interchangeably throughout this paper, while Scotland will not be discussed specifically. Although Northern Ireland may also be bound under a type of English law, but it will not be discussed in this paper either.

¹¹ See *infra* Section I and accompanying text (discussing patent law basics).

¹² See *infra* Section II and accompanying text (discussing British patent systems and practice).

¹³ See *infra* Section III and accompanying text (discussing America's debt to the British system).

¹⁴ See *infra* Section IV and accompanying text (discussing present and future European and international issues).

¹⁵ *Invention is the Easy Bit*, *THE ECONOMIST*, (U.S. Edition) June 23, 2001. The magazine also includes a graphic warning, “Beware of new ideas. They can be 25 years ahead of their time.” *Id.* Note that this implies that the present patent maximum term length of 20 years may create a timing problem.

the same European patent in an English court and in a separate German court.¹⁶ Finally, this section discusses broader issues covering cross-border injunctions (popularly known as the Italian torpedo strategy) and movement toward harmonization on both a European and global scale.

To begin simply and generally following American law, a patent uses words in a specified format to provide groundwork protecting an otherwise abstract idea.¹⁷ Patents include an invention specification section that generally contains: background information, figures, example data, and a detailed written description that fully transfers possession of all relevant inventors' ideas to the public domain.¹⁸ Patents also include a claims section, which set out in precise detail the metes and bounds of the invention using a "poetically" precise selection of words.¹⁹ These claims specify the point of novelty and show non-obviousness in light of any relevant prior art covering similar inventions that have been previously described in other patents or similar documents.²⁰ The "poetry" arises from the fact that the fewer words that are used in a claim, and the more apt description provided, the more unique the resulting patent claim reads.²¹

¹⁶ See *infra* Section I.B.1 and accompanying text (discussing *Epilady* cases and illustrating how both German and English courts took opposite sides at trial and then both reversed and took opposites sides again after appeal).

¹⁷ See ENCYCLOPEDIA BRITANNICA 501 (11th ed). Letters Patent are generally defined as letters, addressed by the sovereign 'to all to whom these presents shall come' reciting the grant of some dignity, office, monopoly, franchise, or other privilege to the patentee. They are not sealed up, but are left open (hence the term 'patent') and are recorded in the patent rolls in the Record Office. . .so that all subjects of the realm may read and be bound by their contents; see also BLACK'S LAW DICTIONARY 1156 (7th ed. 1999) (specifically defining patent as "The exclusive right to exclude others from making, using, marketing, selling, offering for sale, or importing an invention for a specified period (20 years from the date of filing), granted by the federal government to the inventor if the device or process make, use, or sell an invention for a specified period granted by the federal government to the inventor if the device or process is novel, useful, and nonobvious"). Black's Dictionary goes further to quote from a primer on patents:

What, exactly, is a patent and how does it operate to foster the 'progress of the useful arts'? In its simplest terms a patent is an agreement between the inventor and the public, represented by the federal government: in return for a full public disclosure of the invention the inventor is granted the right for a fixed period of time to exclude others from making, using, or selling the defined invention in the United States. It is a limited monopoly, designed not primarily to reward the inventor (this may or may not follow), but to encourage a public disclosure of inventions so that after the monopoly expires, the public is free to take unrestricted advantage of the invention. EARL W. KINTNER & JACK L. LAHR, AN INTELLECTUAL PROPERTY LAW PRIMER 7-11 (2d ed. 1982).

See also U.S. CONST., art. I, § 8, cl. 8. (Patent and Copyright Clause) (spelling out 'progress of the useful arts'), reprinted in GEORGE ANASTAPLO, THE CONSTITUTION OF 1787 270 (John Hopkins University Press 1991) (1989).

¹⁸ See, e.g., 35 U.S.C. §112; MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 601, available at <http://www.uspto.gov/web/offices/pac/mpep/mpep.htm>.

¹⁹ *Id.* "The name of the game is the claim." In re Hiniker Co., 150 F.3d 1362, 1369 (Fed. Cir. 1998).

²⁰ See, e.g., Manual OF PATENT EXAMINING PROCEDURE (MPEP) § 706 (discussing examination and rejection of claims).

²¹ Note that in some technology areas, words alone may completely fail to adequately describe an invention; thus an actual deposit of the invention may be necessary in a public depository. For example, in a case involving antibiotic compounds made by a microorganism, the Court of Customs and Patent Appeals accepted the public deposit because the patentee was not able to, sufficiently disclose by written word how to obtain the microorganism starting material from nature. In re Argoudelis, 434 F.2d 1390, 1392 (C.C.P.A. 1970).

A well-drafted claim will precisely describe an invention and protect the idea covered from both literal and equitable infringement.²² Equitable infringement pertains to claims that cover similar aspects of the invention, but due to limitations of knowledge or drafting skill, do not expressly cover the patented invention.²³ Thus, courts will in some instances act equitably and provide a remedy permitting a patent to cover intellectual property outside the literally drafted boundary.²⁴

Regardless of the specifics of a particular patent claim, the nature of a granted patent arises from a public *quid pro quo*²⁵ with the private inventor.²⁶ In exchange for the disclosure of the invention to the public, the patent is generally thought of as an incentive for the increase of the common good²⁷ by allowing a period of exclusivity for the inventor to reap the fruit of his or her ideas, generally about twenty years from patent application.²⁸ A commonly mistaken impression of patents relates to the mainly negative nature of the granted right, which is the right to exclude others from the claimed material.²⁹ But, there is no affirmative aid to the actual invention by grant; the patent only allows the inventor a time period to exploit the described idea free from competition in the relevant jurisdiction.³⁰ However, aid may become available in the form of remedies through court ordered injunctions or damages when actual or threatened infringement of the claims by others has been demonstrated with sufficient proof.³¹

Disclosure of the invention also provides an incentive to the general public to creatively design around the claims in the patent, and come up with innovative ideas outside the literal, equitable, and even geographic scope of the patent.³²

²² See *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 607-09 (1950) (discussing the doctrine of equivalents in the United States). See also *Westinghouse v. Boyden Power Brake Co.*, 170 U.S. 537 (1898); *Scripps Clinic & Research Found. v. Genetech, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991) (discussing the reverse doctrine of equivalents, which permits equity to find non-infringement even within the literal scope of claims for an article that is so far changed to perform in a substantially different way).

²³ See *id.*

²⁴ See *id.* The *Epilady* cases discussed in Section I.B.11 below also shed light on the extension of claims beyond the literal boundary of the words in the European context.

²⁵ *Quid pro quo* is defined as, "an action or thing that is exchanged for another action or thing of more or less equal value; a substitute" BLACK'S LAW DICTIONARY 1282 (8th ed. 1999).

²⁶ See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.* 489 U.S. 141, 150-51 (1989); *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 63 (1998) ("[T]he patent system thus embodies a carefully crafted bargain for encouraging the creation and disclosure of new, useful, and nonobvious advances in technology and design in return for the exclusive right to practice the invention for a period of years").

²⁷ *Seymour v. Osborne*, 78 U.S. 516, 533-34 (1870); *Pfaff*, 525 U.S. at 63-64.

²⁸ 35 U.S.C. §154(a)(2).

²⁹ *Pfaff*, 525 U.S. at 64-65.

³⁰ *Id.*

³¹ See 35 U.S.C. §283 (covering injunctions); 35 U.S.C. §284 (covering damages).

³² Geographic limitations arise where each nation can only enforce patent violations that touch that particular nation's jurisdiction. Designing around a patent should always be done with careful assistance from a skilled patent attorney who can interpret local issues on claim construction and render opinions on invalidity and on ways to avoid infringement.

Disclosed information enriches the public domain, while providing 'shoulders' for future inventors to 'stand' on.³³

A. European Patent Convention for Patent Issuance

Patents arise in the United Kingdom in three ways: First, a domestic inventor can directly file a national patent application; second, a European patent application can enter the national phase in the United Kingdom after being examined and granted by the European Patent Office; or third, an international patent application filed under the Patent Cooperation Treaty ("PCT") can enter the national phase under terms of the treaty.³⁴

WIPO is an international group that coordinates the filing, searching, and examination of applications for patents using the PCT system.³⁵ The PCT essentially provides a 'ticket' application for global inventors to apply to many countries simultaneously, and defer expenses associated with individual national office filings required for granting actual patents within each sovereign nation.³⁶ The 'ticket' application provides notice to PCT member countries that an applicant has a priority date, which later can be exercised in each country once an applicant proceeds with paying each selected office fee in a timely manner.³⁷ Thus, the PCT allows inventors a grace period to continue to evaluate the geographic and techno-commercial potential of their invention as well as evaluate any legal feedback from the search and examination reports before committing to expensive grant procedures in numerous and varied countries.³⁸

³³ Normally the aphorism, "Standing on the shoulders of giants" may be attributed to Sir Isaac Newton, whose work built upon the earlier work of many other inventors, and who also had a notorious conflict with the continental mathematician Gottfried Wilhelm von Leibniz over the invention of calculus. However, the phrase appears to have been in common use during Newton's time, and has been explored in depth by ROBERT K. MERTON, *ON THE SHOULDERS OF GIANTS: A SHANDEAN POSTSCRIPT NEW APPROACHES TO NUMERACY* (Lynn Arthur Steen ed., Nat'l Acad. Press 1990) (1965). Note that the calculus dispute boiled down to a priority dispute, where Leibniz was the first to publish, while Newton claimed that he was the first to invent. Newton argued that he had been isolated and unable to communicate his discovery during an outbreak of the bubonic plague. Even today, the U.S. follows the first to invent system that would grant rights to Newton while the rest of the world generally follows the first to publish system that would favor Leibniz.

³⁴ The United Kingdom signed the PCT in 1970. Note that the terms of the PCT were extended to the Isle of Man in 1983. The PCT is an international treaty with over one hundred member states. The PCT is part of the World Trade Organization ("WTO") and a complete list of member states may be found at http://www.wipo.int/pct/en/access/legal_text.htm.

³⁵ *Id.* The PCT is coordinated through the group is called the World Intellectual Property Organization ("WIPO"), available at <http://www.wipo.int/pct/en/treaty/about.htm>.

³⁶ *Id.*

³⁷ *Id.* Under PCT Article 39, a request for international examination before the end of the 19-month time period following application will extend the 20-month (Chapter 1 period) to a 30-month (Chapter 2 period) time for deferral. Thus, 30 months may be the maximum time period that the application 'ticket' purchases in deferred filing, search, attorney, and office fees.

³⁸ Note further, that under PCT Article 8, an additional twelve-month time period can result from a claim in a PCT application to an earlier filed related national application in any member country. For more general information on various aspects of the PCT process see the WIPO website at <http://www.wipo.org/pct/en/index.html>.

Similarly, the Convention on the Grant of European Patents, better known as the European Patent Convention ("EPC"), enables inventors who wish to get a patent in a number of European countries to file a single application instead of a plurality of identical applications in each member's national office.³⁹ However, the EPC provides only one procedure leading to grant of a patent, unlike the PCT that allows as many parallel procedures of grant as there are countries involved in the filing.⁴⁰

The EPC went into effect on October 7, 1977.⁴¹ The European Patent Office began accepting filed applications on June 1, 1978. Presently, there are twenty-eight countries listed as contracting states to the EPC, with another five countries listed with extension status.⁴² Extension states are not full members of the EPC, but are states that have concluded special bilateral agreements with the European Patent Office. Those states with extension status extend partial benefits of granted patents under special terms to such member states at additional costs.⁴³

Finally, it should be noted that the European Union ("EU") is a separate organization different from the EPC. The EU has only twenty-five members, including the ten that recently were admitted in May. Although membership in the EU and EPC overlap, there are several countries in one of the organizations, but not the other.⁴⁴ But although they are separate organizations, both the EU and the EPC have a common goal of seeking ways to integrate member interests, which includes harmonizing member states' patent laws.⁴⁵ This harmonization of members' patent laws will be addressed in the following section.⁴⁶

³⁹ See EPC Art. 2. Note that the full European Patent Convention can be viewed online at <http://www.european-patent-office.org/legal/epc>.

⁴⁰ The EPC provides for grant of a unitary European patent via the central European Patent Office, in contrast to the PCT, where an application for patent only becomes a patent once it passes through a national countries individual patent office.

⁴¹ The seven countries initially involved were: Belgium, France, West Germany, Luxembourg, Holland, Switzerland, and the United Kingdom.

⁴² These twenty-eight countries presently include Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hellenic Republic, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Poland, Portugal, Spain, Romania, Slovakia, Slovenia, Sweden, Switzerland, Turkey, and last but not least, the United Kingdom (known with the initials GB for Great Britain). A full list of EPC countries and additional links to each member states patent office, as well as to other related national offices, patent databases, and important legal documents can be found at <http://www.european-patent-office.org/online/index.htm#Patent>.

⁴³ These extension countries presently include Albania, Croatia, Lithuania, Latvia, and the Former Yugoslav Republic of Macedonia. The European Patent Office website projects that additional extension agreements may be concluded with Bosnia and Herzegovina, as well as with several Asian countries in the near future.

⁴⁴ Five extra countries to the EPC that are not members of the EU include Liechtenstein, Monaco, Romania, Switzerland, and Turkey. EU member Lithuania is an extension state of the EPC; while EU member Malta is not involved with the EPC. See EU member listing at http://www.europa.eu.int/abc/print_index_en.htm.

⁴⁵ *Id.*

⁴⁶ See *infra* Section I.B. A summary of the EU from their website at http://europa.eu.int/abc/index_en.htm# reads:

The European Union is a family of democratic European countries, committed to working together for peace and prosperity. It is not a State intended to replace existing states, but it is more than any other international organization. The EU is, in fact, unique. Its Member States have set

The actual procedures of practice before the European Patent Office include the following steps: (1) submitting an application, (2) subsequently examining the application for formalities and (3) performing a search that is reported with a published application.⁴⁷ This practice is similar to the entire process of the PCT, which ends at this point.⁴⁸ The European Patent Office continues with a substantive examination and grant of any patent meeting all EPC requirements.⁴⁹ The European Patent Office provides an opposition period to allow others to oppose the granted patent on any grounds that the European Patent Office may have missed, but such oppositions are limited to the nine-month window immediately following the grant.⁵⁰ The grant of the EPC patent leads to national patents being granted in all applicant designated EPC countries, which can include the U.K., through a process called validation, and translations, if necessary, are provided along with appropriate fees.⁵¹

The procedures of the U.K. Patent Office are similar up to this point, but the opposition period is called revocation, and it can continue throughout the life of any patent instead of the nine-month window mandated by the EPC.⁵² It should also be noted that any British national must seek written governmental permission for filing applications in other offices outside the U.K., unless an application has been pending at the U.K. national office for longer than six weeks with no prohibiting instructions having been issued.⁵³

B. Retained National Law for Infringement and Licensing

In addition to receiving direct national and PCT patent applications, the U. K. Patent Office located in Newport, South Wales, also provides assistance with patent revocation and issues relating to entitlement, such as who can be properly termed an owner and/or an inventor.⁵⁴ However, once a patent has validly been granted in the U.K. using any of the above procedures, the specific national laws of the U.K. come into force and can be used to enforce the patent with infringe-

up common institutions to which they delegate some of their sovereignty so that decisions on specific matters of joint interest can be made democratically at the European level. This pooling of sovereignty is also called "European integration."

⁴⁷ See Part IV of the EPC arts. 90-93 available at <http://www.european-patent-office.org/legal/epc/ema1.html#CVN>.

⁴⁸ See *supra* note 38 (discussing PCT).

⁴⁹ See Part IV of the EPC arts. 94-98 available at <http://www.european-patent-office.org/legal/epc/ema1.html#CVN>.

⁵⁰ See Part V of the EPC arts. 99-105 available at <http://www.european-patent-office.org/legal/epc/ema1.html#CVN>.

⁵¹ Note that validation is generally automatic in each EPC member country once procedural and payment steps are properly performed. See EPC arts. 64-67 available at <http://www.european-patent-office.org/legal/epc/ema1.html#CVN>.

⁵² Compare Art. 72 of the United Kingdom Patent Act of 1977 (setting term as life of patent) with EPC art. 99 (setting term as 9 months).

⁵³ See art. 23 of the United Kingdom Patent Act of 1977.

⁵⁴ For more information on the U.K. Patent Office, including their London front office, overall organization, policies, and broader roles that include copyrights, design rights, and trademarks, please consult their website at <http://www.patent.gov.UK/>.

ment actions or licensing deals.⁵⁵ The enforcement of a patent in Europe is wholly a matter for domestic courts and laws.⁵⁶ Some of these laws have been harmonized with EPC and EU directives, yet this key step of patent practice is where many possible conflicts can develop between identical patents treated under differing European national laws and traditions.⁵⁷ For example, the common law tradition in England clearly contrasts with the civil law tradition on the continent in the use of expert evidence and with discovery procedures, which can greatly influence patent litigation.⁵⁸

Licensing of patent rights presents both contractual and EU issues in terms of competition and fair trade. Express licensing of a European patent between private parties can be done under a private contract providing that the national laws of a particular country, such as the U.K., govern. Implied licensing arises under the doctrine of "Exhaustion-of-Rights" under the terms of the European Community ("EC") Treaty.⁵⁹ Permissible contractual licensing falls under the EC Articles 81 and 82 dealing with unfair competition and antitrust, while "Exhaustion-of-Rights" doctrine arises under the European Court of Justices interpretation of EC Articles 28, 29, and 30.⁶⁰ Questions of law under the EC can lead to transfer

⁵⁵ Licensing largely pertains to analogous local nation-state contract law independent of broader EU constraints. Licensing is similarly non-federalized in the United States such that federal courts will not take jurisdiction over licensing matters unless a federal patent right is directly implicated. Consequently, local state law generally governs licenses in the United States. Licenses also may act as contractual permission for limited infringement. Enforceability of license contract provisions may sometimes depend on the relevant nation-state local law as it applies to forum selection or choice-of-law provisions. *See, e.g.,* EUGENE F. SCOLES ET AL., CONFLICT OF LAWS § 18 (3d ed. 2000) (discussing contracts generally).

⁵⁶ *See* EPC art. 2(2); EPC art. 64(1).

⁵⁷ Infringement is simply an act that interferes with an exclusive right of a patent owner, which can include making, using, selling, offering for sale, or importing without the patent owner's permission a product covered by the claims of a valid patent. *See, e.g.,* Art. 60 of the United Kingdom Patent Act of 1977. Of course, the question of whether a patent is valid opens a kaleidoscope of litigation opportunities that shift from an opposition to a revocation procedure over time, as well as always surfacing in actual court actions or business planning strategies in dealing with invalid patents. *See, e.g., supra* note 52 (comparing revocation and opposition).

⁵⁸ Discovery under a civil law system can be much more restricted than under a common law system. Such discovery differences clearly impact the evidence available for trial. *See generally* JOHN H. MERRYMAN, THE CIVIL LAW TRADITION, AN INTRODUCTION TO THE LEGAL SYSTEMS OF WESTERN EUROPE AND LATIN AMERICA 110-23 (2d ed. 1985) (discussing civil law tradition and comparing it to common law tradition). Note further that the rise of constitutionalism in Europe may diminish the emphasis on civil code systems. *See id.* at 156-57.

⁵⁹ For detailed cites to EC Articles' text, see the Treaty Establishing the European Community (consolidated text) at http://europa.eu.int/eur-lex/en/search/search_treaties.html.

⁶⁰ Note that EC Article 82 deals with monopolistic abuse of a dominant position, and EC Article 81 deals with collusive conduct such as partitioning patent rights by territorial allocation. Note that the extra-territorial jurisdictional reach of these articles may present problems to non-residents of the EU. Furthermore, the doctrine of "Exhaustion-of-Rights" parallels the U.K. concept of implied consent in determining when a marketed product becomes free from a patent restriction on free-trade and use, especially when transferred downstream third parties in commerce and/or across EU member borders with a different patent system. Express consent may also arise by action of the patentee, whereas implied consent more commonly arises by inaction of the patentee. For reference to antitrust laws in the United Kingdom, see Competition Act 1998, available at <http://www.hmso.gov.uk/acts/acts1998/19980041.htm>. In comparison and for reference to patent and antitrust laws in the United States, see *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172 (1965); see also *Sherman Act of 1890*, 15 U.S.C. §§ 1-7 (2002); *Clayton Act of 1914*, 15 U.S.C. §§ 12-19, 21-27 (2004).

from a national U.K. court to the European Court of Justice under default EC Article 234.⁶¹ Thus, while the EPC governs issues related to patents themselves, the EC Treaty can come into play when those patents are later exploited and applied commercially.

1. *Conflicts between U.K. and Germany*

An exemplary conflict situation where substantive patent laws of member EPC countries diverged occurred with the *Epilady* cases, which pitted the U.K. against Germany.⁶² Both British and German courts differed in their interpretations of the same European Patent claims under identical factual infringement proceedings. Inconsistent lower court opinions were both reversed upon appeal, resulting in inconsistent appellate opinions, although the courts of both countries were guided by Article 69 of the EPC.⁶³

⁶¹ EC Article 234 reads in part as follows:

Where such a question is raised before any court or tribunal of a Member State, that court or tribunal may, if it considers that a decision on the question is necessary to enable it to give judgment, request the Court of Justice to give a ruling thereon.

Where any such question is raised in a case pending before a court or tribunal of a Member State against whose decisions there is no judicial remedy under national law, that court or tribunal shall bring the matter before the Court of Justice.

See http://europa.eu.int/eur-lex/lex/RECH_traites.do.

⁶² See, e.g., *Improver Corp. v. Remington Consumer Prod. Ltd.* [1990] 17 F.S.R. 181 (Ch. Pat. Ct. 1989) (discussing both English and German cases from trial to appeal). Generally, *Improver* applies to the English cases, while *Epilady* applies to the German cases. This paper will use *Epilady* to refer to both. See generally, John Hatter, *The Doctrine of Equivalents in Patent Litigation: An Analysis of the Epilady Controversy*, 5 *IND. INT'L & COMP. L. REV.* 461 (1995). Another exemplary conflict case that again involved claim interpretation was the *Mabuchi Motors* cases in London and Munich. Compare *Mabuchi Motor K.K.'s Patents* [1996] R.P.C. 1996, 387 with *Johnson Elec. Indus. Mfg. Ltd. v. Mabuchi Motor Co. Ltd.* [District Court of Munich] (1996) R.P.C. 411 (showing that U.K. and German courts differ on claim construction for infringement: where the German court broadly finds infringement and the U.K. narrowly finds no infringement).

⁶³ EPC Article 69 reads as follows:

Extent of protection

(1) The extent of the protection conferred by a European patent or a European patent application shall be determined by the terms of the claims. Nevertheless, the description and drawings shall be used to interpret the claims.

(2) For the period up to grant of the European patent, the extent of the protection conferred by the European patent application shall be determined by the latest filed claims contained in the publication under Article 93. However, the European patent as granted or as amended in opposition proceedings shall determine retroactively the protection conferred by the European patent application, in so far as such protection is not thereby extended.

at <http://www.european-patent-office.org/legal/epc/e/ar65.html>. Article 69 is also annotated with reference to see Protocol on the Interpretation of Article 69 of the Convention, adopted at the Munich Diplomatic Conference for the setting up of a European System for the Grant of Patents on October 5, 1973, as set out below:

Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.

See <http://swpat.ffii.org/papers/muckonf73/muckonf73.en.pdf>.

In the *Epilady* Cases, a small company named Improver invented a machine to remove leg hair, patented the machine, and licensed the rights to a start-up company.⁶⁴ However, the machine caused a certain amount of pain for the user, and another much bigger company, Remington, improved upon it.⁶⁵ The improved machine, which was less painful, was based on a more forgiving rubber hair removal process, rather than a steel spring hair removal process, and Remington began marketing it competitively. To defend the patent rights, Improver was forced to bring suit for infringement in several European countries, including Germany and the U.K. Previously, Improver's patents had been issued under the EPC and identically granted and validated under both countries' national laws after surviving opposition before the European Patent Board of Appeals.⁶⁶

Due to substantive national law discrepancies, the infringement actions turned out dramatically different in the two countries. The jurisprudence of Germany treated patent claims like "guide-posts" that encompass the main ideas and central teachings of the patent.⁶⁷ Alternatively, the jurisprudence of England treated patent claims like "fence-posts" that mark the boundaries of the patent with specific words, and whatever is not claimed is considered "disclaimed."⁶⁸ The EPC had already recognized this potential conflict in Article 69, splitting the difference with an attempted compromise.⁶⁹ Article 69 states that the claims should neither be read literally nor as a guideline, but instead should be somewhere in between.⁷⁰

After a lengthy appellate process, both appellate courts reversed their lower trial courts; German courts held that the patent was infringed while the English courts held that the patent was not infringed.⁷¹ Both countries claimed that they had followed Article 69, while the other country had not.⁷² Put simply, the difference in interpretation appears because the German courts apply the "idea" ap-

The annotation reference to Article 69 tries to split the difference between U.K. and Germany positions by suggesting courts follow neither. In the U.S. this controversy in certainty has been partly mirrored in the *Festo* case. See *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002) (discussing application of prosecution history estoppel to claim interpretation and infringement by doctrine of equivalents); see also *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997) (discussing claim scope under doctrine of equivalents).

⁶⁴ See European Patent No. 101,656 to a Depilatory Device. The patented claim called for a helical spring while the alleged infringement device made use of a cylindrical rod of elastomerised synthetic rubber for removing unflattering body hair.

⁶⁵ See *supra* note 62.

⁶⁶ See EPO Case Number T 0754/89 - 3.2.3, available at <http://legal.european-patent-office.org/dg3/biblio/t890754eu1.htm> (finding inventive step under EPC Article 56 covering non-obviousness of the device).

⁶⁷ See *supra* note 62.

⁶⁸ *Id.*

⁶⁹ See *supra* note 63 (setting out protocol developed as compromise).

⁷⁰ See *id.* (setting out annotated text of EPC Art. 69). See also David Cohen, *Comment Article 69 and European Patent Integration*, 92 Nw. U. L. Rev. 1082 (1998).

⁷¹ See *Improver Corp. v. Remington Consumer Prod. Ltd.* [1990] 17 F.S.R. 181 (Pat. Ct. 1989) (discussing both English and German cases from trial to appeal). See also Cohen, *supra* note 70, at 1083-84.

⁷² *Id.*

proach, protecting the idea of the patent against the idea of the infringing device.⁷³ In contrast, the English courts apply the “word” approach, literally protecting the words as components of the patent against the actual components of the infringing device in an atomistic manner.⁷⁴ Thus, in the U.K. the equivalents are not the similar ideas of the two items being compared as would be examined in Germany, but rather the equivalents represent tight variations on the actual technical disclosure itself.⁷⁵

German practice generally accords a broader scope of patent protection than the English practice does. In the *Epilady* case, the claim element “helical spring” had been replaced in the accused infringement embodiment by a slitted rubber rod.⁷⁶ In the U.K., the Court of Appeal decided that the term “helical spring” could not cover a slitted rubber rod because there was no suggestion that the inventors of the *Epilady* device had considered using a rubber rod and there was no suggestion in the specification that a rubber rod might be the equivalent of a helical spring (a rubber rod would in a loop configuration, the plaintiff’s preferred embodiment, lead to hysteresis problems).⁷⁷ Applying the *Catnic* test,⁷⁸ the U.K. court held that the alleged infringement satisfied the first two parts of the test, but not the third; a restricting intention was found because a wide generic claim would not have been accepted by the patent office and was therefore found to be a non-infringement of the patent. In Germany, however, the Düssel-

⁷³ See Cohen, *supra* note 70, at 1120-21.

⁷⁴ *Id.*

⁷⁵ *Id.* Note that equivalents is a term of art used to read the claims broadly or narrowly onto an infringing device that does not appear clearly and literally inside the scope of the written claims as interpreted by judicial construction. See *Catnic v. Hill & Smith, Ltd.* [1982] R.P.C. 1982, 183 setting out a three-part “purposive construction” test later used in the *Epilady* cases. In *Catnic* the House of Lords considered a patent for galvanized steel lintels intended to span the spaces above window and door openings in brick walls. The patent claimed a lintel in the form of a box-girder having a rigid support “extending vertically” from the girder’s top to its bottom. The accused device was almost identical, except that its support was tilted six to eight degrees from the vertical. The Lords criticized the historical practice of treating “textual” infringement and the doctrine of equivalents as separate and independent infringement actions. They held that only one test for infringement exists, and this test requires that the patent claim be given a “purposive construction” appropriate to those skilled in the art. When an accused device varies from a particular claim, the main issue becomes whether a person of skill in the art would understand that the patentee intended strict compliance with that term to be an essential requirement of the invention. The Lords concluded that any builder would find obvious, with reference to a component of a lintel, that the patentee could not have intended the phrase “extending vertically” to make exact verticality an essential feature of the invention. Accordingly, the House of Lords found infringement.

⁷⁶ See Hatter, *supra* note 62, at 475-76.

⁷⁷ See *Improver Corp. v. Remington Consumer Prod. Ltd.* [1990] 17 F.S.R. 181 (Pat. Ct. 1989).

⁷⁸ The three-part *Catnic* test asks the following questions: (i) Does the variant (i.e. the difference between the alleged infringing article and the expressly claimed article) have a material effect upon the way the invention works? If yes, the variant is outside the claim. If no: (ii) Would the fact that the variant has no material effect upon the way the invention works have been obvious at the date of the publication of the patent to a reader skilled in the art? If no, the variant is outside the claim. If yes: (iii) Would a reader skilled in the art nevertheless have understood from the language of the claim that the patentee intended that strict compliance with the primary meaning was an essential requirement of the invention? If yes, the variant is outside the claim. If no, the variant is an equivalent within the scope of the claim. See *Catnic v. Hill & Smith* [1982] R.P.C. 1982, 183. See also *supra* note 75 (discussing the facts of the *Catnic* case).

dorf Landgericht found for infringement.⁷⁹ The court interpreted the claims more functionally and concluded that the slitted rubber rod operated in essentially the same way as the helical spring and found that the substitution was disclosed in the claims when read in view of the description through the eye of man skilled in the art.⁸⁰

2. *Conflicts between the U.K. and the EPC*

Two illustrative areas where the substantive laws of the EPC and the U.K. may differ include the amount of respect accorded to computer inventions and the procedures of patent revocation. The area of computer inventions represents a leading edge of technology relevant to the marketplace today and one that often crosses international borders quite readily. Patent revocation is of national interest in the U.K. for purely domestic reasons, but competitors may often wish to invalidate a European patent to practice it solely in the U.K. For convenience, this article will first discuss revocation and then will discuss excluded subject matter, such as computer software. Simply put, patent revocation can occur at any time during the life of the patent in the U.K., as a matter of law. Conversely, the EPC procedure for revoking and/or amending a granted patent ceases after only nine months from the grant date.⁸¹ The use of EPC procedures results in a uniform change by amendment or cancellation to all the countries which have been designated, while the U.K. revocation applies only within the U.K. itself.⁸²

A revocation in the U.K. is performed upon application to the Comptroller of the U.K. Patent Office or to the Patent Courts in the U.K.⁸³ The grounds for revocation include failure of disclosure (patent fails to enable the invention claimed or teach the public how to use it), entitlement (correction of patent inventorship or ownership within two-years from the patent grant), matter granted is broader than originally filed upon (improper amendment or other mistake), and that the invention was not patentable under domestic law.⁸⁴

The standard for obviousness is also different under U.K. law than that applied by the European Patent Office.⁸⁵ An illustration of differences in U.K. and EPC

⁷⁹ Oberlandesgericht [OLG] [Düsseldorf Court of Appeals] Düsseldorf, Gewerblicher Rechtsschutz und Urheberrecht Internationaler Teil [GRUR Int.] 1993, 242, translated in 24 Int'l Rev. of Indus. Prop. & Copyright L. [I. 1993, IC] 838 (1993).

⁸⁰ *See id.*

⁸¹ *See* EPC art. 102.

⁸² Other EPC member countries may of course find such U.K. actions persuasive in their respective countries, but each country is responsible for the enforcement of patent challenges within their respective borders during the course of a patent's life.

⁸³ *See* art. 72 of the United Kingdom Patent Act of 1977.

⁸⁴ *Id.*

⁸⁵ Note that the U.K. standard uses a four-part test based on the *Windsurfer* case (*Windsurfing International Inc. v. Tabur Marine (Great Britain) Ltd.* [1985] R.P.C. 1985,59), which is much more similar to the U.S. standard based on the *Graham* case (*Graham v. John Deere Co.*, 383 U.S. 1 (1966)) than that of the 2-part "inventive step" standard applied by the EPC under article 56. Again, the primary differences appear to rely on the construction and use of the hypothetical person of ordinary skill in the art, which is an objective-reasonableness standard more easily addressed under the common law. Other key differences may arise from differences in the systems of evidence and use of experts.

patent law can be seen in computer inventions in the U.K. They are generally accorded narrower treatment in the U.K. Patent Office than in the European Patent Office. This is due, in part, to the U.K. Patent Office administrative deference to the U.K. Courts.⁸⁶ In the cases of *Raytheon's Application* [1993] R.P.C. 427 and *Wang's Application* [1991] R.P.C. 463, this narrow approach applied where the Patents Court held that claims to a computer program were unpatentable as a mere mental act.⁸⁷ In *Fujitsu's Application*, a method of modeling a chemical crystalline structure was even held unpatentable as being in reality no more than a computer program.⁸⁸ This narrow approach states that the computer program must be severed from the nature of any invention and not used as a basis for any patentability determination.⁸⁹

In contrast, the European Patent Office has permitted computer programs to be patentable when they solve a technical problem as part of a product or process.⁹⁰ This is consistent with the modern trend under the general emerging law of sales, as seen in the UCC and the CISG, which treats software embedded within a good as a good itself, while software that is not embedded within a good is considered to be intangible.⁹¹ Similarly, Article 52 of the EPC still strictly prohibits patent-

⁸⁶ The U.K. Patent Office is administratively bound to follow and abide by the U.K. Courts interpretations of patentability. Cf. Art. 18 of the United Kingdom Patent Act of 1977.

⁸⁷ *Wang's Application* rejected software directed to a conventional computer programmed with a knowledge database. *Wang Lab. Inc.'s Application* R.P.C. 1991, 463, while *Raytheon's Application* rejected a digital imaging system for ships that compared silhouettes of known objects with the captured image in order to identify it. *Raytheon Co.'s Application* R.P.C. 1993, 427. Both patent applications were rejected as mere mental acts that were unpatentable subject matter. Cf. Article 1(2) of the United Kingdom Patent Act of 1977 that reads as follows:

It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of - (a) a discovery, scientific theory or mathematical method; (b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever; (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer; (d) the presentation of information; but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such.

⁸⁸ *Fujitsu's Application* [1996] R.P.C. 1996, 511, Patents Court, [1997] R.P.C. 1997, 608 (App. Ct.), Court of Appeal. Mr. Justice Laddie stated that the excluded 'mental act' subject matter concerned substance and not software form. Thus, the U.K. court or U.K. patent office must direct its attention to what the computer is actually doing to the outside world and not to what the program is doing inside the computer world. In *Fujitsu's Application* the program depended upon the skill of the user in inputting, manipulating and interpreting the chemical data, and so was excluded as a mental act.

⁸⁹ *Id.*

⁹⁰ Under the EPC Article 52 mathematical methods and computer programs are generally not patentable by themselves, but their application may be patentable if it has technical character. See, e.g., *Vicom/Computer-related invention* [1987] 1 O.J.E.P.O. 14 (T208/84) (finding a mathematical method for digital image enhancement to be patentable based on a contribution to the field of art in a non-excluded area: image enhancement instead of software).

⁹¹ See, e.g., U.C.C. § 9-102 (44) (wherein the recently revised Article 9 defines 'goods' and refers to embedded computer programs); CISG art. 1 (1) & art. 7 (1) (wherein the United Nations Convention on Contracts for the International Sale of Goods ("CISG") refers to 'goods' but leaves open the definition as a gap-filling term to be determined under private international law or the rules under the governing jurisdiction under conflicts of law principles, which in the case of many contracts for goods would relate back to the U.C.C.).

ing of stand-alone computer programs.⁹² The EPC also appears to permit patentability when that patent is attached to a process.⁹³

Finally, it is important to note that computer program patent protection overlaps with copyright law in the U.K. The European Patent Office is not concerned with copyright issues at all, while the U.K. Patent Office has responsibility for copyright issues in the U.K.⁹⁴ Thus, the potentially narrower approach in the U.K. may be part of a procedure to channel cases into copyright protection and avoid issues of overlap. In contrast to both the U.K. and the rest of Europe, the United States Supreme Court has approved software patents.⁹⁵

C. Other Issues in Patent Law: Italian Torpedoes and TRIPs

Interestingly, the English Patents Court has, on at least one occasion, followed the laws of the EPC in the face of contradictory U.K. law. In the case of address-

⁹² EPC art. 52, §§ 1-4 read as follows:

Patentable inventions

- (1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.
- (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:
 - (a) discoveries, scientific theories and mathematical methods;
 - (b) aesthetic creations;
 - (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;
 - (d) presentations of information.
- (3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.
- (4) Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practiced on the human or animal body shall not be regarded as inventions which are susceptible of industrial application within the meaning of paragraph 1. This provision shall not apply to products, in particular substances or compositions, for use in any of these methods.

Thus, EPC Article 52 (2) mirrors the language of U.K. Patent Act Article 1 (2), but the strength of the court system in the U.K. carries a more stringent interpretation. Note that both the U.K. and the E.P.C. also exclude inventions contrary to morality and public policy. Compare EPC Article 53 with U.K. Patent Act Article 1 (3). Note that corresponding PCT Article 33 (1) contains neither set of exclusions.

⁹³ Compare *In re Sohei*, 1995 O.J.E.P.O. 525, 538-39 (Tech. Bd. App. 1994), available at <http://legal.european-patent-office.org/dg3/biblio/t920769ep1.htm> (covering an inventory management system that was patentable as a whole despite software features that were excluded under EPC Article 52) with *In re Pension Benefit Sys. P'ship*, 2001 O.J.E.P.O. 441, 450 (Tech. Bd. App. 2000), available at <http://legal.european-patent-office.org/dg3/biblio/t950931eu1.htm> (rejecting a business method where the addition of a technical feature to an otherwise unpatentable method did not render the combination patentable).

⁹⁴ See, e.g., the webpage of the U.K. patent office available at <http://www.patent.gov.uk/copy/index.htm>. Note that the United States Patent Office does not have responsibility for copyright, which is instead placed under the Library of Congress in the legislative branch of government. See <http://www.copyright.gov/> for additional detail on the US Copyright Office.

⁹⁵ See *Diamond v. Diehr*, 450 U.S. 175 (1981); *State Street Financial Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998). Note that the extension of software patents into the controversial area of business-method patents seen in the U.S., such as with the Amazon.com one-click Internet shopping cart case, presently remains unique to the U.S. Cf. *Amazon.com v. Barnesandnoble.com*, 239 F.3d 1343 (Fed. Cir. 2001) (questioning U.S. Patent No. 5,960,411 and vacating preliminary injunction); James Gleick, *Patently Absurd*, N.Y. TIMES, Mar. 12, 2000, Mag. at 44 (reflecting popular criticism).

ing earlier filing priority, Article 87 of the EPC provides that priority can be lost if the subject matter claimed with an earlier priority document is invalid or outside the scope of the later issued claims. The decision of *Beloit Technologies, Inc. v. Valmet Paper Machinery Inc.* [1995] R.P.C. 705 case apparently disregarded the U.K. Patents Act of 1977, section 6 (1), stating that invalidity would not arise due to 'intervening acts' occurring during the priority period. Thus, this case suggests that on some matters relating to granting of patents, the EPC rules may be applied in lieu of U.K. laws on certain matters within judicial discretion.

Other issues of patent law include cross-border injunctions (popularly known as Italian torpedoes) and TRIPs harmonization under the WTO.⁹⁶ First, cross-border injunctions arise under the Brussels Enforcement Convention of 1968 dealing with recognition of judgments and jurisdiction.⁹⁷ Under Article 21 of the Brussels Convention, a defendant can force selection of an EU country forum by starting proceedings in one country, which causes any parallel proceedings in all other EU countries to cease.⁹⁸ This tactic developed the name 'Italian torpedo' in the face of Dutch patent courts which actively grant preliminary trans-national injunctions forbidding infringement.⁹⁹ The idea of the torpedo refers to a defendant who files under threat of infringement in a country far away from the Dutch court, or any other court that would grant such an injunction, and seeks to stay any other nation's proceedings.¹⁰⁰ Thus the defendant might avoid injunctive relief until litigation has been completed at some distantly future date (with the Italian court system being an example of generally very slow litigation).¹⁰¹ The Brussels Convention has been criticized by an English judge, who held it inappropriate to judge infringement of foreign patents because infringement is entangled with invalidity.¹⁰²

⁹⁶ The Global Agreement on Tariffs and Trade ("GATT"), completed in April 15, 1994, includes specific provisions of Trade Related Aspects of Intellectual Property ("TRIPs"), Annex 1C, which is titled Agreement on Trade-Related Aspects of Intellectual Property Rights.

⁹⁷ Text of the treaty is available at http://www.curia.eu.int/common/recdoc/convention/en/c-textes/_brux-textes.htm.

⁹⁸ Article 21 reads as follows:

Where proceedings involving the same cause of action and between the same parties are brought in the courts of different Contracting States, any court other than the court first seised shall of its own motion stay its proceedings until such time as the jurisdiction of the court first seised is established.

Where the jurisdiction of the court first seised is established, any court other than the court first seised shall decline jurisdiction in favour of that court.

⁹⁹ Dutch courts use a *Kort geding* procedure that imposes penal fines in the local jurisdiction in Holland, but also requires posting of a bond related to the size of potential infringement trans-nationally. See, e.g., Wolfgang Meibom and J. Pitz, *Cross-border Injunctions in International Patent Infringement Proceedings* [1997] E.I.P.R.E.I.P.R. 1997, 19(8), 469. Note that under the 'loser pays' rule in England, the defendant may face a risk of paying attorneys fees in addition to mere damages under the infringement.

¹⁰⁰ See art. 21, *supra* note 98.

¹⁰¹ See Vincenzo Jandoli, *The Italian Torpedo*, 31 INT'L R. INDUS. PROP. & COPYRIGHT L. [I. 2000, 783IC] 783 (2000) (discussing, among other items, how joining an action with an Italian party makes Italy a favorable forum because of the slower legal system and general disfavor of rapid preliminary injunctions).

¹⁰² See, e.g., *Fort Dodge Animal Health Ltd. v. Akzo Nobel NV* E.I.P.R. 1998 20(2), 29 INTERNATIONAL REVIEW OF INDUSTRIAL PROPERTY & COPYRIGHT LAW .927, [1998] F.S.R. 222 (CA); *Coin Con-*

Another aspect of international patent law rests on the TRIPs agreements that came into force with the accession of many countries to the WTO in 1994. The Uruguay round of WTO negotiations introduced TRIPs into GATT and bravely attempted to harmonize global patent systems with uniform standards of protection.¹⁰³ However, TRIPs provisions are not directly enforceable by patentees; the provisions merely impose an obligation upon member nations to enact legislation enforcing required rights.¹⁰⁴ Both the U.S. and the U.K. have made changes to their laws in response to these provisions (e.g., on bringing the term of patents to twenty years from the time of filing of an application).¹⁰⁵

II. British Patent Systems and Practice

[T]hat we but teach Bloody instructions, which, being taught, return To plague the inventor. This even-handed justice Commends the ingreience of our poisoned chalice To our own lips.¹⁰⁶

This section will discuss the respective roles of chartered patent attorneys, patent solicitors, and patent barristers. It will also examine recent reforms and rights of audience that these actors have in the British legal system, particularly in the courts of Chancery. Finally, a note on three recent substantive patent cases in the House of Lords will be provided.

A. Patent Attorneys, Solicitors, and Barristers

The British legal system is traditionally simplified to be comprised of solicitors and barristers, where barristers have the role of oral-advocates while solicitors deal with clients and written legal preparations.¹⁰⁷ Throughout history, there was little overlap but recently some solicitors have obtained rights of audience in their roles as solicitor-advocates. However, there is an oft-ignored third branch of specialized lawyers in the U.K. that practice as chartered patent attorneys and

trol Ltd. v. Suizo Int'l (UK) Ltd. [1997] F.S.R. 660, 19 E.I.P.R. D-187, 29 INTERNATIONAL REVIEW OF INDUSTRIAL PROPERTY & COPYRIGHT LAW [IC] 804.

¹⁰³ See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Annex 1C: AGREEMENT ON TRADE-RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS [hereinafter TRIPs], 33 I.L.M. 1125, 1197 (1994), available at http://www.wto.org/english/docs_e/legal_e/27-trips.pdf.

¹⁰⁴ See TRIPs §33. See also Brett Frischmann, *A Dynamic Institutional Theory of International Law*, 51 BUFF. L. REV. 679 (2003); Graeme Dinwoodie, *The Role of the National Courts: The Architecture of the International Intellectual Property System*, 77 CHI.-KENT L. REV. 993 (2002) (both discussing ways in which the international intellectual property system is evolving and enforced).

¹⁰⁵ Cf. 35 U.S.C. § 154 (2002); E.P.C. §63(1). For amendment information in the United States see *Uruguay Round Agreements Act* [hereinafter URAA], Pub. L. No. 103-465 (1994), §532(a)(1) (amending 35 U.S.C. § 154 to include the new patent term). Note that the United Kingdom maintained a sixteen-year term before joining the EPC. See Patents Act of 1949, §22, available at <http://www.jenkins-ip.com/patlaw/pa49.htm>.

¹⁰⁶ WILLIAM SHAKESPEARE, *MACBETH* act 1, sc. 7 (Louis B. Wright & Virginia A. LaMar eds., Washington Square Press 1959).

¹⁰⁷ Cf. Maimon Schwarzschild, *The English Legal Professions: An Indeterminate Sentence*, 10 FED.SENT.R. 253 (1998); Maimon Schwarzschild, *Class, National Character, and the Bar Reforms in Britain: Will there always be an England?*, 9 CONN. J. INT'L L. REV. 185 (1994).

who also have obtained rights of audience to certain courts.¹⁰⁸ Patent attorneys are licensed separately from solicitors and thus are prevented under Law Society rules from becoming partners in a firm of solicitors.¹⁰⁹ The significance of this distinction cannot be underestimated in light of the practical economics of patent practice in the U.K. in relation to the specialized knowledge required for both British and European practice. A similar distinction exists in many American states for sharing partnership revenue with a patent agent registered before the U.S. Patent Office but who is not a lawyer registered with a state bar.

The Chartered Institute of Patent Agents acts as the licensing body in the U.K. and it generally requires about a four-year, in-house apprentice period before an applicant is qualified to sit for the examination certificate.¹¹⁰ As part of the recent review of legal services in England and Wales, the role of patent attorneys may become even more prominent in the future depending on their consideration within any new regulatory scheme.¹¹¹ Expanding reform such as in the solicitor profession to allow rights of audience and the existence of ethical oversight institutions may also bleed over into regulation of patent attorneys and patent specialists who also practice as solicitors and/or barristers.¹¹²

B. Special Courts in Chancery

Since 1990, the Patents County Court has been available as an alternative to the more expensive and time-consuming Chancery Division of the High Court for actions related to and arising from patent matters.¹¹³ The Patents County Court is presently housed in the Central London Courthouse. The jurisdiction of

¹⁰⁸ Patent attorneys have litigation and advocacy rights both in the Patents County Court (under the Copyright, Designs and Patents Act, 1988, § 292 (Eng)) and in the Patents Court Division of Chancery on appeal from the Patent Office (under the Patents Act, 1977, §102 (Eng)). Patent attorneys also have litigation rights in the High Court under the Courts & Legal Services Act, 1990 (Eng).

¹⁰⁹ See, e.g., Solicitors' Practice Rules 1990, 3.03 Practice Rule 7 (setting out partnership and fee sharing limitations) available at <http://www.lawsociety.org.uk/professional/conduct/guideonline/view=chapter.law?PARENT=80&POLICYID=80#>.

¹¹⁰ See the website for more information at <http://www.cipa.org.uk/pages/about-careers> (last visited September 23, 2004). This time period is roughly equivalent to that needed to become an agent at the European Patent Office, with the training required to be under an attorney who is registered with the European Office. Formerly, the U.S. Patent Office had an apprentice time period but no longer requires it.

¹¹¹ The consultation paper on the review of the regulatory framework is available at <http://www.legal-services-review.org.uk/content/consult/review.htm>, and the response with commentary from the Intellectual Property profession including the Chartered Institute of Patent Agents, is available at http://www.itma.org.uk/pdf_downloads/official_response/ClementiReview-2004.pdf (last visited Sept. 23, 2004).

¹¹² Note that Gray's Inn is acknowledged as the center of many patent firms based in part on the location of the former U.K Patent Office, and based in part on where the barristers who specialized in patent practice set up chambers. Also note that one such barrister was Margaret Thatcher, who acted as a barrister in specialized tax matters, but with her chemical background was rumored to have handled some patent matters.

¹¹³ Patent attorneys obtained direct litigation rights in the High Court under the Courts & Legal Services Act, 1990 (Eng), in contrast to rights in the Patents Court Division of Chancery on appeal from the Patent Office that were obtained in 1977.

the Patents County Court covers both England and Wales.¹¹⁴ Proceedings can be transferred to the High Court or maintained in the Patents County Court even if an important question of fact or law is presented.¹¹⁵ However, appeals from the Comptroller of the U.K. Patent Office must go to the High Court and are not considered within the scope of jurisdiction of the Patents County Court while appeals from the Patent County Court go to the Court of Appeal and not to the High Court.¹¹⁶

Finally, Chartered Patent Attorneys may act before the High Court when appealing decisions of the Patent Office, and otherwise may do anything a solicitor might do, other than prepare a deed.¹¹⁷ The Patents Court can also appoint scientific or legal experts, as well as order the U.K. Patent Office to inquire into and report on any question of fact or opinion.¹¹⁸ Senior lawyers are also appointed as deputy judges as needed.

C. Recent Cases in the House of Lords

The House of Lords has recently agreed to hear three cases involving substantial patent matters. This is an exceptional time for British Patent Practice because such dynamics in the law of patents are highly unusual. For comparison, the U.S. Supreme Court has only taken only about a dozen patent cases in the last twenty years.¹¹⁹

The three cases before the House of Lords cover the areas of patent law relating to infringement, obviousness, and novelty. First, the case of *Kirin-Amgen Inc. v. Transkaryotic Therapies Inc.* pertains to the infringement test developed under the *Epilady* cases discussed *supra*,¹²⁰ and also regards the issue of finding a gene-sequence for a blood protein to be *per se* unpatentable.¹²¹ Lord Hoffman, who spoke the opinion for the appellate court in the *Epilady* case, updated and affirmed his reasoning while now sitting as a Law Lord using EPC Article 69 to find no infringement of the claimed blood protein due to its ability to be produced by methods outside the scope of the disputed patent claims.¹²²

¹¹⁴ See Copyright, Designs and Patents Act, 1988, § 287 (Eng).

¹¹⁵ See *id.* at § 289.

¹¹⁶ See Patents Act of 1977 § 102.

¹¹⁷ See Copyright, Designs and Patents Act, 1988, § 292 (Eng).

¹¹⁸ See *id.* at § 291.

¹¹⁹ In part this may be due to the creation of the specialized Courts of Appeal for the Federal Circuit ("CAFC") in the United States, which often acts as a smaller national court of last resort on patent matters, and the Supreme Court simply does not have the expertise or interest to deal with such patent matters. See generally ROBERT MERGES & JOHN DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 1155-56 (3d ed. 2002). The Court has granted certiorari to a dozen patent and patent-related cases in the past twenty years, and half of those cases dealt with process issues while only two of the cases have dealt with substantive issues. *Id.* at 1158. CAFC will be discussed in more detail below in section III.C.

¹²⁰ See *supra* notes 62 and accompanying text (discussing the *Epilady* case and further describing the *Catnic* test applied for infringement in *Epilady*).

¹²¹ See [2002] R.P.C. 31 (Eng. C.A.), [2002] EWCA Civ 1096, (Transcript: Smith Bernal), (available on Lexis); Chancery Patents Court (Transcript: Marten Walsh Cherer) 8 Aug. 2001 (available on Lexis).

¹²² *Kirin-Amgen Inc v. Hoechst Marion Roussel Ltd.*, 21 October 2004 [2004] UKHL 46. The opinion has recently been published on the House of Lords website at <http://www.parliament.the-stationery-of->

Second, the case of *Sabaf SpA v. MFI Furniture Centres Ltd.* and another (i.e. Meneghetti SpA) pertains to the *Windsurfer* test for obviousness, where the appellate court criticized the trial court for using the two-part 'inventive step' test under the EPC instead of using the four-part *Windsurfer* test under national U.K. law.¹²³ A determination of obviousness would render the patent invalid and thus unable to be infringed. Again, Lord Hoffman reconciled the EPC and U.K. tests to show that they rendered the same result in this case, thus overturning the appellate court in favor of the trial court.¹²⁴

Third, the case of *Synthon BV v. Smithkline Beecham Plc.* pertains to the issue of novelty in a revocation procedure for a patent covering the anti-depressant Paxil.¹²⁵ The prior art impacting novelty of the drug may have been insufficient to act as an enabling disclosure to revoke the patent.¹²⁶ This case further appears interesting in light of another case recently issued in the United States.¹²⁷ The Court of Appeals for the Federal Circuit reversed and affirmed on other grounds the holding of the lower court trial judge Richard Posner sitting by designation from the Court of Appeals for the Seventh Circuit to the Northern District of

www.patent-office.co.uk/pa/ld200304/ldjudgmt/jd041021/kirin-1.htm. Paragraphs 18 through 26 introduce the issue with Article 69. Paragraphs 27 through 35 review the English rules of construction. Paragraphs 36 through 44 discuss how the doctrine of equivalents was "born of despair" about the limitations of literalism. Paragraphs 45 through 52 reconcile the *Epilady* case based on the *Catnic* case as consistent with the intermediate position of EPC Article 69. Thus, Article 69's compromise over the English position of literalism is dealt with by pointing out the obsolescent view, and that the *Catnic* 'purposive construction' is the modern view consistent with the EPC Article 69 protocol. See *id.* See also *supra* note 63 (setting out EPC Article 69 protocol); *supra* note 78 (reviewing the *Catnic* test). Note further, in an oceanic split, a district court in the United States has found Amgen's EPO patents to indeed be valid. See the opinions of Judge William Young of the U.S. District Court of Massachusetts in Boston.

¹²³ See [2003] R.P.C. 14 (Eng. C.A.), [2002] EWCA Civ 976, [2002] All E.R. (D) 160 (Jul.) (available on Lexis), Chancery Patents Court (Transcript) 31 July 2001 (available on Lexis). See also *Windsurfing International Inc. v. Tabur Marine (Great Britain) Ltd.* [1985] R.P.C. 59; *supra* note 85 and accompanying text (discussing different tests and citing to four-part *Graham* test used in U.S. – *Graham* not mentioned in case). Finally, please see interviews from Justice Laddie, who handled the lower Patents Court case *Windsurfing*, in the August 19, 2002 issue of *THE LAWYER* and in the November 2003 issue of *EUROPEAN INTELLECTUAL PROPERTY REVIEW*, suggesting Justice Laddie prefers quicker more efficient court systems. See also, *infra* Section III.B.

¹²⁴ *Sabaf SpA v. MFI Furniture Centres Ltd.*, 14 October 2004, [2004] UKHL 45, available at <http://www.parliament.the-stationery-office.co.uk/pa/ld200304/ldjudgmt/jd041014/sabaf-1.htm>. The two approaches were reconciled by looking at the law of collocation, where the combination of two alleged inventions in forming a gas cooking device was found to be obvious because neither involved an inventive step, as consistent under the EPC and the UK Patents Act of 1977. See *id.*

¹²⁵ See [2003] EWCA Civ 861, [2003] All ER (D) 326 (Jun) (available on Lexis), trial level reported sub nom *E.N.P.R. 10*, 2002 WL 31599701 (Pat Ct (2002)).

¹²⁶ An enabling disclosure is a term of art that applies the documentary information available at the time of invention against the work of a hypothetical person of ordinary skill in the art who would practice the technology without reference to anything in the patent application. If the prior art is not enabling then the hypothetical person would not be able to practice the technology and the prior art would not be sufficiently enabling to defeat the patent application on novelty or obviousness grounds. Such a term of art is generally used when attacking references applied against a patent seeking to render it invalid or not infringed. In the U.S., the enablement requirement is generally met for a patent reference document because granted patents are presumed to be enabled under 35 U.S.C. § 112, which describes the statutory requirements for sufficient technical disclosure.

¹²⁷ See *SmithKline Beecham v. Apotex Corp.*, 247 F. Supp. 2d 1011 (N.D. Ill. 2003) (written by Judge Posner sitting by designation).

Illinois at a bench trial.¹²⁸ Judge Posner created an interesting infringement exception in equity for *de minimus*, or unavoidable infringement due to formation of contaminant chemical seed crystals that could not be properly cleaned from the manufacturing plant, but this creative use of equity was found to be unnecessary on appeal.¹²⁹

All three cases will significantly resonate throughout Europe, as the House of Lords will take into account the views and impact upon the national courts in other EPC countries, in a similar manner to the *Epilady* cases.¹³⁰ The first two cases may be expected to impact the level of conflict harmonization for infringement between the U.K. and the rest of Europe, while the third case may greatly impact strategies for opposing a patent first in the European Patent Office and then later opposing the patent in a national forum such as in the U.K. Patent Office.

III. America's Debt to the British System

"The Patent System added the fuel of interest to the fire of genius." Abraham Lincoln.¹³¹ Note that a statue of Lincoln also graces Parliament Square in London.¹³²

The United States of America has a patent system that is deeply indebted to English history and principles that developed in Great Britain dating back to protests¹³³ against royal abuses of privileges and monopolies under the Queen Eliza-

¹²⁸ See *SmithKline Beecham v. Apotex Corp.*, 365 F.3d 1306 (Fed. Cir. 2004) (reversing and affirming on other grounds by finding no infringement of the U.S. patent on the active ingredient in Paxil due to an invalidating public use).

¹²⁹ *Id.*

¹³⁰ See *infra* Section I.B.1 and accompanying text discussing *Epilady* cases and illustrating how both German and English courts took the other national courts into account under EPC Article 69 in reviewing the patent issue of infringement. See *supra* note 63 and accompanying text (setting out scope of patent protection).

¹³¹ Abraham Lincoln spoke these words in 1858 at a lecture in Springfield, Illinois. Note that in 1849, then Congressman Abraham Lincoln was granted U.S. Patent No. 6469 for an improved manner for buoying vessels over shoals. The patent is available online at <http://www.uspto.gov> and more information on Lincoln as an inventor is available online at http://inventors.about.com/library/inventors/blkidprimer6_12pres.htm.

¹³² Amazingly, the Lincoln statue is a replica of Augustus Saint-Gauden's original statue that sits in Chicago's Lincoln Park. An image of the statue is available online at http://goeurope.about.com/library/phot/bl_abe_lincoln.htm.

¹³³ See 1601 Parliamentary Debates Concerning Monopolies, in ELIZABETH I, COLLECTED WORKS at 346 (Leah S. Marcus et al. eds., 2000) ("And to what purpose is it to do anything by act of Parliament when the queen will undo the same by her prerogative? [T]here is no act of her that hath been or is more derogatory to her own majesty and more odious to the subject or more dangerous to the commonwealth than the granting of these monopolies"). Queen Elizabeth responded with her famous 'Golden Speech' before Commons proclaiming, "Of myself I must say this: I was never any greedy, scraping grasper, nor a strait fast-holding prince, nor yet a waster." Speech 23, Version 1 [Commons journal of Hayward Townshend, MP for Bishopcastle, Shropshire] *Id.* at 337-38. The Queen sought to absolve the monarchy from blame by using 'golden' words. "There is no jewel, be it never so rich a price, which I set before this jewel - I mean your loves." *Id.* at 337.

both I near the turn of the sixteenth century.¹³⁴ American patent rights find their origin in Great Britain, which appears to be the first modern nation to issue patents, “literae patentēs” or “open letters.” These “literae patentēs” were not sealed but were exposed to view with the Great Seal pendant at the bottom. The role of common law in Anglo-American jurisprudence continues to play a strong role to the present day, and there exist numerous points of commonality between both the U.S. and U.K. systems of patent issuance and court enforcement.

A. First Patent Act of James I

Both the U.S. and the U.K. patent systems trace their origin back to James I, who strongly believed in the divine right of monarchs and abused royal prerogatives in the tradition of Henry VIII and Elizabeth I, even though he had promised in the Book of Bounty in 1610 that his royal patent grants would only be used to reward inventions that were neither contrary to law nor “mischievous to the state in raising commodities at home, or hurt of trade, or otherwise inconvenient.”¹³⁵ Finally, in 1623, James was forced by an exasperated Parliament to assent to the Statute of Monopolies and limit his royal abuses.¹³⁶ This statute has been described from a constitutional perspective as an incredible assertion of the power of Parliament and common law over the rule by royal prerogative.¹³⁷ Yet, the statute did not represent a big break from past policies in terms of substance, because patents were to be limited to fourteen years and disputes were to be tried at common law.¹³⁸ The First U.S. Patent Acts of 1790 and 1793 track the Statute of Monopolies of 1623 almost verbatim, in which they make void all monopolies and letters patent, except those patents which apply to inventions which make a new asset available to the public.¹³⁹

¹³⁴ A void patent was found to be granted by Queen Elizabeth to Edward Darcy, a groom of the privy chamber of the Queen, and was claimed to be infringed by a London haberdasher (sometimes called Allein or Allen or Allin) in 1602. The patent pertained to the sole making and merchandizing of playing cards within the realm and the sole importation thereof. Lord Coke reported this case in his Reports in 1602 as “The Case of the Monopolies,” 77 Eng. Rep. 1260 (K.B. 1603), 11 Coke R. 84b. Another reporter states “[a]nd if the Queen cannot to maintain her war, take from her subject but by Parliament, much lesse may she take moderate recreation from all subjects, which hath continued so long. . . but to punish such abuse is necessary.” 74 Eng. Rep. 1131, 1135 (court year). The court found the patent void as against “the law of God and man” suggesting that even acts of Parliament can be voided, thus providing one of the jurisprudential roots of judicial review. *Id.* at 1137. See also *The Slaughter-House Cases*, 83 U.S. 36, 47-48 (1873) (discussing *Darcy* years later). Interestingly, playing cards were invented during the reign of Henry VII, and the portrait of his wife, Elizabeth of York, has been said to have freely appeared eight times on every deck of cards for over 500 years. See *KINGS AND QUEENS OF ENGLAND AND GREAT BRITAIN*, *supra* note 2, at 68.

¹³⁵ Alex Mossoff, *Rethinking the Development of Patents: An Intellectual History, 1550-1800*, 52 HASTINGS L.J. 1255, 1271 (2001). A reference should also be made to the King James Version of the Bible which was also created during this time of shrinking ‘divine right,’ thus making biblical text available to all in the common tongue of English.

¹³⁶ English Statute of Monopolies of 1623, 21 Jac. 1, c. 3. The preamble of this act refers to the 1610 promise that was published in the Book of Bounty.

¹³⁷ Mossoff, *supra* note 135, at 1272.

¹³⁸ *Id.* at 1273.

¹³⁹ Compare English Statute of Monopolies (1623) with U.S. Patent Acts (1790/1793). See also Edward Walterscheid, *The Early Evolution of the United States Patent Law: Antecedents (Part 2)*, 76 J.

Interestingly, the English Civil War that eventually resulted in the English Bill of Rights of 1689, and the American Declaration of Independence in 1776 leading off the American Revolutionary War, both dealt similarly with breaking governmental monopolies of a monarchical 'divine' power by the rising power of the people to express themselves through a representative legislature acting in the greater public interest.¹⁴⁰ Thus, the constitutional change initiated by Henry VIII in breaking the Pope's monopoly on marriage and religious property, transformed into a constitutional principle informing the U.S. Constitution of 1787, which was enacted by the people and provided for breaking strong government power into components.¹⁴¹

B. Contrast U.K. Development with USPTO and Federal Circuit

The U.S. Constitution of 1787 provides for patents by giving Congress the power to grant them under statutory law.¹⁴² Prior to the ratification of the Constitution, many states granted their own patents as part of their inherent sovereignty. But such patents were constrained to the boundaries of a particular state and were of limited value. An early state patent was John Fitch's New York patent for operating a steamboat in 1787. This patent was revoked and transferred to Robert Livingston for 20 years as of 1798. But Robert Fulton finally succeeded in making steamboats work commercially in 1803. This patent was enforced against James Van Ingen for operating a steamboat in the waters of New York State in 1811.¹⁴³ Afterwards, the right of New York State to grant patents was litigated, and the injunction enforcing the New York patent was invalidated based on the Commerce Clause and the regulatory power necessarily coming through the U.S. Congress, without resort to the Patent Clause.¹⁴⁴

Moreover, the Constitution provides for a three-branch system, with the Patent Office in the Executive Branch. Originally, Thomas Jefferson acted as the first patent examiner, in addition to his duties as Secretary of State. Eventually, a separate office was formed, and today the U.S. Patent and Trademark Office ("USPTO") acts with delegated administrative authority under the Department of Commerce. In contrast, the U.K. Patent Office has moved over time from recording the monarch's grants to becoming an agency of Parliament. And in 2002, the

PAT. & TRADEMARK OFF. SOC'Y 849 (1994) (discussing the similarities in both English and American systems).

¹⁴⁰ See George Anastaplo, *THE AMENDMENTS TO THE CONSTITUTION: A COMMENTARY* (1995) (containing text of these documents and other early documents important in the development of Anglo-American constitutionalism).

¹⁴¹ See U.S. CONST., preamble. See also *supra* note 2 (discussing Henry VIII). The components of the U.S. government included the legislative, executive, and judicial branches all of which play important roles in the patent process.

¹⁴² See U.S. CONST., art. I, § 8, cl. 8. (Patent Clause).

¹⁴³ See *Livingston & Fulton v. Van Ingen*, 9 Johns 506 (NY, 1812).

¹⁴⁴ See *Gibbons v. Ogden*, 22 U.S. 1 (1824). Subsequently, a large part of federal domestic power in the U.S. has been exercised based on the precedential exercise of the Commerce power originally discerned judicially in *Gibbons*. See, e.g., *Wickard v. Filburn*, 317 U.S. 111 (1942).

U.K. Patent Office was placed under the administrative authority of the Department of Trade and Industry.¹⁴⁵

Specialized court structures also exist in both the U.S. and the U.K. The Court of Appeals for the Federal Circuit was established as a specialized patents court in the U.S. in 1982 with the goal of harmonizing patent law throughout the country.¹⁴⁶ In the U.K., a specialized Patent County Court was established under the Patents Act of 1977. Both court systems have strengthened and standardized the interpretation of patents under each country's national law. In fact, some commentators suggest that such specialized courts may have gone too far, and created a systematic law and technology imbalance that gives too much weight to weak patents.¹⁴⁷ Other commentators have found that the specialized courts may perhaps succeed in providing greater certainty to patent law but are presently in a state of transition.¹⁴⁸

C. *Markman* Hearings Debt to Common Law

In *Markman v. Westview Instruments, Inc.*, the U.S. Supreme Court held that construction of a patent claim was exclusively a matter of law and in the exclusive province of the Court, while application of the claim to an infringing item was a matter of fact and subject to a Seventh Amendment guarantee to a jury trial.¹⁴⁹ Thus, a bifurcation is required for almost every patent trial, where the first step now consists of a *Markman* hearing in order to decide claim construction and validity, and the second step consists of a jury trial applying the con-

¹⁴⁵ Department of Trade and Industry information is available at <http://www.dti.gov.uk>.

¹⁴⁶ See S. Rep. No. 97-275, at 14-16 (1981), reprinted in 1982 U.S.C.C.A.N. 11, 14-15 (discussing how a specialized court would promote uniformity and increase innovation).

¹⁴⁷ Compare the articles of Rochelle Cooper Dreyfuss, *The Federal Circuit: A Case Study in Specialized Courts*, 64 N.Y.U. L. REV. 1 (1989); Chris J. Katopis, *The Federal Circuit's Forgotten Lessons?: Annealing New Forms of Intellectual Property Through Consolidated Appellate Jurisdiction*, 32 J. MARSHALL L. REV. 581, 600 (1999); Pauline Newmann, *The Federal Circuit: Judicial Stability or Judicial Activism*, 42 AM. U. L. REV. 683 (1993) (all discussing the U.S. system) with interviews from Justice Laddie in the U.K. Patents Court in the August 19, 2002 issue of THE LAWYER and the November 2003 issue of EUROPEAN INTELLECTUAL PROPERTY REVIEW (searching for ways to make the U.K. patent court system cheaper and more efficient in order to stop the flow of patents cases to other European jurisdictions, and emphasizing that the sophistication of the U.K. system presents a problem of high cost relative to other forums). Recently analogous systematic concerns have surfaced in the U.S. with regard to heavy patenting in the software industry and in more general business-method areas that may lead to congestion and a lack of innovation due to blocking patents that may appear stronger than they really are due to systematic pro-patentee bias in the Federal Circuit. See *supra* note 95 and accompanying text (discussing software and business methods in U.S.). See also the Federal Trade Commission report, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>. See generally Larry Lessig THE FUTURE OF IDEAS 208-10 (2001) (discussing patent threats to innovation).

¹⁴⁸ See, e.g., R. Polk Wagner and Lee Petherbridge, *Is the Federal Circuit Succeeding? An Empirical Assessment of Judicial Performance*, 152 U. PA. L. REV. 1105 (2004) (finding encouraging signs in the mixed performance of the specialized court).

¹⁴⁹ See 517 U.S. 370 (1996). The infringement case trial by jury was recognized as descending from cases such as *Bramah v. Hardcastle*, 1 Carp. P.C. 168 (K.B. 1789). The issue in *Markman* was whether every issue on experts and evidence had to be before the jury, or whether bifurcation was possible in the face of the Seventh Amendment. Cf. *Blakely v. Washington*, 124 S. Ct. 2531 (2004) (discussing evidence that is required to be submitted to a jury in a criminal case).

structed claims after judicial interpretation to any relevant facts on infringing devices.

In *Markman*, the Supreme Court analyzed the history of the right to trial at common law in order to determine whether any disputed fact issues arose in a patent, especially given the admission of expert evidence.¹⁵⁰ Interestingly, the Court found that claim construction under the Seventh Amendment was not based on U.K. practice, because claims were only clearly made part of patents in 1836.¹⁵¹ Next, the Supreme Court looked to the Statute of Monopolies of 1623, which provided that the validity of any monopoly should be determined under the common law and that patent litigation remained under the Privy Council until 1752 and hence, had no option of jury trial.¹⁵² The Court also noted that the general construction and interpretation of ambiguous legal writings was generally kept from the jury.¹⁵³ The Court could find neither historical basis in history nor precedent to allow the jury interpretation of claims, so the Court rested on functional policy concerns that the Court of Appeals for the Federal Circuit could be relied upon to uniformly develop laws of claim construction; thus deciding the case somewhat arbitrarily.¹⁵⁴

After *Markman*, the two-step hearing became an established part of patent practice in the United States, with the common law now uniformly applied under statutes and under the Seventh Amendment guarantee to a common law jury for infringement.¹⁵⁵ Note that the roles of the trial court, the appellate court, and the agency of the USPTO have not been fully clarified; the appellate court currently decides all issues *de novo* including apparently fact-based claim construction issues.¹⁵⁶ Recently, the Federal Circuit has agreed to hear a claim construction case *en banc* in order to address the issue of how to construct claims with evidence inside and outside the case file.¹⁵⁷ As Lord Hoffman has recently affirmed, both

¹⁵⁰ *Markman*, 517 U.S. at 372.

¹⁵¹ *Id.* at 376.

¹⁵² *See id.* (citing and discussing Edward Walterscheid, *The Early Evolution of the United States Patent Law: Antecedents (Part 3)*, 77 J. PAT. & TRADEMARK OFF. SOC'Y 771, 771-76 (1995)).

¹⁵³ *Markman*, 517 U.S. at 383-84.

¹⁵⁴ *See id.* at 388.

¹⁵⁵ The common law also enters into federal patent law under statute, for such matters as defining 'offers for sales' that act as bars to patentability under 35 U.S.C. § 102 (b). In order to define what an 'offer' is, the courts look to the common law of contracts. *See* Timothy Holbrook, *Territoriality Waning? Patent Infringement for Offering in the United States to Sell an Invention Abroad*, 37 U.C. DAVIS L. REV. 701 (2004). There may be no federal common law under the *Erie* principles, but common law still returns under statutes. Under both federal and state jurisdictions (*e.g.* when infringement of patent licenses are in dispute) equitable remedies may also include common law concepts such as *quia timet* ('because he fears') where in the face of certain harm the court will grant an injunctive remedy, such that a mere offer could look exceedingly probative of harm when such offer is sufficient to form a contract. *Cf. Luke 23:7* (discussing Herod's jurisdiction of Galilee).

¹⁵⁶ *See* *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998), *en banc*. *See also* *Wagner & Petherbridge*, *supra* note 148, at 1111-12 (finding a sharp split in Federal Circuit claim construction jurisprudence between panels favoring a 'procedural' approach using rules based hierarchy with emphasis on plain claim language and panels favoring a 'holistic' approach using flexible rules in a case-specific fashion). Rule 10, 1, 4

¹⁵⁷ *See* *Phillips v. AWH Corp.*, Appeal No. 03-1269, 1286 (Fed. Cir.) available at <http://www.fedcir.gov/opinions/03-1269o.doc> (discussing questions to be deciding regarding claim construc-

the U.K. and the European approach would use evidence outside the case file, following a 'purposive construction' or 'holistic' approach that would consider how a person of ordinary skill in the art would understand the claims in context.¹⁵⁸

D. 'Royalties' Continue as an Important Part of Patent Practice

The concept of royalties still plays an important role in patent practice and exploitation. Conceptually, the royal grant of a patent by the British monarch has been transformed into royalty terms that transmit licensing payments for contractual permission to access patented rights. Such royalties represent the goal of successful patent exploitation by negotiation and settlement via contract law among private parties without resort to the judicial legal system. It is always helpful for lawyers to remember the old apocryphal Chinese proverb; the best doctors have no patients (because they have already made everyone perfectly well). The most successful inventors either receive royalties or exploit their own inventions, and the lawyers are not needed in the ideal world.¹⁵⁹ An important note should be taken of the role of licensee estoppel, which might generally prevent a party to a contract from later challenging the underlying bargained for subject matter, but such estoppel is trumped in the United States by a stronger public policy favoring the challenge of invalid and worthless patents.¹⁶⁰

IV. Looking Forward into the Global Future

[F]or he had two favorite quotations, 'The unburied dead are covered by the sky' and 'You can get to heaven from anywhere' – an attitude which, but for the grace of God, might have led to serious trouble. Thomas More, *UTOPIA*, Book I.¹⁶¹

Two additional broad topic areas that illuminate the future of patent practice in England and throughout Europe include first, the movement for Community Patents and uniform Community Patent Courts, and second, the broader movement toward constitutionalism and strengthening EU institutions such as those involved with antitrust and unfair competition. A strengthened EU can also be ex-

tion including using dictionaries, understanding the role of the *Markman* and *Cybor* cases, and applying standards of review to trial court fact issues).

¹⁵⁸ See *Kirin-Amgen Inc v. Hoechst Marion Roussel Ltd.*, 21 October 2004, [2004] UKHL 46. See also *supra* note 122 (discussing case and Lord Hoffman's opinion).

¹⁵⁹ See, e.g., Thomas More, *UTOPIA*. ("But in Utopia everyone's a legal expert, for the simple reason that there are, as I said, very few laws, and the crudest interpretation is always assumed to be the right one."); Alan Cohen, *Licensing's In and the Lawyer's Out*, *IP Law & Business*, Apr. 2004, available at <http://www.ipww.com/texts/0404/lawyer0404.html>; Cf. *Luke* 12:58 (counseling settlement is preferable over litigation).

¹⁶⁰ See, e.g., *Lear v. Adkins*, 395 U.S. 653 (1969).

¹⁶¹ For more on More, see, e.g. George Anastaplo, *Addendum: A Return to Thomas More's Petition to the King*, 40 *BRANDEIS L.J.* 312 (2001); Edward Gaffney, *The Principled Resignation of Thomas More*, 31 *LOY. L.A. L. REV.* 63 (1997).

pected to play an even more important role in the WTO and impact intellectual property issues through that harmonization forum as well.¹⁶²

A. Uniform Community Patents and/or Courts for Europe?

Beginning in 1975, a community patent system was proposed to supplement the European Patent Office system under the EPC. As part of the proposed community patent system, a centralized patent promoted uniformity among member nations, such that a single community patent could be issued and be enforced in a single trans-national forum.¹⁶³ However, negotiations regarding this system have floundered and a draft convention has yet to be completed. In fact, recent reports indicate that the entire proposal has collapsed.¹⁶⁴ Objections focused on translation problems, including a requirement that patents be filed in twenty-different languages while applications would be filed in only three languages. The costs associated with translations often form the biggest hurdle with any international patent filing program, and such revenue may have been too tempting for each member country to forego in the face of a more efficient community system. Any visitor to Europe can plainly note that only a few languages are necessary to travel freely and transact business generally, but issues of national pride and preservation of linguistic identity apparently trumped improved patent uniformity and efficiency with the twenty plus language requirement. Nonetheless, at this time, the integration of EU patent law appears wholly irreconcilable, although some countries may informally agree to recognize each others' national laws on a more limited basis outside the scope of EU integration under the terms of a working protocol known as the London Agreement.¹⁶⁵ Under the Agreement, the major languages may suffice on a limited basis, but any unified community patent court will not exist at all, and issues of harmonization will fall to each national court system looking to bridge the gaps between national systems of jurisprudence.

¹⁶² The Global Agreement on Tariffs and Trade (GATT) includes specific provisions of Trade Related aspects of Intellectual Property (TRIPs). The provisions provide for greater recognition and respect of each WTO members patent laws, but also contain important exceptions allowing for patent-breaking by nations for necessities such as the AIDS epidemic. WTO negotiations and controversies continue on these and other matters. *See also* Section I.C *infra*.

¹⁶³ *See, e.g.,* Kara Bonitatibus, *The Community Patent System Proposal and Patent Infringement Proceedings: An Eye Towards Greater Harmonization in European Intellectual Property Law*, 22 PACE L. REV. 201 (2001) (noting that a Community Patent Court might function like the U.S. Court of Appeals for the Federal Circuit). *See also* Vincenzo Di Cataldo, *From the European Patent to a Community Patent*, 8 COLUM J. EUR. L. 19 (2002) (sounding optimistic about the process); Christopher Heath, *Harmonizing Scope and Allocation of Patent Rights in Europe—Towards a New European Law*, 6 MARQ. INTELL PROP. L. REV. 11 (2001) (discussing differences among EU members in terms of contracts and ownership rights).

¹⁶⁴ *See* John Miller, *Europe Fails to Agree on EU-Wide Patents*, WALL ST. J., May 19, 2004 at A16.

¹⁶⁵ The London agreement with the U.K., France, and Germany may mean that certain EPC members will agree to some simplification of language requirements with translations outside the Community Patent Convention. For more information *see* <http://www.patent.gov.uk/about/ippd/notices/london.htm>.

B. EU Constitution, EU Antitrust, and Broader WTO issues

In addition to The United Kingdom's voting on a referendum in the U.K. regarding participation in the new EU constitutional process, other issues can be expected to impact patent practice in the U.K. as well. The EU constitutional process may provide a future avenue for harmonization, but faces distinct hurdles with acceptance of local national populations and with eventual implementation.¹⁶⁶ The EU antitrust regulatory authority powers have expanded, augmented by the addition of ten new members to the EU. As antitrust represents the converse side of patent practice, where many unfairly exploited patents lead to monopoly problems and other abuses, this expanded power will have to be considered by holders of patents when they make commercial decisions.¹⁶⁷ Recently, Microsoft has been involved with antitrust enforcement by the EU, and may have to disclaim some intellectual property as part of the remedy process.¹⁶⁸

WTO harmonization issues will continue to persist as the global economy becomes increasingly more interconnected. WTO issues that place developed countries against developing ones may be more effectively addressed by the EU as the addition of eastern European members force older EU members to become more sensitive to the needs of their less developed counterparts. The United States first-to-invent system continues to dramatically contrast against the rest of the world's systems, including the U.K. system, which relies on first-to-file an application.¹⁶⁹

Moreover, an updated Patents Bill is presently pending before the U.K. Parliament and is expected to bring U.K. Patent law further into conformity with the EPC, as well as bring reforms to the U.K. Patent Office, including several modernization proposals.¹⁷⁰ Technology issues related to patenting biological and liv-

¹⁶⁶ For an excellent English guide to the EU Constitution agreed to in Brussels on 18 June, 2004, see <http://news.bbc.co.uk/2/hi/europe/2950276.stm>. The BBC has prepared an annotated summary of major issues and attached an embedded copy of the 325 page constitutional document for reference in English. Discussing the nuanced concept of 'subsidiarity' would be beyond the scope of the present paper.

¹⁶⁷ See *supra* note 60 and accompanying text (addressing EPC articles 81 and 82 and discussing antitrust issues).

¹⁶⁸ See U.S. Dept. of Justice press release, *On the European Commission's Decision in the Microsoft Investigation*, available at http://www.usdoj.gov/atr/public/press_releases/2004/202976.htm (criticizing the European fine and the intellectual property remedy to remove code and license Microsoft's media player to third parties as a potential harm to innovation).

¹⁶⁹ The difference in systems results from the U.S. granting the true inventor possession of his invention under the Constitution despite his later filing of a patent application. The rest of the world considers the filing of the application to be the date of invention. In contrast, the U.S. provides for the ability to prove an earlier date of invention and entitlement to the benefit of the patent right.

¹⁷⁰ See <http://www.publications.parliament.uk/pa/ld200304/ldbills/018/2004018.htm> for the text of the pending Patents Bill, and see <http://www.patent.gov.uk/about/consultations/responses/patact/index.htm> discussing the U.K. Patent Office's response to the Bill. The role of patents in the innovation process is crucial. The Department of Trade and Industry (which is the branch of government responsible for the administrative agency of the U.K. Patent Office) published its Innovation Report on 17 December 2003, available at <http://www.dti.gov.uk/innovationreport/index.htm>.

ing tissues will also require both national and international resolution in areas such as stem cell cloning.¹⁷¹

In conclusion, people may look into a mirror and see another system reflected, and learn a great deal about themselves and their reflections.¹⁷² As the world marches towards interconnectedness, legal education in comparative systems provides great insight and inevitably leads to harmonization when one understands how others think. It has been said that the French are terse and gnomic, the Germans dry and academic, and the English (and Americans) discursive and poetic.¹⁷³ But all legal systems tend to converge in the face of shared experiences, and the future of the patent system may inevitably move closer together as global economies interact and various cultures learn more about each other's ideas, inventions, and innovations in the future. Patent practice in London, in the EU, and in the United States, all trace common roots back to Queen Elizabeth I; today under Queen Elizabeth II, global patent practice continues to reform, evolve, and harmonize with the passage of time and technology.¹⁷⁴

¹⁷¹ While the U.K. government has decided to promote stem-cell research, the U.S. government has decided to restrict it to very narrow cell lines. Britain's Human Fertilization and Embryology Authority (HFEA) granted the country's first license to create human embryonic stem cells in August 2004 and noted in their press release that cloning of children remained illegal. See HFEA press release on Therapeutic Cloning for Research, available at <http://www.hfea.gov.uk/PressOffice/Archive/1092233888>. Interestingly, the U.S. Patent Office on August 24, 2004, issued Patent No. 6,781,030 claiming methods for cloning mammals which includes some claims directed to 'non-human mammals' and other claims directed to 'mammals' without qualification. The patent was issued notwithstanding language in the 2004 Patent Office appropriations legislation (H.R. 2673), stating the following: "None of the funds appropriated or otherwise made available under this Act may be used to issue patents on claims directed to or encompassing a human organism." (Division B, Title VI, Section 634). See Cong. Rec., 6/22/04, page H7274. The statement said that the amendment simply mirrors the current Patent Office prohibition against patenting humans, and stated that it "has no bearing on stem cell research or patenting genes, it only affects patent human organisms, human embryos, human fetuses, or human beings." It says nothing about method claims for cloning human organisms. See generally Cynthia Ho, *Splicing Morality and Patent Law: Issues Arising from Mixing Mice and Men*, 2 Wash U. J. L. & Pol'y 247 (2000) (discussing moral and ethical issues related to biological patenting).

¹⁷² "Now we see indistinctly, as in a mirror; then we shall see face to face. My knowledge is imperfect now; then I shall know even as I am known." 1 *Corinthians* 13:11-12. Elizabeth the First referred to this epistle in her Final Speech to Parliament discussing her involvement with war and foreign affairs and using it to illustrate that the collected wisdom of the world was but folly in the eyes of God. See Speech 24, Version 1 in ELIZABETH I, COLLECTED WORKS, *supra* note 133, at 349-50. Cf. 1 *Corinthians* 1:21-25.

¹⁷³ B.S. Markesinis, *A Matter of Style* 110 LAW Q.R. 607 (1994).

¹⁷⁴ Patents may in some sense be seen as the literary servants of Elizabeth the First. In a famous play, The Archbishop of Canterbury speaks at the infant Elizabeth's christening and says that her servants would be "peace, plenty, love, truth, terror." See WILLIAM SHAKESPEARE, *HENRY VIII* act 5, sc. 5. See also Michael Wilson, *Essay: A View of Justice in Shakespeare's the Merchant of Venice and Measure for Measure*, 70 NOTRE DAME L. REV. 695, 699-705 (1995) (discussing the use of Elizabethan legal and religious metaphors in Shakespearean drama). Elizabeth I also represents the peak of English monarchical power that roughly occurred from Henry VIII to James I.