

# **United States Patent Reform on the International Stage**

By,

Christopher F. Shiflet

May 3, 2007

# Table of Contents

<b><i>I. Introduction</i></b>	<b><i>1</i></b>
<b><i>II. History of Harmonization</i></b>	<b><i>1</i></b>
A. Paris Convention	1
B. Patent Cooperation Treaty (PCT)	1
<b><i>III. Differences between U.S. and International Patent Law</i></b>	<b><i>2</i></b>
A. Priority (First-to-Invent v. First-to-File)	2
B. Best Mode	3
C. Post-Grant Opposition	3
<b><i>IV. Recent Attempts at Reform</i></b>	<b><i>3</i></b>
A. Patent Reform Act of 2005	4
1. Injunctions	4
2. Limitation of Damages	4
3. Post-Grant Opposition	4
4. Priority	5
5. Best Mode	5
6. Prior User Rights	5
7. Publication	6
B. The 110 <sup>th</sup> Congress	6
<b><i>V. The Supreme Court Weighs In</i></b>	<b><i>7</i></b>
A. Reigning In the Federal Circuit: E-Bay v. MercExchange	7
B. The Next Step: KSR v. Teleflex... Obviously	8
<b><i>VI. The Road Ahead</i></b>	<b><i>10</i></b>
A. What's the Problem?	10
1. Application Backlog	10
2. Litigation: Quantity and Cost	11
3. International Discord	12
B. Principles for Intelligent Reform	12
1. Legal Clarity	12
2. Administrative Efficiency	12
3. Judicial Burden	12
4. Economic and Innovative Stimulation	13
C. A Possible Solution	13
1. Substantive Simplification and Harmonization	13
2. Clearer Threshold of Patentability	14
3. Administrative Post-Grant Opposition	15
<b><i>VII. Conclusion</i></b>	<b><i>15</i></b>

## **I. Introduction**

Since its inception the patent law of the United States has been directed at implementing the Constitutional granted authority, “[t]o promote the progress of . . . useful arts, by securing for limited times to . . . inventors the exclusive right to their . . . discoveries.”<sup>1</sup> Though the Constitutional mandate remains the same, the method of securing these exclusive rights has undergone tremendous change. It is vital that patent law keep pace with the dynamic world in which it operates, adapting its role to its context. Notable among present challenges are the increasingly global concerns that patent protection raise and questions about the U.S. patent system’s ability to respond to a society that is now more than ever driven by science and technology.

## **II. History of Harmonization**

Harmonization of international patent law has been accomplished largely by treaty, most notably the Paris Convention and Patent Cooperation Treaty.

### ***A. Paris Convention***

The first major step toward international patent cooperation was the Paris Convention Treaty of 1883. The Paris Convention provides that an inventor who files for a patent in one member nation can benefit from the priority of this first application when filing in other member nations, so long as these later applications are filed within one year of the first.<sup>2</sup> Significantly, the treaty specifies that patents in each nation are completely independent from one another, sharing nothing more than the benefit of priority.<sup>3</sup>

### ***B. Patent Cooperation Treaty (PCT)***

The Patent Cooperation Treaty (PCT) of 1970 provided a major step toward international patent law harmonization. Like the Paris Convention before it, the PCT does not mandate substantive patent law to its members, but rather seeks to streamline applications intended for multiple countries. An international patent application process was established that feeds into the members’ national patent organizations.<sup>4</sup> This application is composed of elements that are largely universal requirements in each member nation. The process further defines an international examination and revision

---

<sup>1</sup> U.S. Const. Art. 1 § 8.

<sup>2</sup> *Paris Convention for the Protection of Industrial Property*, March 20, 1883, Art. 4

<sup>3</sup> *Id.* at Art. 4bis.

<sup>4</sup> *Patent Cooperation Treaty*, Ch. I (June 19, 1970).

procedure that the inventor may elect.<sup>5</sup> Choosing to undergo this international examination can help to streamline national level examinations, but the international examination does not replace national examination.

### **III. Differences between U.S. and International Patent Law**

Interestingly, the developed nations of the world have strikingly similar patent laws. U.S. patent law is one of the few with unique aspects. Although U.S. patent law is largely similar to that of other nations, it is unique in the handling of priority, disclosure and post-grant opposition.

#### ***A. Priority (First-to-Invent v. First-to-File)***

Priority of invention is the most glaring difference between United States and international patent law. The rest of the world measures priority, who is first and therefore entitled to patent, by the date a patent application is filed. The U.S. instead bases priority on the date of invention, defined as date the invention in its entirety was first conceived in the mind of the inventor. The U.S. is currently the only developed nation that uses a first-to-invent system to determine priority. Consequently, different inventors might be entitled to patent rights under the two regimes. For example, two inventors could independently create the same invention, but at slightly different times. If the inventor who first conceived of the invention applies for patent after the second inventor to conceive both inside and outside of the U.S., the second inventor will be accorded patents outside of the U.S. while the first inventor will receive a patent in the U.S. This type of uncertainty leads to distrust in procurement of patents from multiple jurisdictions and complicates multinational licensing. Imagine a situation where a global entity wishes to market a product incorporating a patented invention with different patentees in different nations. Instead of simply licensing from one inventor for all jurisdictions, two licensors must be dealt with, both of whom hold valuable patent rights.

The first-to-invent priority scheme also necessitates determination of various substantive issues relating to the date of invention that need not be addressed under a first-to-file system. When a question of priority arises in the United States, it may trigger an interference proceeding to determine the first inventor. During this proceeding, the invention date may be determined by proving a combination of when the invention was conceived, when it was reduced to practice and whether or not the inventor exercised diligence during a statutorily defined timeframe.<sup>6</sup> Other issues may also arise, such as

---

<sup>5</sup> *Id.* at Ch. II.

<sup>6</sup> 35 U.S.C. § 102(g).

suppression or concealment of the invention, that may result in a later priority date or bar to patentability.

### ***B. Best Mode***

Like other jurisdictions, the United States requires that a disclosure, “enable any person skilled in the art. . . to make and use” an invention; however, the United States further requires that the disclosure include “the best mode contemplated by the inventor of carrying out his invention.”<sup>7</sup> This “best mode” requirement is unique to U.S. patent law, and provides a grounds for invalidation if it is not met. An example of failure to disclose the “best mode” of an invention would be an application disclosing a temperature range within which a desired process takes place but failing to specify the optimal temperature, even though the inventor was aware that a specific temperature within the range was optimal.

Unfortunately, “best mode” can cause significant problems in patent litigation. Since validity of a patent depends upon disclosure of the “best mode,” those accused of infringement often argue that the “best mode” requirement was not satisfied. Methods of implementing a patented invention frequently change and improve after application for patent, so the question at trial becomes whether or not the refined inventions currently in use were known to the inventor at the time of application. Proving what the inventor did or did not know at the time of application is an extremely difficult task. It is also virtually impossible for inventors to shield themselves from such inquiry.

### ***C. Post-Grant Opposition***

Although the United States Patent Office offers post-grant reexamination proceedings, these are very limited compared to the post-grant opposition available internationally. The European Patent Office (EPO), in particular, has a robust system of opposition proceedings that are very similar to litigation. These oppositions limit discovery and legal issues that may be determined in order to provide a faster, cheaper alternative to normal litigation.

## **IV. Recent Attempts at Reform**

Recent calls for patent reform came as the result of two major reports in 2003 and 2004. First, the Federal Trade Commission (FTC) released its *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* that heavily criticized the United States patent system and went so far as to suggest weakening the statutory presumption of validity, long considered a cornerstone of U.S. patent law.<sup>8</sup> Second, the National Academy

---

<sup>7</sup> 35 U.S.C. § 112.

<sup>8</sup> The Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (2003).

of Sciences released a similar report further criticizing the system, and suggesting removal of the “best mode” requirement that it considered a prime contributor to high patent litigation costs.<sup>9</sup> The debate surrounding these two reports resulted in legislative proposals by the 109<sup>th</sup> Congress in 2005 and 2006.

### ***A. Patent Reform Act of 2005***

The Patent Reform Act of 2005 embodied in H.R. 2795 was presented in Congress on June 8, 2005 by Texas Republican Lamar S. Smith.<sup>10</sup> It followed many of the FTC and National Academy of Sciences suggestions.

#### **1. Injunctions**

One of the most controversial portions of this legislation was its attempt to limit access to injunctions. H.R. 2795 would have required courts to consider the fairness of an injunction in light of all the facts and relevant interests of the parties associated with the invention in cases of patent infringement.<sup>11</sup> This requirement would have been above and beyond the normal standard applied by the courts.

Addition of fairness to the standard for injunctions came largely as a result of the Federal Circuit’s practice of issuing virtually automatic permanent injunctions upon a finding of patent infringement. Recently, the Supreme Court acted to remedy these “automatic injunctions,” accomplishing the goal of this reform. The high Court’s decision is discussed in detail later.

#### **2. Limitation of Damages**

Another extremely controversial provision in this legislation would have changed the way damages are calculated in patent infringement cases, addressing concerns that damage awards have been overblown, awarding royalties based on profits of an entire product when only a component of that product infringes. The change would have compelled the court to consider the portion of realizable profit that should be credited to an invention’s contribution as distinguished from other features of the combination including the invention.<sup>12</sup> Contention over this particular issue may have ultimately prevented passage of this bill.

#### **3. Post-Grant Opposition**

Although an inter-partes reexamination proceeding has been available through the United States Patent Office, H.R. 2795 would have significantly altered options for post-grant opposition. First, it would have removed the

---

<sup>9</sup> National Research Council of the National Academy of Sciences, *A Patent System for the 21st Century* (2004).

<sup>10</sup> The Patent Reform Act of 2005, H.R. 2795, 109th Congress (2005).

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

inter-partes reexamination estoppel that currently precludes third-party participants from later asserting any ground of invalidity that they could have raised during the inter-partes reexamination.<sup>13</sup> They would still be estopped from asserting grounds of invalidity actually raised during the proceeding.

H.R. 2795 would have also created a post-grant opposition proceeding similar to those common in foreign jurisdictions, especially the European Union.<sup>14</sup> These oppositions would be much like standard litigation, but limiting discovery and lowering the burden of proof. The goal these new proceedings is to provide a more powerful platform for challenging patent validity than existing reexamination proceedings while reducing costs and complexity compared to traditional litigation in a district court.

#### **4. Priority**

In order to eliminate the complexities inherent in the current first-to-invent priority system currently in-place, H.R. 2795 would have replaced it with a first-to-file system.<sup>15</sup> Doing so would have harmonized the United States with the rest of the world, and eliminated the need for interference proceedings.

#### **5. Best Mode**

H.R. 2795 also planned to act on the other black sheep of United States patent law, the “best mode” disclosure requirement. Quite simply, the “best mode” requirement would have been altogether eliminated in an attempt to reduce the cost of patent litigation.<sup>16</sup>

#### **6. Prior User Rights**

Expanding on the “first inventor defense” of the American Inventor Protection act of 1999<sup>17</sup>, this proposal would have removed the limitation of prior user rights to only patents on business methods.<sup>18</sup> Prior users of an invention, any invention, would be able to raise their prior use as a defense against infringement of a later inventor’s patent. For example, a prior inventor who maintained his invention as a trade secret would be protected from liability for infringing the patent of a later inventor.

---

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> American Inventor Protection Act of 1999.

<sup>18</sup> The Patent Act of 2005, *supra* at note 10.

## 7. Publication

The last significant change set forth by H.R. 2795 is that it would have forced publication of all patent applications after 18 months.<sup>19</sup> Current law only forces publication of applications when the inventor files for patent on the same invention in a foreign jurisdiction where publication is required. It allows inventors to prevent publication if they do not file for patent protection in a publication jurisdiction. H.R. 2795's change would have eliminated inventors' ability to prevent publication in this latter case.

### *B. The 110<sup>th</sup> Congress*

The 110<sup>th</sup> Congress has recently proposed legislation in both houses titled the Patent Act of 2007.<sup>20</sup> The two bills are virtually identical, so they will be addressed as a single proposal. Though they bear similarity to the failed Patent Act of 2005, both are actually based on the parallel proposal offered by the previous Senate.<sup>21</sup> Absent are reforms to injunctions and the "best mode" requirement.<sup>22</sup> It is not clear why the "best mode" requirement is left intact, but the bills' ostensible focus on improving patent quality suggests that supporters believe the "best mode" furthers this goal. Injunctions, as will be discussed later, have already been addressed by the Supreme Court. Building on last term's Senate proposal, the Patent Act of 2007 introduces changes to jurisdiction and venue that limit patent suits to the district where either party resides or where the defendant has both committed acts of infringement and established a regular place of business.<sup>23</sup> The Federal Circuit would also be given jurisdiction over interlocutory orders regarding claim construction (*Markman* decisions) so that appeals of this pivotal determination may be settled prior to completion of litigation in a district court.<sup>24</sup> Additionally, the bill would create a method for third-parties to provide relevant prior art during examination.<sup>25</sup> Otherwise, the Patent Act of 2007 is essentially the same as its predecessor, including reforms: limiting damages in infringement cases, loosening reexamination estoppel provisions, creating new post-grant opposition proceedings, changing to first-to-file priority, expanding the prior-use defense to all parties and publishing all applications after 18 months.<sup>26</sup>

---

<sup>19</sup> *Id.*

<sup>20</sup> See The Patent Act of 2007, S. 1145 and H.R. 1909, 110th Congress (2007).

<sup>21</sup> S. 3818, 109th Congress (2006).

<sup>22</sup> See generally The Patent Act of 2007, *supra* at note 20.

<sup>23</sup> *Id.* at § 10(a).

<sup>24</sup> *Id.* at § 10(b).

<sup>25</sup> *Id.* at § 9(b).

<sup>26</sup> *Id.* at §§ 5(a), 6, 3, 5(b), 9.

## V. The Supreme Court Weighs In

Recently, the U.S. Supreme Court under Chief Justice Roberts has taken a greater interest in patent law than it has in over 50 years, granting certiorari on a number of patent cases. The Rehnquist Court largely ignored patent issues, deferring to the Court of Appeals for the Federal Circuit. Former “bedrock” precedents established by the Federal Circuit have come under particular scrutiny by the Court: the standards for awarding a permanent injunction in a patent infringement case and determining whether a patent is obvious<sup>27</sup> are suddenly in doubt.

### *A. Reigning In the Federal Circuit: E-Bay v. MercExchange*

For quite some time, the Federal Circuit had been employing a standard for granting permanent injunctions in patent infringement cases that differed greatly from the prevailing standard in other matters. Whenever patent infringement was found, the Federal Circuit essentially assumed irreparable harm was being inflicted on the patent holder by the infringer, and awarded a permanent injunction against the infringer.

These virtually automatic permanent injunctions against infringers came under fire when the patent holders in such lawsuits increasingly became patent holding companies. In general, patent holding companies do not produce products or conduct research, but rather buy patents from inventors for the purpose of either reselling those patents at a profit or licensing them for lucrative royalty rates. As a business model, there is nothing particularly wrong with patent holding companies, but many had gained reputations for demanding excessive royalties. This has led such companies to be characterized as “patent trolls,” akin to a troll of children’s fairytales who would hide beneath a bridge waiting to exact a painful toll from unwary passersby.

Patent “trolls” were thrust into the limelight when patent holding company NTP sued Research In Motion (RIM) over its wildly popular Blackberry mobile messaging system. Despite some extraterritoriality issues, the Federal Circuit eventually found that RIM was infringing NTP’s patents, and ordered a permanent injunction that would have shutdown the entire Blackberry system. Cornered by the injunction, RIM entered fitful negotiations with NTP that finally resulted in a \$612.5 million settlement.<sup>28</sup>

Shortly after *NTP v. RIM*, the Supreme Court, newly led by Justice Roberts, decided to hear the appeal of *e-Bay v. MercExchange*. In that case, e-Bay was found to have infringed MercExchange’s patent though its “Buy It Now” feature that allowed posting of items for sale at fixed prices on-line.

---

<sup>27</sup> 35 U.S.C § 103.

<sup>28</sup> “Settlement ends Blackberry case”, *BBC News*, available at <http://news.bbc.co.uk/2/hi/business/4773006.stm> (Mar. 6, 2006).

Although the ability to patent the posting of fixed price auction items on-line is troubling in itself, the only issue appealed in this case was whether or not the grant of a permanent injunction was proper. The Court quickly and decisively ruled that infringement alone was not enough basis for grant of a permanent injunction, and that the proper test was to weigh all factors in determining irreparable harm as permanent injunctions are evaluated in all other areas of law. Consequently, it is now much harder, if not impossible, for a patent holding company to obtain a permanent injunction, forcing more reasonable pre-litigation bargaining and often limiting recovery to reasonable royalties as determined by the court.

### ***B. The Next Step: KSR v. Teleflex... Obviously***

Shortly after E-Bay, the Supreme Court took up what may prove to be the most significant patent case in half a century: *KSR v. Teleflex*.<sup>29</sup> The case brought the standard for obviousness before the Court, challenging long standing Federal Circuit precedent that a teaching, suggestion or motivation to combine existing elements must be present in the prior art to render a patented combination obvious.

The teaching, suggestion, motivation (TSM) standard was created by the Federal Circuit to discourage hindsight inquiry when determining obviousness within the framework set forth by the Supreme Court in *Graham*.<sup>30</sup> TSM has proven effective at achieving this goal by rigidly requiring a prior art reference, which eliminates *post ex* reasoning completely. On the other hand, TSM has been criticized for allowing too many bad patents to issue. Its rigidity has tended to require an explicit reference to combining elements in the prior art for invalidation of patent as obvious. The Federal Circuit claims that an explicit reference is not required to fulfill the TSM standard, but the overwhelming majority of decisions prior to *KSR v. Teleflex* contradict its assertion. This *de facto* requirement of an explicit reference has placed the burden of arguing obviousness during examination squarely on the examiner. Since the obviousness statute does not specify who should bear the burden of proof in this matter, it is worth considering whether this is appropriate and if a shift that eases the current burden on examiners might be in order.

The specific situation in *KSR v. Teleflex* involved a combination of an electronic throttle control with an adjustable pedal assembly for an automobile. Both the adjustable pedal assembly and electronic throttle control were part of the prior art when Teleflex applied for patent on the combination of the two. KSR began marketing a product covered by Teleflex's patent without license because they believed the combination was obvious. When Teleflex sued for patent infringement, the trial court found for KSR holding the patent invalid. On appeal, the Federal Circuit reversed

---

<sup>29</sup> *KSR v. Teleflex*, 550 U.S. \_\_\_\_ (2007).

<sup>30</sup> *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

finding no teaching, suggestion or motivation (TSM) in the prior art. The Supreme Court granted certiorari, and interests lined up on each side.

The amici in *KSR v. Teleflex* aligned on interesting sides. As expected, the computer and electronics industries backed KSR, favoring an end to TSM, and pharmaceutical companies aligned themselves with Teleflex, want to maintain the status quo. Some more interesting amici were the U.S. government, represented by the solicitor general, and two associations of law and history professors who supported KSR, as well as the collective patent bars, represented by the American Intellectual Property Law Association (AIPLA) and American Bar Association (ABA), who supported Teleflex.

The Supreme Court's recently rendered decision held that the rigid application of the TSM standard in this case was inconsistent with the "expansive and flexible approach" of *Graham*, calling it a "[r]igid preventive [rule] that [denied] factfinders recourse to common sense."<sup>31</sup> It highlighted past precedents finding obviousness "when a patent "simply arranges old elements with each performing the same function it had been known to perform" and yields no more than one would expect from such an arrangement."<sup>32</sup> By similar logic, the Court reasons that "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill."<sup>33</sup>

Turning its attention to the TSM standard directly, the Court acknowledged its value in limiting hindsight bias, but indicated that an appropriate standard must consider reasons for combination that extend beyond references within prior art publication.<sup>34</sup> An appropriate standard "cannot be confined by a formalistic conception of the words "teaching, suggestion, and motivation," nor should it "[overemphasize]. . . the importance of published articles and. . . issued patents."<sup>35</sup> Courts must often consider "effects of demands known to the design community or present in the marketplace. . . in order to determine whether there is an apparent reason to combine the known elements in the fashion claimed by the patent at issue."<sup>36</sup> The Court suggests that one way to do this "is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims."<sup>37</sup> Furthermore, the Court asserts that "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton."<sup>38</sup> The fact that such a person would find it

---

<sup>31</sup> *KSR v. Teleflex*, 550 U.S. \_\_\_\_ (2007) at 11, 17.

<sup>32</sup> *Id.* at 13, quoting in part *Sakraida v. AG Pro, Inc.*, 425 U.S. 273 (1976).

<sup>33</sup> *Id.* at 13.

<sup>34</sup> *Id.* at 15.

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 14.

<sup>37</sup> *Id.* at 16.

<sup>38</sup> *Id.* at 17.

“obvious to try” a certain combination can render a claim obvious if “a design need or market pressure to solve a problem” results in “a finite number of identified, predictable solutions [that person would have] good reason to pursue,” so long as they are within “his or her technical grasp.”<sup>39</sup> Despite much criticism and suggestion as to appropriate considerations, the TSM standard was not discarded wholesale, only rigid applications like the one in this case were rejected.

The Court specifically states that it is up to the Federal Circuit to determine whether and to what extent the recently “elaborated broader conception of the TSM test,” as applied in the *DyStar*<sup>40</sup> and *Alza*<sup>41</sup> cases that took place after certiorari was granted in *KSR v. Teleflex*, is consistent with this ruling.<sup>42</sup> Likely, this will result in some form of new TSM standard similar to those already taking hold in Federal Circuit obviousness jurisprudence. It seems, though, that the Supreme Court is inviting the Federal Circuit to create a better, practical approach that takes into account common sense above all else.

## VI. The Road Ahead

Although the Supreme Court’s recent actions are beginning to clarify and restructure some of the troublesome areas of United States patent law, there are still many issues remaining.

### A. *What’s the Problem?*

Of the many problems, real or perceived, within the U.S. patent system, this paper is concerned with the more practical of the bunch: the current backlog of applications, cost and complexity of patent litigation and incompatibility with foreign patent systems.

#### 1. Application Backlog

At the moment, there are over one-million pending applications in the U.S. Patent Office that have yet to be examined. Exacerbating the problem, there were over 400,000 new applications filed in 2006.<sup>43</sup> Although some technology units are managing to respond to new applications within a reasonable amount of time, others are lagging far behind. A certain unit recently estimated that it would be nearly fourteen years before it would issue an office action responding to a new application.<sup>44</sup> Although this is

---

<sup>39</sup> *Id.*

<sup>40</sup> *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d. 1356, 1367 (2006).

<sup>41</sup> *Alza Corp. v. Mylan Labs., Inc.* 464 F.3d. 1286, 1291 (2006).

<sup>42</sup> *Id.* at 18.

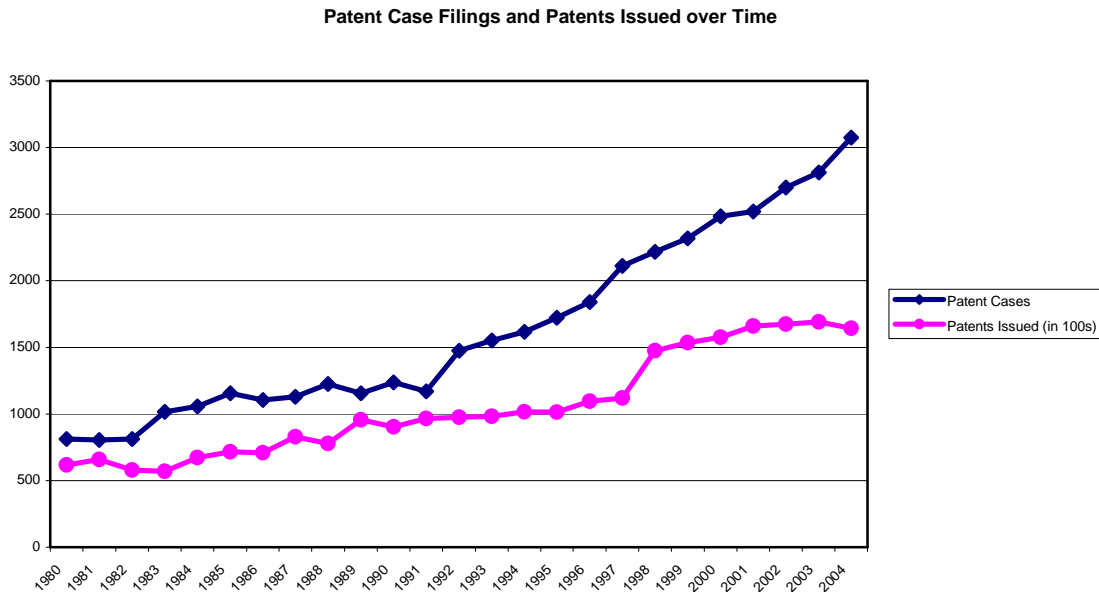
<sup>43</sup> USPTO Statistics, available at [http://www.uspto.gov/go/taf/us\\_stat.htm](http://www.uspto.gov/go/taf/us_stat.htm).

<sup>44</sup> Dennis Crouch, “PTO: First Office Action Expected Fall 2019,” *Patently-O*, available at <http://www.patentlyo.com>.

extreme, overburdened units such as computer software create major problems for the industries they serve. That industry in particular progresses at such a fast pace that inventions can become obsolete within a few short years.

## 2. Litigation: Quantity and Cost

Patent litigation has experienced a recent explosion, growing at a rate even greater than the number of patents issued.<sup>45</sup> Figure 1, below, illustrates this point, plotting the number of patent case filings and patents issued over time. Although the increase in patent litigation is not necessarily a problem in itself, it has created some concern. First of all, the federal courts are already overburdened, and the addition of complicated patent cases only contributes to the problem. A pilot program seems likely to begin in some district courts allowing uninterested judges to decline patent cases to a roster of interested judges from which one is chosen at random.<sup>46</sup> It would also provide funding for additional patent law education and patent law clerks.<sup>47</sup> Still, if a change to patent law could simplify litigation in a manner that maintains equity, it would certainly help the courts.



**Figure 1: This chart showing the number of patent case filings and patents issued illustrates the inordinate growth rate of patent litigation compared to prosecution.**

Beyond the sheer volume of patent litigation, the size of recent damage rewards has also been quite troubling. Most recently, a federal jury found

<sup>45</sup> Ali Dhanani *et al*, “PATSTATS: U.S. Patent Litigation Statistics,” *University of Houston Law Center*, available at

[http://www.patstats.org/Historical\\_Filings\\_PatentSuits\\_OtherSuits.doc](http://www.patstats.org/Historical_Filings_PatentSuits_OtherSuits.doc).

<sup>46</sup> H.R. 34, 110th Congress (2007).

<sup>47</sup> *Id.*

Microsoft guilty of infringing patents related to the MP3 digital audio format and awarded \$1.52 billion in damages.<sup>48</sup> Such large awards have motivated calls for a new damage calculus in patent infringement cases.

### **3. International Discord**

The “best mode” requirement and first-to-invent priority of United States patent law make it one of the least conforming patent system in the international community. At this point, the times seem to favor harmonization since the benefits of these divergent provisions over their international counterparts are questionable. As globalization continues, there is also a degree of waste that occurs when inventors must tailor their patent applications to the differing requirements of national patent systems.

#### ***B. Principles for Intelligent Reform***

Before embarking on a course of reform, it is important to decide on guiding principles and a desired outcome that is independent of any single industry or interest group. If the system is truly to be reformed, the changes should result in a patent system that is an improvement for all stake-holders.

##### **1. Legal Clarity**

It benefits all participants in the patent system when the standards for patentability and enforcement are clear. Ambiguities leave patentees unsure of the value their patents hold. Unclear standards also lead to more litigation at greater cost since ambiguities create great complexity in litigation.

##### **2. Administrative Efficiency**

A responsive patent system that can quickly review and issue patents would also benefit all stakeholders. Like clear legal standards, quick and efficient prosecution of patent applications reduces uncertainty. Inventors will spend less time wondering where they stand in terms of patent protection, and the public will gain more timely access to the new inventions.

##### **3. Judicial Burden**

Whatever the patent standards, the United States depends on its federal courts to adjudicate the majority of patent conflicts. Any reforms should take this into account. Complexity is a key foil against judicial efficiency, so any increase to the complexity of patent law should be very carefully weighted. Further, the benefits of existing patent provisions should

---

<sup>48</sup> Benjamin J. Romano, “Microsoft’s legal future is now,” *The Seattle Times*, Feb. 22, 2007, available at [http://blog.seattletimes.nwsources.com/techtracks/archives/2007/02/microsofts\\_legal\\_future\\_is\\_now\\_1.html](http://blog.seattletimes.nwsources.com/techtracks/archives/2007/02/microsofts_legal_future_is_now_1.html).

be weighed against their complexity, possibly creating opportunities to simplify.

#### **4. Economic and Innovative Stimulation**

Finally, innovation is the key purpose of U.S. patent law, and so often a driver for economic growth. Any reforms need to be very careful to ensure that they do not hinder innovation while removing existing barriers.

#### ***C. A Possible Solution***

The following proposal attempts to reform the United States patent system in such a way that it benefits all participants.

##### **1. Substantive Simplification and Harmonization**

First of all, the “best mode” disclosure requirement should be abandoned. Although it is a good idea in theory, it is difficult to employ in practice. It is not uncommon for an inventor to refine his or her invention after application for patent, but it becomes a very difficult issue to prove that the refinement, which could constitute an undisclosed “best mode,” was not known at the time of application. Removal of the “best mode” requirement would reduce the complexity of litigation as well as harmonize United States disclosure requirements with the rest of the world.

Additionally, first-to-invent priority should be replaced with first-to-file priority. The first-to-invent system is another feature of United States patent law that both adds complexity and contributes to incompatibility with the international patent community. A move to first-to-file priority would allow elimination of the entire interference process, including determination of conception, reduction to practice, diligence and other difficult issues. Furthermore, international uniformity on this point prevents different inventors from holding patents on a given invention inside the United States versus the rest of the world.

Some argue that the first-to-invent system does a better job of protecting small inventors who may take longer to file, but the cost of interference proceedings necessary for establishing the first inventor disadvantages this same group. Considering the conflicting nature of this argument and the relative ease with which a small inventor can file a provisional application to secure priority, the benefits of moving to a first-to-file priority system outweigh the costs.

A final suggestion, though quite extreme, is to limit inquiry for claim construction to the patent alone. Patent litigation often spends a great deal of time examining prosecution history. Precedents like *Festo* have also caused applicants to argue for overly broad claim language since claim amendments generally disclaim equivalents.<sup>49</sup> Limiting inquiry to the face of

---

<sup>49</sup> *Festo Corp. v. Shoketsu Kinzoku Kogyokabushiki Co.*, 535 U.S. 722 (2002).

the patent would encourage claim amendments that more clearly delineate the claimed subject matter. The many foreign jurisdictions that do not consider prosecution history in litigation serve as prime examples that the United States can successfully simplify patent litigation by limiting consideration to the face of a patent alone.

## 2. Clearer Threshold of Patentability

Considering the glut of weak patents that have gained recent attention, it would be helpful if a clearer standard of patentability were set forth. Patentable subject matter and novelty are quite definite, so obviousness is the substantive requirement that could most benefit. Although the Supreme Court did not provide a new standard to replace the current Federal Circuit teaching, suggestion, motivation (TSM) test, their holding in *KSR* may redefine TSM in very helpful manner. The Court made multiple references to considering the problem that an invention is meant to address when assessing obviousness of the invention,<sup>50</sup> possibly referring indirectly to the test used by the European Patent Office (EPO) when evaluating inventive step, the EPO's analog to non-obviousness.

Like the *Graham* analysis used in the United States, the EPO's test begins by determining the closest, most relevant prior art. It diverges, however, in the way it evaluates the differences between the prior art and patented invention. Instead of looking to the prior art for an explicit teaching, suggestion or motivation to create the patented invention as in the United States, the European test takes a "problem-solution" approach that determines the objective problem the invention was intended to address. Once the problem is identified, obviousness hinges on whether or not a skilled person in the art would, not simply could, combine the prior art to create the patented invention in order to solve the problem. It is important to distinguish that the problem *should* motivate one skilled in the art to create the patented combination of prior art in hopes of solving the problem, not simply that the prior art could have been combined and modified to create the patented invention.

The primary advantage of this "problem-solution" approach is that it would somewhat alleviate the burden of proving non-obviousness on the examiner, unlike TSM prior to *KSR*. Under that prior TSM test, an examiner in the United States essentially had to find an explicit reference to a combination in the prior art to render it obvious. If the United States were to shift to something like the "problem-solution" approach, applicants would be encouraged to preemptively explain why their invention would not be the obvious solution to the problem it addresses. This simple change would reduce the burden on examiners, and hopefully help with the backlog of pending application. It should also improve the quality of issued patents by preventing weak combination from issuing. Although the U.S. has not yet

---

<sup>50</sup> See e.g. *KSR*, *supra* at note 29, at 17.

abandoned TSR in its entirety, the Supreme Court's holding in *KSR* will likely result in reaching these goals. It will be interesting to see if the Federal Circuit's response to *KSR* eventually implements something like the EPO's problem-solution test.

### **3. Administrative Post-Grant Opposition**

It is hard to predict how addition of a European-style post-grant opposition process would affect the United States patent system. Although it would leverage the expertise of the patent office, it may not succeed in reducing litigation. This would depend on whether federal district courts would maintain concurrent jurisdiction, as they would in the current Patent Act of 2007 proposals, and what forums of appeal would be available. Although such a system may work out well, it seems best not to complicate the patent system by adding this new venue. It also seems prudent not to burden the patent office with more responsibility until it has made progress reducing the backlog of applications, nor introduce administrative politics of the patent office into litigation-like proceedings.

In the short term, inter-partes reexaminations should no longer estop third-party participants from raising grounds of invalidity that could have been raised during the reexamination but actually were not, as currently proposed by the Patent Act of 2007. This should vitalize the inter-partes reexamination process as an alternative to full-blown litigation, while maintaining judicial efficiency by continuing to estop third-party participants from reasserting grounds of invalidity that were actually raised. Holding off on creation of a new post-grant opposition proceeding also gives the patent community an opportunity to evaluate the effectiveness of inter-partes reexamination without the detrimental impact of overly severe estoppel.

## **VII. Conclusion**

With the United States Patent Office facing the greatest backlog of pending patent applications in its history and patent litigation rising at an unprecedented rate, it is evident that reform has the potential to improve the U.S. patent system for all parties. By focusing on changes that clarify and simplify patent law, the U.S. can be brought into better harmony with the international community while simultaneously becoming more efficient.

Simplification can be achieved by removing the "best mode" disclosure requirement and switching to a first-to-file priority system. Elimination of the "best mode" requirement simplifies litigation by removing such a subjective challenge to a patent's validity. The switch to first-to-file priority eliminates the need for interference proceedings and the difficult questions such proceedings raise. Together, these modifications also serve to bring the United States into significantly closer harmony with international patent law, especially that of the European and Japanese Patent Offices.

Defining a more reasonable standard for obviousness is an important clarification that can reduce the examination burden of the patent office while strengthening existing patents by eliminating weak ones. Such a standard should reduce the burden of proving obviousness on examiners. The U.S. Supreme Court's recent decision in *KSR v. Teleflex* is definitely a step in the right direction. Though it will take further case law from the Federal Circuit, it seems probable that *KSR* will effect simpler, more expedient disposal of obvious patent applications by examiners.

Putting these reforms into place stands to significantly improve the quality of U.S. patents and the efficiency of the USPTO. It would also bring U.S. patent law into unprecedented harmony with the rest of the world, providing cost savings and greater certainty to applicants who apply for patent in multiple jurisdictions. Best of all, these changes provide benefits to all stakeholders in the U.S. patent system while eliminating many of the problems that plague it. Therefore, these or similar changes should be put into effect with all reasonable speed.