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Fiddling with Federal Circuit Precedent: The Commercial and Qualitative Impact of Recent Supreme Court Reversals on the U.S. Patent System

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Cover Page Footnote

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Fiddling with Federal Circuit Precedent: The Commercial and Qualitative Impact of Recent Supreme Court Reversals on the U.S. Patent System

Christopher J. Hamersky*

Prior to 2006, the Court of Appeals for the Federal Circuit enjoyed a fairly laissez-faire relation with the Supreme Court of the United States, enabling it to develop a patent law jurisprudence that patent practitioners could confidently rely on given that it had remained relatively stable for several decades. However, in 2006, the Supreme Court reviewed eBay v. MercExchange and subsequently began a string of frequent Federal Circuit reversals that have caused significant change to the U.S. patent system. Whereas the Supreme Court rarely took up patent appeals in the Federal Circuit's early history, it now routinely reviews patent questions each term and often reverses Federal Circuit precedent to fundamentally change the patent law jurisprudence.

This Note endeavors to review several of the most impactful decisions from the last two decades of patent law jurisprudence in order to showcase the extent to which prior patent norms were upended. In juxtaposing these highlighted, fundamental changes in U.S. patent jurisprudence against the different protections and

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litigation procedures offered in jurisdictions abroad, this Note stresses the importance of immediate congressional action to rectify an apparent decline in the U.S. patent system and notes what concerns to specifically address in order to repair the system as a whole.

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INTRODUCTION

To say the U.S. patent system has been experiencing some turbulence in the past decade or so would be putting it mildly. Since around 1996, the patent system has experienced increasing numbers of both substantive and procedural shifts¹ that have categorically changed the way patent practitioners and commercial entities operate.² These changes have come from both legislative action³ and judicial decisions,⁴ though it is the latter that is seemingly causing more uncertainty and thus arguably “weakening” the viability of the patent system from a global perspective.⁵ In particular, it is the frequent reversal of Federal Circuit precedent by the Supreme Court that most routinely causes upheavals in the patent system as practitioners know it.⁶

This idea, that the Supreme Court has recently upended patent law, is in no way new. At this point, seemingly all patent practitioners have at some point vocalized their concerns in some capacity as to the significance of these changes and argued over whether the change was warranted.⁷ This is in part because the

¹ See generally *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996) (holding that the terms comprising patent claims are to be determined by a judge, not a jury). Consequently, a *Markman* hearing has become a keystone piece to any patent litigation, thus fundamentally changing the norm of patent disputes in the United States. See

J. Michael Jakes, *Using an Expert at a Markman Hearing: Practical and Tactical Considerations*, FINNEGAN (Aug. 2002), <https://www.finnegan.com/en/insights/using-an-expert-at-a-markman-hearing-practical-and-tactical.html> [<https://perma.cc/9ZM8-AGZJ>] (noting how *Markman* effectively “added ‘Markman’ to [the patent community’s] professional vocabulary and created a new proceeding . . . in patent litigation”).

² This is not to imply that there were no substantive or procedural changes in patent law prior to 1996, only that there was a sharp increase in the frequency of significant changes following *Markman*. See *infra* Sections I, II.a–i.

³ See generally Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.) (changing the U.S. patent system from a first-to-invent to a first-to-file system, altering post-grant opposition actions, and tweaking the timelines on which inventors and their attorneys operate) [hereinafter AIA].

⁴ See *infra* Sections I, II.a–i.

⁵ See *infra* Sections I, II.a–i.

⁶ See *infra* Sections I, II.a–i.

⁷ See generally Darren Smyth, *The IP Kat in Despair—What Is to Be Done When Senior Courts Don’t Understand Novelty?*, IP KAT (May 9, 2013), <https://ipkitten.blogspot.com/2013/05/the-ipkat-in-despair-what-is-to-be-done.html> [<https://perma.cc/5NFF->

Supreme Court very seldom granted certiorari to appeals from the Federal Circuit during the lower court's early history.⁸ Accordingly, the increased scrutiny has fallen squarely on ascertaining the rationale behind the Supreme Court's turbulent patent decisions since 2006.⁹ Said rationale, of course, has proven elusive and thus led to conjecture.

One of the more common reasons speculated is that the Supreme Court Justices just do not understand the subject material coming before them on patent appeals, even if said appeals contain mountains of expert testimony and scientific aids to the layman in grasping the technical details behind a dispute.¹⁰ Consequently, the speculated unfamiliarity with the inventive matters at hand supposedly hinders decision-making because the Justices are seemingly either unable to appreciate the extent to which the parties have invested in the subject material or are unable to sufficiently forecast what ripple effects a contemplated change in patent law would have.¹¹ Although proponents of this reasoning assert that there is clear evidence to support this rationale as the reason behind the recent string of patent decisions from the Supreme Court,¹² there is arguably a more subtle, on-point explanation for the recent series of patent law reversals over the last decade or so: a perceived lack of uniformity and an interest in bringing patent law more in line with the Court's general jurisprudence.

JAAG]; Emma Barraclough, *US Supreme Court Rewrites Rules on Patent Exhaustion*, WIPO (Aug. 2017), https://www.wipo.int/wipo_magazine/en/2017/04/article_0008.html [https://perma.cc/2KNK-M4J8]; Gene Quinn, *Did the Supreme Court Intentionally Destroy the U.S. Patent System?*, IP WATCHDOG (May 22, 2018), <https://www.ipwatchdog.com/2018/05/22/did-the-supreme-court-intentionally-destroy-the-u-s-patent-system/id=97514/> [https://perma.cc/F52C-NBDH].

⁸ See *infra* Section I.b.

⁹ See *infra* Section I.b.

¹⁰ See Quinn, *supra* note 7; David Kline, *Is the Supreme Court Killing Life Science Innovation?*, MICHELSON INST. FOR INTELL. PROP. (Apr. 24, 2017), <https://michelsonip.com/supreme-court-killing-life-science-innovation> [https://perma.cc/2YES-UYEC]; see also *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 596 (2013) (Scalia, J., concurring).

¹¹ See Quinn, *supra* note 7; Kline, *supra* note 10.

¹² See Quinn, *supra* note 7 ("Indeed, we have proof of the folly associated with thinking that the Supreme Court is sufficiently competent to address issues of patent law and technology that are at the heart of American competitiveness.").

The Federal Circuit was created in 1982 in part to streamline patent law disputes given such disputes' focus on science and inventive matters, something the other courts of appeals did not necessarily handle routinely.¹³ The Supreme Court has openly acknowledged this specialization, even asking litigants at oral arguments why the high court should not defer to the specialized court to some degree on patent matters.¹⁴ However, the Supreme Court has also not been above expressing a modicum of reproach should they find the lower court's jurisprudence to be lacking with regard to consistency.¹⁵ Such expressions never quite rise to the level of contempt, but there are several express instances of reproach that would indicate that the Justices are willing to move forward on patent matters with less deference to the Federal Circuit.¹⁶ Consequently, they have since begun granting certiorari to more patent disputes than before and in turn are creating waves for both patent practitioners and the commercial entities heavily interested in a stable patent system.¹⁷

Given the perceived lack of uniformity within the Federal Circuit and continued lack of additional congressional intent with regard to the patent system,¹⁸ the Supreme Court now evidently

¹³ See Rodney F. Page & Ellen E. Sward, *The Federal Courts Improvement Act: A Practitioner's Perspective*, 33 AM. U. L. REV. 385, 387 (1984) ("The Federal Circuit, for example, is a compromise between specialization, which can produce uniformity, and generalization, which can prevent stagnation."); see also Federal Court Improvement Act, Pub. L. No. 97-164, 96 Stat. 25 (1982).

¹⁴ See Transcript of Oral Argument at 9:1-9:5, *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545 (2014) (No. 12-1184) (Chief Justice Roberts asking litigants, "why shouldn't [the Supreme Court] give some deference to the decision of the court that was set up to develop patent law in a uniform way? They have a much better idea than [the Supreme Court] do[es] about the consequences of these fee awards in particular cases.").

¹⁵ See Transcript of Oral Argument at 26:5-26:11, *Highmark Inc. v. Allcare Health Mgmt. Sys.*, 572 U.S. 559 (2014) (No. 12-1163) (Chief Justice Roberts stating that "the Federal Circuit was established to bring about uniformity in patent law, but they seem to have a great deal of disagreement among themselves and are going back and forth in particular cases, in this area specifically, about what the appropriate approach is").

¹⁶ See *id.*; see also *Limelight Networks, Inc. v. Akamai Techs., Inc.*, 572 U.S. 915, 921 (2014) (Justice Alito writing that the Federal Circuit's analysis of a case "fundamentally misunderstands what it means to infringe a [specific type of] patent").

¹⁷ See *infra* Sections I, II.a-i.

¹⁸ Congress's last substantial change to the patent system came in 2011 with the America Invents Act. See AIA, *supra* note 3.

defers to the Federal Circuit only occasionally.¹⁹ More often, the Court instead now reverses Federal Circuit decisions by applying more general legal principles rather than principles developed by the Federal Circuit over several decades to better resolve patent disputes.²⁰ These reversals and departures from the long-term jurisprudence of the Federal Circuit ultimately harm the U.S. patent system as a whole.²¹ By upending what practitioners believe to be well-established Federal Circuit precedent²² that inventors and industries rely on in planning their commercial strategies, the Supreme Court's actions create uncertainty, which inadvertently discourages certain innovation, important investment, and in some cases, may actually divert would-be patentees to alternative jurisdictions like China and Europe.²³

Again, this critique is hardly new.²⁴ What is new, however, is an increased sense of urgency. Aside from multiple annual reports from the U.S. Chamber of Commerce that the overall quality of the U.S. patent system has dropped significantly in recent years,²⁵

¹⁹ See *infra* Sections I, II.a–i.

²⁰ See *infra* Sections I, II.a–i.

²¹ See Kevin Madigan, *An Ever-Weakening Patent System Is Threatening the Future of American Innovation*, CTR. FOR PROTECTION INTELL. PROP. (Apr. 28, 2017), <https://cpip.gmu.edu/2017/04/28/an-ever-weakening-patent-system-is-threatening-the-future-of-american-innovation> [<https://perma.cc/L763-YZ42>]; see also Gene Quinn, *The Top 3 Reasons the U.S. Patent System is in Decline*, IP WATCHDOG (Apr. 26, 2017), <https://www.ipwatchdog.com/2017/04/26/top-3-reasons-u-s-patent-system-decline/id=82571> [<https://perma.cc/G34R-YGWB>]; Paul Morinville & Terry Fokas, *The U.S. Patent System, Not China's IP Policies, Is the Reason Behind America's Decline in Global Competitiveness*, IP WATCHDOG (Mar. 1, 2018), <https://www.ipwatchdog.com/2018/03/01/u-s-patent-system-americas-decline-competitiveness/id=94249> [<https://perma.cc/LV5P-YK4T>].

²² The qualifier “well-established” is used solely to juxtapose a practitioner consensus with the Supreme Court's apparent disagreement that the Federal Circuit jurisprudence is sufficiently uniform. *Cf. supra* notes 14–15 and accompanying text.

²³ See *infra* Section I.b.

²⁴ See sources cited *supra* note 7.

²⁵ See U.S. CHAMBER OF COM., U.S. CHAMBER INTERNATIONAL IP INDEX 117 (2017), http://www.theglobalipcenter.com/wp-content/uploads/2017/02/GIPC_IP_Index_2017_Report.pdf [<https://perma.cc/NG24-DVWX>]; U.S. CHAMBER OF COM., U.S. CHAMBER INTERNATIONAL IP INDEX 35 (2018), http://www.theglobalipcenter.com/wp-content/uploads/2018/02/GIPC_IP_Index_2018.pdf [<https://perma.cc/33Z5-EZ9C>]; U.S. CHAMBER OF COM., U.S. CHAMBER INTERNATIONAL IP INDEX 44 (2019), https://www.theglobalipcenter.com/wp-content/uploads/2019/02/GIPC_IP_Index_2019.pdf [<https://perma.cc/33Z5-EZ9C>].

there is also the undeniable fact that innovators are increasingly turning to foreign jurisdictions to seek patent protection since perceived uncertainty in the U.S. patent system creates sufficient pause to preclude investment.²⁶ Although the current Director of the United States Patent and Trademark Office (“USPTO”), Andrei Iancu, recognizes this issue and has begun acting to correct the decline, his actions as Director are not sufficient alone.²⁷ To reverse the patent system’s decline and restore certainty in the patent law jurisprudence, Congress must enact additional patent reform to make America’s patent system competitive again. Alternatively, the Supreme Court must give Federal Circuit decisions greater deference to prevent additional, significant upheavals of precedent that shock the patent system as a whole; at the very least, the Supreme Court must consider intellectual property (“intellectual property” or “IP”) rights and policy to a greater extent when deciding appeals from the Federal Circuit. Thus, if the Supreme Court more fully considers IP rights and provides greater clarity in its opinions on appeal from the Federal Circuit such that no ambiguities remain, the U.S. patent system would better resist abrupt changes that discourage inventors and minimize any ambiguities that would preclude patent practitioners from offering more concrete advice to clients.

In advocating for a return to stability for the U.S. patent system, this Note follows a three-part rationalization to justify its specific proposed reform. In Part I, this Note explores the roots of the U.S. patent system, the assorted means by which inventions were

ipcenter.com/wp-content/uploads/2019/03/023593_GIPC_IP_Index_2019_Full_04.pdf [https://perma.cc/E47T-ZYMY].

²⁶ See *infra* Section I.b; see also Gene Quinn & Eric Guttag, *SCOTUS Reversals Have Created a Compliant Federal Circuit*, IP WATCHDOG (Dec. 16, 2018), <https://www.ipwatchdog.com/2018/12/16/scotus-reversals-compliant-federal-circuit/id=103948> [https://perma.cc/YXC4-62EW]; William New, *USPTO Anticipates Slight Decline in Patent Filings, Including for PCT*, IP WATCH (Feb. 20, 2018), <https://www.ip-watch.org/2018/02/20/uspto-anticipates-slight-decline-patent-filings-including-pct> [https://perma.cc/M3LT-R3U6]; Morinville & Fokas, *supra* note 21.

²⁷ See James Korenchan, *USPTO Director Addresses U.S. Patent System’s Decline in U.S. Chamber of Commerce Worldwide Patent Projection Rankings*, PATENT DOCS (May 10, 2018), <https://www.patentdocs.org/2018/05/uspto-director-addresses-us-patent-systems-decline-in-us-chamber-of-commerce-worldwide-patent-protec.html> [https://perma.cc/N8C2-MVT5].

reviewed for patent protections, how said patent protections were asserted against infringers as a legal right, and how the advancement of science and inventions necessitated the creation of a new circuit court to better adjudicate patent disputes. Part II delves into several of the most impactful instances of how the Supreme Court in the last fifteen years departed from decades-old precedent, long relied upon by inventors and practitioners of the patent system, which ultimately has weakened the patent system as a whole relative to its foreign counterparts and created unwelcome uncertainty amongst those already heavily invested in the U.S. system. Finally, Part III proposes two separate solutions to repair the U.S. patent system's competitiveness: one involves targeted legislation directly addressing individual concerns about the patent system's decline while the other entails a plea to the judiciary to minimize existing concerns without relying on active participation from Congress.

I. PATENTS IN REVIEW

A. *Patent Fundamentals and the Industries That Rely on Them*

Though there are numerous treatises that review the basics of the U.S. patent system, an excellent summary is conveniently provided by Justice Tom Clark in the Supreme Court's 1966 decision, *Graham v. John Deere Co.*²⁸ As expressly written into the Constitution, Congress is authorized to "promote the Progress of . . . useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their . . . Discoveries."²⁹ In creating a patent system, Congress sought to spur innovation and discovery by incentivizing the public to create or discover new and useful machinery, compounds, or methods, deemed "useful arts."³⁰ The incentive lies in Congress's grant of a patent, itself a set of exclusive property rights conveyed to the inventor that rewards the inventor for the discovery by permitting an effective monopoly on

²⁸ 383 U.S. 1 (1966).

²⁹ *See id.* at 5 (citing U.S. CONST. art. I, § 8, cl. 8).

³⁰ *See id.*; *see also* 35 U.S.C. § 101 (1952); U.S. PAT. & TRADEMARK OFF., *General Information Concerning Patents* (Oct. 2015), <https://www.uspto.gov/patents-getting-started/general-information-concerning-patents> [<https://perma.cc/KL6T-FHMF>].

the discovered invention for a set amount of time, thus allowing the inventor to reap financial gains in exchange for informing the public about the new and useful technology.³¹

Today, patent rights are generally articulated as the right to exclude other people or entities from doing something with the patent technology, whether that exclusion is a use, sale, or manufacture of the patented technology, but the overall premise remains the same, albeit for a term of twenty years today.³² At the core of the system was the idea that “[i]nnovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system which by constitutional command must ‘promote the Progress of . . . useful Arts.’”³³ It was the line about “useful knowledge” that bothered Thomas Jefferson, who articulated a concern that was somewhat prophetic as that prong has ultimately proven to be one of the most contested aspects of today’s patent debate.³⁴

When Congress first implemented a patent system by creating the first iteration of the USPTO with the Patent Act of 1790,³⁵ it was placed within the Department of State and was to be headed by Jefferson, the Secretary of State at the time, as well as the Secretary of War and the Attorney General, collectively referred to as the “Commissioners for the Promotion of Useful Arts.”³⁶ An applicant could secure a patent by convincing two of the three commissioners that their invention or discovery constituted a “useful art, manufacture, . . . or device, or any improvement therein not before known or used”³⁷ Jefferson, an inventor himself, was skeptical about what would constitute useful art, not wanting timed monopolies to be granted to inventors of “small details, obvious improvements, or frivolous devices.”³⁸ Because he believed that

³¹ See *Graham*, 383 U.S. at 5–6; see also *General Information Concerning Patents*, *supra* note 30.

³² See 35 U.S.C. § 154(a)(1) (1952); see also *General Information Concerning Patents*, *supra* note 30.

³³ See *Graham*, 383 U.S. at 6.

³⁴ See *id.* at 9; see also *infra* Section I.c, f.

³⁵ See Patent Act of 1790, ch. 7, 1 Stat. 109-112 (1790).

³⁶ See *Graham*, 383 U.S. at 7.

³⁷ *Id.* at 6–7.

³⁸ See *id.* at 9.

inventors should be entitled to some benefit for contributing to the public knowledge, he tempered his concern by deciding that patents should be granted pursuant to a high bar of patentability.³⁹ Jefferson recognized that in doing so, the Patent Office would need to articulate “a line between the things which are worth to the public . . . an exclusive patent, and those which are not,”⁴⁰ thus foreshadowing the critical, modern issue of patent eligibility.

In 1952, the patent system was revised to consider novelty, utility, and nonobviousness as part of the patent eligibility formulation.⁴¹ It should not come as a surprise that analysis of these elements was difficult at times, especially within the scientific fields that patents are often associated with, such as pharmaceuticals, engineering, and chemical compounds. Courts would, for example, have to consider what might be obvious or novel about a particular synthesized biochemical molecule. At least one of the above elements, obviousness, is considered in light of what a person having ordinary skill in the art (also referred to as PHOSITA), a legal fiction similar to the reasonably prudent man from torts, might know.⁴² If patent eligibility was therefore being determined in part by standards that on their face could seem a bit nebulous, some degree of variation among the regional courts of appeals would be expected, in addition to the further variation expected from the more numerous district judges considering each element at the trial level.

In this pre-Federal Circuit version of the U.S. patent system, the strength and value of this exclusive property right, bestowed by the federal government, often based on relatively technical art, and judged by something of an abstract standard, would consequently vary depending on the circuit in which the property right was being asserted.⁴³ There simply existed a “notorious difference between

³⁹ See *id.* at 8–9.

⁴⁰ See *id.* at 9.

⁴¹ See *id.* at 12; see also 35 U.S.C. §§ 101–103 (1952).

⁴² See 35 U.S.C. § 103; U.S. PAT. & TRADEMARK OFF., *2141 Examination Guidelines for Determining Obviousness Under 35 U.S.C. § 103 [R-08.2017]* (Jan. 24, 2018), <https://www.uspto.gov/web/offices/pac/mpep/s2141.html> [https://perma.cc/QK2V-JDET].

⁴³ See George C. Beighley, Jr., *The Court of Appeals for the Federal Circuit: Has It Fulfilled Congressional Expectations?*, 21 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.*

the standards applied by the Patent Office and by the [regional circuit] courts”⁴⁴ and it needed to be corrected if uniformity for a nationally recognized right was to be established. A fact-finding commission was subsequently ordered to devise possible courses of action.⁴⁵ Given the public’s fear of a specialized appellate court taking too much control over a particular jurisprudence, one commission member proposed that they overcome the hostility with a merger of the Court of Claims and the Court of Customs and Patent Appeals.⁴⁶ These Courts already handled numerous patent cases while retaining jurisdiction over subject matters as well, so the contention was that they would be perfect tribunals for the assignment of patent matters.⁴⁷ This proposal gained traction and eventually emerged as the core of the Federal Courts Improvement Act of 1982.⁴⁸

The formation of the Federal Circuit would prove a boon for the patent law community by designating a single circuit to consolidate the jurisprudences of the assorted regional courts and beginning the construction of uniform patent law precedent for practitioners to follow. Assisting in this task was a relatively *laissez-faire* Supreme Court.⁴⁹ For the first fifteen years of the new court’s existence, the Supreme Court reviewed fewer than ten Federal Circuit decisions,⁵⁰ allowing the new expert court to develop its new unified jurisprudence with minimal intrusion.

671, 677–78, 680 (2011); *see also, e.g., Reports of the Committee on Patents*, N.Y.C. BAR 2 (July 2015), https://www2.nycbar.org/pdf/report/uploads/20072952-SHOULD_PATENT_JURISDICTION_BE_REMOVED_FROM_THE_JURISDICTION_OF_THE_FEDERAL_CIRCUIT_AND_RETURNED_TO_REGIONAL_COURTS_OF_APPEAL.pdf [<https://perma.cc/H4V5-DLR8>] [hereinafter NYC Bar Report].

⁴⁴ *See* NYC Bar Report, *supra* note 43, at 2 (citing *Graham*, 383 U.S. at 18).

⁴⁵ *See* Beighley Jr., *supra* note 43, at 683–89.

⁴⁶ *See id.* at 689–90.

⁴⁷ *See id.*

⁴⁸ *See id.* at 690, 699; *see also History of the United States Court of Appeals for the Federal Circuit*, FED. CIR. HIST. SOC’Y, <https://federalcircuithistoricalsociety.org/history/ofcourt.html> [<https://perma.cc/3HP3-GH5E>].

⁴⁹ *See* Roy Hofer, *Supreme Court Reversal Rates: Evaluating the Federal Courts of Appeals*, AM. BAR n.13 (Jan. 2010), https://www.americanbar.org/content/dam/aba/migrated/intelprop/magazine/LandslideJan2010_Hofer.authcheckdam.pdf [<https://perma.cc/D646-6GFZ>].

⁵⁰ *See id.*

Arguably the greatest beneficiaries from this new court and its stable jurisprudence were innovators in what are generally thought of as patent intensive industries: fields that rely heavily on proprietary products and designs to effectively compete such as computer hardware, electronic components, and pharmaceuticals.⁵¹ In the present day, these industries have approximate global market values of \$370 billion,⁵² \$332 billion,⁵³ and \$934 billion,⁵⁴ respectively. Because their intellectual property could very well be freely misappropriated, entities in these patent-intensive fields would likely not be able to compete as effectively without a potent patent system with which to safeguard their proprietary information, and the entities themselves would then be arguably less incentivized to innovate.⁵⁵

The Federal Circuit proceeded to also simplify several of the standards and tests governing patent law within their new, uniform jurisprudence. By drawing up bright-line rules for patent cases, the Federal Circuit could simplify patent litigation for district courts

⁵¹ See U.S. PAT. & TRADEMARK OFF., INTELLECTUAL PROPERTY AND THE U.S. ECONOMY INDUSTRIES IN FOCUS 8 (Mar. 2012), https://www.uspto.gov/sites/default/files/news/publications/IP_Report_March_2012.pdf [<https://perma.cc/7Z89-8PJA>].

⁵² *Computer Hardware Global Market Report 2019*, BUS. RES. CO. (Jan. 2019), <https://www.thebusinessresearchcompany.com/report/computer-hardware-global-market-report> [<https://perma.cc/8P4K-5TEP>].

⁵³ *Active Electronic Components 2018 Global Market Net Worth US \$332.20 Billion Forecast by 2022*, MKT. WATCH (Dec. 10, 2018, 11:17 AM), <https://www.marketwatch.com/press-release/active-electronic-components-2018-global-market-net-worth-us-33220-billion-forecast-by-2022-2018-12-10> [<https://perma.cc/8D4G-27P2>].

⁵⁴ *The Growing Pharmaceutical Market: Expert Forecasts and Analysis*, MKT. RES. (May 16, 2018), <https://blog.marketresearch.com/the-growing-pharmaceuticals-market-expert-forecasts-and-analysis> [<https://perma.cc/9H9D-GC7A>].

⁵⁵ Though there is some disagreement as to the thinking that the granting of property rights promotes innovation, there is adequate analysis to suggest the general axiom is true. See generally Zorina Khan & Kenneth Sokoloff, *Schemes of Practical Utility: Entrepreneurship and Innovation Among “Great Investors” in the United States, 1790–1865*, NAT’L BUREAU ECON. RES. (1992); see also FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY (2003), available at <https://www.ftc.gov/sites/default/files/documents/reports/promote-innovation-proper-balance-competition-and-patent-law-and-policy/innovationrpt.pdf> [<https://perma.cc/X57W-YX3L>]; David Kline, *Do Patents Really Promote Innovation?*, MICHELSON INST. FOR INTELL. PROP. (Apr. 24, 2017), <https://michelsonip.com/patents-really-promote-innovation/> [<https://perma.cc/ZMC6-RVHD>].

by making legal determinations more straightforward.⁵⁶ The Federal Circuit therein began cementing the norms of patent litigation procedure in such a way that patent holders could be more confident in the validity of their patent, not having to worry as much about uncertainty within the law later invalidating said patent.⁵⁷

This was particularly useful with regard to patent eligibility. Arguably one of the most important issues when discussing the prevailing uncertainties in patent law, eligibility is the very basis upon which a petitioner can procure a patent.⁵⁸ Just as Thomas Jefferson was concerned about what type of high bar of patentability should apply in the early days of the Republic,⁵⁹ patent applicants today still consider the very same question.⁶⁰ After the creation of the Federal Circuit, patent applicants could breathe a little easier knowing that interpretation of the critical patent eligibility statute was left to a single circuit centered around the idea of patent specialization. Consequently, until 1997, the Federal Circuit seemed well-grounded and patent precedent was sufficiently stable.⁶¹

B. The Supreme Court's Newfound Interest and Effect of Its Reversals

The second fifteen years of the Federal Circuit's existence, however, saw a sharp reversal in the relatively minimal oversight that the specialized appellate court had so far enjoyed. In contrast to the Federal Circuit's early years, the fifteen year period between 1997 and 2012 saw roughly twenty patent cases taken up by the Supreme Court, three times what was reviewed between 1982 and

⁵⁶ See Steven Seidenburg, *Tug-of-War Over Interpretations of Patent Law Continues Between Federal Circuit and SCOTUS*, ABA J. (Jan. 1, 2016, 3:00 AM), http://www.abajournal.com/magazine/article/tug_of_war_over_interpretations_of_patent_law_continues_between_federal [<https://perma.cc/B377-HLAN>]; see also David Forman, *Why Does the U.S. Supreme Court Keep Reversing the Federal Circuit?*, OSHA LIANG (Mar. 31, 2017), <https://oshaliang.com/newsletter/why-does-the-u-s-supreme-court-keep-reversing-the-federal-circuit/> [<https://perma.cc/9ZX4-C7TW>].

⁵⁷ See generally sources cited *supra* note 56.

⁵⁸ See generally 34 U.S.C. § 101 (1952).

⁵⁹ See *Graham v. John Deere Co.*, 383 U.S. 1, 8–9 (1966).

⁶⁰ See *infra* Sections II.d–e.

⁶¹ See *infra* Section I.b.

1997.⁶² While the Court had seemingly left the Federal Circuit alone in the early years to develop its technical acumen and create uniformity in the patent law, the Supreme Court's frequent interpretation in patent cases between 1997 and 2012 reflects a concern that the lower court had gone too far in specializing the law and strayed away from the general principles that govern all law.⁶³ One could look at such a reaction as an attempt to meld the general body of law and its focus on justice and equity with the clear, specific principles of Federal Circuit jurisprudence developed to emphasize certainty over traditional equity.

As mentioned previously, since 1997, the Supreme Court has steadily taken on more appeals from the Federal Circuit.⁶⁴ Although the proportionally smaller Federal Circuit reviews only a slight fraction of all the federal appeal filings in the nation—1,528 cases or 2.98% of all federal appeal filings in 2017—its decisions are more frequently taking up a larger, disproportionate amount of space on the Supreme Court's docket.⁶⁵ In 2016, appeals from the Federal Circuit comprised 14% of the high court's docket.⁶⁶ The clear takeaway is that the Supreme Court is now willing to be more hands-on with the Federal Circuit.

This newfound willingness to review patent decisions more frequently and to bring patent jurisprudence in line with the general law has consequently led to numerous important tenets of patent law being reversed⁶⁷ and, in turn, weakening the patent system.⁶⁸ This includes issues such as patent eligibility, the fundamental right to exclude, the strength of patent rights overseas, and

⁶² See Lisa Larrimore Ouellette, Michael Risch & Camilla Hrady, *Supreme Court Patent Cases*, WRITTEN DESCRIPTION, <https://writtendescription.blogspot.com/p/patents-scotus.html> [<https://perma.cc/4WZK-LSSV>].

⁶³ See Seidenburg, *supra* note 56; see also Andrew Chung, *Supreme Court and Top Patent Court Rarely See Eye to Eye*, REUTERS (June 19, 2017), <https://www.reuters.com/article/us-usa-court-patents/supreme-court-and-top-patent-court-rarely-see-eye-to-eye-idUSKBN19A34I> [<https://perma.cc/CM8J-V9E9>].

⁶⁴ See Adam Feldman, *Empirical SCOTUS: The Heightened Importance of the Federal Circuit*, SCOTUSBLOG (Dec. 13, 2018), <https://www.scotusblog.com/2018/12/empirical-scotus-the-heightened-importance-of-the-federal-circuit/> [<https://perma.cc/N5J7-EQGW>].

⁶⁵ See *id.*

⁶⁶ See *id.*

⁶⁷ See generally *infra* Section III.

⁶⁸ See generally *infra* Section III.

more.⁶⁹ This conclusion that the system is weakening is also not one reached solely by practitioners, but by former judicial figures as well. Former Chief Judge Paul Michel of the Federal Circuit, who retired in 2010, reflected that the “patent system has been weakened, and as far as [I am] concerned the Supreme Court is unaware of that.”⁷⁰

This trend of reversals and subsequent weakening of the overall system has in fact benefited some parties, particularly companies that are frequent targets of non-practicing entities⁷¹—colloquially known as “patent trolls.”⁷² Judge Michel opined that American commerce as a whole is bound to be negatively impacted by this trend, resulting in the diminished certainty of patent rights, in turn leading to hesitancy in further investment, scaled back research, and reduced innovation,⁷³ a prediction that has more or less already come to fruition.⁷⁴

The Global Innovation Policy Center (“GIPC”), a self-reported affiliate of the U.S. Chamber of Commerce,⁷⁵ began releasing annual assessments of IP law in the United States relative to foreign nations in 2012.⁷⁶ In its 2016 edition, the United States was tied for first place with regard to the overall quality of its patent

⁶⁹ See generally *infra* Section III.

⁷⁰ Chung, *supra* note 63.

⁷¹ See *id.*

⁷² The term “patent troll” generally refers to a person or commercial entity that holds one or more patents, but engages in very little, if any, actual commerce with it. See Dennis Crouch, *What Is a Patent Troll and Why Are They Bad?*, PATENTLYO (Mar. 6, 2009), <https://patentlyo.com/patent/2009/03/what-is-a-troll-patent-and-why-are-they-bad.html> [<https://perma.cc/WA8Q-XHJ3>]. The troll instead asserts the patent(s) against other commercial entities who often are not infringing directly or even at all with the goal of negotiating a license agreement. See *id.* The size of the entity the trolls makes assertions against and the degree to which the patent invention is a part of the larger entity’s business are significant factors in a troll’s decision of who to assert the patent against. See *id.*

⁷³ See Chung, *supra* note 63.

⁷⁴ See sources cited *supra* note 25 (confirming the general, downward trend of the U.S. patent system as diminishing in strength and quality relative to foreign jurisdictions).

⁷⁵ *Global Innovation Policy Center*, GIPC, <https://www.theglobalipcenter.com/> [<https://perma.cc/62NR-LVXX>].

⁷⁶ See generally *Global Innovation Policy Index*, KAUFMAN FOUND. (Mar. 2012), http://www2.itif.org/2012-global-innovation-policy-index.pdf?_ga=2.92510557.175042246.1570140631-1533524264.1570140631 [<https://perma.cc/XK3H-ZX39>].

system, scoring 6.5 out of a possible 7 points, along with the United Kingdom (“UK”), Switzerland, Sweden, Singapore, Germany, and France.⁷⁷ However, the GIPC’s assessment of the U.S. patent system fell to tenth place in 2017 by scoring 7 points out of a possible 8, tying with Hungary.⁷⁸ It subsequently fell again in 2018 to twelfth place, tying Italy with 7.25 out of a possible 8.⁷⁹ In reviewing this subjective ranking, it is worth noting that although other publications have questioned the GIPC’s methodology as flawed by utilizing vague criteria to convey a narrative desired by a special interest group to justify patent reform,⁸⁰ it remains useful in at least illustrating the global IP stage in the aggregate. From this perspective, one can identify the underlying areas of the U.S. patent system that have declined in quality as a forum to assert IP rights relative to other nations.⁸¹

China, as an example, has seemingly embraced several areas of patentable material that the United States has avoided in granting patents, such as software and business method patents.⁸² By combining this broader scope of patentability, a 90% probability of a patent owner securing injunctive relief in an infringement case where there has been a finding of infringement,⁸³ and a specialized, fast-tracked court specifically for patents,⁸⁴ it is understandable that China is growing into a hotbed for innovation. Whereas an av-

⁷⁷ See U.S. CHAMBER OF COM., U.S. CHAMBER INTERNATIONAL IP INDEX27 (2016), https://www.theglobalipcenter.com/wp-content/uploads/2017/04/GIPC_Index_Report_2016.pdf [<https://perma.cc/HCB4-8B8Q>].

⁷⁸ See 2017 IP INDEX, *supra* note 25, at 117.

⁷⁹ See 2018 IP INDEX, *supra* note 25, at 35.

⁸⁰ See Richard Lloyd, *IP Index Showing Decline in the US Patent System Lacks Credibility, Claims Unified COO*, IAM (June 8, 2018), <https://www.iam-media.com/law-policy/ip-index-showing-decline-us-patent-system-lacks-credibility-claims-unified-coo> [<https://perma.cc/NZA8-UMCT>].

⁸¹ See generally Quinn, *supra* note 7; New, *supra* note 26 (wherein the Secretariat of the World Intellectual Property Organization found the United States to still be the world leader in IP law, but suffering a decline in its overall scores from the previous year); Gene Quinn, *Iancu: USPTO Guidance Gets 101 Right; Time for Courts to Follow Suit*, IP WATCHDOG (May 7, 2019), <https://www.ipwatchdog.com/2019/05/07/iancu-uspto-guidance-gets-101-right-time-courts-follow-suit/id=109015/> [<https://perma.cc/WSL2-SJE7>][hereinafter Quinn, *Iancu*].

⁸² See Madigan, *supra* note 21.

⁸³ See *id.*

⁸⁴ See Morinville & Fokas, *supra* note 21.

erage patent litigation case in the United States can often cost over \$3 million over the course of five or more years, the specialized patent courts in China can resolve a dispute for around \$200,000 in less than a year.⁸⁵

Even though American companies are on record as disliking how disputes in China often require a transfer of patent rights to their Chinese affiliates, it is arguably worthwhile given that injunctive relief was granted in approximately 100% of patent infringement actions filed in China by foreign firms when there was a finding of infringement as opposed to patent litigation in the United States where infringement is far more likely to be met with only a compulsory licensing fee.⁸⁶ Accordingly, while China reaps the benefits of this attractive patent venue, the continued weakening of the U.S. system has resulted in a reported 62% decrease in venture capital investments.⁸⁷

To offer one additional point of reference as to a measure of a patent system's strength, a brief look at the European continent is in order. The European Union ("EU"), the political bloc of more than two dozen European countries which include some of the world's largest commercial markets like Germany and France, is in the process of implementing a Unified Patent Court ("UPC"), a forum wherein litigants can assert claims from patents granted by the European Patent Office in a common court with jurisdiction over all Member States.⁸⁸ Meant to preside over all EU patent disputes with a uniform jurisprudence of law and comparatively easy access to injunctive relief with the means to efficiently enforce rulings across the bloc,⁸⁹ a constitutional challenge in Germany is the only remaining impediment to the UPC's implementation.⁹⁰

⁸⁵ *See id.*

⁸⁶ *See id.*

⁸⁷ *See id.*

⁸⁸ *See generally* Agreement on a Unified Patent Court 20 June 2013, 2013 O.J. (C 175), <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2013:175:0001:0040:EN:PDF> [<https://perma.cc/SZ8E-T674>].

⁸⁹ *See generally id.*

⁹⁰ *See* Vincent Look, *What to Know in the Lead-Up to Brexit and the Unitary Patent System*, IP WATCHDOG (Apr. 10, 2019), <https://www.ipwatchdog.com/2019/04/10/know-lead-brexit-unitary-patent-system/id=108135/> [<https://perma.cc/T4ME-23RW>].

Although the departure of the UK from the bloc on January 31, 2020 pursuant to the Brexit Withdrawal Agreement⁹¹ could also complicate implementation, the UK had already ratified the UPC agreement in April 2018.⁹² Since then, the UK has not expressly indicated any intent to withdraw, a stance that head of the Preparatory Committee for the UPC Alexander Ramsay sees as permitting the implementation of the UPC with the UK as a contracting state under treaty law, not EU law.⁹³ Should that eventuality occur, a favorable decision from the German constitutional court would thereby pave the way for a single forum in which to address patent disputes across a massive geographical market and in a far more efficient manner than the U.S. system in its current state. Taken in the aggregate, these streamlined procedures and specialized venues present further evidence that the U.S. patent system is becoming less efficient and desirable for enforcing patent rights.⁹⁴

⁹¹ See Jill Lawless, *After Brexit: UK Leaves EU but What's Next Far from Certain*, ASSOC. PRESS (Jan. 31, 2020), <https://apnews.com/d0a718b09516c6610746773e7a4bcfd3> [https://perma.cc/YQ58-RJVH].

⁹² See Alan Johnson, *UK Ratifies the UPC Agreement*, BRISTOWS (Apr. 26, 2018), <https://www.bristowsupc.com/latest-news/uk-ratifies-the-upc-agreement> [https://perma.cc/4W8L-EYTH].

⁹³ See *Unified Patent Court Could Start in Early 2021—With UK*, PATENT- UND RECHTSANWALTSKANZLEI (Dec. 2, 2019), <https://legal-patent.com/patent-law/unified-patent-court-could-start-in-early-2021-with-uk/> [https://perma.cc/4QJJ-7GF5]; see also Amy Sandys, *The UPC Will Be Operational in Early 2021*, JUVE-PATENT (Nov. 28, 2019), <https://www.juve-patent.com/news-and-stories/people-and-business/the-upc-will-be-operational-in-early-2021/> [https://perma.cc/86M8-WFTP].

⁹⁴ In the week immediately prior to this Note's publication, well after it had originally been drafted, the United Kingdom reversed its intention of participating in the UPC system following Brexit. The UK formally left the EU on January 31, 2020, pursuant to the recently passed Brexit Withdrawal Agreement, and soon thereafter published on February 27, 2020 a series of guidelines it intended to utilize during its negotiations with the EU to establish post-Brexit relations. See OFFICE OF THE PRIME MINISTER, *THE FUTURE RELATIONSHIP WITH THE EU*, CP211, ¶¶ 1–3 (UK). In particular, the British government stated that it would “not agree to any obligation for [UK] laws to be aligned with the EU’s, or for the EU’s institutions, including the Court of Justice, to have any jurisdiction in the UK.” See *id.* at ¶ 5. A spokesman for the British government later confirmed that “the UK [would] not be seeking involvement in the [UPC] system” as doing so would be “inconsistent with [the government’s] aims of becoming an independent self-governing nation.” See Joff Wild, *The UK Will Not Be Part of the UPC, Government Confirms to IAM*, INTELLECTUAL ASSET MGMT. (Feb. 27, 2020), <https://www.iammedia.com/law-policy/uk-no-upc> [https://perma.cc/7S3Y-HACP]. Although this recent reversal leaves the future of the UPC in question, it does not

It is therefore clear that there are other attractive forums around the world besides the United States in which global innovators can invest, not only with relatively more efficient venues in which to address disputes, but also with a higher probability of a favorable outcome. The increasing appeal of these forums abroad will only continue to surpass that of the United States so long as the U.S. patent system remains mired in uncertainty and precedent reversals. To counteract this detracting force and reassert confidence in the U.S. system, it becomes imperative to craft remedial measures that fully address the current disagreements in jurisprudence between the Supreme Court and the Federal Circuit since these disputes give rise to legal uncertainty, undermining the U.S. patent system as a whole.

II. PATENTLY SHOCKING CHANGES

Although all Supreme Court decisions on patent law by nature will invariably have an impact on the patent system, some cases in particular produce more dynamic changes than others. The following cases, chosen to illustrate key changes in patent law, demonstrate instances since 1997 when the Supreme Court reversed a decision of the Federal Circuit and caused a shift in the practice of patent law severe enough that it ultimately influenced overall commercial strategy in the United States. In selecting these specific patent cases from the high court, this Note focuses on decisions that altered a critical part of U.S. patent litigation, commercial ownership, or the fundamental concept of patentability.

A. The Right to Exclude Is Significantly Impaired—eBay (2006)

Arguably the first case since the inception of the Federal Circuit to really upend U.S. patent jurisprudence and diminish confidence therein, *eBay Inc. v. MercExchange, LLC*⁹⁵ altered the fun-

diminish the reality that implementation of this unified court, which would permit the uniform adjudication of patent claims across dozens of countries with more efficient remedies, was arguably imminent and only disrupted on account of wider trade negotiations. Accordingly, this recent setback should not be seen as diminishing the importance of the U.S. patent system's decline.

⁹⁵ 547 U.S. 388 (2006).

damental ability of a patent holder to exclude others from using patented material by discarding the Federal Circuit's liberal grants of injunctive relief and replacing it instead with the traditional four-factor test of equity used in injunction disputes outside of patent law.⁹⁶

The case began when MercExchange, a non-practicing entity, retained a portfolio of patents and asserted several against eBay, a well-known online auction site that allows users to sell and buy goods amongst each other.⁹⁷ One of the asserted patents was U.S. Patent No. 5,845,265, a business method patent covering the consignment of goods in a computerized market, a key aspect of eBay's platform.⁹⁸ A jury trial subsequently found the patent valid and that eBay had infringed it, whereupon the district court judge granted an award of damages but denied MercExchange's request for injunctive relief.⁹⁹ On appeal, the Federal Circuit reversed the district court, stating that "the general rule is that a permanent injunction will issue once infringement and validity have been adjudged" since the "right to exclude recognized in a patent is but the essence of the concept of property," and in fact cited its own sixteen-year-old precedent to further emphasize the existence of the general rule.¹⁰⁰ The Federal Circuit acknowledged that the public interest or other compelling reasons could justify a trial judge exercising discretion within the bounds of 35 U.S.C. § 283 and denying permanent injunction relief, but found no such reason to do so in the *eBay* dispute.¹⁰¹

On review, the Supreme Court evaluated and discarded this bright-line test, explaining that neither the district court nor the Federal Circuit properly applied "traditional equitable principles"

⁹⁶ See *id.* at 393–94.

⁹⁷ See *id.* at 390.

⁹⁸ See *id.*; see also U.S. Patent No. 5,845,265.

⁹⁹ *eBay*, 547 U.S. at 390–91.

¹⁰⁰ See *MercExchange, LLC v. eBay, Inc.*, 401 F.3d 1323, 1338 (Fed. Cir. 2005) (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1246–47 (Fed. Cir. 1989)).

¹⁰¹ See *eBay*, 547 U.S. at 393–94 (citing *MercExchange*, 401 F.3d at 1339); see also 35 U.S.C. § 283 (1952) ("Injunction—The several courts having jurisdiction of cases under this title [35 U.S.C. § 1 *et seq.*] may grant injunctions in accordance with the principles of equity to prevent the violation of any right secured by patent, on such terms as the court deems reasonable.") (emphasis added).

by considering whether “(1) [the plaintiff] 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.”¹⁰² In overruling the Federal Circuit’s general rule of granting permanent injunctions liberally, the Supreme Court inherently diminished one of the most fundamental aspects of a patent holder’s rights: the ability to exclude.

By firmly tying a district court’s ability to grant injunctive relief to the traditional four-factor test, the commonly perceived adequacy of monetary damages to remedy infringement routinely precludes permanent injunctive relief.¹⁰³ Moreover, the availability and relatively straightforward calculations of monetary damages in such cases, often where businesses keep extensive records of financial figures and have already considered licensing terms internally, has effectively created what is in some ways a compulsory licensing system.¹⁰⁴ For example, if half of a company’s business depends on an infringed patent, then half of that company’s revenue could be awarded as adequate damages. While this relief may satisfy ordinary notions of equity, the patent owner’s fundamental right to exclude has still been severely abridged.

¹⁰² See *MercExchange*, 547 U.S. at 391, 393. Further, the Supreme Court commented on the lower court’s remarks about a party’s “lack of commercial activity in practicing the patents” and found that such a factor may be used in consideration of the four-factor test[] but is not dispositive alone. *Id.* at 393.

¹⁰³ Compare *S.O.I.TEC Silicon On Insulator Techs., S.A. v. MEMC Elec. Materials, Inc.*, 2011 U.S. Dist. LEXIS 76169 (D. Del. July 13, 2011) (wherein injunctive relief was denied upon finding total damages could conceivably be satisfied with monetary damages), with *Evonik Degussa GmbH v. Materia, Inc.*, 2017 U.S. Dist. LEXIS 126909 (D. Del. Aug. 9, 2017) (granting injunctive relief where a competitive relationship between the parties and an absolute unwillingness to license the subject patent satisfied the *eBay* test).

¹⁰⁴ See R. David Donoghue *Will eBay v. MercExchange Lead to Compulsory Licensing?*, CHI. IP LITIG. (Jan. 21, 2008), <https://www.chicagoplitigation.com/2008/01/will-ebay-v-mercexchange-lead-to-compulsory-licensing/> [https://perma.cc/GE2T-MJYF].

As noted already,¹⁰⁵ a U.S. patent at its core is a grant of exclusive property rights from the U.S. government in exchange for innovation that benefits the public; of these property rights, the most important right is the right to exclude in order to effectuate the temporary monopoly that the Founders originally intended.¹⁰⁶ In restricting a patentee's ability to exclude, the Supreme Court took the first step in weakening the U.S. patent system by severely hampering access to a remedy integral to the fundamental benefit that incentivizes so many innovators and inventors to seek a patent in the first place.¹⁰⁷ This shortfall is made all the more glaring in light of foreign jurisdictions now promoting easier access to the same remedy.¹⁰⁸ Consequently, *eBay* is viewed by many as the first of many recent harmful decisions by the high court.¹⁰⁹

B. Predictability Bleeds into the Test for Obviousness—KSR (2007)

The next major shock to the U.S. patent system came a year after *eBay*, when the Supreme Court took up review of *KSR International Co. v. Teleflex Inc.*,¹¹⁰ a case involving obviousness. In this dispute, Teleflex was the holder of U.S. Patent No. 6,237,565 B1, an adjustable pedal assembly with electronic throttle control.¹¹¹ The patent invention comprised an adjustable automobile pedal with a mounted electronic sensor that fed data about the pedal's position to a processor that controlled the throttle of a vehicle's engine.¹¹² Teleflex asserted this patent against its competitor KSR whose pedal Teleflex believed to infringe its patent.¹¹³ Arguing that Teleflex's patent was merely the combination of two pieces of prior art, one comprising an adjustable pedal and another com-

¹⁰⁵ See *supra* notes 29–34 and accompanying text.

¹⁰⁶ See *Graham v. John Deere Co.*, 383 U.S. 1, 5–6 (1966).

¹⁰⁷ See *supra* Section I.b.

¹⁰⁸ See *supra* Section I.b.

¹⁰⁹ See Gene Quinn, *Seeds of Demise Were Sown When SCOTUS Removed Exclusivity from the Patent Bargain*, IP WATCHDOG (Sept. 19, 2018), <https://www.ipwatchdog.com/2018/09/19/seeds-demise-scotus-removed-exclusivity-patent-bargain/id=101492/> [<https://perma.cc/Z4HN-94EQ>].

¹¹⁰ 550 U.S. 398 (2007).

¹¹¹ See *id.* at 405–06; see also U.S. Patent No. 6,237,565 B1.

¹¹² See *KSR*, 550 U.S. at 406.

¹¹³ See *id.* at 411–12.

prising a means of mounting a sensor atop a pedal, KSR disputed this alleged infringement.¹¹⁴

At trial, the district court granted summary judgment for KSR and followed the test for obviousness laid out in *Graham*¹¹⁵ to find that Teleflex's patent was indeed a simple combination of the prior art.¹¹⁶ The district court proceeded to then utilize the teaching-suggestion-motivation ("TSM") test required by Federal Circuit precedent wherein validity is determined based on whether there existed any suggestion or motivation to combine prior art into the present invention.¹¹⁷ Although the district court found that the prior art offered sufficient motivation to combine prior elements into the present claim, the Federal Circuit later reversed the grant of summary judgment and held that the TSM test was improperly applied because the district court had failed to make specific findings as to any suggestion or motivation to attach a sensor to a pedal.¹¹⁸

The Supreme Court, on review, again reversed the Federal Circuit, this time ruling that the Federal Circuit had placed too much emphasis on the TSM test and that a narrow application of the test was incongruous with the high court's precedent in *Graham*.¹¹⁹ In applying the TSM test in such a rigid manner, the Federal Circuit had apparently omitted the emphasis on a "functional approach" as stated in *Graham*.¹²⁰ Though the Court's ultimate ruling on the matter of obviousness more or less reiterated what *Graham* had set forth fifty years prior,¹²¹ it also constituted an apparent admonition of the Federal Circuit's preference for bright-line rules. No longer would obviousness rely on a singular test, but would now instead be considered in light of numerous rationales, later articulated in

¹¹⁴ *See id.*

¹¹⁵ *See Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (requiring courts determining obviousness to consider (1) the scope and content of the prior art; (2) the differences between the present invention and the prior art; and (3) the level of ordinary skill in the art).

¹¹⁶ *See KSR*, 550 U.S. at 413.

¹¹⁷ *See id.* at 413.

¹¹⁸ *See Teleflex, Inc. v. KSR Int'l Co.*, 119 Fed. App'x 282, 286–88 (Fed. Cir. 2005).

¹¹⁹ *See KSR*, 550 U.S. at 415.

¹²⁰ *See id.*

¹²¹ *See id.* at 426–27.

USPTO examiner guidelines compliant with *KSR*.¹²² The problem here, though, is that this Supreme Court reversal again created new uncertainty in U.S. patent law.

Whether the TSM test was too rigidly applied or not in this particular case, it was a single, clear test with which an inventor could consider their invention and decide whether pursuing a patent was worthwhile. Prior to *KSR*, if the inventor considered the TSM test carefully and was honest in assessing the novelty of their own invention, they could be relatively confident as to whether it would pass a scrutiny of obviousness and be considered valid.¹²³ The Supreme Court's ruling in *KSR* thus created additional uncertainty which further diminished the strength of the overall patent system by no longer utilizing a clear, bright-line test in § 103 obviousness inquiries.

C. Limiting the Effectiveness of Exhaustion Agreements in Patent License Agreements—Quanta (2008)

It again took just one year after its last splash for the Supreme Court to review and overturn additional patent precedent, this time in *Quanta Computer, Inc. v. LG Electronics, Inc.* with the patent exhaustion doctrine.¹²⁴ Here, LG was the owner of several patents covering microprocessor chips for use in computing, as well as additional method patents covering the usage of said chips.¹²⁵ When it licensed these patents to Intel, LG stipulated in a separate agreement that the license did not cover any products made by combining LG chips with non-LG or non-Intel components and required Intel to give its customers notice of this stipulation.¹²⁶ This allowed LG to later assert a conceivable claim to try and collect royalties from any of Intel's buyers who subsequently utilized

¹²² See 2141 Examination Guidelines, *supra* note 42.

¹²³ See Tina Hulse, Esther Lim & Ningling Wang, *Implications of KSR in Prosecution and Litigation: The Standard of Obviousness Under 35 U.S.C. § 103*, MANAGING INTELL. PROP. (Mar. 2008), <https://www.finnegan.com/en/insights/implications-of-ksr-in-prosecution-and-litigation-the-standard.html> [<https://perma.cc/NF2X-GADN>].

¹²⁴ 553 U.S. 617, 621 (2007).

¹²⁵ See *id.*

¹²⁶ See *id.* at 623–24.

the licensed chips.¹²⁷ Accordingly, when Quanta purchased licensed chips from Intel, Intel gave the requisite notice and Quanta proceeded to manufacture its computers for sale in such a way that infringed LG's method patents.¹²⁸

In the ensuing litigation, the district court granted summary judgment to Quanta and found that LG's license agreement with Intel invoked the exhaustion doctrine¹²⁹ wherein an authorized sale exhausts all patent rights in that item, applying this doctrine to the physical chips but not the method claims.¹³⁰ The Federal Circuit agreed with regard to the inapplicability of the doctrine to method claims, though the court cited its own precedent in finding that vertical restraint clauses in patent licenses were permissible.¹³¹ Upon review, the Supreme Court reversed the Federal Circuit's ruling and found that Intel's authorized sale of the chips, a patented component that had no reasonable non-infringing use, triggered exhaustion since LG was unable to suggest any use for the chips that did not in some way practice LG's method patents.¹³²

The ruling in *Quanta*, though not as impactful on the patent landscape as a whole like *eBay* or *KSR*, still imposed a significant restriction on the ability of patent holders to retain control of their patented matter through contract. Though post-sale restraints on the sale of actual, patented products were already fairly restricted,¹³³ restrictions on the application of method claims had been less than clear. Now, even where express, agreed-upon terms are set forth in the license agreement, patent holders still relinquish more control of their innovations than was previously permissible.

¹²⁷ See Hana Bae & Courtney Zanocco, *Quanta Computer v. LG Electronics: Supreme Court Bulletin*, CORNELL LEGAL INFO. INST., <https://www.law.cornell.edu/supct/cert/06-937> [<https://perma.cc/PP3X-X34U>].

¹²⁸ See *Quanta*, 553 U.S. at 624.

¹²⁹ See *id.* at 625 (“[The] doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item.”).

¹³⁰ See *id.* at 624–25.

¹³¹ See *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364, 1369–70 (Fed. Cir. 2006). Vertical restraint clauses refer to express conditions set forth in sale agreements or licenses that limit the rights conferred upon the licensee. See *id.*; see also *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 706 (Fed. Cir. 1992).

¹³² See *Quanta*, 553 U.S. at 631.

¹³³ See generally *Adams v. Burke*, 84 U.S. 453 (1873).

This additional erosion of a patentee's rights further diminishes the value of a U.S. patent by limiting the desirable commercial licensing opportunities available.

*D. Natural Phenomena and Diagnostic Methods Involving
Natural Phenomena Deemed Ineligible for Patent Protection—
Mayo, Myriad (2012–13)*

The next major change from the Supreme Court came in 2012 with *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*¹³⁴ and in 2013 with *Association for Molecular Pathology v. Myriad Genetics, Inc.*¹³⁵ Both cases involved multiple trips to the Supreme Court and both cases resulted in reversals of previously stable Federal Circuit precedent.

In *Mayo*, Prometheus Labs owned a pair of diagnostic method patents consisting of steps taken to determine an appropriate dosage of medication.¹³⁶ Specifically, they involved taking unpatentable natural laws like the relationship between metabolites and the efficacy of a pharmaceutical drug¹³⁷ and creating a patentable method by describing how one determines a dosage for an autoimmune condition, first by administering a reactive drug to the patient and then by measuring the overall presence of the drug to compute an appropriate dosage.¹³⁸

In *Myriad*, Myriad Genetics secured several patents after isolating the BRCA1 and BRCA2 genes—genetic mutations linked to a heightened risk of breast and ovarian cancers—and subsequently determining their exact location and sequence.¹³⁹ These patents, if valid, would permit Myriad to exclude others from isolating this important gene, as well as excluding others from producing synthetic BRCA genes.¹⁴⁰

Both cases involved challenges to patents on § 101 patent eligibility grounds. The Prometheus patent was challenged as failing

¹³⁴ See 566 U.S. 66, 92 (2012).

¹³⁵ See 569 U.S. 576, 596 (2013).

¹³⁶ See *Mayo*, 566 U.S. at 74–75.

¹³⁷ See *id.* at 77.

¹³⁸ See *id.* at 74–75.

¹³⁹ See *Myriad*, 569 U.S. at 583.

¹⁴⁰ See *id.* at 585.

to substantially transform a law of nature and the Myriad patent was challenged as claiming a natural phenomenon.¹⁴¹ The respective district courts found in favor of the challengers in both cases, invalidating the subject patents as ineligible.¹⁴² With regard to the claims about patenting what were arguably natural laws, the Federal Circuit reversed the lower courts in both cases. In *Mayo*, the Federal Circuit found that the claims consisted of more than “data gathering” by claiming multiple transformations inherent to the process wherein the administration of a drug caused a qualifying change in the patient, followed by a physical measurement to gauge the first transformation.¹⁴³ In *Myriad*, the Federal Circuit similarly opined that there was sufficient transformation to satisfy patent eligibility as isolated genes outside of the body should be considered chemically different from genes in their natural state, in keeping with USPTO policy.¹⁴⁴

The *Mayo* case went up to the Supreme Court while *Myriad* was still being decided, but both were originally vacated and remanded for further consideration: *Mayo* to be reconsidered in light of *Bilski v. Kappos*,¹⁴⁵ which found that the machine-transformation test was not to be used as the sole means of determining whether a process is patentable, and *Myriad* to be considered in light of the first Supreme Court review of *Mayo*.¹⁴⁶ When the Federal Circuit reviewed both cases on remand, it remained steadfast and asserted that the claims in both cases were still patentable.¹⁴⁷ Both cases were then again submitted for further review by the Supreme Court and review was granted in both instances.¹⁴⁸

¹⁴¹ See *Mayo*, 566 U.S. at 75–76; *Myriad*, 569 U.S. at 586.

¹⁴² See *Mayo*, 566 U.S. at 75–76; *Myriad*, 569 U.S. at 583.

¹⁴³ See *Prometheus Labs., Inc. v. Mayo Collaborative Servs.*, 581 F.3d 1336, 1343 (Fed. Cir. 2009).

¹⁴⁴ See *Ass'n for Molecular Pathology v. U.S. Patent and Trademark Office*, 653 F.3d 1329, 1367 (Fed. Cir. 2011).

¹⁴⁵ 561 U.S. 593, 593 (2010).

¹⁴⁶ See *Mayo*, 566 U.S. at 76; *Myriad*, 569 U.S. at 589.

¹⁴⁷ See *Mayo*, 566 U.S. at 76; *Myriad*, 569 U.S. at 589.

¹⁴⁸ See *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012); *Association for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576 (2013).

In *Mayo*, the Supreme Court held that the diagnostic procedures present, given that they involved unpatentable laws of nature, were not sufficiently transformative to qualify for patent eligibility as Prometheus had simply written “instructions [that] add nothing specific to the laws of nature[.]”¹⁴⁹ A similar disposition followed in *Myriad* a year later when a second Supreme Court review found that the mere act of isolating DNA was also not sufficiently transformative.¹⁵⁰ The Federal Circuit had originally asserted that there was sufficient transformation when a DNA strand’s covalent bonds were severed, the end molecule thus undergoing a qualifying change to constitute a transformation.¹⁵¹ On review, the Supreme Court found that mere isolation is not transformative enough to warrant the patenting of natural genes, though it did provide that an artificial alteration of natural genes, such as cDNA, would remain eligible for a patent.¹⁵²

The full effect of *Mayo* and *Myriad* would not be felt until a year later when *Alice* completed the trio of cases that collectively threw the understood idea of modern patent eligibility out the window.¹⁵³ *Mayo* and *Myriad*, however, were sufficient to prompt immediate doubt from several of the more prominent industries like bio-research and diagnostics, also calling into question the validity of many patents in these fields.¹⁵⁴ The actual valuations of patents in these fields consequently dropped simply by existing in a grey area as innovators and buyers of patents recognized that patents in these fields were more likely to be invalidated at some point in the future given a post-grant review, even without formal adjudication as to validity.¹⁵⁵ This quantitative measure of uncertainty, total change in valuation, was the result of risk-adjusted present value—i.e., the estimated change in worth of a commodity

¹⁴⁹ See *Mayo*, 566 U.S. at 82.

¹⁵⁰ See *Myriad*, 569 U.S. at 586–87.

¹⁵¹ See *id.*

¹⁵² See *id.* at 593–95.

¹⁵³ See *infra* Section III.e.

¹⁵⁴ See Sean Sheridan, *How Mayo, Myriad and Alice May Impact Patent Valuations*, CHARLES RIVER ASSOCIATES (Mar. 4, 2015), <http://www.crai.com/sites/default/files/publications/How-Mayo-Myriad-And-Alice-May-Impact-Patent-Valuations.pdf> [<https://perma.cc/WC4Z-ZUPV>].

¹⁵⁵ See *id.*

given assorted factors related to its market—and is a somewhat tangible measure of how the U.S. patent system was changing.¹⁵⁶

Mayo and *Myriad* arguably best exemplify the concerns of legal practitioners who worry that the Federal Circuit too often gets stuck down “in the technical weeds” rather than considering the “broader legal and policy implications,” a consideration that possibly leads to increased review by the Supreme Court.¹⁵⁷

E. Mass Invalidity of “Abstract Idea” Patents—Alice (2014)

Alice Corps. v. CLS Bank International,¹⁵⁸ together with *eBay*, are arguably the two cases most responsible for weakening the U.S. patent system as a whole given that they ushered in two of the most sweeping changes. At the heart of *Alice* was a business method patent related to managing financial risk using a “computer-implemented scheme for mitigating ‘settlement risk’ (i.e., the risk that only one party to a financial transaction will pay what it owes)”¹⁵⁹ The method patent centered around the use of a computer as an intermediary to create “shadow” credit and debit records, which were regularly updated with the real-life records of transacting parties.¹⁶⁰ The system subsequently relied on the computer records to act as a gatekeeper for transactions as a whole and only allowed transactions when the shadow records contained sufficient funds to properly process a transaction.¹⁶¹

CLS Bank, an operator of global transaction services, sought a declaratory judgment of non-infringement from the courts while the Alice Corporation asserted that CLS had infringed its patent.¹⁶² Siding with CLS, the district court found that the claims were invalid because “they [were] directed to the abstract idea of ‘employing a neutral intermediary to facilitate simultaneous exchange of obli-

¹⁵⁶ *Id.*

¹⁵⁷ See Krista Cox, *Oracle v. Google Is More Evidence the Federal Circuit Has No Business Deciding Copyright Cases*, ABOVE L. (Mar. 29, 2018), <https://abovethelaw.com/2018/03/oracle-v-google-is-more-evidence-that-the-federal-circuit-has-no-business-deciding-copyright-cases/> [<https://perma.cc/ZBE7-6VN8>].

¹⁵⁸ 573 U.S. 208 (2014).

¹⁵⁹ *See id.* at 212.

¹⁶⁰ *See id.* at 213–14.

¹⁶¹ *See id.*

¹⁶² *See id.* at 214.

gations in order to minimize risk.”¹⁶³ Upon first review by the Federal Circuit, the three-judge panel ruled 2–1 and reversed the district court’s invalidation, finding that Alice’s claims were sufficiently directed toward patentable subject matter.¹⁶⁴ However, the Federal Circuit agreed to hear the case again en banc, this time reversing the earlier panel and affirming the original invalidation by the district court by a five judge plurality.¹⁶⁵ The en banc panel was split with seven opinions written in total.¹⁶⁶ However, by recognizing that invalidation at the appellate level was inappropriate as it would likely lead to “retroactively invalidat[ing] tens of thousands of . . . patents” given the abstract nature of many patents, particularly software, the dissent of Circuit Judges O’Malley and Linn would eventually prove prophetic.¹⁶⁷ The Supreme Court granted certiorari and the premonition about mass invalidation would essentially be proven right.

One year after the en banc Federal Circuit rehearing, the Supreme Court held the claims of Alice’s patent to be ineligible as they simply directed an abstract idea like risk management to a generic intermediary like a computer.¹⁶⁸ Had the case been left at the Federal Circuit, Alice’s patent would have been invalidated and other abstract idea patents could conceivably presume validity until directly challenged given that there was no majority opinion from the Federal Circuit to follow. However, because the Supreme Court issued an opinion, the patent system as a whole experienced an abrupt upheaval as Justice Thomas formally set out a test for adjudging abstract validity, taken from *Mayo*.¹⁶⁹ In matters involving claims of abstract ideas, the Supreme Court directed that courts first determine whether the subject claim contains an abstract idea like a computer code or implementation.¹⁷⁰ If the claimed matter does not contain any abstract ideas, it may be patentable on its

¹⁶³ See *id.* (internal citations omitted).

¹⁶⁴ See *CLS Bank Int’l v. Alice Corps.*, 685 F.3d 1341, 1352–56 (Fed. Cir. 2012).

¹⁶⁵ See *CLS Bank Int’l v. Alice Corps.*, 717 F.3d 1269, 1273 (Fed. Cir. 2013).

¹⁶⁶ See *id.* at 1333.

¹⁶⁷ See *id.*

¹⁶⁸ See *Alice*, 573 U.S. at 221.

¹⁶⁹ See *id.* at 217.

¹⁷⁰ See *id.*

own.¹⁷¹ If there is an abstract idea involved in the claim, the court directed that some “new and useful” application of the abstract idea must be present to qualify as patent eligible, such that there’s an “inventive concept.”¹⁷²

In delivering this landmark opinion, however, it is imperative to note that the Supreme Court decided that it “need not labor to delimit the precise contours of the ‘abstract ideas’ category [of patents],” effectively leaving the question wide open for the district courts and Federal Circuit to sort out.¹⁷³ This task would hardly prove an easy one in the face of what was sure to be the mass invalidations predicted by Judges O’Malley and Linn.

In confronting this challenge, the Federal Circuit has side-stepped answering the question of what exactly constitutes an abstract idea and instead now relies on a method of matching challenged claims against past claims already deemed to be abstract.¹⁷⁴ As patent practitioners have noted, this reliance on subjective matching and similarity compounds the uncertainty in the patent system and the situation is only exacerbated when neither the Supreme Court nor the Federal Circuit wish to fully articulate an answer to that critical question.¹⁷⁵ At least one judge on the Federal Circuit has summarized the lack of a standard by noting that “this court and the Supreme Court have [both] found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.”¹⁷⁶

F. Easing the Grounds for Fee Shifting—Octane (2014)

Although shocks from Supreme Court patent jurisprudence since 2006 have generally proven unfavorable to the overall consistency and strength of the U.S. patent system,¹⁷⁷ occasionally those shocks have in fact resulted in stronger protection, albeit at the continued termination of long-standing precedent and further

¹⁷¹ *See id.*

¹⁷² *See id.* at 221–22.

¹⁷³ *See Alice Corps. v. CLS Bank International*, 573 U.S. 208, 221–22 (2014).

¹⁷⁴ *See Quinn & Guttag*, *supra* note 26.

¹⁷⁵ *See id.*

¹⁷⁶ *Id.*; *see also Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016).

¹⁷⁷ *See supra* Section II.a-e.

decline in consistency. The Supreme Court's reversal of the Federal Circuit in *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*¹⁷⁸ was one such case, one that in fact strengthened the U.S. courts' ability to serve as an adequate venue for patent disputes. Here, the exact details to the patent in issue are less important than the alleged motivations behind the suit itself.

Put briefly, ICON was a manufacturer of exercise equipment who also secured patents for new developments in the hardware.¹⁷⁹ One such patent held by ICON, for an adjustable elliptical system, was asserted against Octane, a fellow manufacturer of fitness equipment.¹⁸⁰ The district court granted Octane's motion for summary judgment after determining that there was no infringement but denied Octane's subsequent motion for attorney's fees.¹⁸¹ Although 35 U.S.C. § 285 permits the award of reasonable attorney fees in "exceptional case[s]," Federal Circuit precedent required trial judges to find either "material inappropriate conduct" in the case or that the litigation had been brought "in subjective bad faith" and was thus "objectively baseless."¹⁸² The district court found nothing in the litigation to satisfy either ground and dismissed Octane's motion for attorney fees, a decision later affirmed by the Federal Circuit.¹⁸³

On review, the Supreme Court again reversed the Federal Circuit,¹⁸⁴ but this time in a way that would seemingly attract patent litigants rather than drive them off. Finding that the standard set forth in the Federal Circuit's *Brooks Furniture* precedent was "unduly rigid," the Supreme Court determined that the previous standard used for exceptionality "impermissibly encumber[ed] the statutory grant of discretion to district courts."¹⁸⁵

¹⁷⁸ 572 U.S. 545 (2014).

¹⁷⁹ *See id.* at 551.

¹⁸⁰ *See id.*

¹⁸¹ *See id.* at 552.

¹⁸² *Brooks Furniture Mfg., Inc. v. Dutailier Int'l, Inc.*, 393 F.3d 1378, 1381 (Fed. Cir. 2005).

¹⁸³ *See Octane*, 572 U.S. at 552–53.

¹⁸⁴ *Id.* at 558.

¹⁸⁵ *Id.* at 553.

This decision was important given prevailing American norms around litigation. Contrary to the English rule,¹⁸⁶ the American rule of litigation states that each party pays their own costs and that attorney fees are only recoverable when specified by statute in certain actions.¹⁸⁷ This decision thus brings American patent litigation slightly more in line with more attractive patent forums abroad.¹⁸⁸ In foreign jurisdictions that follow the English rule where the loser bears a significant percentage of litigation costs,¹⁸⁹ patent investment and litigation would inherently be far more attractive. This is because the rule would not only give patent trolls more pause before filing questionable actions given the potential financial liability, but it would also give practicing entities a more sound state of mind knowing that blatant infringement of one's patent will now be less costly as the infringer will likely be the one paying the attorney's fees.

G. Easing the Grounds for Enhanced Damages—Halo, Stryker (2016)

In the other exception to the general weakening of the U.S. patent system, *Halo Electronics, Inc. v. Pulse Electronics, Inc.*,¹⁹⁰ along with its consolidated case of *Stryker Corp. v. Zimmer Inc.*, addressed the question of whether the Federal Circuit was enforcing too high a bar to acquire enhanced infringement damages. *Halo*

¹⁸⁶ The requirement that a losing litigant must pay the winner's costs and attorney's fees. *English Rule*, BLACK'S LAW DICTIONARY (8th Ed. 2004). *Cf. American Rule*, BLACK'S LAW DICTIONARY (8th Ed. 2004).

¹⁸⁷ See FED. R. CIV. P. 54(d).

¹⁸⁸ See generally Susie Middlemiss & Laura Balfour, *Patent Litigation in the UK (England and Wales)*, PRACTICAL L. (July 1, 2018), [https://uk.practicallaw.thomsonreuters.com/3-623-0277?transitionType=Default&contextData=\(sc.Default\)&firstPage=true&bhcp=1](https://uk.practicallaw.thomsonreuters.com/3-623-0277?transitionType=Default&contextData=(sc.Default)&firstPage=true&bhcp=1) [<https://perma.cc/CY95-PY7P>]; Andrew Liu, *Patent Litigation in China*, PRACTICAL L. (Apr. 1, 2018), <https://uk.practicallaw.thomsonreuters.com/8-620-4407?transitionType=Default&contextData=%28sc.Default%29> [<https://perma.cc/DL9T-LQST>]; Wolfgang Kellenter & Benedikt Migdal, *Patent Litigation in Germany*, PRACTICAL L. (Apr. 1, 2018), <https://uk.practicallaw.thomsonreuters.com/5-622-3450?transitionType=Default&contextData=%28sc.Default%29> [<https://perma.cc/VAF7-X7A4>].

¹⁸⁹ See Theodore Eisenberg & Geoffrey P. Miller, *The English Versus the American Rule on Attorney Fees: An Empirical Study of Public Company Contracts*, 98 CORNELL L. REV. 327, 329 (2013).

¹⁹⁰ 136 S. Ct. 1923 (2016).

and *Octane* can thus be considered the patent cases in recent years to have actually strengthened the protection of a U.S. patent and to better dissuade potential infringers.

In *Halo*, both Halo and Pulse were manufacturers of electronic components.¹⁹¹ Halo, which owned several patents for electronic package transformers, found Pulse producing similar products and offered to license its patents.¹⁹² One of Pulse's engineers reviewed Halo's patents and believed that the patents were invalid, whereupon Pulse continued manufacturing the transformers that allegedly infringed Halo's patents.¹⁹³ After failing to reach a license agreement, Halo filed suit against Pulse for infringement and secured a jury verdict finding both infringement and evidence to suggest that Pulse had infringed willfully.¹⁹⁴ Halo's motion for enhanced damages under 35 U.S.C. § 284, however, was denied.¹⁹⁵

In the parallel case's facts, Stryker and Zimmer Surgical were both competitors in the orthopedic device market.¹⁹⁶ When Zimmer allegedly infringed one of Stryker's patents on a "pulsed lavage device," Stryker brought suit against Zimmer for infringement.¹⁹⁷ The jury in *Stryker* similarly found infringement and evidence of willful infringement, but unlike in *Halo*, the district judge added enhanced damages for the willful infringement, noting that Zimmer's business strategy seemed to expressly push legal concerns to the side in order to compete aggressively.¹⁹⁸

On appeal, both cases presented the same question to the Federal Circuit, whether their respective district judges had properly utilized Federal Circuit precedent to determine the appropriateness of enhanced damages.¹⁹⁹ The standard, articulated in *In re Seagate*, requires patent owners to show "clear and convincing evidence that the infringer acted despite an objectively high likelihood that

¹⁹¹ *See id.* at 1930.

¹⁹² *See id.* at 1930–31.

¹⁹³ *See id.* at 1931.

¹⁹⁴ *See id.*

¹⁹⁵ *See id.*

¹⁹⁶ *See Halo*, 136 S. Ct. at 1931.

¹⁹⁷ *Id.*

¹⁹⁸ *See id.*

¹⁹⁹ *See id.* at 1931–32.

its actions constituted infringement of a valid patent” and then demonstrate that the infringement was “either known or so obvious that it should have been known to the accused infringer.”²⁰⁰ The Federal Circuit affirmed the denial of enhanced damages in *Halo* since Halo had reportedly failed to show Pulse’s objective recklessness; the Federal Circuit also reversed the grant of enhanced damages in *Stryker*, arguing that Zimmer had in fact demonstrated “reasonable defenses” at trial to remove the potential for enhanced damages.²⁰¹

On appeal to the Supreme Court to determine the proper standard for enhanced damages, the Supreme Court reversed the Federal Circuit and strengthened the patent system in the process.²⁰² The Supreme Court found that the Federal Circuit had erred in adding additional stipulations to the statutory language concerning monies in patent matters, holding that the statute gave no indication that enhanced damages should be predicated on a strict basis as *Seagate* required; the statute in fact simply used the basic term “may” to indicate its discretion to the trial judge.²⁰³

For the same reasons set forth above in Section II.g regarding *Octane*, this Supreme Court decision also upended Federal Circuit precedent in such a way that patent practitioners would question what fundamentals of patent law would change next, though this change at least strengthened the protections offered by the patent system at the same time. *Halo* made American patent litigation more palatable to innovators who may now be drawn to the jurisdiction’s newfound punitive measures for willful infringement as opposed to the laxer standards infringers could previously hide behind under *Seagate*.

H. Overturning Forum Rules and the Long Trip from Texas to Delaware—TC Heartland (2017)

*TC Heartland LLC v. Kraft Foods Group Brands LLC*²⁰⁴ did not change much in the way of substantive patent law, but it did

²⁰⁰ *In re Seagate*, 497 F.3d 1360, 1371 (Fed. Cir. 2007).

²⁰¹ *Halo*, 136 S. Ct. at 1931.

²⁰² *See id.*

²⁰³ 35 U.S.C. § 284 (1952); *see Halo*, 136 S. Ct. at 1931.

²⁰⁴ 137 S. Ct. 1514 (2017).

pend approximately thirty years of patent litigation focused in the patent-plaintiff-friendly Eastern District of Texas.²⁰⁵

Similar to *Halo*, the exact nature of the patents involved is not pertinent for the purposes of this Note. The important facts are limited to an infringement action by Kraft against TC Heartland in the District of Delaware over an alleged product patent.²⁰⁶ Despite TC Heartland being organized and headquartered in Indiana, Kraft attempted to pull TC Heartland into court in Delaware on the longstanding premise that sale of allegedly infringing products in a remote district is sufficient as an “act of infringement” per 28 U.S.C. § 1400(b) to justify a patent infringement action in a district to which the infringer otherwise has no ties to.²⁰⁷ Traditionally, this permissive “act of infringement” language has allowed patent owners to haul patent infringers to the Eastern District of Texas, a federal district with notably patent-plaintiff-friendly juries and judges, in order to acquire a favorable result and often in less time as well.²⁰⁸

While TC Heartland did attempt to get the venue changed by moving for the case to be transferred to the Southern District of Indiana where they resided, the district court denied these arguments and determined that the case could proceed in Delaware.²⁰⁹ TC Heartland then petitioned the Federal Circuit for a writ of mandamus, but this was denied by the appellate court. The circuit court reasoned that the long-standing precedent, which had stood since the venue statute was last amended in 1988, would remain as is.²¹⁰ TC Heartland subsequently appealed to the Supreme Court which granted certiorari.²¹¹

²⁰⁵ See Matthew C. Hurley, Serge Subach & Robert J.L. Moore, *Will 30 Years of Practice Be Overturned? Supreme Court Hears Oral Argument in TC Heartland v. Kraft Foods*, MINTZ (Mar. 29, 2017), <https://www.mintz.com/insights-center/viewpoints/2231/2017-03-will-30-years-practice-be-overturned-supreme-court-hears> [https://perma.cc/2YVH-A2U4].

²⁰⁶ See *TC Heartland LLC v. Kraft Foods Grp. Brands LLC*, 137 S. Ct. 1514, 1517 (2017).

²⁰⁷ See *id.*

²⁰⁸ See Hurley, Subach & Moore, *supra* note 205.

²⁰⁹ See *TC Heartland*, 137 S. Ct. at 1517.

²¹⁰ See *id.* at 1517–18.

²¹¹ See *id.* at 1518.

On review, the Supreme Court vacated the ruling of the Federal Circuit. Relying on its prior analysis in *Fourco Glass v. Transmirra Products* regarding the assorted interpretations of “resides” and “residence,”²¹² the Supreme Court concluded that § 1400(b)’s reference to “reside[nce]” refers to a business’s place of incorporation.²¹³

Taken as a whole, *TC Heartland* is likely the least impactful on the U.S. patent system of all the cases this Note discusses, at least in a direct manner. Whereas the other aforementioned post-2006 Supreme Court cases like *Alice* and *eBay* changed the very fundamentals of patent practice, including patentability standards, critical components of litigation, and standards of proof among others, *TC Heartland* merely narrowed where patent disputes could be filed.

Patent practitioners had undoubtedly become accustomed to having to fly down to Texas and become acquainted with the local rules, but the case’s ultimate impact on the system as a whole will likely be how much the altered venue filings back up the assorted districts’ dockets. Whereas the Eastern District of Texas was originally the biggest patent dispute venue, Delaware, a smaller district with fewer judges, is quickly drawing more patent filings; this is likely because it is the state of incorporation for most of the country’s largest publicly-traded corporations.²¹⁴ Should Delaware’s docket quickly become swamped by the influx of filings beyond what its current judges can handle, the average patent litigation timeframe will get even longer, as will the average amount of time needed to dispose of a relatively ordinary patent case.²¹⁵ Consequently, while *TC Heartland* does not substantively affect the fundamentals of patent law, it will very likely procedurally affect the

²¹² 353 U.S. 222 (1957).

²¹³ *TC Heartland*, 137 S. Ct. at 1520.

²¹⁴ See Ryan Davis, *Delaware Outstrips Texas as Top Patent Hotspot of 2018*, LAW360 (Jan. 31, 2019), <https://www.law360.com/articles/1121979/delaware-outstrips-texas-as-top-patent-hotspot-of-2018> [<https://perma.cc/BXY5-RS8J>].

²¹⁵ See Joe Mullin, *Many Patent-Holders Stop Looking to East Texas Following Supreme Court Ruling*, ARSTECHNICA (Oct. 12, 2017), <https://arstechnica.com/tech-policy/2017/10/patent-cases-in-east-texas-plunge-more-than-60-percent/> [<https://perma.cc/9AKL-D83F>] (raising concerns about Delaware’s smaller number of active judges and less patent experience relative to the judges of East Texas).

general patent system over time by shifting patent infringement filings away from the eight district judges active in the Eastern District of Texas and diverting many of those filings to the four active district judges in Delaware.²¹⁶

*I. Signs of Extrajudicial Expansion in Patent Jurisdiction—
WesternGeco (2018)*

The final case in the recent trend of reversals is *WesternGeco LLC v. ION Geophysical Corp.*,²¹⁷ a curious instance of the Supreme Court seemingly testing the waters of extraterritorial jurisdiction. In this instance, WesternGeco owned several patents covering “lateral-steering technology” components utilized in ocean surveying technology.²¹⁸ Not one to license or sell its patents, WesternGeco was for a while the only oceanic surveyor using such lateral-steering technology and profited via surveys done for oil companies. Eventually, however, WesternGeco realized that ION had begun selling a comparable system.²¹⁹ WesternGeco discovered that ION actually had the components needed to construct a similar system manufactured in the United States, but then shipped those parts abroad for final assembly into a working product that mirrored WesternGeco’s patent system.²²⁰ Upon filing suit against ION, WesternGeco prevailed when a jury found evidence of infringement and awarded over \$100 million in royalties and lost profits.²²¹

ION moved to have the award of lost profits set aside as those profits had been made outside of U.S. jurisdiction, but the motion was denied.²²² ION thus appealed to the Federal Circuit and acquired its requested relief when the appellate court set aside the original award of lost damages after finding that the general in-

²¹⁶ See *Chronological History of Authorized Judgeships—District Courts*, U.S. CTS., <https://www.uscourts.gov/judges-judgeships/authorized-judgeships/chronological-history-authorized-judgeships-district-courts> [<https://perma.cc/X8XT-Q74X>].

²¹⁷ 138 S. Ct. 2129 (2018).

²¹⁸ See *id.* at 2135–36.

²¹⁹ See *id.*

²²⁰ See *id.*

²²¹ See *id.*

²²² See *id.*

fringement statute does not permit recovery of foreign profit.²²³ This decision was appealed to the Supreme Court where it was vacated and remanded the case back to the Federal Circuit in 2016 to be reconsidered in light of the recent *Halo* decision, though the Federal Circuit reentered judgment denying the award of foreign profits.²²⁴

Upon returning back to the Supreme Court after another appeal, the Justices decided that lost profits could in fact be recovered based on a two-step inquiry into extraterritorial judgments from another recent case, *RJR Nabisco, Inc. v. European Community*.²²⁵ In determining this question, the Court first considered whether an existing presumption against extraterritoriality may be rebutted and, if so, directed that the court must determine whether the case at hand involves a domestic application of the subject statute.²²⁶ The majority found that the present case did in fact involve a domestic application and so foreign profits could accordingly be awarded.²²⁷

The two-justice dissent, seemingly rare in the face of the numerous 9–0 or 8–0 decisions in recent Supreme Court patent cases, actually made the same argument that many IP practitioners were themselves making²²⁸: permitting recovery of lost profits from domestic IP rights could open a Pandora’s Box wherein other countries could mirror said practice.²²⁹ As Justice Gorsuch so eloquently stated: “[T]he tables easily could be turned. If our courts award compensation to U.S. patent owners for foreign uses where

²²³ See *WesternGeco*, 138 S.Ct. at 2135–36.

²²⁴ See *id.*

²²⁵ See *id.* at 2136 (citing *RJR Nabisco, Inc. v. European Cmty.*, 136 S.Ct. 2090, 2101 (2016)).

²²⁶ See *id.*

²²⁷ See *id.* at 2139.

²²⁸ See generally Brief for Intellectual Property Law Scholars as Amici Curiae Supporting Neither Party, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011); Brief for Electronic Frontier Foundation and R Street Institute as Amici Curiae Supporting Respondent, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011); Brief for Fairchild Semiconductor International, Inc., the Internet Association, SAS Institute Inc., Symmetry, LLC, and Xilinx, Inc. as Amici Curiae Supporting Respondent, *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129 (2018) (No. 16-1011).

²²⁹ See *WesternGeco*, 138 S. Ct. at 2143–44 (Gorsuch, J., dissenting).

our patents don't run, what happens when foreign courts return the favor?"²³⁰ His further point that Congress would likely never stand for foreign jurisdictions awarding damages for foreign patent infringements in the United States was well made but regrettably was not in the majority opinion. Thus, the high court threw the U.S. patent system yet another curve ball with which to contend.

III. AN (UN)PATENTED FIX

With a brief patent background now in mind, as well as a summation of the recent string of Supreme Court reversals, the question presented is what exactly can be done to reverse the apparent degradation of the U.S. patent system. Similar to the problem itself, the most straightforward solution is hardly new: get Congress to amend the patent system.²³¹

The last significant amendment to the U.S. patent system came in 2011 when President Barrack Obama signed into law the Leahy–Smith America Invents Act (“AIA”).²³² The AIA enacted a number of important changes to the existing system, such as shifting from a first-to-invent system to first-to-file,²³³ creating the Patent Trial and Appeal Board as a separate venue to dispute patent validity,²³⁴ and fine-tuning a number of smaller application requirements.²³⁵ Notably absent from the AIA, however, was any guidance or change to the assorted areas of patent law the Supreme Court had ruled on in the five years since *eBay*. Despite the signif-

²³⁰ *Id.* at 2143.

²³¹ See Ken Blackwell, *Time to Reverse America's Innovative Decline*, AM. THINKER (Apr. 14, 2018), https://www.americanthinker.com/articles/2018/04/time_to_reverse_americas_innovation_decline.html [<https://perma.cc/M4NW-S26H>]; see also Mark Marrello, *Urge the Drafters of the New Section 101 to Support Inventor-Friendly Reform*, IP WATCHDOG (May 13, 2019), <https://www.ipwatchdog.com/2019/05/13/urge-drafters-new-section-101-support-inventor-friendly-reform/id=109206/> [<https://perma.cc/W3SA-H845>]; Quinn, *supra* note 7.

²³² AIA, *supra* note 3.

²³³ Whereas the United States previously granted patents for inventions to the individual or entity that first invented a new concept, the AIA changed the system such that the first individual or entity to file for said new concept would be the one entitled to the patent. See *id.* § 3.

²³⁴ See *id.* § 7.

²³⁵ See generally AIA, *supra* note 3.

icant changes to the patent system that came in 2006 with *eBay* and in 2008 with *KSR*, there was no legislative change to injunctive relief or obviousness standards within the AIA. The larger, more impactful ramifications of the Supreme Court's patent decisions since 2006 had apparently been ignored by Congress upon enactment of the AIA.

Since then, bipartisan members of Congress, both in the House and in the Senate, introduced the Support Technology and Research for Our Nation's Growth and Economic Resilience Patents Act of 2018, or STRONGER Patents Act of 2018.²³⁶ However, this pending bill is not sufficient, at least as currently written, to adequately repair the U.S. patent system in light of the numerous judicial changes that it has endured over the last two decades.

To the proposed bill's credit, it does expressly direct judges to grant injunctive relief upon finding patent validity and infringement.²³⁷ However, it fails to address the numerous other issues arising from the recent Supreme Court cases, all of which sparked sufficient feedback that Congress would be shirking its responsibilities were it to leave those issues unmentioned. Despite the slew of eligibility cases like *Alice*, *Myriad*, and *Mayo*, the bill offers little to no clarification for patent applicants and owners.²³⁸ The bill similarly fails to offer any response to *TC Heartland* and the migration of patent cases from the East Texas to Delaware federal court districts despite the clear difference in judicial resources to efficiently process and resolve those disputes.²³⁹

By failing to comprehensively and systematically address all of the issues raised in the Supreme Court patent cases since 2006, Congress is again slapping a small bandage on a wound that requires a more surgical approach. This dilemma was all the more frustrated by the changes of the 2011 AIA which resulted in additional patent issues to add atop those raised by the Supreme Court

²³⁶ See Blackwell, *supra* note 231; STRONGER Patents Act of 2018, H.R. 5340, 115th Cong. (2018).

²³⁷ See STRONGER Patents Act of 2018, H.R. 5340, 115th Cong. § 106 (2018).

²³⁸ See generally *id.* (no changes with regard to § 101 eligibility).

²³⁹ See generally *id.* (no changes with regard to appropriate venue to file patent actions).

decisions.²⁴⁰ Just as Congress in 2011 failed to include an adequate solution to at least partly remedy the abrupt about-face that *eBay* represented five years prior, so too does the STRONGER Patents Act fail to address some of the more pressing issues to arise from Supreme Court decisions this past decade.²⁴¹

This is not to say that the STRONGER Patents Act is a bad idea. The fact that the bill is on the minds of at least some members of Congress is a sign of progress as the bill can be amended to serve as a vehicle for the changes needed to firmly set the U.S. patent system on a better track. While in the meantime Director Iancu has been commendably attempting to single-handedly stop the patent system's bleeding with USPTO directives and guidance letters, comprehensive legislative reform is what would best correct the overall system's state of affairs.²⁴²

A. Specific, Targeted Legislation Written Via Consensus

To properly remedy the patent system via legislation, congressional members should supplement any information contained in lobbying group proposals with actual input from constituents already familiar with the system. By beginning the fact-finding at this level, lawmakers would ensure that the interests of all concerned districts are represented in some manner to better reflect the different views that said districts hold depending on their respective industry representation.

²⁴⁰ See Steve Brachmann, *STRONGER Patents Act Introduced in House, Seeks to Strengthen a Crippled Patent System*, IP WATCHDOG (Mar. 26, 2018), <https://www.ipwatchdog.com/2018/03/26/stronger-patents-act-house/id=95188/>

[<https://perma.cc/H9NM-EEVG>] (referring to the myriad of concerns arising from the post-grant review proceedings conducted at the AIA-created Patent Trial and Appeal Board, namely parallel challenges in district courts, the suppressive effect such proceedings have on patent values and company stock, and the ability for multiple challenges to be filed in what could be considered a harassing manner).

²⁴¹ See generally STRONGER Patents Act of 2018, H.R. 5340, 115th Cong. (2018) (failing to, for example, mention any definition of an "abstract idea" despite it being the subject of three controversial Supreme Court decisions).

²⁴² See generally Statement Delivered Before the United States House Subcommittee on Courts, Intellectual Property, and the Internet Committee on the Judiciary, 116th Congress (2019) (Statement of Director Iancu), <https://www.uspto.gov/about-us/news-updates/statement-director-iancu-united-states-house-subcommittee-courts-intellectual> [<https://perma.cc/APJ9-L22F>]; Korenchan, *supra* note 27; Quinn, *Iancu*, *supra* note 81.

As an example, by balancing the interests of tech-heavy districts wary of nebulous eligibility standards following *Alice* with the interests of districts with many pro-patent pharmaceutical companies, a more widely appealing consensus could be derived. Failure to do so would likely serve as a repeat of the AIA: a collection of good ideas with the best of intentions, but utterly infuriating in other aspects for failing to address perceived shortcomings. This is not to say Congress should give their patent-practicing constituents carte blanche to write the bill as they please, but should instead take into account the input of those already intimately familiar with the system.

Still, it would be naïve to assume that everyone interested in how patents are reformed could agree on a singular version of a bill, particularly given how vocal members of the prominent tech industry have been in deriding the Federal Circuit as a whole for what they believe are overly protective rulings.²⁴³ Regardless, while Congress should generally go about its bill crafting process as usual by allowing individuals and interest groups to send in their submissions, thoughts, and drafts, it is paramount that the resultant bill at least addresses each of the concerns raised by practitioners in the wake of so many Supreme Court patent decisions that have routinely upset patent norms.²⁴⁴

A cursory glance of the two dozen or so patent cases from the Supreme Court since *eBay* in 2006 makes it eminently clear that there are disputes in the patent system that everyone involved would agree require clarification, whether it be the constant buzz of practitioners publishing general grievances online²⁴⁵ or the far more noteworthy instances where the judicial figures handling

²⁴³ See generally Timothy Lee, *Google Asks Supreme Court to Overrule Disastrous Ruling on API Copyright*, ARSTECHNICA (Jan. 1, 2019), <https://arstechnica.com/tech-policy/2019/01/google-asks-supreme-court-to-overrule-disastrous-ruling-on-api-copyrights/> [<https://perma.cc/F9CT-68ED>] (noting how non-patent practitioners interested primarily in technology and copyright law still have an opinion of the Federal Circuit and would therefore likely be interested in how the appellate court's jurisprudence is tweaked).

²⁴⁴ See *supra* Section II.

²⁴⁵ See sources cited *supra* note 21.

such disputes blatantly call for congressional action in their opinions.²⁴⁶

It therefore becomes imperative to reform the patent system such that it complies with the collaborative nature of Congress while at the same time addressing all of the legitimate concerns that have arisen in the last decade or so.²⁴⁷ This means that actual consideration must be given to the issues raised in the above-described cases, including what exactly constitutes an abstract idea,²⁴⁸ whether permanent injunctive relief in patent infringement actions really must be beholden to the traditional four-factor test,²⁴⁹ how exactly lost foreign profits should be approached,²⁵⁰ and whether venue selection should be limited if the dockets of certain district courts become saturated and backed-up.²⁵¹

As a relatively objective matter, the question of abstract ideas really must be addressed before these other issues. Put most suc-

²⁴⁶ See Ryan Davis, *Fed. Circ. Judges' Plea to Reps Shows Patent-Eligibility Angst*, LAW360 (June 4, 2018), <https://www.law360.com/articles/1049274> [<https://perma.cc/HYU9-Z2Q2>]; see also *Berkheimer v. HP Inc.*, 890 F.3d 1369 (Fed. Cir. 2018) (denying petition for en banc hearing). In her concurrence in *Berkheimer*, Judge Lourie, joined by Judge Newman, states that “the law needs clarification by higher authority, perhaps by Congress, to work its way out of what so many in the innovation field consider are [Section] 101 problems.” 890 F.3d at 1375 (Lourie, J., concurring). She adds that “[i]ndividual cases, whether heard by this court or the Supreme Court, are imperfect vehicles for enunciating broad principles because they are limited to the facts presented. Section 101 issues certainly require attention beyond the power of this court.” *Id.*

²⁴⁷ This chance for reform also represents a critical opportunity for a divided Congress to agree on a fairly non-divisive matter. Contrary to some of the more attention-grabbing matters that split public opinion like defense spending, entitlement spending, firearm regulation, and certain civil rights, IP protection is a matter that sees comparatively little opposition and is therefore ripe for minimally opposed reform. See generally 115 P.L. 264, 132 Stat. 3676, 2018 Enacted H.R. 1551, 115 Enacted H.R. 1551, 115 P.L. 264, 132 Stat. 3676, 2018 Enacted H.R. 1551, 115 Enacted H.R. 1551 (representing one of the few substantive legislative changes, an update to IP rights, to pass Congress in a time of severe division); Elliot Fink, *Musical Copyrights as a Rare-Instance[sic] of Bipartisanship: The House Passes H.R. 1551 The Music Modernization Act*, FORDHAM IPLJ BLOG (Oct. 1, 2018), <http://www.fordhamiplj.org/2018/10/01/musical-copyrights-as-a-rare-instance-of-bipartisanship-the-house-should-pass-h-r-1551-the-music-modernization-act/> [<https://perma.cc/SQW4-V9ZQ>].

²⁴⁸ See *supra* Section II.e.

²⁴⁹ See *supra* Section II.a.

²⁵⁰ See *supra* Section II.i.

²⁵¹ See *supra* Section II.h.

cinctly by retired Chief Judge of the Federal Circuit Randall Rader, “you have cases like *eBay* . . . *Alice*, *Mayo*, and *Myriad*, all of which have severely handicapped the innovative capacity of the United States.”²⁵² Whereas nations like China are now benefiting from America’s seeming aversion to software patents and other ideas that tangentially touch the abstract,²⁵³ the U.S. patent system can recapture some of the lost innovation and restore some certainty by simply clarifying what exactly is patentable through a revision of § 101. Innovation is thought to be lessened and the value of patents diminished when certainty in the promised rights falls,²⁵⁴ so the inverse can and should be expected. So long as patents are not threatened with invalidation because the subject matter exists in a grey area as a result of case law, innovation can be expected to increase, contrary to the current decline. It simply starts with amending § 101 to clarify the questions left by *Mayo*, *Myriad*, and *Alice*, and, by extension, answering the pleas of countless practitioners and even a few judges.

With regard to the matter of *eBay*, it is difficult to get behind the old method of permanent injunctive relief absent exceptional circumstances given the proliferation of patent trolls who attempt to extort license agreements like in the titular case.²⁵⁵ However, to keep the four-factor test that so grossly weighs against the most fundamental right inherent to patents is doubly impermissible. One possible way around the dilemma would be to include a provision to update 35 U.S.C. § 273—Defense to infringement based on prior commercial use. The *eBay* decision came out in 2006 based on a patent application that was filed in 1995, the same year that eBay began operating, and was only granted in 1998. The original action in district court was resolved in 2002, a full four years after the patent was granted and five years after eBay had started operating. The current statute, added in 1999, permits a prior use defense if said commercial use occurred at least one year prior to the application’s filing date, which could have covered eBay at the time but is not clear given the uncertainty as to exactly when their online

²⁵² See Quinn, *Iancu*, *supra* note 81.

²⁵³ See Quinn & Guttag, *supra* note 26.

²⁵⁴ See generally sources cited *supra* note 52.

²⁵⁵ See *supra* Section II.A.

auction website as currently recognized began to operate. To that end, a return to the previous rule of liberally granted permanent injunctions could be effectively balanced against troll abuse by amending § 273 to permit a greater grace period of prior use protection.

The other two express problems mentioned are slightly easier to address. Given that the greatest detriment to the patent system from *TC Heartland* is likely to be a crowding of certain district courts, a simple amendment to authorize additional judges should more than suffice. As it stands, the District of Delaware has only four active judges whereas the old patent forum of choice, the Eastern District of Texas, has eight. A review of the assorted districts, their dockets, and case-per-judge metrics would quickly yield the necessary information to add additional seats for active judges, particularly those in districts experiencing rises in patent filings. As for *WesternGeco* and its ideas on extraterritorial jurisdiction, a clear, express statement that U.S. patents control commerce within the United States should be included in the new legislation, just enough to adequately state Congress' position and dissuade other nations from implementing policies permitting similar lost profit actions against American entities.

B. Further Rationalization and Explanation from the Supreme Court in Reversals

Congressional action is undoubtedly the most effective and plausible solution which the patent community can pursue, particularly because its participants, the elected politicians, are actually beholden to the will of the people through elections. However, should Congress prove unwilling or unable to pass adequate reform, intermediary relief with regard to the recent uncertainties like *Alice* could at least be sought from the Supreme Court. Should an appropriate case arise, and should the high court be adequately swayed by the pleas for clarity by practitioners, frustrated congressional members, or both, the Supreme Court could use such a case as a vehicle to deliver more concrete grounds for the patent system to operate on, as well as a resolution to the underlying case.

There is of course no way in which to actively implement said alternative since the Justices are not beholden to anyone in the

same way that Congress is, but making such a plea is not implausible. Generally, the high court does seem reluctant to take such cases where a congressional solution is possible and arguably the better solution. However, if Congress remains as gridlocked as it is today, it is conceivable that a collective plea from both practitioners and lower court opinions to the Supreme Court to clear up ambiguity in the patent law jurisprudence may yield additional reviews and ultimately prove beneficial since any concrete input from the high court would prove useful. The requested clearer language in a subsequent patent case would either elucidate past ambiguities from previous decisions, such as abstract inventions in *Alice*, or further muddy the jurisprudence and thus put additional pressure on Congress to cooperate and pass more comprehensive reform.

The Supreme Court using a new patent case to resolve an ambiguity stemming from a past case would truly be beneficial, as it would mean one fewer ambiguity for practitioners to contend with. Alternatively, should the Supreme Court use a new patent case to either worsen an existing ambiguity or disturb yet another facet of patent law to further disturb the U.S. patent system, it would undoubtedly be inconvenient to practitioners, but also would at least strengthen the case for drastic, urgent patent reform to Congress. The latter course of action would effectively be the equivalent of throwing gasoline on a fire in order to attract a disinterested person's attention. This escalation of course appears harmful in the short run, but should further delay occur while Congress continually proves uncooperative and as the patent system falls deeper into disarray, then the legal community's options may be so limited that such a course of action might seem advisable.

CONCLUSION

Although the Federal Circuit did not quite push back against the Supreme Court's rulings in *eBay* or *KSR*, they did offer up some resistance in 2012–2013 during the remands of *Myriad* and *Mayo*. Ever since, there has been a subtle friction between the nation's highest court and its patent specialist appellate court. To summarize said friction and subsequent court decisions as simply

resulting in uncertainty in the jurisprudence does not quite do the situation justice.

Aside from the general uncertainty about when patent practice will again abruptly change, patents as property rights in the United States have lost a significant amount of the bite that they once had and were inherently meant to possess. In other words, though U.S. patents are still potent against infringers and valuable as property rights, they are arguably less powerful and less valuable, relatively speaking, because of this uncertainty in the system. The validity of at least tens of thousands of patents remain in question given nebulous standards as to patent eligibility. The continued abrupt changes to the patent system have led to some of the judges involved in the friction to openly ask America's elected officials to do their jobs and implement reform legislation. This does not even account for whatever incentives are being offered abroad to attract innovation away from America. Thus, America's patent system is long due for an extensive overhaul.

Admittedly, patent law is by no means the most exciting, newsworthy subject. This is certainly true in a world where there are striking news stories meant to capture everyone's attention every few minutes. It also does not help that so few people actively interact with the patent system on a regular or even semi-regular basis. None of that, though, diminishes the importance of the patent system as a whole, nor does it detract from the fact it requires reform soon, before additional ambiguity and uncertainty arise from further disagreements between the Federal Circuit and Supreme Court. Should no remedial measures be taken, one of the most important foundational pieces of America's commerce will likely continue to degrade in such a way that it will eventually impact the average American once commercial entities adjust their strategic operations to account for these relatively weaker IP protections.