Lessons from Europe on How to Tame U.S. Patent Trolls

Anna Mayergoyz
Introduction

Patent law is the protector of our innovations and part of a lucrative, $5 trillion economy in the United States. The foundation of patent law is a quid pro quo exchange in which an inventor discloses an innovation to...
the public and, in turn, receives a limited-time exclusive right to the patented subject matter.\(^2\) The disclosure of this new, useful, and nonobvious invention\(^3\) ideally promotes innovation by allowing others to develop new technology by building on the disclosed inventions.\(^4\) As a reward for the substantial time, money, risk, and effort invested in this invention, the patent owner can prevent anyone from making, using, or selling that invention for the life of the patent.\(^5\) The right to exclude is a powerful and valuable tool: if someone infringes on the patent, the patent owner can bring a civil suit.\(^6\) The infringer, however, can return the threat by countersuing and challenging the validity of the patent.\(^7\) The threat of invalidity prevents companies that rely on their exclusive right to produce patented goods from liberally suing and strikes a balance of risk that protects both the patentee and infringer.\(^8\)

This delicate balance is destroyed when the patent owner has nothing to lose. This is the case with non-producing entities, commonly referred to as "patent trolls."\(^9\) These trolls purchase patents from bankrupt companies, individual inventors, or small corporations that cannot afford to protect their patent rights.\(^10\) Patent trolls rarely produce any products using these patents; instead, they generate income by seeking out companies that integrate the patented invention into products that are placed on the market.\(^11\) Once they find their target, they negotiate exorbitant license agreements by threatening to sue.\(^12\) These patent trolls have a significant advantage: they produce nothing, so the threat of countersuit is financially

---

8. See id.
9. Peter Detkin, former Assistant General Counsel of Intel, claims to have coined this term in 2001 while describing companies that buy, rather than create, patents and then extract disproportionally high license fees by threatening expensive litigation in the alternative. See Peter N. Detkin, Leveling the Patent Playing Field, 6 J. MARSHALL REV. INTELL. PROP. L. 636, 636 (2007); Brenda Sandburg, You May Not Have a Choice. Trolling for Dollars, THE RECORDER, July 30, 2001.
12. See Abril & Plant, supra note 10, at 43 (explaining that Microsoft spends $100 million annually to defend itself against patent lawsuits).
Lessons from Europe

But they have everything to win, and they usually do. Under pressure from patent trolls, most companies settle to avoid expensive litigation and the threat of permanent injunctions. Patent trolls have been especially successful recently, for example forcing the Blackberry wireless provider, RIM, to settle for $612.5 million in lieu of potential permanent injunctions. Although patent trolls have yet to destroy a Fortune 500 company, some fear that it is possible.

No statutes specifically address trolls and until recently, few legislators, lobbyists or companies have pushed for proactive measures aimed at trolls. In the past few years, however, CEOs, judges, and congressmen have recognized that the presence of the patent troll is a threat to innovation and progress, and they are making a concerted effort to reign in patent trolls and minimize these crippling licensing fees. Several commonly known companies, such as Google, Apple, eBay, and Dell, are collaborating to fend off these trolls. For many years, the judiciary made few attempts to curtail the power of patent trolls. In the past two years, however, the U.S. Supreme Court has stepped in and trended toward stripping power from patent trolls. Most notably, Justice Kennedy denounced patent trolls during oral argument and in his concurring opinion in eBay v. MercExchange.

The Legislative Branch has also recently taken steps towards addressing the patent troll issue. In 2005, Congress held a hearing targeted at

---

15. Ian Austen, BlackBerry Service to Continue, N.Y. TIMES, Mar. 4, 2006, at C1.
17. See infra Part II.B–D.
20. See infra Part II.B.
21. See infra Part II.D.
22. See KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398 (2007) (setting the bar for nonobviousness higher and potentially threatening the enforceability of vague, improvement patents often owned by patent trolls); MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007) (allowing licensees to file declaratory judgments against licensors, i.e. patent trolls, despite the licensees being in good standing); eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006) (rejecting the Federal Circuit’s patent-specific rule for permanent injunctions in favor of a traditional four-factor test that may not favor patent trolls).
23. 547 U.S. at 396–97 (Kennedy, J., concurring). For further discussion, see infra Part II.D.
understanding the factors contributing to the patent troll problem, and it considered several measures aimed at minimizing their power. Although the resulting 2005 bill did not pass, another bill was proposed in 2007. The Patent Reform Act of 2007 included the same anti-troll provisions of the 2005 bill, and although the bill passed the House of Representatives, it stalled on the Senate floor, failing to pass before the 110th Congress ended. At the time of this Note's publication, a bill similar to the Patent Reform Act of 2007 is currently under consideration in both the Senate and House. Regardless, it remains unclear whether these provisions would have any impact on patent troll practices.

In Europe, like the United States, patents represent a quid pro quo exchange between the inventor and the public. The European Patent Office, which is analogous to the United States Patent and Trademark Office, grants patents for inventions that are both novel and non-obvious. Once granted, these European patents are enforced on a national level through country-specific patent-infringement litigation. In light of these similarities, patent trolls should be equally prevalent in Europe. Yet, Europe has remained relatively unscathed by patent trolls. The question is why. Potential reasons include the nature of the European patent grant system—the relatively narrow scope of subject matter for patents, the capability of post-grant opposition proceedings, and administrative costs—as well as the nature of patent litigation in Europe—the impact of the prospect of attorney fees, "loser pays" litigation, and the complexity of multinational litigation.

35. See Macdonald, supra note 33.
This Note explores the potential reasons why patent trolls shy away from Europe and proposes effective amendments to the U.S. patent system. Part I explores the nature of patent trolls, how they operate, and why they thrive within the United States. Part II discusses the negative effects of patent trolls and what reactive measures the technology industry, the Judicial Branch, and the Legislative Branch have taken. Part III explores key differences between the European patent system and the American system to determine which differences contribute to the dearth of European patent trolls and proposes changes to the U.S. system.

I. The Patent Troll

A. Defining a Patent Troll

Although there is no single agreed upon definition, the term “patent troll” has quickly become one of the most threatening terms to the technology industry. Peter Detkin coined the term “patent troll” when he was the Assistant General Counsel of Intel Corporation. He explained that “[a] patent troll is somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and in most cases never practiced.” Throughout the years, litigators and industry leaders have applied the term to various individual and corporate entities in different situations, including those who invent but do not manufacture products embodying their patent, those who offer to license instead of suing for infringement, those who sue alleged infringers with lucrative products already on the market, small entities who sue large corporations with deeper pockets, and those who do not “use” their patent. Most frequently, the term refers to an entity that threatens an infringement suit against product-manufacturing companies without using or having the potential to use the patent itself.

B. Building a Trolling Arsenal

To be worthy of the title “patent troll,” entities must have a threatening arsenal of patents. The key to a powerful patent troll is a portfolio of inexpensive, broad, and widely applicable patents. Entities acquire such patents in various ways. Occasionally, an individual or company will invent and attempt to use a patent productively, but after failing to capitalize through production, will then choose instead to seek a profit from those

36. See Sandburg, supra note 9.
37. Id.
38. Patent Hearings, supra note 24, at 15 (statement of Dean Kamen, President, DEKA Research & Development Corp.).
40. See Grab, supra note 11, at 108.
infringing on the patent. Most typically, however, trolls are investment companies or groups of individuals who exclusively purchase and collect patents for the purpose of licensing.

These companies frequently seek and find cheap, but potentially lucrative, patents during bankruptcy auctions for failed technology companies. Trolling entities are sometimes formed specifically in anticipation of such auctions, where patents with the potential to affect large corporations are available. For example in 2004, vague, unenforced software patents owned by Commerce One—a bankrupt Silicon Valley software company—were sold to a pool of bidders. The potential to use these patents to threaten companies such as Microsoft and IBM drew intense bidding from patent trolls, and ultimately a newly formed company, JGR Acquisitions Inc., purchased the patents.

When purchasing patents, trolls specifically target patents that are applicable in a wide variety of products, relate to a critical element of an existing or potential system or device, or threaten companies that are wealthy enough to afford extravagant licenses. To their advantage, the available patents tend to be “older patents, which may have been forgotten or overlooked (and thus cost less to acquire) but still play a roll [sic] in modern technology.” Acquired patents usually are of questionable validity, cover trivial parts of overall products, or cover dubious business method patents. Trolls are not daunted by these potential weaknesses because they are not relying on patents to exclude others from use or to provide revenue through application and innovation. In actuality, the overly broad nature of these patents is an advantage that allows patent trolls to cast a wider net when threatening potentially infringing industries.

---

41. See Chan & Fawcett, supra note 7, at 2.
43. See Grab, supra note 11, at 83. For example, one of the most famous troll companies, TechSearch, L.L.C., started when its founder purchased chip technology patents from a bankrupt company and then sued Intel for infringement. See id. at 83 n.17.
44. See Barker, supra note 18, ¶ 2–3 (discussing a corporation specifically formed to purchase patents from a bankrupt electronic software company during its bankruptcy auction).
45. See id. ¶ 7; Chan & Fawcett, supra note 7, at 2.
46. See Barker, supra note 18, ¶ 3.
47. See Basic Framework for Effective Responses to Patent Trolls, supra note 13, at 3 (listing various motivating factors that patent trolls consider prior to acquiring patents).
49. Grab, supra note 11, at 98.
50. Id. at 84.
51. See id. at 108.
C. Modes of Attack—Predatory Patent Enforcement

Once a troll acquires a sufficient number of threatening patents, it initiates its business plan: maximize revenue through licensing fees, settlements, and litigation damage awards.\(^\text{52}\) If the target industry is lucrative and present, the trolls will immediately begin attacking companies in pursuit of profits.\(^\text{53}\) Otherwise, they will act like the mythical troll: they will hide under the bridge, quietly holding on to their patents, and watch for emerging industries that unknowingly develop infringing products.\(^\text{54}\) When these industries develop sufficient value to turn a profit, the trolls will launch their offensive and spring on the unprepared companies as they cross the infringement bridge.\(^\text{55}\)

Regardless of when the troll decides to attack a potentially infringing company, its goal is to maximize income and minimize costs.\(^\text{56}\) Thus, for trolls, the ideal vehicle is a licensing agreement.\(^\text{57}\) Trolls employ various models for generating licensing fees from their patents. To capitalize on the urgency most companies feel in making the trolls disappear, they can request relatively low licensing fees of about $30,000 to $70,000 from hundreds of targets, thus accumulating income from several sources with minimal effort.\(^\text{58}\) Or, to decrease the administrative costs of contracting and collecting fees, they can increase the fees just below the costs of defense (approximately $200,000 to $750,000) and pursue fewer companies.\(^\text{59}\) Frequently trolls use both methods and leverage their successes to request higher licensing fees.\(^\text{60}\) They may also sue a series of small- and medium-sized companies who refuse to pay licensing fees to create legitimacy within the courthouse.\(^\text{61}\) In this way, they begin generating significant income and credibility from settlement payments, licensing fees, and litigation remedies before chasing after the well-established, extremely wealthy Fortune 500-type companies that are their ultimate goal.\(^\text{62}\) Recently trolls have even expanded beyond federal district court actions and brought suit in the International Trade Commission, forcing foreign companies entering the U.S. market into domestic licenses.\(^\text{63}\)

---

\(^{52}\) Id. at 85.

\(^{53}\) See Barker, supra note 18, ¶ 7.

\(^{54}\) Id.

\(^{55}\) See id.

\(^{56}\) Basic Framework for Effective Responses to Patent Trolls, supra note 13, at 3.

\(^{57}\) Barker, supra note 18, ¶ 2.

\(^{58}\) See Basic Framework for Effective Responses to Patent Trolls, supra note 13, at 3.

\(^{59}\) See id.

\(^{60}\) See Chan & Fawcett, supra note 7, at 1.

\(^{61}\) See e.g., Refac Int'l, Ltd. v. Hitachi Ltd., 141 F.R.D. 281 (C.D. Cal. 1991) (illustrating a patent-holding company pursuing several small and medium companies on infringement claims to generate revenue).

\(^{62}\) See Chan & Fawcett, supra note 7, at 1.

D. Limited Options When Facing Off with a Patent Troll

Why do these non-producing entities have such power over legitimate industries? When faced with a challenge by a patent troll, productive companies, both small and large, have very limited options. Although they may choose to work around the alleged infringement to create a product that does not infringe, the risk of failure and substantial research costs decrease the feasibility of this option. Companies must then decide between settling with the patent troll and entering a licensing agreement for continued use or challenging the alleged infringement in court.

1. Option 1: Exorbitant Licensing Fees

Most companies choose to settle and license patents for their desired uses from patent trolls. Traditionally, settlements between two patent-holding companies have involved cross-licensing agreements in which the companies swap rights to each other’s patents. This form of “mutually assured destruction” essentially guarantees that the companies will not sue each other over patented products and drives down settlement costs. But settlements with patent trolls are different. Patent trolls have no interest in cross-licensing agreements because reciprocal licenses are not valuable to them. As a result, the trolls have a bargaining advantage which they use to manipulate and threaten parties until they exact extremely high licensing fees.

2. Option 2: High-Risk, High-Cost Litigation

Companies that choose to take patent trolls to court face high-risk and high-cost litigation. Half of judge and jury decisions in patent disputes are reversed on appeal, and the average patent lawsuit costs $4.5 million. Moreover, the trolls’ business model allows them to adopt unusually tenacious litigation strategies. Unlike other patent-holders, patent trolls do not fear exposure to liability, counterclaims for infringement, or unfair trade practices. Also, patent trolls do not have the same litigation costs, or employee, customer, and shareholder concerns as other companies involved in patent protection litigation. Significantly, unlike traditional technology companies that pay legal fees by the billable hour, patent trolls often operate on contingency fee agreements with law firms: the troll pays

---

65. Id. at 336.
66. See Barker, supra note 18, ¶ 10.
68. See id. at 315-16; see also Chisum, supra note 25, at 340.
69. See Mersino, supra note 67, at 316-17.
70. See id.
71. See Chan & Fawcett, supra note 7, at 4; Patent Hearings, supra note 24, at 27 (testimony of Chuck Fish, Vice President & Chief Patent Counsel, Time Warner).
72. See Basic Framework for Effective Responses to Patent Trolls, supra note 13, at 1.
73. Id. at 1.
no fees unless there is a favorable ruling or settlement, in which case the law firm receives a substantial fraction of the amount. These contingency fee arrangements, with potential payoffs of up to $22.5 million per suit, are extremely attractive to lawyers as well.

Thus, trolls have significantly less to lose than the traditional litigants they face in court. There is, however, a constant threat that the court will invalidate the troll's patent, making it unenforceable both in court and for licensing purposes, thereby undercutting the revenue stream. Still, the extremely high burden of proof in patent cases dissuades many litigants from challenging the validity of a troll's patent; because patents enjoy a presumption of validity, the attacked party would need to make a showing of clear and convincing evidence of invalidity to invalidate a troll's patent. Furthermore, even if the party successfully argues invalidity, it does so at its own cost because the United States does not operate on a "loser pays" basis. Therefore, attacked parties usually choose to argue non-infringement instead of invalidity because such arguments are less costly and relatively easier to prove, requiring only a preponderance of the evidence. Yet, even non-infringement arguments are daunting because of the often overbroad and ambiguous nature of the troll's patents.

When the patent troll wins, the technology company loses much more than the lawsuit. Often, remedies for patent infringement include injunctions and damages. If the troll successfully argues for injunction, it is essentially a death sentence for a company's product: a once lucrative product becomes worthless and its revenue stream almost immediately ceases. Although damages seem to be a better option, patent trolls often demand damage royalties calculated based on the whole product even though the troll's patent often only applies to a small portion or feature of the product. Furthermore, courts frequently, in their discretion, find that a company has willfully infringed on a troll's patent and therefore multiply damages by up to three times. To help their chances of willfulness damages, trolling entities often strategically and enigmatically notify

74. See Black's Law Dictionary 338 (8th ed. 2004) (defining "contingent fee").
76. See Cedric A. D'Hue, Disclosing an Improper Verb Tense: Are Scientists Knaves and Patent Attorneys Jackals Regarding the Effects of Inequitable Conduct?, 14 U. Balt. Intell. Prop. L.J. 121, 146 (2006) ("Now that the patent is unenforceable, the... company will not have that revenue stream . . . .").
78. See Jay P. Kesan & Andres A. Gallo, Why "Bad" Patents Survive in the Market and How Should We Change?– The Private and Social Costs of Patents, 55 Emory L.J. 61, 69 n.36 (2006) (discussing why companies are deterred from meritoriously challenging the validity of even bad patents).
79. See Chan & Fawcett, supra note 7, at 4.
80. See Chiang, supra note 29, at 228.
82. See Chan & Fawcett, supra note 7, at 5.
83. Chisum, supra note 25, at 347.
companies that they are infringing before filing complaints, providing effective proof for these claims.\textsuperscript{85} Even if a troll-fearing company diligently implements a pre-clearance patent search, it inadvertently exposes itself to future claims for willfulness, and thus this is a common damage claim by patent trolls.\textsuperscript{86}

3. \textit{An Example of Troll Control: NTP v. Research In Motion}

Although a troll has yet to shut down a major Fortune 500 company, some predict that the time is nearing.\textsuperscript{87} Trolls have launched massive lawsuits against some of the most successful and powerful technology corporations, including eBay, Intel, and Microsoft.\textsuperscript{88} Most notably, in 2001, NTP, a private holding company whose only asset was a wireless e-mail patent portfolio, almost shut down Blackberry wireless service in the United States.\textsuperscript{89} NTP was small by patent troll standards—it held only twenty-five patents and was run out of the co-founder’s home.\textsuperscript{90} This small entity filed suit against Research In Motion (RIM), the producer of the Blackberry device, after RIM ignored NTP’s letters demanding licensing fees.\textsuperscript{91} NTP convinced the jury that RIM willfully infringed on eleven of its patents, and the court awarded NTP damages of $23 million.\textsuperscript{92} After final motions, the district court judge increased the damages to $53 million and issued a permanent injunction enjoining RIM from manufacturing, importing, using, or selling any of the accused Blackberry devices.\textsuperscript{93} The injunction, which was stayed awaiting appeal, would have forced RIM to cease all Blackberry services that infringed on NTP’s patents.\textsuperscript{94} Facing this grim situation, RIM settled and purchased a license from NTP for $612.5 million.\textsuperscript{95} Notably, the lawyer representing NTP, operating on a contingency fee basis, received over $200 million for representation.\textsuperscript{96} This case has since been the hallmark in advocates’ struggle against patent trolls.

\textsuperscript{86} See Chan & Fawcett, supra note 7, at 8.
\textsuperscript{88} See, e.g., eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006); Eolas Techs. Inc. v. Microsoft Corp., 399 F.3d 1325 (Fed. Cir. 2005); Sandburg, supra note 9.
\textsuperscript{89} See Grab, supra note 11, at 85.
\textsuperscript{90} Id. at 86.
\textsuperscript{91} Id.
\textsuperscript{92} See NTP, Inc. v. Research In Motion, Ltd., 418 F.3d 1282, 1291 (Fed. Cir. 2005).
\textsuperscript{93} See id. at 1291-92.
\textsuperscript{94} See id. at 1292.
\textsuperscript{95} See Grab, supra note 11, at 87.
II. U.S. Efforts to Minimize Effect of Patent Trolls

A. Divisive Effects

The U.S. Constitution mandates a quid pro quo exchange in patent law.\(^7\) By disregarding this exchange, the patent troll's business model seriously undermines the policies underlying the patent system and has severe effects on innovation and competition.\(^8\) They produce nothing; instead, they exploit loopholes within the patent system to collect fees from companies that produce valuable products without conferring any public benefit.\(^9\) Patent trolls effectively amount to "a hidden tax on technology products, hampering innovation and preventing a large number of products from entering the market because the manufacturer could not afford the risk of patent litigation."\(^10\)

First, the presence of patent trolls inevitably increases transaction costs.\(^101\) Due to patent trolls, companies are forced to divert resources from research and development toward preemptively searching for patents owned by trolls, paying off settlements and licensing agreements, and funding litigation efforts.\(^102\) These costs not only stagnate innovation, they also eventually increase the cost of the product for consumers. Second, innovating companies are more cautious when investing in research and development.\(^103\) Companies hesitate before innovating because they fear that a new product may unknowingly infringe on a troll's patent and, thus, ultimately result in costs that outweigh the potential profits.\(^104\) The uncertainty of whether a troll's patent is valid or broadly applies to their product will also deter and distort the direction of the company's investments in innovation.\(^105\) For example, an independent software inventor, Brandon Shelton, was progressing through testing of his innovation (with twenty interested entities awaiting test completion) when a well-known troll, Acacia Research Corp., demanded a licensing fee.\(^106\) Acacia alleged that the

---

97. See U.S. Const. art. I, § 8, cl. 8; Ferrill, supra note 48, at 369-70.


99. See A Patent System, supra note 98, at 95; see also Mersino, supra note 67, at 315-16.

100. Ferrill, supra note 48, at 377.

101. See A Patent System, supra note 98, at 95 (suggesting that bad patents raise litigation and settlement costs).

102. See id. at 95; Myers, supra note 64, at 337; A Patent System, supra note 98, at 95 (suggesting that "uncertainty about the validity of previously issued patents may deter investment in innovation and/or distort its direction").

103. See Myers, supra note 64, at 337 (noting that manufacturers may be reluctant to bring products to market when patent trolls could possibly attack).


inventor was infringing on a patent that effectively claimed the rights to one of the most basic functions of the Internet. Although the inventor recognized that if litigated, the patent would likely be unenforceable, he did not have the funding to fight in court, so he abandoned his innovation and the potential investors. Undoubtedly, scenarios similar to this one occur routinely, continually pushing both small and large entities away from potential innovations.

B. The Industry's Response

The biggest players in the technology industry, many of whom have become the target of patent trolls several times, have begun to collectively launch offensives against the trolls through various means. In an attempt to undercut patent trolls' acquisition of patents, an elite group of technology companies joined forces to create Allied Security Trust (AST). AST polls its members' interests in particular patents; if two or three members express interest, AST attempts to buy them from the patent holder. AST then freely licenses the purchased patents to any of AST's members for the patents' duration. AST vows that it does not participate in any patent licensing fee endeavors similar to those of patent trolls. Membership is self-selective: to join, companies must donate $25 million and only forty companies can join. Although the goal is to prevent potentially damaging patents from entering the hands of patent trolls, this exclusivity limits the capital and thus the scale of the endeavor. Therefore, AFT is not a sustainable long-term solution.

Recognizing that legislative reform may be the only potential solution to solving the troll epidemic, several congressional lobbying organizations composed of industry leaders have formed the Coalition for Patent Fairness. Companies such as Apple, Google, VeriSign, Dell, Cisco, and eBay joined the Coalition, a group concentrated on lobbying the Legislative Branch to reform the patent system. Other groups such as the Information Technology Industry Council and the Business Software Alliance, although not exclusively dedicated to patent reform, have made patent trolls and reform issues a priority on behalf of major industry players.
In recent years, Congress has considered substantial patent reforms, potentially the most drastic since 1952, including those targeted at patent trolls.\textsuperscript{118} The impetus for these reforms was pressure from industry groups and the release of two independently significant reports from the Federal Trade Commission\textsuperscript{119} and the National Research Council of the National Academies.\textsuperscript{120} Both of these reports specifically address the patent troll problem as an imminent threat to the legitimacy of the patent system.\textsuperscript{121} In response to these reports, members of the House of Representatives proposed a bill entitled the Patent Quality Assistance Act of 2004 (PQAA).\textsuperscript{122} The PQAA integrated several critical changes into the patent system. That is, it allowed people to initiate proceedings in opposition to patents even after the patents had been granted, it set higher standards for the degree to which business methods would have to be nonobvious before they were eligible for patenting, and it limited injunctive relief.\textsuperscript{123} All of this would decrease patent trolls' bargaining power in settlements and licensing agreements and make litigation more balanced.

Although the PQAA did not pass, in the subsequent congressional session, members introduced a more exhaustive and drastic reform bill, the Patent Reform Act of 2005.\textsuperscript{124} During the consideration of the bill, the House of Representatives conducted a hearing specifically addressing the patent troll issue.\textsuperscript{125} The testimony emphasized that Congress' efforts to reform injunctive relief, willfulness damages, continuation applications, and damage apportionment would have significant deterrent effects on patent trolls.\textsuperscript{126} Testimony during the hearings also warned that as a result of the patent trolls, the patent system was unbalanced and there was a dire need to return the system to an equitable balance.\textsuperscript{127} Despite this testimony and lobbying by interest groups for immediate and drastic patent reform, the House never passed the Patent Reform Act of 2005.\textsuperscript{128}

In its 110th session, Congress again proposed a patent reform bill—

\textsuperscript{118} See Chuang, supra note 29, at 243.
\textsuperscript{120} See generally A Patent System, supra note 98.
\textsuperscript{121} FTC Report, supra note 119, at 31; see A Patent System, supra note 98, at 96.
\textsuperscript{125} Patent Hearings, supra note 24, at 1.
\textsuperscript{126} See id. at 9-11 (prepared statement of Edward R. Reines).
\textsuperscript{127} See id. at 8 (prepared statement of Edward R. Reines).
\textsuperscript{128} See Thomas, supra note 14, at 733.
the Patent Reform Act of 2007\textsuperscript{129}—that largely resembled those proposed in 2004 and 2005. On its third try at patent reform, on September 7, 2007, the House of Representatives passed the bill.\textsuperscript{130} Unfortunately, despite its success in the House, a similar bill proposed in the Senate stalled on the Senate floor.\textsuperscript{131} Nearly identical versions of the 2007 bills have been proposed in both the House and Senate in the 111th session, though at the time of this Note's publication there has been no progress on either bill.\textsuperscript{132} Thus, notwithstanding significant efforts on the part of several members of Congress, the Legislative Branch has been unable to resolve the patent troll dilemma. Even if passed, many experts argue that the broad changes would not only hurt patent trolls, but would also equally affect those legitimately seeking patent protection.\textsuperscript{133}

D. Judicial Efforts

Although the Legislative Branch has effectively made no progress in ending the reign of the patent troll, the judiciary recently stepped up its efforts, on all levels, to resolve the issue.

At the Supreme Court level, there have been a few significant cases that will have major effects on patent trolls in the coming years. Arguably the Court's most powerful decision was \textit{eBay v. MercExchange}, in which the Supreme Court overruled the patent-specific automatic injunction rule after alleged patent trolls threatened a well-respected and productive company.\textsuperscript{134} The Court held that instead of automatically awarding an injunction to the infringed party, the party seeking an injunction

must demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.\textsuperscript{135}

Justice Kennedy, who appeared particularly concerned with the patent troll problem, specifically suggested that district courts should apply the factors more strictly when dealing with entities that use injunctions as "a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to

\begin{thebibliography}{9}
\bibitem{130} See id. at 80.
\bibitem{133} See D. Brian Kacedon, Michael V. O'Shaughnessy & John C. Paul, \textit{Patent Trolls: A Stereotype Causes a Backlash Against Patents and Licensing}, 41 \textit{Les Nouvelles} 224, 232 (2006) ("These changes, however, will not just affect the few bad actors who abuse the system, but will unnecessarily burden all patent owners and licensors regardless of the quality of their patents or the nature of their licensing and enforcement activities.").
\bibitem{135} Id. at 391.
\end{thebibliography}
practice the patent."

The equitable eBay injunction test strips a troll of a large portion of its litigation advantage. Because most trolls do not practice the patents they seek to license, they will have difficulty proving the second prong of the test—that monetary remedies are inadequate compensation. The refusal of injunctive relief in some district court cases since eBay confirms this prediction. eBay removes the threat of injunctions from a troll’s playbook, but it does not stop the trolls from litigating and demanding licensing fees. Although they have less leverage without injunctions, very high monetary damages might still be obtained, especially if willful infringement is found.

Another recent Supreme Court decision, MedImmune, Inc. v. Genentech, Inc., provides patent licensees who have succumbed to a patent troll with a more lenient standard for filing declaratory judgment actions against the troll. The Supreme Court held that under the “all the circumstances” standard, patent licensees could continue to pay licensing royalties yet still present the actual and substantial controversy necessary to bring a declaratory judgment action to determine the validity of a licensed patent. Yet MedImmune’s impact on patent troll licenses is limited because the Court held that declaratory judgment is not available to the defense of invalidity alone; there must be at least an express threat by the patent licensor or some source of apprehension of a suit. Even so, some predict that MedImmune will diminish trolls’ ability to use legal threats as a means of extracting advantageous licensing agreements. MedImmune will provide some relief to those already engaged in license agreements with patent trolls, but the effect is likely to be minimal and short-lived: Patent trolls will ultimately be able to tweak licensing agreements to protect against declaratory judgments.

136. Id. at 396–97 (Kennedy, J., concurring).
137. See, e.g., 24 Techs., Inc. v. Microsoft Corp., 434 F. Supp. 2d 437 (E.D. Tex. 2006) (refusing to grant injunction to a patent troll because monetary awards were sufficient and appropriate).
138. Although 35 U.S.C. § 284 does not articulate the specific conditions under which “the court may increase the damages up to three times the amount found,” the Federal Circuit has held that the patent owner must demonstrate willfulness to be awarded such increased damages. See In re Seagate Tech., L.L.C., 497 F.3d 1360, 1368 (Fed. Cir. 2007). A finding of willfulness requires a showing of objective recklessness. See id. at 1371.
139. See generally 549 U.S. 118 (2007). This controversy originated when MedImmune, while continuing to pay royalties, filed a declaratory judgment action claiming Genentech’s licensed patent was invalid. Id. at 121–22. The district court found the action non-justiciable under the Declaratory Judgment Act. Id. at 122.
140. See id. at 127.
141. See id. at 120–25.
Recently the Court of Appeals for the Federal Circuit, the exclusive appellate court for patent litigation decisions, has decided cases that, in effect, curtail the power of patent trolls. In the 2007 In re Seagate Technology L.L.C. decision, the Federal Circuit, sitting en banc, increased the standard for proving willful patent infringement. Previously, a party had an affirmative duty of care, upon actual notice of another's patents, to avoid infringement. Seagate raised the bar of willful infringement, requiring clear and convincing evidence of "objective recklessness." As a result, trolls, who routinely claim willfulness to increase their damage awards, must now expend more effort in proving that companies objectively infringed, which increases their litigation costs. The decision also decreases the paralysis that troll opponents face when entering court because the court will evaluate willfulness based on pre-litigation actions. Therefore, a potential infringer can continue to produce without fear of increasing damages. The Federal Circuit has also dealt blows to patent trolls on the issue of patentability of business methods.

145. See 497 F.3d 1360 (Fed. Cir. 2007).
146. See Underwater Devices Inc. v. Morrison-Knudsen Co., Inc., 717 F.2d 1380, 1389 (Fed. Cir. 1983) ("Where, as here, a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing.").
147. Seagate, 497 F.3d at 1371 ("[T]o establish willful infringement, a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."). The court relied on the definition of willfulness provided by the Supreme Court and sister appellate courts in other legal contexts, such as copyright, to justify the heightened standard. Id. at 1370-71.
149. See Seagate, 497 F.3d at 1374 ("[A] willfulness claim asserted in the original complaint must necessarily be grounded exclusively in the accused infringer's pre-filing conduct. By contrast, when an accused infringer's post-filing conduct is reckless, a patentee can move for a preliminary injunction, which generally provides an adequate remedy for combating post-filing willful infringement.").
150. See id.
151. See In re Nuijten, 500 F.3d 1346, 1354 (Fed. Cir. 2007) (holding that business method patents must still fall within one of the four § 101 categories to be valid); In re Comiskey, 499 F.3d 1365, 1378 (Fed. Cir. 2007) (refusing to accept that its State Street Bank precedent widened the scope of patentability for business method patents).
152. In re Bilski, 545 F.3d 943 (Fed. Cir. 2008). The relevant patent was a business method for hedging risks in commodities trading. See id. at 949-50. The examiner rejected all eleven claims of the patent because the claims did not satisfy the subject-matter requirement according to Supreme Court precedent. See id. at 950.
III. Lessons Learned from a Troll-Free Europe

A. Troll-Free Europe

With the success of patent trolls in the United States, many would expect that these creatures enjoy equal success on the playgrounds of Europe, especially given the relatively lower cost of litigation in many European countries. Surprisingly that is not the case. Although Europe had glimpses of patent troll attacks, its innovators and technology industry generally do not suffer from the same abuses as their U.S. counterparts. This section explores the differences between the two patent grant and enforcement systems, looks for potential explanations, and considers what the United States can learn from these key differences.

B. Lessons from the European Patent Office (EPO)

Today, Europe has an autonomous legal system for granting and appealing patents. The European Patent Office, located in Munich, Germany, was founded in 1977 pursuant to the 1973 European Patent Convention (EPC). The EPO embodies the main objective of the EPC: "to strengthen co-operation between the States of Europe in respect of the protection of inventions . . . that such protection may be obtained in those States by a single procedure for the grant of patents and by the establishment of certain standard rules governing patents so granted." Thus, the EPO streamlines the patent application procedure by requiring only one application, in a single language, to be submitted and evaluated under a single set of guidelines. The granted patent confers a bundle of national rights within the Contracting States.

The EPO is seen as a counterpart to the United States Patent and Trademark Office (PTO). Like the PTO, the EPO applies a consistent standard of patentable subject matter, validity, and novelty to determine

---

154. Id.
155. See Luxardo, supra note 75, at 805.
161. The application must be in French, English, or German. Id. art. 14.
162. See id. art. 14(2) (stating that the application must be translated into one of the official languages in accordance with the Implementing Regulations).
whether or not it can grant an application.\textsuperscript{164} The records for each grant are kept on file at the EPO, and anyone wishing to challenge a patent's validity can bring opposition proceedings through the EPO.\textsuperscript{165} Thus, when comparing the grant of patents in the United States and Europe, it is necessary to compare the procedures of these two offices. The goal of this Note is to ascertain key differences in the procedures of these two offices that may explain the variation in the prevalence of troll activity between the United States and Europe and how trolling activity can be decreased in the United States without deteriorating its patent system.

1. Patentable Subject Matter

Arguably a troll's most powerful tool is an overly broad patent or one that teeters on the edges of patentability.\textsuperscript{166} Both the PTO and EPO require patent applications to overcome a basic hurdle before they begin further substantive evaluations: the patent's subject matter must be statutorily patentable.\textsuperscript{167} Neither the U.S. statute nor the EPC explicitly define "invention,"\textsuperscript{168} but both outline specific exclusions from patentability.\textsuperscript{169} The scope of patentability within the EPC is significantly narrower than its U.S. counterpart, which may explain why trolls in Europe cannot obtain the overly broad and questionable patents that they litigate successfully in the United States. In Europe, several specific areas of subject matter are ineligible for patentability: discoveries, scientific theories and mathematical methods; aesthetic creations; schemes, rules and methods for performing mental acts, playing games or doing business; programs for computers; and presentations of information.\textsuperscript{170} The explicit exclusion of business methods in Europe is the most relevant exclusion in the comparison between European and U.S. patentability standards. Both of the business methods exclusions are premised on the lack of a "technical consideration," either, a technical means or a technical solution to an objective problem.\textsuperscript{171}

In Europe, the state of the law and the practice of business methods have recently diverged, but both remain predominantly against the issuance of business method patents.\textsuperscript{172} According to the EPC, business method patents are invalid—there is no technical character and no patentability—if the effect achieved by following the method is purely economic or administrative (essentially a processing of information).\textsuperscript{173} The few busi-
ness-related patent applications that meet the technical requirements of patentability typically still fail for lack of inventive step. Recently, through the EPO's issuance and court decisions, there has been a push to allow business method patents, and through often convoluted statutory interpretations, some patents have issued for innovative computer-implemented claims. Lawmakers countered this push in 2005 when they rejected an initiative to harmonize European patent law with that of the United States. Without any explicit allowances for business method patents, the validity of business method patents in Europe remains uncertain, and it is this uncertainty that is likely a factor deterring trolls from pursuing litigation with one of their favorite types of patent.

Although precedent within the United States used to be equally protective against granting business method patents, the Federal Circuit explicitly extended patentability to business methods in 1998. Since then, the amount of business method patent applications has increased by 650%, flooding the PTO. As a result, patents for simple, broad methods such as "method of swinging on a swing," which require minimal research and development costs, have been granted. Such patents would

175. See KLUWER, infra note 168, at 31. But see PHILIP LEITH, SOFTWARE AND PATENTS IN EUROPE 147-48 (2007) (listing examples of recent business method patents that are proceeding through the EPO, including the Amazon '1-click' business method patent that was granted and subsequently opposed, to illustrate Europe's increasing warmth towards business methods).
180. See State St. Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1374-75 (Fed. Cir. 1998) ("[T]he court relied on the judicially-created, so-called 'business method' exception to statutory subject matter. We take this opportunity to lay this ill-conceived exception to rest."); see also AT&T Corp. v. Excel Commc’ns, Inc., 172 F.3d 1352, 1361 (Fed. Cir. 1999).
182. Method of Swinging on a Swing, U.S. Patent No. 6,368,227 (filed Nov. 17, 2000) (issued Apr. 9, 2002). The abstract of the patent states "[a] method of swing [sic] on a swing is disclosed, in which a user positioned on a standard swing suspended by two chains from a substantially horizontal tree branch induces side to side motion by pulling alternately on one chain and then the other." Id.
never survive in the EPO.\textsuperscript{183} The quick proliferation of these broad patents has made many businesses, who continue to use the same business methods that they have always used, vulnerable to patent infringement claims by patent holders and trolls who are equipped with patents as broad as “swinging on a swing.”\textsuperscript{184}

The United States should follow Europe's lead by returning to its previous stance of non-patentability for business methods—not only to prevent trolls from acquiring overly broad patents, but also to enable the United States to move towards harmonization with Europe. The Federal Circuit has already taken the lead in this area. In its 2008 \textit{In re Bilski} decision, the court returned to the narrower "machine-or-transformation" test previously applied by the Supreme Court.\textsuperscript{185} Despite this decision, which only applies to future business method patents, trolls still possess several previously issued business method patents that are being used against productive companies.\textsuperscript{186} To avoid a continuation of this troll practice, the Judiciary and the Legislature should continue to narrow the scope of business method patents.

2. Opposition Proceedings

Patent troll victims face two intertwined hurdles—the overwhelming cost of litigation and a high standard for proving patent invalidity.\textsuperscript{187} A less expensive and expedient method of challenging the validity of a troll's patent would ameliorate these issues. Both the EPO and PTO provide an administrative channel for challenging a patent's validity—opposition proceedings and reexamination, respectively—but Europe’s opposition proceedings allow for broader validity challenges and more contentious and adversarial participation by the parties.\textsuperscript{188} This difference may be crucial in providing troll victims with a preemptive opportunity to challenge a troll's patent or an alternative to litigation, which in turn may decrease a troll's power to extract exorbitant licensing agreements because they pose a less daunting threat.

Through Europe’s opposition proceeding, within the first nine months of a patent's issuance, any person can challenge an issued patent as wrong-

\begin{flushright}
\textsuperscript{183} See \textit{Leith}, supra note 175, at 19.
\textsuperscript{184} Thomas & DiMatteo, supra note 176, at 8–9.
\textsuperscript{185} 545 F.3d 943, 959–60 (Fed. Cir. 2008) ("Therefore, we also conclude that the 'useful, concrete and tangible result' inquiry is inadequate and reaffirm that the machine-or-transformation test outlined by the Supreme Court is the proper test to apply.").
\textsuperscript{186} See, \textit{e.g.}, Sandburg, supra note 9 (discussing ongoing licensing agreements between patent trolls like TechSearch and other technology companies).
\textsuperscript{187} See supra Part I.D.2 (discussing the daunting challenge of litigating against patent trolls).
\textsuperscript{188} See \textit{Paterson}, supra note 163, at 91; see also Jordan K. Paradise, Recent Development, Lessons from the European Union: The Need for a Post-Grant Mechanism for Third-Party Challenge to U.S. Patents, 7 MINN. J. L. SCI. & TECH. 315, 315–16 (2005) (illustrating how the differing post-grant review processes can lead to the same patent being revoked in Europe and maintained in the United States).
\end{flushright}
fully granted based on any grounds of a patent's validity. Specifically, challengers are able to oppose granted patents on the basis of lack of patentability, insufficient disclosure, and extension of the scope of protection beyond what was contained in the application as originally granted. Challenges to lack of patentability include raising issues of excludable subject-matter, lack of novelty, lack of industrial application, and lack of inventive step.

The Opposition Division, which handles opposition proceedings, consists of three technical examiners. These examiners preside over inter partes proceedings, which the EPO has determined "under the EPC are in principle to be considered as contentious proceedings between parties normally representing opposite interests, who should be given equally fair treatment." Both sides—the challenger and patent holder—must present evidence to prove or protect against opposition. The EPO has broad discretion over the admissible documents, but generally does not limit the types of documents or their content. The Opposition Division may also allow for oral evidence and may summon witnesses and experts at the request of the parties during the opposition proceeding. The process is flexible; there is no fixed schedule for these filings and oral proceedings, and parties can file observations and communications as often as necessary.

As a result of the opposition proceeding, the Opposition Division may revoke the patent and declare it invalid across all Contracting States, can amend the patent, or reject the opposition. Oppositions often cost less than $20,000 per side (with each side bearing its own cost), and approximately one-third of challenged patents are ultimately revoked.

See European Patent Convention, supra note 158, arts. 99-105; Kluwer, supra note 168, at 126-42. European Patent Convention, supra note 158, art. 100(a) ("[T]he subject-matter of the European patent is not patentable under Articles 52 to 57."). Id. art. 100(a) ("[T]he European patent does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.").

Id. art 100(c) ("[T]he subject-matter of the European patent extends beyond the content of the application as filed 

See Kluwer, supra note 168, at 130; Haitao Sun, Note, Post-Grant Patent Invalida-
tion in China and in the United States, Europe, and Japan: A Comparative Study, 15 Ford-

See Paterson, supra note 163, at 91; Sun, supra note 193, at 305.


See id.

See European Patent Convention, supra note 158, art. 116; Kluwer, supra note 168, at 159–60; Soobert, supra note 196, at 154; Sun, supra note 193, at 306.

See Sun, supra note 193, at 306.

See European Patent Convention, supra note 158, art. 101.

mentators predict that the effectiveness of this low-cost alternative to litigation ultimately decreases the number of patents and prevents invalid patents from being litigated.\textsuperscript{202} This may be one of the major factors that make trolls less successful and less attracted to the European system.

In contrast with Europe, U.S. patent law's reexamination process does not provide a broad post-grant procedure for third parties to challenge patents.\textsuperscript{203} Although the initial goal in creating a reexamination proceeding in the United States was to create an administrative alternative that would "resolve validity disputes more quickly and less expensively than litigation . . . [and] strengthen confidence in patents whose validity was clouded,"\textsuperscript{204} the proceeding has not been as effective as its European counterpart. Until 1999, only ex parte reexaminations were permitted; these reexaminations allowed any person to file a request,\textsuperscript{205} but they severely limited the person's participation in the process to a single response to the patent owner's statements if the patent owner chose to make any.\textsuperscript{206} In 1999, the American Inventors Protection Act allowed for "inter partes reexamination" that would allow the opponent to participate in the process and respond to the patent owner.\textsuperscript{207} Although this examination brings U.S. reexaminations closer to those in Europe, the mechanism has been scarcely used, and, when it is used, still subject to the narrow scope of ex parte reexaminations.\textsuperscript{208}

Both ex parte and inter partes reexaminations are only granted if the PTO determines that "a substantial new question of patentability affecting any claim of the patent concerned is raised by the request."\textsuperscript{209} The examiner evaluates the patent according to the same standards as the initial examination, but he can only refer to certain prior art—previously submitted patents or printed publications—when conducting the reexamination.\textsuperscript{210} As a result, reexaminations are mostly limited to issues of novelty and obviousness, while contestable issues in Europe's opposition proceedings—such as patentable subject matter, enablement, and disclosure—all

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{202} See Hall & Harhoff, supra note 201, at 1006-07.
\item \textsuperscript{203} See 35 U.S.C. §§ 302-304 (2006); Paradise, supra note 188, at 322.
\item \textsuperscript{204} IRAH H. DONNER, PATENT PROSECUTION: LAW, PRACTICE, AND PROCEDURE 2180 (4th ed. 2005); see H.R. Rep. No. 107-120, at 3 (2001).
\item \textsuperscript{205} 35 U.S.C. § 301 ("Any person at any time may cite to the [Patent] Office in writing prior art consisting of patents or printed publications which that person believes to have a bearing on the patentability of any claim of a particular patent.").
\item \textsuperscript{206} Id. § 305.
\item \textsuperscript{208} See FTC Report, supra note 119, at 16; Sun, supra note 193, at 313-14 ("Several aspects of the inter partes reexamination are similar to those of ex parte reexamination: any third party can, at any time, file a request for inter partes reexamination of a patent; the prior art that can be relied upon for inter partes reexamination is the same as for ex parte reexamination; . . . the Patent Office will determine whether the request raises a substantial new question of patentability affecting any claim of the patent; the reexamination will be conducted according to the procedures established for the initial examination . . . ." (internal citations omitted)).
\item \textsuperscript{209} 35 U.S.C. § 303(a).
\item \textsuperscript{210} Id. § 301.
\end{itemize}
\end{footnotesize}
must be determined in court. Thus, both the narrow scope of substantive examination and the minimal participation of parties in the proceeding prevent troll-targeted opponents from bringing reexamination procedures in lieu of litigation or preventative licensing.

Harmonizing the PTO's reexamination process with Europe's more effective opposition procedure is an important lesson that the United States must learn from Europe. In fact, several federal agencies have already issued reports proposing a more effective and robust opposition procedure as a key step to preventing patent trolls. Moreover, the Patent Reform Acts proposed procedures that would allow third parties to initiate a legal challenge to a patent within nine months of issuance, or allow accused infringers to initiate challenges within six months of receiving notification that the patent holder has filed claims for patent infringement. Opponents and alleged infringers would be able to bring challenges on the basis of patentable subject-matter, utility, novelty, nonobviousness, written description, enablement, and disclosure—providing a scope of substantial review equivalent to that in civil litigation. Expanding the scope of the process to allow the evaluation of "substantial new questions of patentability" to extend beyond prior art to a broader range of submitted documents may be sufficient to allow troll-threatened parties and others to avoid litigation. The threatened party can thus challenge the validity of the patent without adding the oral procedure aspects of the European opposition process, which would likely burden the PTO with higher costs and unduly extend the processing time for patent challenges. A U.S. adoption of the legislative version of the opposition procedure would decrease the costs of challenging a patent, lessen a patent's powerful presumption of validity, and keep patent troll litigation out of the courts—an ideal combination to strip the trolls of the power from which they now thrive.

3. EPO Administrative Costs

In addition to the substantive differences between the EPO and PTO, a key deterring factor for patent trolls in Europe may be the expense of obtaining and maintaining a patent. The procedural fees of the EPO are more than three times that of the PTO. In addition, although an EPO-granted patent consists of an instant bundle of patent rights, patent

211. See Soobert, supra note 196, at 88; Sun, supra note 193, at 311.
213. The Patent Reform Acts of 2005 and 2007 were never made into law, due to opposition from the House and the Senate, respectively. See supra Part II.C.
215. See id. § 3.
216. See Chan & Fawcett, supra note 7, at 10.
217. See DINWOODIE ET AL., supra note 157, at 718.
218. See PATTERSON, supra note 163, at 88.
holders must incur validation costs before being able to exercise their exclusive rights. They must pay fees for mandatory translations of the complete patent specification into the official language of each of the designated contracting states and official validation fees to the national patent offices of each of those states. On average, European patentees validate their patents in eight contracting countries, resulting in costs up to twelve times that of their U.S. counterparts. After accounting for additional expenses, such as renewal fees due to each contracting country, a European patent holder expends approximately $36,000 maintaining its patent rights over the twenty-year duration of the patent in comparison to the approximately $13,000 it costs a U.S. equivalent. The general expense and complexity of this fee and validation system may potentially deter trolls, whose main objective is maximizing returns on their patent investments. Although the trolls' typical acquisition occurs after the patent issues, so that EPO initial fees would be largely irrelevant, the expense may be passed on to trolls when they purchase the patent. Regardless, they are likely to have to pay for the validation expenses as well as the more expensive renewal fees, which clearly add up quickly.

Although there is no U.S. equivalent to the European contracting states, the United States could borrow from the EPO model by increasing the PTO's administrative fees and renewal costs. However, despite its potential to deter money-hungry trolls, this across-the-board increase in patent maintenance expenses is unlikely to be the solution for the United States because it not only affects patent trolls, but also adversely affects all patentees. This presents an interesting potential solution: if fines could be tailored to specifically target patent troll activity or if renewal periods could be used as an opportunity to deter trolls, the expense deterrent may work. For example, one commentator has suggested that during each renewal time, the new patent holder, potentially a troll, would need to pay for a review of its patent's validity and active use. If the patent is not actively used or does not meet the basic patentability requirements during this review process, then the patent would be declared invalid and enter the public domain.

219. See id.
220. See id.
221. See id.
222. See id.
223. See Ferrill, supra note 48, at 376.
224. See DINWOODIE ET AL., supra note 157, at 718.
225. U.S. patent holders pay maintenance fees following the third, seventh, and eleventh years after the patent has issued. Barker, supra note 18, ¶ 30 (citing A PATENT SYSTEM, supra note 98, at 31).
226. See id. ¶ 34.
227. See id. ¶ 30 (arguing for an open review mechanism during various periods of the patent's life as a means of preventing trolls from enforcing overly broad and potentially invalid patents).
228. See id. ¶ 31.
use of the patents they hoard,\textsuperscript{229} and would decrease the amount of patents trolls could acquire.\textsuperscript{230} Alternatively, the PTO could enforce a basic charge when patents are transferred to non-producing entities or a fine when, during renewal, the owner cannot prove active use. These options, loosely borrowed from Europe's patent maintenance cost system, may help lessen the troll dilemma.

C. Lessons from European Patent Infringement Litigation

As the EPC suggests, the European patent system thus far primarily focuses on granting patents and upholding validity, but not on patent enforcement.\textsuperscript{231} Under this scheme, until grant and post-grant challenges to validity, European patents funnel through the EPO.\textsuperscript{232} But upon grant, the single patent becomes enforceable as a “bundle of patent rights”\textsuperscript{233} that must be litigated on a national level in each of the member states.\textsuperscript{234} A decision in a national court does not affect any of the other patent rights in the “bundle” because they are controlled by different national laws and courts.\textsuperscript{235} Thus, in comparing patent litigation in the United States and Europe, it is necessary to explore litigation procedures on a national level. Because little comparative research has been conducted to date\textsuperscript{236} and an in-depth comparison is beyond the scope of this Note, this Note will briefly discuss certain distinctive and particularly relevant procedures implemented in the United Kingdom, Germany, and France, where the majority of European patent litigation occurs.\textsuperscript{237}

1. Litigation Costs: The “Loser Pays” Policy

With every litigated case come hidden and often significant costs, predominantly in the form of attorney fees.\textsuperscript{238} This continually skyrocketing amount, which can add up to $4.5 million per suit, is a major deterring factor for parties who would otherwise challenge trolls in court.\textsuperscript{239} The different way in which Europe and the United States deal with this cost highlights another significant lesson that the United States can learn from Europe.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{229} See id. \S 34.
\item \textsuperscript{230} See Luxardo, supra note 75, at 820.
\item \textsuperscript{231} European Patent Convention, supra note 158, art. 64(3) ("Any infringement of a European patent shall be dealt with by national law.").
\item \textsuperscript{232} See generally id.
\item \textsuperscript{233} See Paterson, supra note 163, at 20.
\item \textsuperscript{234} See Terence Prime, European Intellectual Property Law 176, 195 (2000).
\item \textsuperscript{235} See id. at 176.
\item \textsuperscript{236} See Leith, supra note 175, at 185 ("There appears to be little comparative research conducted on the different procedural approaches in Germany, France, Italy, and UK on litigation.").
\item \textsuperscript{237} See Mike Pantuliano et al., Multinational Patent Litigation 3 (1996).
\item \textsuperscript{239} See supra Part I.D.2.
\end{itemize}
\end{footnotesize}
Most of Europe follows what is known as the "loser pays" rule: a policy of reimbursement whereby the parties who lose in litigation pay the winners' legal expenses and attorney fees.\(^2\)\(^4\)\(^0\) This policy generally leads to less predatory litigation because defendants are more willing to represent a plaintiff with a weak case or patent of questionable validity in court.\(^2\)\(^4\)\(^1\) Additionally, when defendants choose to settle, the settlement amount tends to be lower than that in the United States.\(^2\)\(^4\)\(^2\) The greatest fear with a "loser pays" rule is that it gives wealthy litigants an unfair advantage; however, research in Europe (where this is the general rule) suggests that this fear is unfounded.\(^2\)\(^4\)\(^3\) Instead, studies have found that the rule significantly deters speculative lawsuits—the type often brought by patent trolls—by imposing potential financial liability.\(^2\)\(^4\)\(^5\)

The "American Rule" for patent litigation has been and currently is that each party bears its own costs of litigation, win or lose.\(^2\)\(^4\)\(^6\) But there is an exception; Section 285 of the U.S. Code provides that in "exceptional cases [the court] may award reasonable attorney fees to the prevailing party." However, the burden of proving an "exceptional case" is very high, requiring the defendant to prove bad faith equivalent to fraud on the PTO in order to invoke fee-shifting.\(^2\)\(^4\)\(^7\) Furthermore, the implementation of this exception lies solely in the judge's discretion\(^2\)\(^4\)\(^8\) and, in reality, only occurs in about 1% of suits that end by pre-trial motion or trial.\(^2\)\(^4\)\(^9\) As a result, in the United States, the costs of litigation is at the forefront of a party's mind when deciding whether or not to accept a troll's court date.

The "loser pays" system should be adopted in some form to ameliorate the exorbitant litigation costs that prevent parties from bringing potentially

---

\(^2\)\(^4\)\(^0\) This rule is also known as the "English Rule." See Singleton, supra note 238, at 3.


\(^2\)\(^4\)\(^2\) See Singleton, supra note 238, at 3.


\(^2\)\(^4\)\(^4\) See Singleton, supra note 238, at 4 (discussing how various "loser pays" countries have used payment schedules, insurance policies, and other methods to prevent strategies of piling up costs into a large single bill to force the other side to go bankrupt).

successful and valid claims to court. Already, researchers have evaluated the effectiveness of a "loser pays" system in the United States and determined that it would indeed decrease the number of weak, nuisance lawsuits like those brought by patent trolls.\(^{251}\) In response, legislative efforts have supported a shift to a form of the "loser pays" system. For example, the Senate's version of the Patent Reform Act of 2006 sought to amend Section 285 to read: "The court shall award, to a prevailing party, fees and other expenses incurred by that party in connection with that proceeding, unless the court finds that the position of the nonprevailing party or parties was substantially justified or that special circumstances make an award unjust."\(^{252}\)

Although the "loser pays" system boasts many advantages, many issues still linger that may be preventing the legislature from shifting the entire patent system to "loser pays."\(^{253}\) Scholars have suggested several incremental proposals that would allow "loser pays" to immediately affect the most outrageous lawsuits and dubious patent claims without making a drastic shift.\(^{254}\) One viable proposal includes a limited shift that would apply only to patents invalidated by a court or revoked by the PTO.\(^{255}\) This measured approach may be the ideal, immediate resolution to the daunting litigation costs facing patent-troll victims.

Any shift from the "American Rule" to a "loser pays" rule would be a significant blow to patent trolls.\(^{256}\) Under the threat of covering not only their own but also their opponents' litigation costs, trolls would be less likely to bring litigation.\(^{257}\) As a corollary, those threatened by trolls would likely offer less in settlement negotiations and would be willing to litigate more often against dubious or overbroad patents, thereby decreasing patent trolls' revenue and the costs to society.

---

\(^{251}\) See **Gryphon**, supra note 243, at 17-23 n.43 (discussing various studies proving that under loser pays there will be less dubious lawsuits, lower settlement rates, and overall lower costs of litigation).


\(^{253}\) See **Singleton**, supra note 238, at 5.

\(^{254}\) See id. (presenting Kesan's idea and also proposing an amendment that would provide judges with greater discretion in awarding fees); see also **Gryphon**, supra note 243, at Executive Summary (proposing "a modified offer-of-judgment rule, which ties the amount of any fee award to the size of the parties' settlement offers, and advocates the removal of legal barriers to the establishment of a robust litigation insurance industry in new loser-pays jurisdictions").

\(^{255}\) Kesan, supra note 245, at 770 (proposing "a one-way, pro-defendant fee shifting system [for situations where] patents are invalidated or revoked in a litigation or opposition proceeding based on certain categories of prior art that are reasonably likely to be discovered by a diligent patentee").

\(^{256}\) See id. at 789 ("[T]he loser-pays rule would reduce speculative litigation and limit the tactical leverage gained by a party with a weak case threatening a defendant with costly litigation. This rule may also deter excessive discovery and the filing of unnecessary motions.") (citations omitted); **Singleton**, supra note 238, at 4.

\(^{257}\) See **Luxardo**, supra note 75, at 820.
2. Attorney Fees

Another significant difference between Europe and the United States is the prevalence of contingency fee litigation. This arrangement is the main instrument that allows patent trolls to significantly decrease the financial risk of litigation and that incentivizes lawyers to assume trolls' cases. In Europe, most litigation is performed on a fixed or hourly fee basis due to significant restrictions on contingency fee litigation. In fact, contingency fee arrangements are strictly forbidden in European countries. The most analogous arrangement is the British conditional fee in which the attorney is paid an hourly fee with the added potential for a "success fee" upon winning the case. Unlike contingency fees, the success fee is a set amount that is independent of the party's damages awards.

Contingency fee litigation is most popular in the United States. Under this fee arrangement, clients do not pay the attorney unless the attorney wins the case, and even then the fee amount is often a function of the damages awarded. Although this fee arrangement does shift substantial risk of loss and costs to the attorney, the fee for winning at trial is often significantly greater than the fee under the hourly or fixed rate arrangement.


260. See Emons & Garoupa, supra note 258, at 2 ("Pactum cuota litis is not allowed by the ethical code of the European association of lawyers.").
261. See Maurer et al., supra note 259, at 309.
262. See id. Public policy outlaws fee arrangements proportional to damage awards. See id. at 309-10.
263. See id. at 293.
264. See id.
265. See id. at 304 (suggesting that contingency fee lawyers usually obtain 20%-50% of damages awarded); see also Lester Brickman, On the Relevance of the Admissibility of Scientific Evidence: Tort System Outcomes Are Principally Determined by Lawyers' Rates of Return, 15 CARDOZO L. REV. 1755, 1773 nn.57-60 (1994) (citing hourly rates of return for contingent fee attorneys of $25,000-$50,000 per hour); Geoffrey P. Miller, Some Agency Problems in Settlement, 16 J. LEGAL STUD. 189, 189 (1987) ("The attorney effectively purchases an equity interest in the litigation from the plaintiff, offering his or her future services in exchange for a percentage of the recovery.").
267. See Maurer et al., supra note 259, at 296; Gerald Walpin, America's Failing Civil Justice System: Can We Learn from Other Countries?, 41 N.Y.L. SCH. L. REV. 647, 654 (1997).
and is potentially a propelling factor in the rapid emergence of patent trolls. Despite these problems, contingency fees are a staple of U.S. litigation and would likely face significant resistance if eliminated. Thus, the lesson emerging from this difference may be for the United States to implement a patent-specific limit on contingency fee litigation that would allow for an upscale premium payable upon victory but unrelated to the amount of damages awarded.\textsuperscript{269} Ideally, this change would detract from the motivation of lawyers to take on patent troll cases, as a result increasing up front legal costs for trolls.

3. Overall Litigation Complexity

One last possible explanation for the lack of patent trolls in Europe relative to the United States is the European patent enforcement system as a whole; that is, complex and varying national laws may in themselves scare away the patent trolls.\textsuperscript{270} A troll armed with a European patent can pursue alleged infringers in any of the EPC member countries; but, if the infringement is multinational, to win the infringement war the troll will have to wage several individual litigation battles according to each country’s national laws.\textsuperscript{271} Although, on average, each national battle is less expensive than its equivalent within the United States, cumulatively the cost can add up, especially without the possibility of contingency fee arrangements. Furthermore, without a unifying European patent court, different interpretations of European patent law by national courts have emerged, creating the potential for inconsistent decisions from one country to another.\textsuperscript{272}

If the overall complexity of patent litigation in Europe plays a predominant role in deterring patent trolls, then the United States can learn little from this complexity. The patent enforcement system in the United States is unified, with a singular Federal Court of Appeals addressing all patent appeals from federal district courts, and this system is unlikely to ever change.

Conclusion

Patent trolls continue to take an expansive toll on society by forcing either expensive litigation or exorbitant license fees on legitimate, productive companies. The United States Judiciary, Legislature, and affected businesses have taken some measures to curb troll activity, but to end the patent troll epidemic, they should take significant measures immediately to

\textsuperscript{269} The patent-specific requirement stems from the fact that contingency fee litigation is essential, beneficial, and more efficient than other fee arrangements in other areas of the law, such as tort and personal injury law. See Emons & Garoupa, supra note 258, at 6-17 (modeling the efficiency and necessity of contingency fee litigation).

\textsuperscript{270} See Brennan, supra note 34, § X.C ("This different litigation system may make things difficult for patent trolls with the strategy of taking small amounts of money from many different companies because it is difficult and expensive to deal with a different system in each country.").

\textsuperscript{271} See PRIME, supra note 234, at 176.

\textsuperscript{272} Id. at 217.
begin to rein in these trolls. In doing so, both the Judicial and Legislative Branches should look to the tactics that have been effective in staving away trolls in Europe. In applying lessons from Europe, it is important that changes to the U.S. patent system are either narrowly tailored to target patent trolls or improve the patent system as a whole. Given the difficulty in defining patent trolls, the latter option appears to be best.

Possibly the best lesson learned from comparing the two patent systems—a lesson that has already been embraced by commentators and federal agencies—is that the United States should create a more robust, efficient, and broader opposition procedure that would allow those targeted by patent trolls to challenge the validity of the patent in a cheaper and more expedient manner than civil litigation. Simultaneously, a more substantive opposition procedure will increase the public’s confidence in the patent system and the quality of existing patents. Moreover, the Legislature should implement a form of “loser pays” allotment of litigation costs that imposes financial liability on patent trolls who sue over invalid or overly broad patent claims. If such an opposition procedure exists, trolls will have less leverage against their prey and, as a result, will be incapable of demanding the royalties and awards that they currently collect.