

Article

**Standard of Proof for Patent Invalidation in the U.S. and Japan**

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## STANDARD OF PROOF FOR PATENT INVALIDATION IN THE U.S. AND JAPAN

Yoshinari Oyama

### Introduction

Under § 282 of the U.S. Patent Act of 1952, “[a] patent shall be presumed valid” and “[t]he burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.”<sup>1</sup> The U.S. courts have interpreted this statute as meaning that “a defendant seeking to overcome this presumption must persuade the factfinder of its invalidity defense by clear and convincing evidence.”<sup>2</sup>

In June 2011, the U.S. Supreme Court confirmed this interpretation regarding the standard of proof in *Microsoft Corp. v. i4i Limited Partnership*.<sup>3</sup> Particularly, the Court held that clear and convincing evidence is required even when an invalidity defense rests on evidence that the United States Patent and Trademark Office (“PTO”) never considered. Further, the Court held that, in the examination process, § 282 requires an invalidity defense to be proven by clear and convincing evidence rather than by a preponderance of the evidence, stating “[t]hat burden is constant and never changes.”<sup>4</sup> At the beginning of her opinion for the Court, Justice Sotomayor explained the background of this heightened standard of proof, pointing out that Congress assigned to the PTO the task of examining patent applications under the Patent Clause of the U.S. Constitution, Art. I, § 8, cl. 8. Justice Sotomayor further explained that PTO examiners make various factual determinations in evaluating whether statutory conditions, such as patentable subject matter, novelty, and nonobviousness, have been met.<sup>5</sup> Finally, the *Microsoft* opinion mentioned that § 282 codified the existing presumption of validity of patents based on a fundamental proposition that a government agency, such as the PTO, was presumed to have done its job.<sup>6</sup>

There is criticism that “the heightened standard of proof essentially causes juries to abdicate their role in reviewing invalidity claims raised in infringement actions.”<sup>7</sup> However, given that the patent system urges inventors to disclose new technologies to the public and that an issued patent grants a powerful, exclusive right to the patentee and the right holder can bring a civil action for infringement, the stability of patents is essential both to make the patent system function properly and to keep the loss of litigation cost to a minimum. Furthermore, if a large number of patents were invalidated in infringement suits, inventors would

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<sup>1</sup> 35 U.S.C. § 282 (1952).

<sup>2</sup> *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S.Ct. 2238, 2243 (2011) (referring to *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350 (Fed. Cir. 1984)).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.* (citing *Am. Hoist*, 725 F.2d at 1360).

<sup>5</sup> *Id.* at 2242.

<sup>6</sup> *Id.* at 2243 (citing *Am. Hoist*, 725 F.2d at 1359).

<sup>7</sup> *Id.* at 2252.

lose their motivation to develop inventions and thereby obtain patents. Patentees would also be reluctant to enforce their patent rights. Therefore, the heightened standard of proof - clear and convincing evidence - contributes to the foreseeability and credibility of the patent system in the U.S.

Compared to the U.S. patent system, the Japanese courts do not require a heightened standard of proof for patent invalidation in infringement suits; consequently, the invalidation rate is higher for Japanese patents. When the Japanese courts examine a patents' validity, they find the patent rights invalid in 73 percent of cases.<sup>8</sup> In Japan, patentees' win rate in infringement cases in district courts is only 20 percent or less.<sup>9</sup>

Historically, in the Japanese patent system, only the Japan Patent Office ("JPO") was able to invalidate a patent through its appeal and opposition procedures. However, the Japanese Supreme Court changed the procedure in the *Kilby* case in 2000.<sup>10</sup> In *Kilby*, the Court decided that a patentee could not enforce a patent that is clearly invalid because the enforcement is deemed to be an abuse of the right. Following *Kilby*, the Patent Act Art. 104-3 was enacted in 2004, codifying that "[w]here, in litigation concerning the infringement of a patent right or an exclusive license, the said patent is recognized as one that should be invalidated by [JPO's] trial for patent invalidation, the rights of the patentee or exclusive licensee may not be exercised against the adverse party."<sup>11</sup> Unlike the *Kilby* decision, however, this provision enables courts to invalidate patents in infringement suits irrespective of the invalidity's clearness. More than a decade after *Kilby*, patent applicants in Japan are concerned with whether the courts should have the same power to invalidate patents as the JPO has. Some practitioners insist that a court can invalidate patents under the Patent Act Art. 104-3 only when such patent should "clearly" be invalidated.<sup>12</sup>

In this article, I will discuss the need to raise the standard for patent invalidation in Japanese infringement cases by making a comparison between the U.S. patent system and Japanese patent system, focusing on the standard of proof. I will compare the standard of proof in general civil procedure (Chapter I), the standard of proof for invalidation in patent infringement suits including the history of case law and statutes (Chapter II), and the standard of proof for invalidation in the appeal procedures in both countries' patent offices (Chapter III). Next, I will introduce patent invalidation statistics in both jurisdictions (Chapter IV). Then, I will make a comparative analysis based on the preceding

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<sup>8</sup> JAPAN PATENT OFFICE, SHINPAN NO GAIYOU SEIDO UNYOU HEN, *available at* [http://www.jpo.go.jp/torikumi/ibento/text/pdf/h24\\_jitsumusya\\_txt/09.pdf](http://www.jpo.go.jp/torikumi/ibento/text/pdf/h24_jitsumusya_txt/09.pdf).

<sup>9</sup> *Id.*

<sup>10</sup> *See*, Saikō Saibansho [Sup.Ct.] Apr. 11, 2000, Hei 10 (o) no. 364, SAIKO SAIBANSHO MINJI HANREISHŪ [MINSHŪ] 1368 (Japan).

<sup>11</sup> TOKKYOHŌ [Patent Law], Law No. 121 of 1959, art. 104-3 (Nihon hōrei gaikokugo yaku dēta bēsu shisutemu), *available at* <http://www.japaneselawtranslation.go.jp/law/detail/?ft=1&re=01&dn=1&co=01&x=0&y=0&ky=%E7%89%B9%E8%A8%B1%E6%B3%95&page=11> (Japan).

<sup>12</sup> Yutaka Koike, *Tokkyo hō 104 jyō no 3 no seitei ni itaru haikei to sono unyou ni tsuite*, 34 NIHON KŌGYO SHOYŪKENHOU GAKKAI NENPŌ 263, 263-265 (2010); Nihon Benrishikai Kinki Shibu, *Kigyō no Chitekizaisanken Sosyō – Kenrimukō no Kōben nitsuite*, 63 PATENT 75, 75-91 (2010).

discussion (Chapter V). Finally, I will conclude by arguing that, in order to promote future growth by leveraging innovation, the Japanese patent system should properly incentivize inventors and applicants by implementing a clear and convincing evidence standard in the Japanese patent system.

## I. Standards of Proof

### A. U.S. Civil Procedure

To win its case in the U.S., a party with the burden of persuasion must produce a certain amount of evidence to satisfy the standard of proof.<sup>13</sup> The U.S. Supreme Court defines the standard of proof as “the degree of certainty by which the factfinder must be persuaded of a factual conclusion to find in favor of the party bearing the burden of persuasion”<sup>14</sup> or “how difficult it will be for the party bearing the burden of persuasion to convince the jury of the facts in its favor.”<sup>15</sup>

The familiar three standards of proof in the U.S. are: (1) a preponderance of the evidence; (2) clear and convincing evidence; and (3) beyond a reasonable doubt. These standards usually are not defined any more specifically than their plain meanings, although a “preponderance” is understood as “more than fifty percent,” and the “clear and convincing” standard lies somewhere between a preponderance and “beyond a reasonable doubt.”<sup>16</sup> Among these three standards, preponderance of the evidence is used in most civil cases, while the clear and convincing standard is used in some particular cases, such as child custody. The standard of beyond a reasonable doubt is used in criminal cases.

### B. Japanese Civil Procedure

Compared to the standard of proof in the U.S., the Japanese system is simpler because there is no dual standard in civil litigation. That is, in Japan, the beyond a reasonable doubt standard is used in criminal cases and the “high probability” standard is used in civil cases.<sup>17</sup> High probability is considered to be a higher standard than the preponderance of evidence standard in the U.S.<sup>18</sup> However, some within the Japanese legal community feel that the preponderance of the evidence standard is more suitable than the high probability standard<sup>19</sup> because of a belief that both parties in civil procedure should be treated equally.<sup>20</sup>

Tamura, a law professor in Ritsumeikan University, proposes that the Japanese civil court should use a preponderance of the evidence standard in

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<sup>13</sup> John J. Cound, *CIVIL PROCEDURE* 992 (West Group, 7th ed. 1997).

<sup>14</sup> *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S.Ct. 2238, 2245 (2011) (citing *Addington v. Texas*, 441 U.S. 418 (1979)).

<sup>15</sup> *Id.* at 2245.

<sup>16</sup> Cound, *supra* note 13, at 992-993.

<sup>17</sup> Ōta Shōzo, *Hōtekiyō to jijitsunintē*, 80 KAGAKU 633, 635 (2010).

<sup>18</sup> *Id.* at 635-636. See also Tamura Yōko, *Amerika Minji soshō ni okeru shōmēron*, 339/340 RITSUMĒKAN HŌGAKU 197, 217 (2011).

<sup>19</sup> Tamura Yōko, *Minji soshō niokeru shōmēdorōn saikou*, 327/328 RITSUMĒKAN HŌGAKU 517, 546 (2009).

<sup>20</sup> *Id.*

principle and should use the higher standards for exceptional cases in which the standard of proof should be higher based on political perspective. She also mentions that such exceptional cases should be stipulated in statutes to retain legal stability and foreseeability.<sup>21</sup> Tamura proposes that providing a rule which stipulates some presumption is one way to make the standard of proof higher in an exceptional case.<sup>22</sup> This idea is similar to 35 U.S.C. § 282, which stipulates the presumption of validity for a patent and makes the standard of proof for patent invalidation higher.

## II. Standard of Proof for Invalidation in Patent Infringement Suit

### A. Clear and Convincing Standard in the U.S.

#### 1. 35 U.S.C. § 282

35 U.S.C. § 282 stipulates that “[a] patent shall be presumed valid . . . . The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.”<sup>23</sup> This rule had been well established under common law even before the enactment of the provision in 1952. Before the 1965 amendments, which clarified that a presumption of validity is applied independently to each claim of a patent, the rule was originally stipulated simply as, “[a] patent shall be presumed valid. The burden of establishing invalidity of a patent shall rest on the party asserting it.”<sup>24</sup> Section 282, which has been amended several times, provides the rules on presumption of validity and defenses. However, the sentence stipulating the presumption of validity has been changed little between the original expression and the current one. The standard of proof required by such a presumption of validity is not described in the statute, but the courts have historically and consistently held that the presumption of validity in § 282 cannot be overcome without clear and convincing evidence.

In *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, Judge Rich, a principal drafter of the 1952 Patent Act, touched upon the background of this provision; he explained that the courts originally created the presumption of validity, which was “a part of the judge-made body of patent law when the Patent Act of 1952 was written.”<sup>25</sup> He further explained that the 1952 Patent Act was a simple statutory declaration codifying the accumulation of previous case law.<sup>26</sup> Judge Rich also introduced a comment of the Act’s principal author, P.J. Federico, which explained “[t]hat a patent is presumed valid was the law prior to the new statute, but it was not expressed in the old statute. The statement of the presumption in the statute should give it greater dignity and effectiveness,”<sup>27</sup> and that “[s]ection 282 puts into the statute the presumption of validity for the benefit

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<sup>21</sup> *Id.* at 545-546.

<sup>22</sup> *Id.*

<sup>23</sup> 35 U.S.C. § 282 (1952).

<sup>24</sup> *Id.*

<sup>25</sup> *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1358-1359 (Fed. Cir. 1984).

<sup>26</sup> *Id.* at 1359.

<sup>27</sup> *Id.*

of those cynical judges who now say the presumption is the other way around.”<sup>28</sup>

As explained in Mr. Federico’s comment, judges freely expressed the notion of the presumption of validity in their own words. According to *American Hoist*, the legislation was enacted to unify courts’ various expressions of the presumption, whose background policy was the fundamental premise that “a government agency such as the then Patent Office was presumed to do its job.”<sup>29</sup>

## 2. Cases Involving Clear and Convincing Evidence

In 2011’s *Microsoft Corp. v. i4i Limited Partnership*, the U.S. Supreme Court reconfirmed the heightened standard for proving invalidity in a patent infringement suit.<sup>30</sup> The Court traced the history of the clear and convincing standard, citing the leading cases, discussed below.

### a. *Radio Corp. of America v. Radio Engineering Laboratories* (1934)

In 1952, Congress established the presumption of patent validity in § 282. However, “by the time Congress enacted § 282 and declared that a patent is ‘presumed valid,’ the presumption of patent validity had long been a fixture of the common law.”<sup>31</sup> Thus, *Radio Corp. of America v. Radio Engineering Laboratories*<sup>32</sup> (“*RCA*”) is the authoritative precedent.

The patented inventions involved in this case were a feed-back circuit and an oscillator.<sup>33</sup> Before the U.S. Supreme Court’s decision, New York and Delaware had decided a series of relevant cases. These cases involved four parties, and the main issue was who had created the invention first. After several courts’ decisions, the U.S. Supreme Court finally concluded the following about plaintiff *RCA*’s explanations:

even if not wholly convincing, [they] are not so manifestly inadequate as to lead us to say that the conception of the oscillator as a generator of radio frequencies has been proven in any clear or certain way to have been developed and applied by Armstrong before it was born in De Forest’s mind.<sup>34</sup>

In short, the U.S. Supreme Court decided that the defendant’s claim in *RCA* was not supported in a clear or certain way. In its opinion, the Court cited a number of precedents which had admitted a presumption of validity by using various expressions, such as “every reasonable doubt should be resolved against [the defendant],”<sup>35</sup> and “the presumption of the validity of the patent is such that

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<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Microsoft Corp. v. i4i Ltd. P’ship*, 131 S.Ct. 2238, 2238 (2011).

<sup>31</sup> *Id.* at 2246.

<sup>32</sup> *RCA v. Radio Eng’g Laboratories*, 55 S.Ct. 928 (1934).

<sup>33</sup> *Id.* at 932-933.

<sup>34</sup> *Id.* at 933.

<sup>35</sup> *Coffin v. Ogden*, 85 U.S. 120 (1873).

the defense of invention by another must be established by the clearest proof -- perhaps beyond reasonable doubt.”<sup>36</sup> In *RCA*, the Court defined the presumption of validity as “a presumption not to be overthrown except by clear and cogent evidence.”<sup>37</sup> It is notable that the Court emphasized the requirement of clearness for proving a patent’s invalidity by using expressions such as “clear and cogent,”<sup>38</sup> “clear and satisfactory,”<sup>39</sup> “clear conviction,”<sup>40</sup> “clear enough,”<sup>41</sup> and “clear or certain.”<sup>42</sup>

Notably, by referring to precedents, the Court in *RCA* interpreted the clear and convincing standard as “not defining a standard in terms of scientific accuracy or literal precision, but were offering counsel and suggestion to guide the course of judgment.”<sup>43</sup> Thus, from this explanation, one can understand the clear and convincing standard in examining a patent’s invalidity as an instruction or guidance for a factfinder. The standard reminds a factfinder of an infringer’s heavy burden of persuasion, which “fails unless his evidence has more than a dubious preponderance.”<sup>44</sup>

b. *American Hoist & Derrick Co. v. Sowa & Sons, Inc.* (1984)

Fifty years after the *RCA* decision, the Federal Circuit confirmed the heightened standard of proof in 1984’s *American Hoist* for the first time since the Federal Circuit’s foundation in 1982.<sup>45</sup> In *American Hoist*, Judge Rich answered the questions of whether the burden of proof shifts to the patentee or whether the standard of proof changes when the evidence had not been considered by the PTO. He stated, “[section] 282 creates a presumption that a patent is valid and imposes the burden of proving invalidity on the attacker. That burden is constant and never changes and is to convince the court of invalidity by clear evidence.”<sup>46</sup>

In this case, the plaintiff, American Hoist & Derrick Co., sued defendant, Sowa & Sons Inc., claiming infringement of plaintiff’s patent regarding a shackle.<sup>47</sup> The contrast between the district court’s decision and the Federal Circuit’s is noteworthy. In short, the district court held that the plaintiff’s patent was invalid because it was obvious in light of relevant prior art, which was not investigated by the PTO.<sup>48</sup> The district court stated that the presumption of validity stipulated in § 282 disappeared because the PTO did not possess all relevant prior art, and “the court is not entitled to rely upon the patent office[’s]

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<sup>36</sup> *Austin Mach. Co. v. Buckeye Traction Ditcher Co.*, 13 F.2d 697, 700 (6th Cir. 1926).

<sup>37</sup> *RCA*, 55 S.Ct. at 931.

<sup>38</sup> *Id.* at 929.

<sup>39</sup> *Id.* at 931.

<sup>40</sup> *Id.* at 931.

<sup>41</sup> *Id.* at 932.

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

<sup>43</sup> *Id.* at 931.

<sup>44</sup> *Id.*

<sup>45</sup> *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1350 (Fed. Cir. 1984).

<sup>46</sup> *Id.* at 1360.

<sup>47</sup> *Id.* at 1352-54.

<sup>48</sup> *Id.* at 1354-55.



expertise.”<sup>49</sup> Moreover, the district court had instructed the jury as follows:

If you find the prior art references which defendant has cited are no more pertinent than the art utilized by the examiner when examining the Shahan patent[,], then defendant has the burden of establishing obviousness by “clear and convincing evidence.” If, on the other hand, you find any of the prior art references which defendant has cited are more pertinent than the art utilized by the examiner when examining the Shahan patent, then that presumption of validity disappears as to that issue of obviousness and the plaintiff has the burden of proof by a preponderance of the evidence.<sup>50</sup>

In other words, this jury instruction meant that if the jury adopted the prior art found by the PTO, the jury should examine by the clear and convincing evidence standard; however, if the jury adopted more relevant prior art newly-found by the defendant, the standard should be by a preponderance of the evidence standard. Consequently, the district court held the plaintiff’s patent invalid under the preponderance of the evidence standard.<sup>51</sup>

On the other hand, the Federal Circuit found this jury instruction erroneous, holding that the standard of proof was clear and convincing evidence, and had never been changed.<sup>52</sup> In his decision, Judge Rich described the PTO as:

a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.<sup>53</sup>

At the same time, he also stated that if prior art or other evidence was not considered by the PTO, the new evidence eliminated or reduced the element of deference to the PTO and discharged a defendant’s burden, although it was “neither shifting nor lightening it or changing the standard of proof.”<sup>54</sup>

c. *KSR International Co. v. Teleflex Inc.* (2007)

*KSR International Co. v. Teleflex Inc.* is well-known as a case in which the U.S. Supreme Court denied the Federal Circuit’s sole reliance on the teaching, suggestion, or motivation (“TSM”) test created by the Federal Circuit.<sup>55</sup> However, the Supreme Court also briefly and vaguely touched on the

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<sup>49</sup> *Id.* at 1354 (citing the District Court’s statement).

<sup>50</sup> *Id.* at 1358 (citing the District Court’s statement).

<sup>51</sup> *Id.* at 1354-55.

<sup>52</sup> *Id.* at 1358-60.

<sup>53</sup> *Id.* at 1359.

<sup>54</sup> *Id.* at 1360.

<sup>55</sup> *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007).

presumption-of-validity issue.<sup>56</sup> In *KSR*, the Supreme Court cited to relevant prior art that had not been cited during patent examination in the PTO, and the Court used that prior art as a basis of denying Telflex's patent.<sup>57</sup> Specifically, the Court said:

We need not reach the question whether the failure to disclose [the new prior art] during the prosecution of Engelgau voids the presumption of validity given to issued patents, for claim 4 is obvious despite the presumption. We nevertheless think it appropriate to note that the rationale underlying the presumption – that the PTO, in its expertise, has approved the claim – seems much diminished here.<sup>58</sup>

Based on this language, Microsoft raised anew the question of the standard of proof in 2011's *Microsoft v. i4i*.<sup>59</sup>

d. *Microsoft Corp. v. i4i Limited Partnership* (2011)

The facts in this case were similar to those in *American Hoist*, and the parties discussed whether the clear and convincing standard applied even if the PTO did not consider prior art. Specifically, respondent i4i sued Microsoft for infringing its patent for a method of editing computer documents.<sup>60</sup> Responding to this claim, petitioner Microsoft argued that the patent was invalid because the claimed invention had been sold as a software program named "S4" more than a year before filing the patent application.<sup>61</sup> However, the problem was that the software source code had been destroyed years before the commencement of litigation.<sup>62</sup>

Boldly, Microsoft proposed a jury instruction similar to one given by the district court in *American Hoist* that was subsequently denied by the Federal Circuit.<sup>63</sup> Microsoft requested the jury instruction as follows: "Microsoft's burden of proving invalidity and unenforceability is by clear and convincing evidence. However, Microsoft's burden of proof with regard to its defense of invalidity based on prior art that the examiner did not review during the prosecution of the patent-in-suit is by preponderance of the evidence."<sup>64</sup> In other words, Microsoft insisted that a defendant in an infringement action need only persuade the jury of an invalidity defense by a preponderance of the evidence when a relevant prior art was not considered by the PTO, relying on the Supreme

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<sup>56</sup> *Id.* at 426.

<sup>57</sup> *Id.* at 422.

<sup>58</sup> *Id.* at 426.

<sup>59</sup> *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S.Ct. 2238, 2238 (2011).

<sup>60</sup> *Id.* at 2239.

<sup>61</sup> *Id.* at 2239-40.

<sup>62</sup> *Id.* at 2244.

<sup>63</sup> *Id.* at 2240; *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1358 (Fed. Cir. 1984).

<sup>64</sup> *Microsoft*, 131 S.Ct. at 2244.

Court's opinion in *KSR*. Contrary to the *American Hoist* district court, however, the district court in *Microsoft* rejected this idea and instructed the jury that Microsoft must prove the patent's invalidity by clear and convincing evidence, regardless of any relevant evidence considered by the PTO.<sup>65</sup> Based on the instruction, the jury found that i4i's the patent was valid and that Microsoft had willfully infringed it.<sup>66</sup> On appeal from the district court, the Federal Circuit affirmed.<sup>67</sup>

The Supreme Court acknowledged § 282 contains no description about standard of proof; however, the Court confirmed the clear and convincing standard based on the assumption that where Congress uses a common law term in a statute, the term carries its common law meaning.<sup>68</sup> The Court traced back the history of the presumption of validity with a clear and convincing standard, citing *RCA*, *American Hoist*, and several other cases.<sup>69</sup> The Court confirmed that the common law meaning of "presumed valid" in § 282, as legislated in 1952, imposed a heavy burden of persuasion on a defendant raising an invalidity defense, which required proof of the defense by clear and convincing evidence.<sup>70</sup>

However, in answering Microsoft's argument that the standard of proof should be lowered when new evidence had not been considered by the PTO, the Court also explained that "if the PTO did not have all material facts before it, its considered judgment may lose significant force,"<sup>71</sup> and that "the jury may be instructed to consider that it has heard evidence that the PTO had no opportunity to evaluate before granting the patent."<sup>72</sup> However, the defendant's standard of proof remains the clear and convincing standard.<sup>73</sup>

The Court also addressed the policy argument between the parties and their respective *amici*. Microsoft argued that the clear and convincing standard dampened innovation by protecting bad patents from invalidity challenges; it also expressed concerns about the PTO's resources and procedures.<sup>74</sup> On the other hand, i4i countered that "the heightened standard of proof properly limits the circumstances in which a lay jury overturns the considered judgment of an expert agency."<sup>75</sup> Moreover, i4i argued that the standard is "an essential component of . . . the incentives for inventors to disclose their innovations to the public in exchange for patent protection."<sup>76</sup> In response to these arguments, although the Court stated that "[w]e find ourselves in no position to judge the comparative force of these policy arguments," it pointed out that Congress has left the Federal Circuit's interpretation of § 282 untouched despite criticism.<sup>77</sup> Consequently, the

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<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> *Id.* at 2253.

<sup>68</sup> *Id.* at 2245.

<sup>69</sup> *Id.* at 2241-2251.

<sup>70</sup> *Id.* at 2245-46.

<sup>71</sup> *Id.* at 2251.

<sup>72</sup> *Id.*

<sup>73</sup> *Id.*

<sup>74</sup> *Id.* at 2251-52.

<sup>75</sup> *Id.* at 2252.

<sup>76</sup> *Id.*

<sup>77</sup> *Id.* at 2252-23.

Court affirmed the Federal Circuit's judgment.

*B. Invalidity Defense in Japanese Infringement Suits*

1. Theories of Invalidity Defense Before *Kilby* (2000)

Prior to *Kilby*, the Japanese Supreme Court repeatedly decided that courts cannot determine a patent's validity, reasoning that an issued patent exists as long as the JPO does not declare it invalid in its trial decision.<sup>78</sup> Thus, until *Kilby* in 2000, courts did not judge patents' validity in infringement suits. The Court established this practice on the premise that authorities of the JPO and courts should be divided, with the JPO in charge of patent validity and the courts in charge of the judgment regarding infringement.<sup>79</sup> That is, the Court thought it appropriate for trial examiners in the JPO, with their expertise, to make decisions of patent invalidity as opposed to inexperienced judges.

Article 168(2) of the Japanese Patent Act stipulates that "the court may, if it considers it necessary, suspend the court proceedings until the [JPO's] trial decision becomes final and binding."<sup>80</sup> Based on this provision, courts used to urge defendants in infringement suits to request an invalidation trial from the JPO, thereby suspending the litigation over infringement. However, this practice has caused chronic litigation and delays in dispute resolution because of the break in the infringement suit during the pending trials at the JPO. Therefore, academics have proposed various theories to enable courts to prevent patentees from enforcing their rights when the patents are clearly invalid. Lower courts have also sometimes ruled along similar lines of reasoning to these theories.

Several theories typically recur in commentators' discussions. First, the "narrow interpretation theory" is the idea that a court can limit an invention's technical scope when it lacks novelty.<sup>81</sup> Second, the "free technology counter claim theory" is the notion that, if an allegedly infringing device is publicly known at the time of filing, a patent cannot be enforced against the device because a patent right should be granted to an invention which exceeds the technological standard at the time of filing.<sup>82</sup> Third, the "impossibility of defining technical scope theory" holds that, if a patent lacks novelty, a court cannot judge how a patent's claim should be amended and must dismiss the complaint for the infringement suit; however, the patentee may still amend the patent's claim through the JPO's trial for correction.<sup>83</sup> Fourth, the "patent misuse theory" states that enforcement based on a patent right that lacks novelty is not permitted

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<sup>78</sup> Takabe Makiko, *Mukōriyū ga sonzai surukotoga akirakana tokkyoken ni motozuku sasitometou no seikyū to kenri no ranyō, Saikōsaibansho hanrē kaisetsu minji hen heisei 12 NENDO JYŌ 418*, 426-427, 456 (2003).

<sup>79</sup> *Id.* at 427; Koike, *supra* note 12, at 265.

<sup>80</sup> Tokkyohō [Patent Act], Law No. 121 of 1959, art. 168(2), *available at* <http://www.cas.go.jp/jp/seisaku/hourei/data/PA.pdf> (Japan).

<sup>81</sup> Takabe, *supra* note 78, at 428-429.

<sup>82</sup> *Id.* at 429. *See also* Nobuhiro Nakayama, KOGYŌ SHOYŪKENHŌ (JŌ) TOKKYOHŌ 409-417 (Kōbundō, 2nd ed. 2000).

<sup>83</sup> Takabe, *supra* note 78, at 429-430.

because such enforcement is deemed to be patent misuse.<sup>84</sup>

One final theory is the “clear invalidation theory,”<sup>85</sup> which has not been adopted in any cases, but was proposed by some academics before *Kilby*. This theory asserts that a patent should be invalidated when it has some significant and clear defect. Nobuhiro Nakayama wrote that, although the conditions for admitting the invalidity defense are controversial, the defense should be admitted only when the patent is clearly invalid; if no such limitation existed, cases could arise in which the courts and the JPO’s trial panel would make different decisions.<sup>86</sup> Nakayama also mentioned that the examination on invalidation is delicate from a technological viewpoint; it is heavily burdensome for district courts, who do not have the technical expertise to examine, for example, whether a patent fulfilled the inventive step requirement.<sup>87</sup> Nakayama listed insufficient disclosure, misappropriated application, double patent, and violation of a treaty as examples of when patents can be judged to be clearly invalid.<sup>88</sup>

## 2. The Japanese Supreme Court’s Decision in *Kilby* (2000)

As described above, the invalidation defense had not been accepted in Japanese infringement suits in the past. However, in *Kilby*, the Japanese Supreme Court changed its case law.<sup>89</sup> In that case, plaintiff Fujitsu asked for a declaratory judgment that the plaintiff was not infringing a patent of defendant Texas Instruments Inc. after the defendant insisted that a semiconductor device which the plaintiff manufactured belonged within the technical scope of the defendant’s invention.<sup>90</sup>

In its decision, the Supreme Court listed two grounds for finding the patent clearly invalid. First, although the patent application for the invention was a divisional application, it did not satisfy the requirements for a division. Consequently, the application should have been refused under Article 39(1) of the Patent Act, as the double patent of the former parent patent application.<sup>91</sup> Second, the invention should have been refused under Article 29(2) of the Patent Act because the invention was substantially the same as the parent patent application’s invention, which had been refused because it was obvious in light of a publicly-known invention.<sup>92</sup>

Based on these reasons, the Court decided that it was inappropriate to enforce a patent to support an injunction or damages when the patent is clearly

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<sup>84</sup> *Id.* at 430-431.

<sup>85</sup> *Id.* at 431-433. *See also* Nakayama, *supra* note 82, at 417-421.

<sup>86</sup> Nakayama, *supra* note 82, at 417-421.

<sup>87</sup> *Id.* at 418-419.

<sup>88</sup> *Id.* at 418.

<sup>89</sup> Saikō Saibansho [Sup.Ct.] Apr. 11, 2000, Hei 10 (o) no. 364, 54 SAIKO SAIBANSHO MINJI HANREISHŪ [MINSHŪ] 1368, *available at* <http://www.courts.go.jp/english/judgments/text/2000.04.11-1998-O-No.364-134718.html> (Japan). The invention was originally made by Nobel Prize winner Jack Kilby, thus this case is called the “*Kilby* patent case.”

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

invalid and when the JPO's decision that the patent is invalid could be anticipated with certainty.<sup>93</sup> The Court also mentioned that its decision of invalidation affected only the parties in that particular case; the patent was not invalidated in relation to the public because the Patent Act stipulates that a patent should be invalidated by JPO trial examiners technical expertise when they have reason for invalidation.<sup>94</sup>

The Court gave three reasons for its decision allowing a court to prevent patent enforcement when that patent is clearly invalid. First, if a patentee seeks an injunction or damages by enforcing a patent that clearly includes a ground for invalidation, the patent unduly benefits the patentee and prejudices the defendant.<sup>95</sup> Thus, that practice is contrary to the principle of equity. Second, the dispute should be resolved as soon as possible and through an individual procedure.<sup>96</sup> Thus, judicial economy is frustrated if a defendant must wait until after the JPO's trial decision to protect himself by claiming that a plaintiff's patent is invalid. Third, Article 168(2) of the Patent Act<sup>97</sup> cannot be interpreted as directing a court to suspend litigation procedure even when a patent clearly has a ground for invalidation and a decision for invalidation by the JPO is anticipated with certainty.

For the above-mentioned reasons, the Court stated that in a patent infringement case, a court may judge whether a patent has a ground for invalidation even before the JPO makes a decision regarding validity. The Court also ruled that when a court found a patent clearly invalid, enforcing patent rights through an injunction or damages cannot be permitted without some particular circumstances; to allow otherwise would be a patent misuse. Therefore, the Court overruled its previous case law.

With regard to the "clearness requirement" in this decision, Makiko Takabe, the judicial research official in the *Kilby* case, commented that the clearness requirement was necessary to maintain the balance between the parties in a patent infringement suit. If clearness were not required and a patent was found to be unenforceable without an administrative authority's judgment, the patentee's disadvantage would be too great.<sup>98</sup> Takabe pointed out that the clearness requirement was indispensable in order to prevent a variance between the decisions of a court and the JPO, as well as to sustain legal stability.<sup>99</sup> Furthermore, she mentioned that the degree of conviction should be higher when

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<sup>93</sup> *Id.*

<sup>94</sup> Tokkyohō [Patent Act], Law No. 121 of 1959, art. 125, 176, available at <http://www.cas.go.jp/jp/seisaku/hourei/data/PA.pdf> (Japan).

<sup>95</sup> Saikō Saibansho [Sup.Ct.] Apr. 11, 2000, Hei 10 (o) no. 364, 54 SAIKO SAIBANSHO MINJI HANREISHŪ [MINSHŪ] 1368, available at <http://www.courts.go.jp/english/judgments/text/2000.04.11-1998-O-No.364-134718.html> (Japan).

<sup>96</sup> *Id.*

<sup>97</sup> Tokkyohō [Patent Act], Law No. 121 of 1959, art. 168(2), available at <http://www.cas.go.jp/jp/seisaku/hourei/data/PA.pdf> (Japan). This provision stipulates that "[w]here an action is instituted or a motion for order of provisional seizure or order of provisional disposition is filed, the court may, if it considers it necessary, suspend the court proceedings until the trial decision becomes final and binding."

<sup>98</sup> Takabe, *supra* note 78, at 441.

<sup>99</sup> *Id.* at 441-42.

a court finds a patent clearly invalid than when it finds merely invalid.<sup>100</sup> This comment can be understood to mean that the clearness requirement in *Kilby* was intended to create a higher standard of proof for patent invalidation just like the clear and convincing standard in a U.S. invalidation suit.

### 3. Legislative Discussion on “Clearness” (2002-2004)

Since *Kilby*, in many patent infringement suits, alleged infringers started claiming that patentees’ rights were clearly invalid and unenforceable.<sup>101</sup> Subsequently, government officials, specifically those in the pro-patent Koizumi administration, promoted discussions about new patent legislation. The Japanese government launched the Basic Law on Intellectual Property in 2002 and has developed the annual Strategy for Promoting Intellectual Property since 2003. The Strategy lists a concrete action plan for promoting the creation, protection, and utilization of intellectual property (“IP”). One of the purposes of the Strategy is to reform the IP litigation system. In the Task Force on Judicial Reform, held from 2002 to 2004, the IP litigation committee discussed enacting a statutory invalidation defense for patent infringement suits as one way to enhance the IP litigation system in Japan.<sup>102</sup>

The IP litigation committee – which consisted of representatives from industry, government, academia, and the bar – discussed whether a court in an infringement suit can adjudicate a patent’s invalidity only when the ground for invalidation is clear, or whether it can render a decision regardless of the clearness of invalidation.<sup>103</sup> The committee members’ opinions were controversial. On one hand, members from the industry and the bar claimed that clearness was not needed.<sup>104</sup> One member from electric industry also stated that the requirement of clearness of invalidity must be removed from the new provision in order to resolve disputes through a single proceeding, without the JPO’s invalidation trial, consequently reducing litigation costs.<sup>105</sup> Another member mentioned that, instead of the JPO, the courts should be responsible in an infringement suit for all kinds of invalidity claims, and that the requirement of clearness was unnecessary because it was subjective and unforeseeable.<sup>106</sup>

On the other hand, a legal scholar and a judge both claimed that the requirement of clearness was necessary. Nobuhiro Nakayama, an honorary

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<sup>100</sup> *Id.* at 442.

<sup>101</sup> See JAPAN PATENT OFFICE, *supra* note 8.

<sup>102</sup> *Intellectual Property Litigation Review Committee*, OFFICE FOR THE PROMOTION OF JUSTICE SYSTEM REFORM, PRIME MINISTER OF JAPAN AND HIS CABINET (Oct. 23, 2002 - July 20, 2004), available at <http://web.archive.org/web/20081019121334/http://www.kantei.go.jp/jp/singi/sihou/kentoukai/11ti/teki.html>.

<sup>103</sup> *Intellectual Property Litigation Proceedings (9th)*, OFFICE FOR PROMOTION OF JUSTICE SYSTEM REFORM, PRIME MINISTER OF JAPAN AND HIS CABINET (June 23, 2003), available at <http://web.archive.org/web/20060830054711/http://www.kantei.go.jp/jp/singi/sihou/kentoukai/titeki/dai9/9gijiroku.html>.

<sup>104</sup> *Id.*

<sup>105</sup> *Id.*

<sup>106</sup> *Id.*

professor at the University of Tokyo, explained that ideally, all patent validity should be examined through the JPO's invalidation procedure, but that this is not realistic because the JPO's resources are limited. Thus, he stated that the requirement of clearness was necessary for a judgment in an infringement suit,<sup>107</sup> and that the JPO's trial should examine cases that needed delicate judgment because of concerns about the courts' ability to investigate detailed patentability issues.<sup>108</sup>

Moreover, the current Chief Judge in the Intellectual Property High Court, Judge Toshiaki Iimura, supported the necessity of clear invalidity in the new provision. He mentioned that a defendant's burden should be made heavier in claiming invalidity by requiring clearness, thus providing proper protection for a good invention.<sup>109</sup> He explained that because the usual practice is to write a patent claim as broadly as possible, a patented claim sometimes includes a small defect.<sup>110</sup> Judge Iimura said that allowing a patent of a good invention to be rendered unenforceable based on a small defect when the patentee raises a suit against a copier is too strict.<sup>111</sup> He argued that, in such a case, the patentee should be granted an opportunity to amend the claim in the JPO by staying the litigation.<sup>112</sup> In addition, he mentioned that dispute resolution through a single process was not always the best way, and even though the idea of "clearness" or "clear" was vague, vagueness was not always problematic.<sup>113</sup>

#### 4. Article 104-3 of the Patent Act (2004)

After the discussion among the stakeholders, the industry opinion eventually won out. Article 104-3 of the Patent Act, which enables a court in an infringement suit to invalidate a patent regardless of the invalidity's clearness, was enacted in 2004 to establish a more effective dispute resolution system. It reads: "[w]here, in litigation concerning the infringement of a patent right or an exclusive license, the said patent is recognized as one that should be invalidated by [the JPO's] trial for patent invalidation, the rights of the patentee or exclusive licensee may not be exercised against the adverse party."<sup>114</sup>

In Japan, the number of patent infringement suits has not exceeded the number in the U.S.; in fact, that number decreased in the ten years since *Kilby* and the legislation of Art. 103-4. When courts discuss patent validity after the *Kilby* case, they hold the patent rights to be invalid in 74 percent of the cases.<sup>115</sup> This data is discussed in more detail in Chapter V.

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<sup>107</sup> *Id.*

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

<sup>112</sup> *Id.*

<sup>113</sup> *Id.*

<sup>114</sup> Tokkyohō [Patent Act], Law No. 121 of 1959, art. 104-3, available at <http://www.cas.go.jp/jp/seisaku/hourei/data/PA.pdf> (Japan).

<sup>115</sup> JAPAN PATENT OFFICE, *supra* note 8.



### III. Standard of Proof for Invalidation in Patent Office Appeal Procedures

#### A. Reexamination in the PTO

In both the U.S. and Japan, there are ways to invalidate patents through the appeal or trial procedures in the Patent Offices. The PTO amended its appeal procedures in September 2011 through the America Invents Act (“AIA”).<sup>116</sup> Under the AIA, the PTO has three kinds of appeal procedures: *ex parte* reexamination,<sup>117</sup> post-grant review,<sup>118</sup> and *inter partes* review.<sup>119</sup> The invalidity of a patent is proven by a preponderance of the evidence standard. Thus, in contrast to the clear and convincing standard in an infringement suit, the standard of proof is lower in the patent invalidation procedures in the PTO. With regard to the standard of proof in the reexamination procedure, the Manual of Patent Examining Procedure (“MPEP”) instructs that a *prima facie* case of unpatentability is established under the preponderance standard.<sup>120</sup> In addition, 35 U.S.C. § 316(e)<sup>121</sup> and § 326(e)<sup>122</sup> stipulate that “the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.”

In addition to the appeal procedure, the standard of proof in the patent examination procedure is also preponderance of the evidence. Among descriptions in the MPEP that state the standard,<sup>123</sup> the explanation in MPEP § 706 is especially understandable. It states:

An application should not be allowed, unless and until issues pertinent to patentability have been raised and resolved in the course of examination and prosecution, since otherwise the resultant patent would not justify the statutory presumption of validity (35 U.S.C. [§] 282), nor would it “strictly adhere” to the requirements laid down by Congress in the 1952 Act as interpreted by the Supreme Court. The standard to be applied in all cases is the “preponderance of the evidence” test. In other words, an examiner should reject a claim if, in view of the prior art and

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<sup>116</sup> Pub. L. No. 112–29, 125 Stat. 284 (codified as amended in scattered sections of 28 U.S.C. & 35 U.S.C.).

<sup>117</sup> 35 U.S.C. §§ 301-07 (2012).

<sup>118</sup> *Id.* at §§ 321-29.

<sup>119</sup> *Id.* at §§ 311-19.

<sup>120</sup> PATENT & TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE § 2280 (2012)(“A *prima facie* case of unpatentability of a claim pending in a reexamination proceeding is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.”).

<sup>121</sup> For *inter partes* review.

<sup>122</sup> For post-grant review.

<sup>123</sup> PATENT & TRADEMARK OFFICE, *supra* note 120, at §§ 716.01(d), 2142.

evidence of record, it is more likely than not that the claim is unpatentable.<sup>124</sup>

Putting it all together, in the U.S., the standard of proof for proving patents' invalidity varies between litigation in the court and the procedures of the PTO. In other words, examiners or parties in appeal procedures can refuse or invalidate patents by a preponderance of the evidence standard, but defendants in infringement suits must prove the invalidation by clear and convincing evidence. Therefore, the presumption of validity under § 282 is limited to litigation. Prosecution through the PTO has no such presumption.

#### B. Invalidation Procedures in the JPO

Although there is no instruction about the standard of proof in the JPO's Trial Examination Procedure Manual, the Examination Guidelines for Patent and Utility Model ("Guidelines") contains a few instructions regarding the standard of proof used to examine patent applications.<sup>125</sup> For instance, in the context of an examination for the novelty requirement, the Guidelines explain that when an examiner has a reasonable doubt that the claimed inventions would be identical to cited inventions, the examiner shall send a notice of refusal.<sup>126</sup> In essence, the Guidelines instruct that if an examiner has a fairly reasonable doubt, he can establish a *prima facie* case for refusal and notify an applicant of the reason therefor. Subsequently, when the examiner cannot dispel his or her suspicion, even after receiving the applicant's argument, the examiner may refuse the patent application. Thus, the standard of proof in a Japanese patent examination is likely to be similar to the preponderance of the evidence standard in the PTO, or, at least, the expression in the Japanese Examination Guidelines is lower than the clear and convincing evidence standard used in U.S. infringement cases.

### IV. Statistics on Patent Invalidation

As described above, the standards of proof for patent invalidation in the U.S. and Japan have different histories and different levels. In U.S. courts, the standard is clear and convincing evidence while Japanese courts can invalidate patents without a clear ground for invalidation. To show the influence of these standards on practices in both jurisdictions, some statistics are shown below.

#### A. Win Rates in the U.S.

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<sup>124</sup> *Id.* at § 706.

<sup>125</sup> JAPAN PATENT OFFICE, EXAMINATION GUIDELINES FOR PATENT AND UTILITY MODEL IN JAPAN (last updated Apr. 25, 2012), available at [http://www.jpo.go.jp/tetuzuki\\_e/t\\_tokkyo\\_e/1312-002\\_e.htm](http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/1312-002_e.htm).

<sup>126</sup> JAPAN PATENT OFFICE, EXAMINATION GUIDELINES FOR PATENT AND UTILITY MODEL IN JAPAN, 13 (Apr. 25, 2012) [http://www.jpo.go.jp/tetuzuki\\_e/t\\_tokkyo\\_e/Guidelines/2\\_2.pdf](http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/Guidelines/2_2.pdf) ("the examiners shall send a notice of the reasons for refusal for the lack of novelty when they have a reasonable doubt that the products in the claimed inventions and cited inventions are *prima facie* identical.").

Although the standards of proof in the courts and the PTO are different in the U.S., one could argue that the influence of the clear and convincing evidence is vague because it is merely a broad guide to factfinders. However, data shows that patentees' win rate in infringement suits and reexamination procedures are different and that patentees have a higher chance of winning in the courts. (See Table 1 and Table 2.) The clear and convincing standard appears to be functioning well in the U.S. courts. That is, although the standard of proof is a broad instruction, the standard somehow causes a factfinder to decide a patent's validity more carefully and with more deference to patentee.

| Type of Trial | Patentee's win rate |
|---------------|---------------------|
| Jury trial    | 66%                 |
| Bench trial   | 67%                 |

**Table 1: Patentee's win rate in trials**<sup>127</sup>

|                     | All claims confirmed | All claims cancelled | Claims are changed |
|---------------------|----------------------|----------------------|--------------------|
| <i>Ex Parte</i>     | 22%                  | 11%                  | 67%                |
| <i>Inter Partes</i> | 11%                  | 42%                  | 47%                |

**Table 2: Results of *Ex Parte* and *Inter Partes* reexamination**<sup>128</sup>

### B. Invalidation Rates in Japan

As pointed out above, when Japanese district courts discuss patent validity, they find the patent rights invalid in 73 percent of cases.<sup>129</sup> The win rate of patentees in infringement cases at the district courts is only 20 percent or less. (See Table 3). This number is considerably less than the above-described winning rate in the U.S., which is over 65 percent. Furthermore, the data in Table 3 show that the number of infringement cases in Japan is decreasing. Patentees are likely becoming concerned that their patents will be invalidated in infringement suits, and they therefore hesitant to enforce their patent rights.

|  | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|------|------|------|------|------|------|------|------|------|------|
|  |      |      |      |      |      |      |      |      |      |      |

<sup>127</sup> See *2011 Patent Litigation Study*: Patent litigation trends as the "America Invents Act" becomes law, PWC 12 (2011), available at <http://www.pwc.com/us/en/forensic-services/publications/2011-patent-litigation-study.jhtml> (click on "Download PDF").

<sup>128</sup> See U.S. PATENT AND TRADEMARK OFFICE, EX PARTE REEXAMINATION FILING DATA – JUNE 30, 2012, 1-2 (June 30, 2012), available at [http://www.uspto.gov/patents/stats/EP\\_quarterly\\_report\\_June\\_30\\_2012.pdf](http://www.uspto.gov/patents/stats/EP_quarterly_report_June_30_2012.pdf). See also U.S. PATENT AND TRADEMARK OFFICE, INTER PARTES REEXAMINATION FILING DATA – JUNE 30, 2012, 1 (June 30, 2012), available at [http://www.uspto.gov/patents/stats/IP\\_quarterly\\_report\\_June\\_30\\_2012.pdf](http://www.uspto.gov/patents/stats/IP_quarterly_report_June_30_2012.pdf).

<sup>129</sup> See JAPAN PATENT OFFICE, *supra* note 8.

|                            |             |             |             |             |             |             |             |             |             |             |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Patentee lost</b>       | 71<br>(79%) | 55<br>(84%) | 58<br>(83%) | 52<br>(80%) | 35<br>(88%) | 35<br>(70%) | 28<br>(76%) | 28<br>(76%) | 29<br>(81%) | 29<br>(76%) |
| <b>Patentee partly won</b> | 0           | 1           | 0           | 0           | 0           | 5           | 1           | 4           | 4           | 2           |
| <b>Patentee won</b>        | 19<br>(21%) | 9<br>(14%)  | 12<br>(17%) | 11<br>(20%) | 5<br>(12%)  | 10<br>(20%) | 8<br>(22%)  | 5<br>(14%)  | 3<br>(8%)   | 7<br>(18%)  |

**Table 3: Results of patent infringement cases in Japanese district courts**<sup>130</sup>

At the same time, the number of patent applications filed with the JPO has been decreasing since 2006. (See Table 4). However, it cannot be concluded that the decrease in patent applications is caused by Article 103-4; the number of patent applications is mostly influenced by the economic climate and investments in the area of research and development. Considering that other countries have not experienced a similar decrease, and because applicants all over the world are more reluctant to file patent applications and obtain patent rights in Japan than before, it is likely that some incentives to have patent rights in Japan are needed to attract potential patentees. Stability of issued patents might be one such incentive for international applicants.

|                            | 2003    | 2004    | 2005    | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Patent applications</b> | 413,092 | 423,081 | 427,078 | 408,674 | 396,291 | 391,002 | 348,596 | 344,598 | 342,610 |

**Table 4: Number of patent applications filed with the JPO**<sup>131</sup>

With regard to the JPO's trial for patent invalidation procedure, (see Table 5), the claim confirmation rate is around 50 percent; the rate is even higher than that in the U.S. (22 percent in *ex parte* reexamination and 11 percent in *inter partes* reexamination). Also, the rate is higher than that in infringement cases in Japan (26 percent). It cannot be concluded that the JPO's trial procedure is more generous than the reexamination procedures in the U.S. or the infringement suits in Japan; rather, whether a patented claim should be invalidated or not depends on how broad its scope is. However, at least, patents cannot be invalidated easily in the JPO's trial procedure.

According to the statistics of the JPO, there is a variance between the decisions of Japanese district courts and the JPO trial panels, even when evaluating the same evidence and prior art. Among 54 cases from 2005 to 2009, where the same evidence was discussed, the decisions in the district courts and the JPO led to different conclusions in ten cases, or approximately 18.5 percent of the cases. (See Table 6). As Takabe, a judicial research official in the *Kilby* case, expected the clearness requirement to be indispensable in preventing variance

<sup>130</sup> *Id.*

<sup>131</sup> See JAPAN PATENT OFFICE, JAPAN PATENT OFFICE ANNUAL REPORT 2012, [http://www.jpo.go.jp/cgi/linke.cgi?url=/shiryou\\_e/toushin\\_e/kenkyukai\\_e/annual\\_report2012.htm](http://www.jpo.go.jp/cgi/linke.cgi?url=/shiryou_e/toushin_e/kenkyukai_e/annual_report2012.htm).

between a court's decision and the JPO's decision and in sustaining legal stability,<sup>132</sup> decisions actually vary between both entities' decisions. One of the reasons for this variance is likely the lack of a clearness requirement in Article 104-3.

|      | All claims confirmed | All or part of claims cancelled | Withdrawal |
|------|----------------------|---------------------------------|------------|
| 2009 | 123 (43%)            | 123 (43%)                       | 37 (13%)   |
| 2010 | 129 (51%)            | 102 (40%)                       | 23 (9%)    |
| 2011 | 140(54%)             | 91(35%)                         | 28(11%)    |

Table 5: Results of the trial for patent invalidation in JPO <sup>133</sup>

|  | JPO decision: valid | JPO decision: invalid |
|--|---------------------|-----------------------|
| Decision in infringement suit: valid   | 3 (5.5%)            | 3 (5.5%)              |
| Decision in infringement suit: invalid | 7 (13%)             | 41 (76%)              |

Table 6: Decisions of district courts and JPO where evidences are same <sup>134</sup>

## V. Comparative Analysis

### A. Purpose of Clear and Convincing Evidence Standard

As the U.S. Supreme Court in *RCA* stated, the purpose of the clear and convincing standard is “not defining a standard in terms of scientific accuracy or literal precision, but [offers] counsel and suggestion to guide the course of judgment.”<sup>135</sup> That is, the clear and convincing evidence is not a precise criteria, but an instruction which makes factfinders investigate and consider evidence more carefully before concluding a patent is invalid. As this instruction is relatively vague, a judge or jury may have a hard time separating the heightened clear and convincing standard from the lower preponderance of the evidence standard. Similar concerns were raised in the legislative discussion for 103-4 of the Patent Act in Japan. As mentioned above, the Japanese legislation committee pointed out that the requirement of clearness was subjective and vague, so the requirement could result in unforeseeable infringement suits.

Nevertheless, why have the courts or Congress in the U.S. consistently supported the heightened standard of proof? One commonly-given reason, as

<sup>132</sup> Takabe, *supra* note 78, at 441-442.

<sup>133</sup> See JAPAN PATENT OFFICE, *supra* note 131.

<sup>134</sup> See JAPAN PATENT OFFICE, SANGYŌ KŌZŌ SHINGIKAI CHITEKI ZAISANN SEISAKU BUKAI DAI 28 KAI TOKKYO SEIDO SHŌ HINKAI HAIHU SIRYŌ, TOKKYO NO YŪKŌSEI HANDAN NITSUITENO “DABURU TORAKKU” NOARIKATA NITUIITE, [http://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/tokkyo\\_shiryout028/01.pdf](http://www.jpo.go.jp/shiryoutoushin/shingikai/pdf/tokkyo_shiryout028/01.pdf).

<sup>135</sup> *RCA v. Radio Eng'g Laboratories*, 55 S.Ct. 928, 931 (1934).

explained by Judge Rich in *American Hoist*, is that the presumption of validity should be respected because a patent is issued by the PTO. Judge Rich explained the need for according because the PTO is:

a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.<sup>136</sup>

However, the presumption of validity and the clear and convincing evidence standard are not considered in the PTO's appeal procedure, but only in courts. Even though the purpose of the PTO's reexamination, or *inter partes* review procedure, is to examine already-issued patents, the PTO evaluates the evidence under the preponderance of the evidence standard. Considering the difference between the two standards of proof, the clear and convincing standard is likely based not only on the presumed validity of the PTO examiner's decision, but also on the difficulty that courts have in evaluating invalidity. Conducting the same technical evaluation of an invention as the PTO examiner seems harder, especially in U.S. Patent litigation where juries as well as judges may be factfinders, because the factfinder does not have the necessary knowledge to evaluate a patent's invalidity.

Factfinders in patent infringement suits are required to understand two kinds of technical backgrounds: the legal background of patent law and the scientific background of an invention. First, a factfinder must understand the legal requirements for patentability, which an invention must satisfy. Difficulty in understanding and evaluating patent eligibility,<sup>137</sup> novelty,<sup>138</sup> nonobviousness,<sup>139</sup> or the written description requirement<sup>140</sup> seems to arise even for judges who are focused on various kinds of litigations other than patent litigation.

Second, factfinders need scientific knowledge in order to understand the background, mechanism, necessity, and advantage of an invention, as well as the difficulty in creating it. Most judges do not have a technical or scientific background. Moreover, a jury will not always have members with a background in technology or science; even if a jury does have some scientific expertise, an invention's technical field may be different from the field with which the jury is familiar. Even in the PTO, an examiner examines only patents belonging to a small technological area because these days the technology and science has been segmented. Thus, examiners have a more difficult time understanding inventions in unfamiliar technical fields.

Japanese patent litigation also raises similar concerns. Koike, a Japanese

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<sup>136</sup> *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359 (Fed. Circ. 1984).

<sup>137</sup> 35 U.S.C. § 101 (1952).

<sup>138</sup> 35 U.S.C. § 102 (2002).

<sup>139</sup> 35 U.S.C. § 103 (2004).

<sup>140</sup> 35 U.S.C. § 112 (1975).

lawyer, points out that evaluating nonobviousness in an infringement suit, rather than novelty, is a burdensome task for courts, even though courts have some experts or advisers with whom they can consult.<sup>141</sup> Koike also writes that a patent litigation lawyer without a scientific background can usually ask for advice about nonobviousness from a patent attorney with technical knowledge about prior art.<sup>142</sup>

In sum, although the clear and convincing standard does not provide scientific accuracy or literal precision, the use of a heightened standard of proof to properly evaluate a patent's invalidity seems to be a practical requirement when considering the factfinders' limited resources and the PTO's expertise.

### B. *Policy Implication Behind a Heightened Standard*

The cases in the U.S. teach us that the clear and convincing evidence standard is maintained even when a defendant in an infringement suit provides new, relevant evidence not considered by the PTO. At the same time, courts have consistently held that the new evidence eliminates or reduces the element of deference to the PTO and discharges a defendant's burden, although "neither shifting nor lightening it or changing the standard of proof."<sup>143</sup> Again, all of this likely means that the courts apply a heightened standard of proof not only because the PTO has expertise, but also because factfinders have difficulty examining the patentability and should therefore be more careful in their examinations.

In addition to the aforementioned reasons, one policy implication of the courts' persistent use of the clear and convincing evidence must exist. In *Microsoft v. i4i*,<sup>144</sup> the parties and their *amici* argued about this: Microsoft insisted that the clear and convincing standard helped bad patents survive invalidity challenges and hindered innovation. While i4i asserted that "the heightened standard of proof is an essential component of the patent 'bargain' and the incentives for inventors to disclose their innovations to the public in exchange for patent protection."<sup>145</sup> Despite Microsoft's argument, it is true that Microsoft, in fact, earns huge amount of revenue from patent transactions<sup>146</sup> and files a large number of patent applications.<sup>147</sup> Therefore, just like every other patent holder, Microsoft must need stability in its own patents by clear and convincing evidence, even if it wants to decrease the standard of proof for invalidating other companies' patents.

As i4i reasoned, the clear and convincing standard lessens patent holders' concerns by inducing some level of caution within courts and making them less

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<sup>141</sup> Koike, *supra* note 12, at 263-65.

<sup>142</sup> *Id.*

<sup>143</sup> *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Circ. 1984).

<sup>144</sup> *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S.Ct. 2238, 2243 (2011).

<sup>145</sup> *Id.* at 2252 (internal citations omitted).

<sup>146</sup> John E. Dunn, *Microsoft gets \$444 million windfall from Android patent deals*, TECHWORLD.COM (Sep. 30, 2011), <http://news.techworld.com/mobile-wireless/3307367/microsoft-gets-444-million-windfall-from-android-patent-deals>.

<sup>147</sup> Amar Toor, *IBM maintains top spot in global patent rankings, Canon overtakes Microsoft*, ENDADGET.COM (Jan. 11, 2012, 11:24AM), <http://www.engadget.com/2012/01/11/ibm-maintains-top-spot-in-global-patent-rankings-canon-overtake>.

likely to invalidate patents than under the preponderance of evidence standard. The resulting stability, in turn, incentivizes inventors, patent applicants, and patent holders, and eventually contributes to promoting innovation.

### C. *Strengthening the Japanese Patent System*

Patent users, including inventors, applicants, investors, and patent holders, require the benefit of a stable and predictable patent system. Patent holders naturally do not want their patents to be invalidated and other patent users presumably have similar needs, especially when one considers the current situation in Japan. As observed in Chapter III(B)(4) of this note, in Japan, patentees' win rate in infringement suits is very low, the number of infringement suits is smaller, and the number of patent applications filed with the JPO is decreasing. These facts suggest that users do not regard Japan as a suitable place to enforce patent rights. Comparing this situation with the U.S. patent system, which protects patented inventions by a clear and convincing evidence standard, the U.S. patent system is likely to be more attractive than the Japanese patent system even though there are concerns about bad patents in the U.S. or non-practice entities who misuse their patents without practicing patented inventions.

When the Japanese government enacted Article 104-3 under its strategy to promote intellectual properties, the purpose was to make the patent litigation system more effective and flexible. To the contrary, Japanese patent holders seem to be intimidated as a result of the legislation. The Japanese patent system needs reform to enhance its stability and the enforceability of its patents. Thus, for strengthening the Japanese patent system, we need to discuss once again whether a heightened standard for proving patent invalidation is needed in Patent Act. Such a standard is currently applied in the U.S. patent litigation system and is also consistent to the decision in the *Kilby* case.

However, even if such amendment is possible, merely adding a clearness requirement in the Patent Act may not work well; as pointed out in the legislation discussion of Article 104-3, which is referred to in Chapter III(B)(4) of this note, critics argue that a clearness requirement is subjective and vague. Regarding this issue, I make two proposals. First, as Tamura proposed, presumption should be stipulated in statutes to retain legal stability when the standard of proof is exceptionally heightened upon a request of policy.<sup>148</sup> The Japanese Patent Act should reinforce its stability by legislating a presumption of validity for issued patents as a basis of a heightened standard of proof just like 35 U.S.C. 282 in U.S. patent law.

Second, I propose limiting the grounds for patent invalidation in infringement cases. Scholars and lawyers have proposed several options with regard to limiting courts' ability to invalidate patents.<sup>149</sup> One such option is to

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<sup>148</sup> Tamura, *supra* note 19, at 545-46.

<sup>149</sup> See Toshiko Takenaka, *Tokkyo Yūkōsei Funsōshoriseido Saikō: Nichibei Hikakuhō no Kantenkara*, CHITEKI ZAISANKEN NO ATARASII NAGARE 371, 389 (2010) (discussing limiting Japanese courts' coverage on patent invalidation to novelty, inventive step, or double patents); see also Kyu Whan Oh, *Tokkyo Shingaisoshō niokeru Kenriranyō no Kōben*, 55 PATENT 29, 33 (2002)



remove the inventive step or non-obviousness issue as grounds for invalidation under Article 104-3. This option takes into consideration courts' limited ability to make technological evaluations on complicated inventions, as discussed above, and is also consistent with what patent users are seeking.<sup>150</sup> It is time for the Japanese government to more innovatively and proactively discuss how to improve its patent system's stability and how to incentivize inventors and applicants. These discussions must include enhancing Article 104-3 of the Patent Act.

#### D. *Harmonizing Patent Systems*

Lastly, adopting the clear and convincing evidence standard in the Japanese patent system would also be beneficial in harmonizing the patent systems of the U.S. and Japan. More and more patentees are obtaining patents worldwide and are simultaneously enforcing their patents in several jurisdictions. Thus, global patent holders require that major jurisdictions harmonize their patent litigation systems as closely by as possible. To adopt a heightened standard of proof in the Japanese patent litigation system would be beneficial in this regard.

### **Conclusion**

After comparing the history of the standard of proof for a patent's invalidity in the U.S. and the legislative history of Article 104-3 of the Japanese Patent Act, the requirement of clear and convincing evidence (or lack thereof) seems to have a large impact on the stability and reliability of the patent system for patent holders and other stakeholders. The U.S. Supreme Court's decision in *Microsoft v. i4i* has encouraged patent holders to enforce their patents and inventors to make innovations. The Japanese patent system can learn from this decision. Accordingly, the Japanese legislature should review the validity of Article 104-3 to determine whether to add a clear and convincing evidence standard of proof and, as a basis for the heightened standard, whether a presumption of patent validity is required in the Japanese Patent Act.

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(proposing that only the JPO can judge inventive step issue).

<sup>150</sup> See Koike, *supra* note 12, at 274-275 (pointing out that it is burdensome for a court to judge inventive step and it is relatively easy to judge novelty); see also Nihon Benrishikai Kinki Shibu, *supra* note 12, at 83 (insisting that a court should be more careful in judging inventive step).