NOTE

OBJECTIVELY RECKLESS: A SEMI-EMPIRICAL EVALUATION OF *IN RE SEAGATE*

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I. INTRODUCTION

Imagine a situation where the consequences of infringing a patent are miniscule compared to the increased marketability resulting from the infringement. This would undermine the exclusivity of a patent as property and would severely lower its value. To the contrary, a strong and respected patent system is necessary to promote initial investment in innovative activity.¹

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¹ Rebecca S. Eisenberg, Patents and the Progress of Science, Exclusive Rights and

This is why patent infringement is a strict liability offense against a protected property interest.² When it comes to the determination of damages, however, the mindset of the infringer is justifiably relevant.³ If an infringer "willfully" infringed the patent, she can be subjected to enhanced damages under the patent damages statute.⁴ This threat of enhanced damages counteracts the potential commercial benefits that promote the "efficient infringement" scenario mentioned above.⁵

Willful infringement is determined by a trier-of-fact (judge or jury), thereby permitting the court to enhance damages at its discretion.⁶ The damages statute itself, however, is devoid of any requirement or definition for infringement damages to be enhanced.⁷ Therefore, the willfulness doctrine is entirely a judicial creation. Given the millions of dollars at issue in most infringement cases,⁸ the definition of "willfulness" is a contentious issue.⁹

The Court of Appeals for the Federal Circuit recently signaled a paradigm shift in how willful infringement is to be proven.¹⁰ In *In re Seagate, LLC* ("*Seagate*"), the Federal Circuit overruled decades of prior precedent,¹¹ limited the waiver of attorney-client privilege,¹² and significantly raised the threshold for proving willful infringement.¹³ These changes make enhanced damages dramatically harder to obtain. Part of the rationale underlying the Court's decision was a desire to align the meaning of willfulness in patent law with its

⁵ See supra notes 1-4 and accompanying text.

⁶ Kimberly A. Moore, *Empirical Statistics on Willful Patent Infringement*, 14 FED. CIR. B.J. 227, 236 (2004).

¹¹ Seagate, 497 F.3d, at 1371.

¹³ *Id.* at 1375.

Experimental Use, 56 U. CHI. L. REV. 1017, 1024-28 (1989).

² College Sav. Bank v. Fla. Prepaidpostsecondary Ed. Expense Bd., 527 U.S. 666, 673 (1999).

³ In re Seagate Tech., LLC, 497 F.3d 1360, 1368 (Fed. Cir. 2007) [hereinafter Seagate] (en banc), *cert. denied*, 128 S.Ct. 1445 (Feb. 25, 2008).

⁴ 35 U.S.C. § 284 (2006); Madeline F. Baer, *Opinion Letters, Representation Issues and the Impact of the Knorr-Bremse Decision*, 910 PLI/PAT 1115, 1122 (2007).

⁷ Id.

⁸ See American Intellectual Property Law Association, Report of the Economic Survey 21-22 (2003).

⁹ United States Court of Appeals for the Federal Circuit, *20th Anniversary Judicial Conference*, 217 F.R.D. 548, 727 (2002) (comments of Professor Donald S. Chisum, "Willful infringement findings have severe consequences, including enhanced damages and attorney fees.").

¹⁰ See Broadcom Corp. v. Qualcomm, Inc., 2007 U.S. Dist. LEXIS 86627, at *5-*15 (C.D. Cal., Nov. 21, 2007).

¹² *Id.* at 1373.

meaning in other legal areas.¹⁴ It also sought to correct two perceived abuses in the patent system: (1) that the district courts were overly biased towards the patentee when determining willfulness and (2) that defending against a charge of willfulness could open the defendant's trial strategy to waiver of attorneyclient privilege.¹⁵ This note argues that *Seagate* has failed to accurately correct the procedure for enhancing infringement damages because it maintains the unnecessary grafting of a willfulness standard onto the statutory language of Section 284. Furthermore, the toughening of the willfulness standard is not necessarily conducive to reaching the correct result in a willfulness determination and is likely to leave an aggrieved patentee under-compensated.

Part II begins with a background introduction to the development and major issues of the willfulness doctrine. Part III then discusses the Seagate opinion itself in an attempt to decipher exactly what the Federal Circuit has accomplished. Next, Part IV utilizes the available empirical data on willfulness findings (and a couple of reasonable assumptions) to perform a conditional probability and decision branch analysis. The discussion in Part IV concludes that the legal standard articulated in *Seagate* may increase the total error probability in willfulness determinations. While the Seagate standard may effectively eliminate false positive errors (defined as an "innocent" infringer being found to have committed willful infringement), it is likely to cause a drastically disproportionate increase in false negative errors (defined as truly willful infringers who are found to be "non-willful"). Because the law has developed such that damages cannot be enhanced for compensatory purposes, and because of the difficulties in proving/calculating reasonable royalty and lost profit damages, the increased risk of false negative error also risks under-compensating the patentee. Coupled with already high litigation costs of defending patent rights, the risk of under-compensation may severely erode the value of patents as a form of intellectual property protection.

II. BACKGROUND

This section of the note will explore some of the history of patent damages and the evolution of the willfulness doctrine. It finds that although willfulness has developed as a threshold requirement for limiting enhanced damages to punitive situations, there is no legislative reason why enhanced damages could not play a compensatory role.

The underlying premise of patent damages is relatively straightforward. Simply put, "The patent owner is to be restored financially to the position he

¹⁴ *Id.* (noting that the preceding standard failed "to comport with the general understanding of willfulness in the civil context").

¹⁵ Donald S. Chisum, Commentary, *Willful Infringement, Objective Recklessness and the Trial Attorney-Client Privilege*, LEXISNEXIS EXPERT COMMENTARIES at *1 (2007).

would have occupied but for the infringement."¹⁶ These compensatory damages can be measured by (1) lost profits, (2) an established royalty, or (3) a reasonably royalty.¹⁷ By definition, "A reasonably royalty is the royalty that willing parties would have agreed to had they negotiated a license under the patent."¹⁸ Because of the difficulty in (or impossibility of) establishing lost profits, royalties are a favored method of compensation.¹⁹ If a patentee exploits the patent by offering licenses, the established royalty rate of those licenses is the appropriate basis for recovery.²⁰ Without sufficient evidence of an established royalty, as may be the case for inventions that have yet to be marketed, the patentee is entitled to recover not less than the reasonable royalty.²¹

The initial Patent Acts of 1793 and 1800 were very much in favor of enhancing these infringement damages. The 1793 Act required that damages should be, *at a minimum*, trebled.²² The initial impetus for the treble damages provision appears to be a concern that patentees were unable to obtain sufficient damage awards.²³ The Patent Act of 1836 repealed all existing patent laws and, in Section 14, established the fundamental basis for damages in infringement cases.²⁴ Although it eliminated the mandatory treble damages provisions,²⁵ one purpose behind the 1836 Act was to correct deficiencies in pre-1836 patent law that insufficiently compensated patentees.²⁶ The changes of 1836 were intended to provide a traditional flexible remedy allowing for full

²⁵ Id.

¹⁶ 7-20 DONALD S. CHISUM, CHISUM ON PATENTS § 20.03 (2007) [hereinafter CHISUM ON PATENTS] (discussing monetary relief).

¹⁷ Id.

¹⁸ Id.

¹⁹ Mark A. Lemley and Ragesh K. Tangri, *Ending Patent Law's Willfulness Game*, 18 BERKELEY TECH. L.J. 1085, 1110-11 (2003) (describing how lost profits are difficult to calculate because "[t]he patentee must make a detailed economic showing of demand for the patented good, the absence of noninfringing substitutes, evidence that the patentee would have made the sales if the defendant had not. . ., and the profit the patentee makes per unit. Courts require sophisticated economic analysis of how the price of a good would have interacted with the quantity sold in the absence of infringement and will not award lost profits from eroded prices without substantial economic evidence.").

²⁰ CHISUM ON PATENTS, *supra* note 16, § 20.03.

 $^{^{21}}$ Id.

²² Matthew D. Powers and Steven C. Carlson, *The Evolution and Impact of the Doctrine of Willful Patent Infringement*, 51 SYRACUSE L. REV. 53, 67 (2001).

²³ Id.

²⁴ *Id.* at 66.

²⁶ Seagate, 497 F.3d at 1377 (Gajarsa, J., concurring) (citing Sen. John Ruggles, S.Report Accompanying Senate Bill No. 239, at 6 (Apr. 28, 1836)).

compensation.²⁷ They remain the underlying basis of modern damages law.²⁸

The Patent Act of 1870 gave "court[s] of equity the power to assess damages as well as profits" and maintained the courts' discretionary powers to increase damages.²⁹ The 1922 Act codified the reasonable royalty as a measure of damages, and courts have held that the reasonable royalty can be enhanced.³⁰ The legislative history behind a 1946 revision to the Patent Act indicated that Congress intended the threat of enhanced damages to act as a deterrent to culpable infringement and to channel the infringer toward negotiation.³¹ The modern damages statute arrived in the Patent Act of 1952 and is codified as 35 U.S.C. §284. The second paragraph reads, "When the damages are not found by a jury, the court shall assess them. In either event, the court may increase the damages up to three times the amount found or assessed."³²

A. Origin & Development of the Willfulness Doctrine

This subsection discusses the contentious arrival of willfulness as a precondition to enhancement of damages.³³ The text of the statute states that the option to enhance lies completely within the discretion of the court and makes no reference to a requirement for enhancement.³⁴ Its plain meaning unambiguously omits any willfulness requirement.³⁵ In contrast, 35 U.S.C. §285, which permits the awarding of attorney fees to the prevailing party in a patent infringement suit, expressly requires that this be done only in "exceptional cases."³⁶

The purpose of the enhanced damages provision is a longstanding controversy in part because the damages statute does not contain language

²⁷ Id. at 1378 (Gajarsa, J., concurring).

²⁸ Powers & Carlson, *supra* note 22, at 66 (citing Senate Report Accompanying S. 239, 24th Cong., 1st Sess. (April 28, 1836)).

²⁹ CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][i].

³⁰ Id.

³¹ Opposition of Respondents Convolve, Inc. and Massachusetts Institute of Technology to the En Banc Petition of Seagate Technology LLC for a Writ of Mandamus to the United States District Court for the Southern District of New York at 52-53, *In re Seagate*, 2007 U.S. App. LEXIS 19768 (Fed. Cir. 2007) (No. 830), 2007 WL 1685896 [hereinafter Opposition of Respondents] (quoting S. Rep. No. 79-1503, at *2, that the revision "preserved judicial 'discretion to award triple damages [to] discourage infringement of a patent by anyone thinking that all he would be required to pay ... would be a royalty").

^{32 35} U.S.C. § 284 (2006).

³³ Seagate, 497 F.3d at 1376-85 (Gajarsa, J., concurring).

³⁴ See 35 U.S.C. § 284 (2006).

³⁵ Seagate, 497 F.3d 1376-77 (Gajarsa, J., concurring).

³⁶ 25 U.S.C. § 285 (2006).

indicating whether the purpose of an increased damage award is punitive or compensatory.³⁷ Judicial interpretation of the damages statute has clearly favored a situation in which a court cannot award increased damages without a finding that the defendant consciously and willfully copied the patented invention.³⁸ In other words, the general rule is that increased damages cannot be awarded solely for compensation, and a finding of willful infringement is required.³⁹ Two questions are obvious at this point: (1) how did the willfulness requirement arise; and (2) why should enhanced damages be limited to punitive situations?

A willfulness requirement was read into Section 284 long before the creation of the Federal Circuit. In the 1853 case of *Seymour v. McCormick*, the Supreme Court first interpreted the treble damages provision of the 1836 Act.⁴⁰ In approving of the "statutory change from mandatory to discretionary increases," the Court noted that a jury can only award actual damages while the court, in its discretion, could increase those damages to the treble limit in order to punish "wanton or malicious" conduct.⁴¹ However, this statement clearly does not match the text of the statute, and the Supreme Court subsequently indicated that increased damages may serve a compensatory role.⁴²

The modern grafting of a willfulness requirement onto Section 284 appears to have occurred in the lead up to the drafting of the Patent Act of 1952. Before 1946, there was no statutory provision in the patent laws to award any interest due the prevailing patentee.⁴³ However, interest was nevertheless awarded under the *Duplate* Standard, which held that prejudgment interest could not be awarded where damages were unliquidated without a showing of bad faith or some other exceptional circumstances.⁴⁴ In 1946, Congress enacted a statute to award interest (as fixed by the courts) to the prevailing patentees.⁴⁵ With only minor revisions, this statute became today's Section 284.⁴⁶ However, it was not until 1983 that the Supreme Court settled the issue over whether Congress intended for the *Duplate* Standard to carry over into

³⁷ CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][iii].

³⁸ Powers & Carlson, *supra* note 22, at 69.

³⁹ CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][iii].

⁴⁰ Seymour v. McCormick, 57 U.S. 480 (1853).

⁴¹ CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][ii] (quoting Seymour v. McCormick, 57 U.S. 480 (1853)).

⁴² *Id.* (quoting Clark v. Wooster, 119 U.S. 322 (1886)).

⁴³ Seagate, 497 F.3d at 1379-80 (Gajarsa, J., concurring).

⁴⁴ *Id. See*, *e.g.*, Duplate Corp. v. Triplex Safety Glass Co. of N. Am., 298 U.S. 448, 459 (1936).

⁴⁵ Act of Aug. 1, 1946, Pub. L. No. 79-587, 60 Stat. 778.

⁴⁶ Seagate, 497 F.3d at 1379 (Gajarsa, J., concurring).

interest awards under Section 284. In *General Motors Corp. v. Devex Corp.*, the Supreme Court held, "On the face of § 284, a court's authority to award interest is not restricted to exceptional circumstances, and there is no warrant for imposing such a limitation."⁴⁷ The Court did not make clear whether the standard governing pre-judgment interest also applied to enhanced damages, but the decision suggests that its rationale should extend to enhanced damages.⁴⁸ Regardless, by the time the decision was announced, the willfulness "requirement" was a *fait accompli*. Courts consistently limited the awarding of increased damages to cases where the defendant consciously or deliberately infringed the patent.⁴⁹

The U.S. Court of Appeals for the Federal Circuit was created in 1982 by the Federal Courts Improvement Act and given appellate jurisdiction over most patent issues.⁵⁰ Its decisions have generally reinforced the philosophy that enhanced damages are appropriate only as a punitive measure to deter willful infringement.⁵¹ However, it has also recognized the importance of strong patent rights to innovation and placed the burden upon an alleged infringer to exercise care in avoiding willful infringement. Specifically, in *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, the Federal Circuit held:

Where... a potential infringer has actual notice of another's patent rights, he has an affirmative duty to exercise due care to determine whether or not he is infringing. Such an affirmative duty includes, *inter alia*, the duty to seek and obtain competent legal advice from counsel *before* the initiation of any possible infringing activity.⁵²

This affirmative duty of care was designed to counter the widespread disregard of patent rights that was "undermining the national innovation incentive."⁵³ Much of this disregard was unquestionably willful,⁵⁴ and the Federal Circuit recognized the fact that "patent property should receive the same respect that the law imposes on all property."⁵⁵ Its affirmative duty of care standard was not, however, a mere "slam dunk" for the patentee. In order to establish willful

⁴⁷ General Motors Corp. v. Devex Corp., 461 U.S. 648, 653 (1983).

⁴⁸ Seagate, 497 F.3d at 1380 (Gajarsa, J. concurring).

⁴⁹ Powers & Carlson, *supra* note 22, at 68.

⁵⁰ *Id.* at 77.

⁵¹ Beatrice Foods Co. v. New England Printing & Lithographing Co., 923 F.2d 1576, 1578 (Fed. Cir. 1991); CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][v].

⁵² Underwater Devices, Inc. v. Morrison-Knudsen, 717 F.2d 1380, 1390 (Fed. Cir. 1983) (citations omitted) (emphasis in original).

⁵³ Knorr-Bremse Systme Fuer Nutzfahrzeuge GmbH v. Dana Corp., 383 F.3d 1337, 1343 (Fed. Cir. 2004) (en banc).

⁵⁴ Seagate, 497 F.3d at 1368-69.

⁵⁵ Id. at 1385 (Newman, J. concurring).

infringement, a patentee had to show: (1) "that the infringer had actual notice of the patent," and (2) "that the infringer failed to meet its affirmative duty to use due care in avoiding infringement of the patentee's rights."⁵⁶

Subsequent Federal Circuit decisions have continued to shape the willfulness doctrine. Once an infringer had actual notice of another's patent rights, the affirmative "duty of care normally require[d] that a potential infringer obtain competent legal advice before infringing or continuing to infringe" in order to defend against a charge of willfulness ("the advice of counsel defense").⁵⁷ An accused willful infringer relied on these opinions "to establish that due to a reasonable reliance on advice from counsel, its continued accused activities were done in good faith."58 These opinions were typically good news for the alleged infringer, finding more often than not that the patent at issue was "invalid, unenforceable, and/or not infringed."59 Although "reliance on an opinion of counsel ha[d] become the defense of choice against a claim of willful infringement,"60 it was not necessarily sufficient to defeat such a claim.⁶¹ Instead, willful infringement and the decision of whether or not to enhance damages have been determined "in consideration of the totality of the circumstances."62 In the case of Read Corp. v. Portec, Inc., the Federal Circuit set forth nine factors to be considered in this analysis.⁶³ However, because the list is non-exhaustive, and since the opinion does not state how much weight should be given to each factor or how many factors must be satisfied to find infringement, willfulness could still be found

⁶⁰ Shamita D. Etienne-Cummings, *The Utility of Opinion of Counsel*, 910 PLI/PAT 1073, 1077 (Sep. 2007).

⁶¹ Central Soya Co. v. Geo. A. Hormel & Co., 723 F.2d 1573, 1577 (Fed. Cir. 1983).

⁶² *Knorr-Bremse*, 383 F.3d at 1342.

⁶³ Read Corp. v. Portec, Inc. 970 F.2d 816, 826-27 (Fed. Cir. 1992) (listing the following factors to be considered by a court in deciding whether to enhance damages: (1) whether the infringer deliberately copied the ideas or design of another; (2) whether the infringer, when he knew of the other's patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed; (3) the infringer's behavior as a party to the litigation; (4) defendant's size and financial condition; (5) closeness of the case; (6) duration of defendant's misconduct; (7) remedial action by the defendant; (8) defendant's motivation for harm; and (9) whether defendant attempted to conceal its misconduct).

⁵⁶ Baer, *supra* note 4, at 1122 (citations omitted).

⁵⁷ *Id.* at 1124 (citation omitted).

⁵⁸ Seagate, 497 F.3d at 1369.

⁵⁹ *Id.;* See also Comark Communications, Inc. v. Harris Corp., 156 F.3d 1182, 1191 (Fed. Cir. 1998) ("The reason a potential defendant obtains an opinion from counsel is to ensure that it acts with due diligence in avoiding activities which infringe the patent rights of others. Obtaining an objective opinion letter from counsel also provides the basis for a defense against willful infringement.").

despite reliance on an opinion of counsel.⁶⁴ Therefore, plenty of "ambiguity and nuance" remained in willfulness law.⁶⁵

Importantly, reliance upon opinion of counsel also served as a waiver of attorney-client and work product privileges, which allowed the patentee discovery as to how the opinion "affected the state of mind" of the alleged infringer.⁶⁶ It was clear that defendants waived attorney-client privilege as to all communications concerning the subject matter of the opinion by asserting the advice-of-counsel defense.⁶⁷ However, it was unclear exactly how much further the waiver could extend. The main issue was whether the scope of the subject-matter waiver was broad enough to include the trial strategy of an outside counsel.⁶⁸ Plaintiffs often argued that full disclosure was necessary to "shed complete light" on defendants' "alleged good-faith reliance" and to provide a balanced account of the totality of the circumstances.⁶⁹ Defendants, on the other hand, argued that extending the waiver to trial counsel was unfair because it discouraged full and frank discussions between clients and their attorneys, which helped in avoiding infringement.⁷⁰ The district courts reached differing conclusions on the scope of the waiver.⁷¹ The Federal Circuit attempted to clarify the situation in In re Echostar Communications Corp.72 The court held that:

Once a party announces that it will rely on advice of counsel, for example, in response to an assertion of willful infringement, the attorneyclient privilege is waived. "The widely applied standard for determining the scope of a waiver of attorney-client privilege is that the waiver applies

⁶⁷ Steelcase Inc. v. Haworth, Inc., 954 F. Supp. 1195, 1198 (W.D. Mich. 1997) ("[T]he scope of waiver of the attorney-client privilege must be broad enough to illuminate the issues found relevant by the Federal Circuit, but no broader. Certainly, a defendant asserting an advice-of-counsel defense must be deemed to have waived the privilege as to all communications between counsel and client concerning the subject matter of the opinion.").

⁶⁹ Opposition of Respondents, *supra* note 31, at 3.

⁷⁰ Brief for American Intellectual Property Law Association as Amicus Curiae in Support of Petitioner at 5, In re Seagate Tech., 497 F.3d 1360 (Fed. Cir. 2007).

⁶⁴ Eric C. Wrzesinski, Comment, *Breaking the Law to Break into the Black: Patent Infringement as a Business Strategy*, 11 MARQ. INTELL. PROP. L. REV. 193, 202 (2007).

⁶⁵ ROBERT P. MERGES, PETER S. MENELL AND MARK A. LEMLEY, INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE 356 (4th ed. 2006).

⁶⁶ Joseph Casino and Michael Kasdan, *In re Seagate Technology: Willfulness and Waiver, a Summary and a Proposal*, 2007 PATENTLY-O PATENT L.J. 1, 1, *available at* http://www.patentlyo.com/lawjournal/2007/05/in_re_seagate_t.html.

⁶⁸ Baer, *supra* note 4, at 1134.

⁷¹ Seagate, 497 F.3d at 1372-73.

⁷² In re EchoStar Commc'ns Corp., 448 F.3d 1294 (Fed. Cir. 2006).

to all other communications relating to the same subject matter."73

The *EchoStar* opinion only succeeded in confusing the situation further.⁷⁴ District courts varied in their interpretation of its subject-matter waiver, with many continuing to hold that the scope of waiver extended to trial counsel.⁷⁵ Further clarification was needed.

One of the more significant developments since *Underwater Devices* was the adverse-inference rule. This rule held that failure of an alleged infringer to produce advice from counsel "would warrant the conclusion that it either obtained no advice of counsel or did so and was advised that its activities would be an infringement of valid U.S. patents."⁷⁶ Naturally, this adverse inference increased the pressure on an alleged infringer to produce opinion of counsel. In fact, the affirmative duty of care and adverse-inference rule combined to "all but force" alleged infringers to demonstrate in court that they had procured competent legal advice.⁷⁷ In light of the waiver of attorney-client privilege, however, this put the alleged infringer in quite a bind. She could rely on advice of counsel and greatly increase her chance of refuting a willfulness charge, but at the cost of potentially waiving attorney-client privilege as to trial strategy.⁷⁸ On the other hand, if the alleged infringer wanted to be sure to protect her trial strategy, she must do so at an increased risk of willfulness being found should infringement be proven.⁷⁹

It was this scenario that permitted development of the "willfulness game."⁸⁰ The "rules" of this game have been described by Professor Mark Lemley.⁸¹ A patentee begins by sending a letter to competitors identifying that patent.⁸² This puts the potential infringer on notice of the patent and, provided the letter is worded correctly, the patentee has not actually threatened suit.⁸³ The potential infringer must then pay for a costly written opinion of counsel to

⁷³ *Id.* at 1299 (quoting Fort James Corp. v. Solo Cup Co., 412 F.3d 1340, 1349 (Fed. Cir. 2005)).

⁷⁴ Brian Ferguson, Seagate *Equals Sea Change: The Federal Circuit Establishes a New Test for Proving Willful Infringement and Preserves the Sanctity of the Attorney-Client Privilege*, 24 SANTA CLARA COMPUTER & HIGH TECH. L.J. 167, 174 (2007).

⁷⁵ Baer, *supra* note 4, at 1135 (collecting cases).

⁷⁶ Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1580 (Fed. Cir. 1986).

⁷⁷ Powers & Carlson, *supra* note 22, at 81-82 (quoting Johns Hopkins Univ. v. Cellpro, 160 F.R.D. 30, 34 (D. Del. 1995)).

⁷⁸ Seagate, 497 F.3d at 1369 (quoting Quantum Corp. v. Tandon Corp., 940 F.2d 642, 643 (Fed. Cir. 1991)).

⁷⁹ Id.

⁸⁰ Lemley & Tangri, *supra* note 19, at 1111.

⁸¹ Id. at 1087-93.

⁸² Id. at 1093.

⁸³ *Id.* at 1087.

defend against the almost guaranteed willfulness charge in a subsequent suit.⁸⁴ If the potential infringers are familiar with the "game," they will request only a favorable legal opinion instead of objectively balanced legal advice.⁸⁵ Alternatively, the opinion lawyer may write one thing down but tell the client something different.⁸⁶ Next, a suit is brought and willfulness is alleged in order to gain insight into the accused infringer's trial strategy.⁸⁷ This is accomplished by: (1) effectively forcing the alleged infringer to rely on the opinion of counsel to defeat the willfulness charge, followed by (2) the court granting a patentee's motion to compel discovery of any and all communications and work product with counsel, including trial counsel.⁸⁸ Therefore, unless the alleged infringer successfully moves to stay discovery or to separate the willfulness inquiry by bifurcating the trial, the alleged infringer must decide whether or not to assert the advice-of-counsel defense before infringement is determined on the underlying merits.⁸⁹

Furthermore, although the advice-of-counsel defense allows the alleged infringer to temporarily thwart a charge of willfulness, the potential for willfulness continues so long as infringement continues.⁹⁰ Therefore, unless the patentee wins a preliminary injunction (which the alleged infringer probably also does not want), the opinion letter must be updated over time to account for new information.⁹¹ This obviously raises the cost of the defense. As the costs of protracted litigation and written opinions mount, the alleged infringer may be pressured into settling for a license at a weakened bargaining position.⁹² This type of "abusive gamesmanship" eventually became a concern of the Federal Circuit.⁹³

The Federal Circuit set out to correct this potential unfairness.⁹⁴ In Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp., it ameliorated the

⁸⁸ Id.

⁸⁹ Ferguson, *supra* note 74, at 172 (citing Johns Hopkins Univ. v. CellPro, 160 F.R.D. 30, 34 (D. Del. 1995)).

⁹⁰ Lemley & Tangri, *supra* note 19, at 1094-95.

⁹¹ *Id.* at 1093-94.

⁹² Ferguson, *supra* note 74, at 173.

⁹³ Seagate, 497 F.3d at 1385 (Newman, J. concurring). It is unclear, however, exactly how pervasive this type of behavior was or continues to be. Given that some of these tactics would be unethical, Lemley & Tangri, *supra* note 19, at 1104-05, and could subject the attorney to sanctions, disbarment, and possible malpractice suits, one would hope that the situation was not nor is still as dire as some commentators have suggested.

⁹⁴ Seagate, 497 F.3d at 1369-70.

⁸⁴ Id. at 1092.

⁸⁵ Id.

⁸⁶ Id. at 1104.

⁸⁷ Seagate, 497 F.3d at 1366-67.

adverse-inference rule. ⁹⁵ It held that "the assertion of attorney-client and/or work-product privilege and the withholding of the advice of counsel shall no longer entail an adverse inference as to the nature of the advice."⁹⁶ One interpretation of this holding is that the absence of exculpatory opinion of counsel can no longer figure into determining willfulness. It remains somewhat unclear, however, whether this decision means merely that a court can not infer that an opinion would have been negative had it been obtained or rather that the overall absence of one can still be considered as relevant to the mindset of the infringer.

Although some commentators felt that *Knorr-Bremse* was a positive step in leveling the willfulness playing field,⁹⁷ others felt that even more drastic change was needed.⁹⁸ Some argued for removing the affirmative duty of care altogether.⁹⁹ The Federal Circuit evidently agreed. It appears that not many thought to ask whether any additional changes would, in fact, bias the willfulness doctrine *against* the patentee.

B. The Questionable Rationale of Limiting Enhanced Damages to Punitive Situations

Before moving on to an analysis of the *Seagate* opinion, it is necessary to look at why damages can be enhanced. The Federal Circuit has generally (although not consistently) limited enhanced damages to the punitive context.¹⁰⁰ The common law also traditionally referred to enhanced damages as punitive.¹⁰¹ There is nothing, however, in the text of the statute itself to indicate that enhancement of damages is so limited.¹⁰²

In fact, the law in place at the time of the drafting of the 1952 Patent Act

⁹⁵ *Knorr-Bremse*, 383 F.3d at 1345-46.

⁹⁶ *Id.* at 1345. Foreshadowing *In re Seagate*, Judge Dyk, while concurring in the ultimate judgment, dissented on the grounds that the affirmative duty of care should be abolished altogether while suggesting that punitive damages should only be awarded for reprehensible conduct. *Id.* at 1348 (Dyk, J., concurring in part, dissenting in part).

⁹⁷ See, e.g., Sue Ann Mota, Knorr-Bremse v. Dana Corporation – Willful Patent Infringement May No Longer Be

Inferred Either from the Failure to Seek Legal Advice or Invoking the Attorney-Client Privilege, According to the Federal Circuit, 21 SANTA CLARA COMPUTER & HIGH TECH. L.J. 901, 915 (2005).

⁹⁸ See, e.g., Kevin J. Kelly, Comment, *Placing the Burden Back Where It Belongs: A Proposal to Eliminate the Affirmative Duty from Willful Infringement Analyses*, 4 J. MARSHALL REV. INTELL. PROP. L. 509, 519 (2005).

⁹⁹ Id.

¹⁰⁰ Seagate, 497 F.3d at 1378-79 (Gajarsa, J., concurring).

¹⁰¹ Kelly, *supra* note 98, at 516.

¹⁰² 35 U.S.C. § 284 (2006).

indicates that both Congress and the courts would have recognized enhancement for remedial purposes.¹⁰³ At this time, it was a rule of pretrial discovery "that equity would not assist in a discovery if it tended to expose the party inquired of to a penalty."¹⁰⁴ It is notable that increased damages for patent infringement were not a penalty within the meaning of this rule.¹⁰⁵ Therefore, if enhanced damages were not penal in this context, they must have been, at least in part, compensatory. As one district court stated:

There is no doubt that the damage provision of the patent law, 35 U.S.C. § 284, is remedial, and the damages contemplated may be awarded whether the wrong was intentional or unwitting. Public policy dictates that where the injury is to property, intangible aspects of the damage claim which relate to the complexities of our industrial society be satisfied by the imposition of additional damages, which though in some aspects punitive, are inherently remedial.¹⁰⁶

Only a short time later, however, the Seventh Circuit held that "it is only on the basis of conscious and wilful [sic] infringement that exemplary or punitive damages are allowed in addition to those which are compensatory."¹⁰⁷ A possible justification for this change is that there is a long tradition of a "not merely negligent" mens rea requirement for punitive damages in the common law.¹⁰⁸ For this rationale to be persuasive, however, it would require a positive legislative assertion that enhanced damages are to be punitive in nature. As noted above, this is explicitly not the case.¹⁰⁹ It may well be that "willfulness" requires more than merely negligent conduct; but, given that "willfulness" is an artificial judicial construct, limiting enhanced damages to punitive purposes is itself an artificial limitation.

Although the position of the law gradually solidified around the view that damages can only be enhanced for punitive purposes,¹¹⁰ doubt about the

¹⁰³ CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][iii], at 20-336.

¹⁰⁴ *Id.* at 20-337.

¹⁰⁵ Id.

¹⁰⁶ Armstrong v. Emerson Radio & Phonograph Corp., 132 F. Supp. 176, 179 (S.D.N.Y. 1955) (citations omitted).

¹⁰⁷ Union Carbid Corp. v. Graver Tank & Mfg. Co., 282 F.2d 653, 675 (7th Cir. 1960).

¹⁰⁸ Stephanie Pall, Note, *Willful Patent Infringement: Theoretically Sound? A Proposal* to Restore Willful Infringement to Its Proper Place Within Patent Law, 2006 U. ILL. L. REV. 659, 668 (2006) (citing Knorr-Bremse, 383 F.3d at 342).

¹⁰⁹ Seagate, 497 F.3d at 1385 (Newman, J. concurring) ("The remedial and deterrent purposes of multiplied damages, and their measure for a particular case, are best established by the district court in light of the original purposes of 35 U.S.C. § 284...").

¹¹⁰ Beatrice Foods Co., 923 F.2d at 1579.

punitive/compensatory duality persisted.¹¹¹ Given the absence of any statutory requirement for damage enhancement, it could not be definitively inferred that enhanced compensation was solely a penalty.¹¹² From time to time, the Federal Circuit has recognized that increased awards can combine both purposes.¹¹³ In the case of *SRI Int'l v. Advanced Tech. Labs., Inc.*, it stated, "When willful infringement or bad faith has been found, the remedy of enhancement of damages not only serves its primary punitive/deterrent role, but in so doing it has the secondary benefit of quantifying the equities as between patentee and infringer."¹¹⁴ The Federal Circuit has also recognized a remedial aspect to enhanced damages in a number of other precedential opinions.¹¹⁵ Therefore, the precise purpose for enhanced damages remains unclear.¹¹⁶

III. *IN RE SEAGATE*: THE BELL TOLLS FOR THE AFFIRMATIVE DUTY OF CARE

A. The Case

The case of *In re Seagate* was a fairly straightforward infringement action that arose out of failed licensing negotiations.¹¹⁷ The Federal Circuit, however, saw an opportunity to end two intense debates within the willfulness doctrine: (1) the scope of the waiver of attorney-client privilege following reliance on opinion of counsel in the wake of the *EchoStar* opinion; and (2) whether the affirmative duty of care had outlived its usefulness by forcing a defendant to choose between defending himself against a charge of willful infringement or waiving attorney-client privilege and prejudicing himself on the question of liability.¹¹⁸It decided sua sponte that the case was appropriate for en banc consideration¹¹⁹ and set out the following questions for the parties to address:

(1) Should a party's assertion of the advice of counsel defense to willful

¹¹¹ CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][iii], at 20-336.

¹¹² *Id*.

¹¹³ *Id*.

¹¹⁴ SRI Int'l, Inc. v. Advanced Tech. Labs., Inc., 127 F.3d 1462, 1468 (Fed. Cir. 1997).

¹¹⁵ Seagate, 497 F.3d at 1379 (Gajarsa, J., concurring) (collecting cases).

¹¹⁶ *Id.* at 1367 note 2 (declining to address the separate opinion of Judge Gararsa that argued district courts should have discretion to enhance damages for compensatory purposes).

¹¹⁷ See Seagate, 497 F.3d at 1366-67; Opposition of Respondents, *supra* note 31, at 11-16.

¹¹⁸ Seagate, 497 F.3d at 1369.

¹¹⁹ Id.

infringement extend waiver of the attorney-client privilege to communications with that party's trial counsel?

(2) What is the effect of any such waiver on work-product immunity?

(3) Given the impact of the statutory duty of care standard announced in *Underwater Devices, Inc. v. Morrison-Knudsen Co.*, on the issue of waiver of attorney-client privilege, should this court reconsider the decision in *Underwater Devices* and the duty of care standard itself?¹²⁰

By posing question three, the Federal Circuit signaled a willingness to make a monumental change in willfulness doctrine.¹²¹ This was made evident by the fact that there was nothing in the record of the case that required the court to reconsider the affirmative duty of care.¹²² To the contrary, petitioner Seagate had already fulfilled its duty by obtaining opinions and asserting an opinion-ofcounsel defense.¹²³ The thrust of Seagate's mandamus petition was whether the waiver generated by the affirmative defense should extend to trial counsel.¹²⁴ Nonetheless, the Federal Circuit apparently felt that the time had come for discussion of the affirmative duty of care, and it took the broad position that it could review anything impacting the scope of discovery.¹²⁵ However, by divorcing its decision from the facts of the case, the court may create serious problems for the new standard it put in place.¹²⁶

B. The Opinion

The Court begins by discussing whether it should reconsider its decision in *Underwater Devices*.¹²⁷ It does so by looking at the term "willful" with the goal of aligning the standards of patent doctrine to other areas of law.¹²⁸ It concludes that in order to make the standard consistent with the Copyright Act,¹²⁹ it must be defined as including reckless behavior.¹³⁰ It also relies on the recent Supreme Court decision of *Safeco Ins. Co. of Am. V. Burr*,¹³¹ which

¹²⁰ In re Seagate Tech., LLC, 214 F.App'x 997 (Fed. Cir. 2007) (citations omitted).

¹²¹ Casino & Kasdan, *supra* note 66, at 8.

¹²² Opposition of Respondents, *supra* note 31, at 7.

¹²³ Id.

¹²⁴ Id.

¹²⁵ Seagate, 497 F.3d at 1370-72.

¹²⁶ Brief for Adobe Systems Inc.,et al. as Amici Curiae in Support of Neither Party at 20, In re Seagate, 497 F.3d 1360 (Fed. Cir. 2007) (No. 830), 2007 WL 1032685.

¹²⁷ Seagate, 497 F.3d at 1368.

¹²⁸ *Id.* at 1370-72.

¹²⁹ 17 U.S.C. §§ 101-810 (2006).

¹³⁰ Id.

¹³¹ Safeco Ins. Co. of Am. V. Burr, 127 S. Ct. 2201 (2007).

addressed the meaning of willfulness in the statutory context of civil liability for punitive damages under the Fair Credit Reporting Act ("FCRA"; 15 U.S.C. § 1681).¹³² An affected consumer can recover actual damages for negligent violations of the FCRA and can also recover punitive damages for willful ones.¹³³ In *Safeco*, the Supreme Court concluded that the "standard civil usage" of "willful" includes reckless behavior.¹³⁴

Notably, the enhanced damages provisions of the FCRA explicitly require willfulness and define the damages as "punitive."¹³⁵ Although these requirements are not found in Section 284 of the Patent Act, the Federal Circuit uses the Supreme Court's rationale to overrule *Underwater Devices*.¹³⁶ Stating that the affirmative duty of care was a threshold for infringement more similar to negligence than recklessness, it finds that the affirmative duty of care allows "punitive" damages in a manner inconsistent with Supreme Court precedent.¹³⁷ Therefore, it holds that "proof of willful infringement permitting enhanced damages requires at least a showing of *objective recklessness*."¹³⁸ The Court also emphasizes that because the affirmative duty of care has been overturned, there is no longer an obligation to obtain opinion of counsel.¹³⁹

The Court then attempts to define what it means by "objective recklessness."¹⁴⁰ It articulates a two-prong test. The first prong states that in order "to establish willful infringement, a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."¹⁴¹ Because this prong is objective, "The state of mind of the accused infringer is not relevant. . . ."¹⁴² The Court further states that the objective inquiry is a threshold determination.¹⁴³ Therefore, no amount of evidence of subjective bad faith can support a willfulness finding so long as the decision to potentially infringe was objectively reasonable.¹⁴⁴ In a recent opinion, the Federal Circuit has stated that "both legitimate defenses to infringement claims and credible invalidity arguments demonstrate the lack of an objectively high likelihood

¹⁴³ *Id.*

¹³² Fair Credit Reporting Act, 15 U.S.C. § 1681 (1970).

¹³³ Seagate, 497 F.3d at 1370-71 (citing 15 U.SC. §§ 16810(a) and 1681n(a)).

¹³⁴ *Id.* (citing Safeco, 127 S. Ct. at 2209).

¹³⁵ 15 U.S.C. § 1681n(a) (2006).

¹³⁶ *Seagate*, 497 F.3d at 1371.

¹³⁷ Id.

¹³⁸ Id. (emphasis added).

¹³⁹ *Id*.

¹⁴⁰ *Id.* at *22-*23.

¹⁴¹ *Id*.

¹⁴² *Id.* at *23.

¹⁴⁴ Safeco Ins. Co. of Am. v. Burr., 127 S. Ct. 2201, 2216 n.20 (2007).

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that a party took actions constituting infringement of a valid patent."145

The second prong of the standard focuses on the subjective mindset of the infringer. After satisfying the objective standard, "the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer."¹⁴⁶ The Court offers no help in how this standard is to be applied.

The Court then proceeds to address the waiver of attorney-client and work product privileges.¹⁴⁷ In regards to the scope of the waiver itself, the court clarifies the *Echostar* opinion by holding that the waiver does not extend to trial counsel.¹⁴⁸ The Court adds, however, that this is not an absolute rule.¹⁴⁹ It holds that trial courts maintain discretion to extend the waiver in exceptional circumstances, such as when "chicanery" is involved.¹⁵⁰ The Court emphasizes that there is really no need to extend the waiver to trial counsel because a willfulness determination should depend entirely on pre-litigation conduct.¹⁵¹ Therefore, if the patentee believes that the alleged infringer postfiling conduct is willful (i.e. reckless), she must move for a preliminary injunction, enhanced damages cannot be awarded based solely on the infringer's post-finding conduct.¹⁵³ If the injunctive relief is denied, the level of misconduct likely will not rise to the level of recklessness.¹⁵⁴

C. What changes has Seagate wrought?

Seagate clearly raises the bar for proving willfulness and has made enhanced damages more difficult to obtain.¹⁵⁵ It accomplishes this by: (1) abolishing the affirmative duty of care (which had lessened unlawful trespass

- ¹⁵⁰ *Id.*
- ¹⁵¹ Id. at 1374.

¹⁵⁴ Id.

¹⁵⁵ Robert H. Resis, In re Seagate Technology, LLC – *Impact on (Potential) Accused Infringers, Their Attorneys, and Patentees,* INTELL. PROP. TODAY (Oct. 2007), *available at* http://www.iptoday.com/articles/2007-10-resis.asp ("The *Seagate* decision appears to make it more difficult for a patentee to prove willfulness by clear and convincing evidence since there is no longer a 'duty of care'.").

¹⁴⁵ Black & Decker, Inc. v. Robert Bosch Tool Corp., 260 Fed. App'x 284, 291 (Fed. Cir. 2008) (nonprecedential decision).

¹⁴⁶ Seagate, 497 F.3d at 1371.

¹⁴⁷ Id. at 1372-76.

¹⁴⁸ *Id.* at 1373.

¹⁴⁹ *Id.* at 1374-75.

¹⁵² Id.

¹⁵³ Id.

upon patent rights¹⁵⁶); (2) establishing a tougher threshold for proving willful infringement (which the patentee can only satisfy by proving both prongs of a two-prong objective/subjective standard¹⁵⁷); and (3) simultaneously limiting the scope of waiver (which, along with the elimination of the duty to obtain opinion of counsel, limits a patentee's ability to prove willful infringement through discovery). Heeding the exhortations of 18 of 21 amici curiae,¹⁵⁸ the Court was persuaded that the willfulness doctrine was being abused by patentees and was placing a disproportionate burden upon lawful commercial enterprises. The Court decided the playing field needed to be leveled.¹⁵⁹

A brief look at the cases that have applied *Seagate's* objective reckless standard to willfulness issues is instructive. Twenty-seven cases have substantively applied the standard.¹⁶⁰ At the appellate level, the Federal

¹⁵⁶ Brief Amicus Curiae of the Philadelphia Intellectual Property Law Ass'n at 3, In re Seagate Technology, LLC, 497 F.3d 1360 (Fed. Cir. 2007), (No. 830), 2007 WL 1032693.

¹⁵⁷ Convolve, Inc. v. Compaq Computer Corp., 2007 U.S. Dist. LEXIS 87286 at *10-*11 (S.D.N.Y. 2007) (on remand) (holding that despite Convolve's attempt to portray the Seagate opinion favorably, "it created a single standard under which the plaintiff must satisfy two criteria: it must provide clear and' convincing evidence of an objectively high risk that the conduct at issue constituted infringement, and, if it clears that hurdle, it must demonstrate that the accused infringer either knew Or should have known of the risk.").

¹⁵⁸ Casino & Kasdan, *supra* note 66, at 8-10.

¹⁵⁹ See Seagate, 497 F.3d at 1385 (Newman, J., concurring).

¹⁶⁰ As of Sept. 11, 2008: Lexion Med., LLC v. Northgate Techs., Inc., Nos. 2007-1420, 2007-1440, 2008 U.S. App. LEXIS 18825 (Fed. Cir. Aug. 28, 2008); Voda v. Cordis Corp., 536 F.3d 1311 (Fed. Cir. 2008); Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, (Fed. Cir. 2008); Innogenetics, N.V. v. Abbott Labs., 512 F.3d 1363, (Fed. Cir. 2008); Black & Decker, Inc. v. Robert Bosch Tool Corp., 260 F App'x 284 (Fed. Cir. 2008) (nonprecedential decision); Kellogg v. Nike, Inc., No. 8:07CV70, 2008 U.S. Dist. LEXIS 62410 (D. Neb. Aug. 14, 2008); TruePosition Inc. v. Andrew Corp., No. 05-747-SLR, 2008 U.S. Dist. LEXIS 58351 (D. Del. July 31, 2008); Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc., No. CV 03-0597-PHX-MHM, 2008 U.S. Dist. LEXIS 60850 (D. Ariz. July 29, 2008); Church & Dwight Co., Inc. v. Abbott Labs., No. 05-2142 (GEB) (JJH), 2008 U.S. Dist. LEXIS 49587 (D. N.J. June 23, 2008); Nichia Corp. v. Seoul Semiconductor, No. C-06-0162 MMC, 2008 U.S. Dist. LEXIS 28654 (N.D. Cal. Apr. 8, 2008); Eaton Corp. v. ZF Meritor LLC, No. 03-74844, 2008 U.S. Dist. LEXIS 26989 (E.D. Mich. Apr. 3, 2008); Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc., 553 F. Supp. 2d 939 (N.D. Ill. 2008); Pivonka v. Cent. Garden & Pet Co., No. 02-cv-02394-RPM, 2008 U.S. Dist. LEXIS 12022 (D. Colo. Feb. 19, 2008); ResQNet.com, Inc. v. Lansa, Inc., 533 F. Supp. 2d 397 (S.D.N.Y2008); Veritas Operating Corp. v. Microsoft Corp., 562 F. Supp. 2d 1141 (W.D. Wash. 2008); Trading Techs. Int'l, Inc. v. eSpeed, Inc., No. 04 C 5312, 2008 U.S. Dist. LEXIS 295 (N.D. Ill. Jan. 3, 2008); Depomed, Inc. v. Ivax Corp., 532 F. Supp. 2d 1170 (N.D. Cal. 2007); Abbott Labs. v. Sandoz, Inc., 532 F. Supp. 2d 996 (N.D. Ill. 2007); Broadcom Corp. v. Qualcomm, Inc., No. SACV 05-467-JVS(RNBx), 2007 U.S. Dist. LEXIS 86627 (C.D. Cal. Nov. 21, 2007); Franklin Elec. Co. v. Dover Corp., No. 05-C-598-

Circuit is clearly determined to clamp down on willfulness findings. The Court has applied the *Seagate* standard to five cases, each of which turned out badly for the patentee. In two cases, the Federal Circuit affirmed the district court's finding of no willfulness.¹⁶¹ It reversed and remanded the other three cases because the patentee could not meet *Seagate's* willfulness standard.¹⁶² These cases leave little doubt that the Federal Circuit maintains a skeptical view on enhanced damages.

In the lower courts, however, the results have not been quite as bleak for patentees. Of the pro-patentee cases, three have applied the *Seagate* standard in denying the infringers' motions for judgment as a matter of law.¹⁶³ Three more have cited *Seagate* in denying the defendants' motions for summary judgment on willful infringement.¹⁶⁴ Other pro-patentee rulings include an enhancement of damages after the jury was instructed under the *Seagate* standard¹⁶⁵ and a holding that the application of the *Seagate* standard to the evidence of the case warranted denying defendant's motion for reconsideration and affirming the grant of summary judgment of willfulness.¹⁶⁶

¹⁶¹ Lexion Med., LLC v. Northgate Techs., Inc., Nos. 2007-1420, 2007-1440, 2008 U.S.
App. LEXIS 18825, at *22 (Fed. Cir. Aug. 28, 2008); Innogenetics, N.V. v. Abbott Labs., 512 F.3d 1363, 1368 (Fed. Cir. 2008).

¹⁶² Voda v. Cordis Corp., 536 F.3d 1311, 1328 (Fed. Cir. 2008); Finisar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1339 (Fed. Cir. 2008); Black & Decker, Inc. v. Robert Bosch Tool Corp., 260 F App'x 284, 291 (Fed. Cir. 2008).

¹⁶³ Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc., No. CV 03-0597-PHX-MHM, 2008 U.S. Dist. LEXIS 60850, at *8-*9 (D. Ariz. July 29, 2008); Church & Dwight Co., Inc. v. Abbott Labs., No. 05-2142 (GEB) (JJH), 2008 U.S. Dist. LEXIS 49587, at *27-*29 (D. N.J. June 23, 2008); Nichia Corp. v. Seoul Semiconductor, No. C-06-0162 MMC, 2008 U.S. Dist. LEXIS 28654, at *5 (N.D. Cal. Apr. 8, 2008).

¹⁶⁴ Kellogg v. Nike, Inc., No. 8:07CV70, 2008 U.S. Dist. LEXIS 62410, at *4-*7 (D. Neb. Aug. 14, 2008); Eaton Corp. v. ZF Meritor LLC, No. 03-74844, 2008 U.S. Dist. LEXIS 26989, at *5 (E.D. Mich. Apr. 3, 2008); Depomed, Inc. v. Ivax Corp., 532 F. Supp. 2d 1170, 1185-86.

¹⁶⁵ TruePosition Inc. v. Andrew Corp., No. 05-747-SLR, 2008 U.S. Dist. LEXIS 58351, at *41 n. 25 (D. Del. July 31, 2008).

¹⁶⁶ Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc., 553 F. Supp. 2d 939, 956-57 (N.D. Ill. 2008).

S, 2007 U.S. Dist. LEXIS 84588 (W.D. Wis. Nov. 15, 2007); Rhino Assocs., L.P. v. Berg Mfg. & Sales Corp., 531 F. Supp. 2d 652 (M.D. Pa. 2007); Informatica Corp. v. Bus. Objects Data Integration, Inc., 527 F. Supp. 2d 1076 (N.D. Cal. 2007); Lucent Tech., Inc. v. Gateway, Inc., No. 07-CV-2000-H (CAB), 2007 U.S. Dist. LEXIS 95934 (S.D. Cal. Oct. 30, 2007); TGIP, Inc. v. AT&T Corp., 527 F. Supp. 2d 561 (E.D. Tex. 2007); VNUS Med. Techs., Inc. v. Diomed Holdings, Inc., 527 F. Supp. 2d 1072 (N.D. Cal. 2007); Cohesive Techs., Inc. v. Waters Corp., 526 F. Supp. 2d 84 (D. Mass. 2007); Muth Mirror Sys., LLC. v. Gentex Corp. (*In re* Muth Mirror Sys., LLC), 379 B.R. 805 (Bankr. E.D. Wis. 2007).

However, the majority of post-*Seagate* cases in the lower courts have been anti-patentee. Of these, four have held that infringement was not willful.¹⁶⁷ Two more have applied the objective recklessness standard to grant the defendants' judgments as a matter of law in overturning the juries' findings that the defendants had willfully infringed the plaintiffs' patents.¹⁶⁸ Five others have used the new standard to grant defendants' summary judgment motions on the issue of willfulness because the plaintiffs could not meet their burdens under the *Seagate* standard.¹⁶⁹ One court applied the *Seagate* standard to grant the defendant a new trial on willfulness.¹⁷⁰ Another court applied the new standard in declining to enhance damages based on willfulness.¹⁷¹ Finally, one case resulted in an essential tie by applying the *Seagate* standard to grant in part and deny in part (with respect to particular named defendants) the defendants' motion for summary judgment of no willful infringement based on the strength of evidence presented against specific defendants.¹⁷²

The particular results in these cases depend on the strength of the evidence of willfulness presented by the patentee, particularly at the summary judgment or post-verdict motion stage. A few general trends, however, are evident. First, the Federal Circuit has taken a particularly critical view of willfulness and is intent on enforcing it. Second, and perhaps not surprisingly, not every district court follows this view. But, while particular outcomes turn on specific facts, it is clear that the district courts realize (or at least pay lip service to the idea[) that *Seagate* has significantly raised the standard for proving willfulness

¹⁷⁰ Broadcom Corp. v. Qualcomm, Inc., No. SACV 05-467-JVS(RNBx), 2007 U.S. Dist. LEXIS 86627, at *17-*20 (C.D. Cal. Nov. 21, 2007).

¹⁶⁷ ResQNet.com, Inc. v. Lansa, Inc., 533 F. Supp. 2d 397, 420 (S.D.N.Y 2008); Rhino Assocs., L.P. v. Berg Mfg. & Sales Corp., 531 F. Supp. 2d 652, 658-59 (M.D. Pa. 2007); Cohesive Techs., Inc. v. Waters Corp., 526 F. Supp. 2d 84, 103-04 (D. Mass. 2007); Muth Mirror Sys., LLC. v. Gentex Corp. (*In re* Muth Mirror Sys., LLC), 379 B.R. 805, 827 (Bankr. E.D. Wis. 2007).

¹⁶⁸ Trading Techs. Int'l, Inc. v. eSpeed, Inc., No. 04 C 5312, 2008 U.S. Dist. LEXIS 295, at *4 (N.D. Ill. Jan. 3, 2008); TGIP, Inc. v. AT&T Corp., 527 F. Supp. 2d 561, 567 (E.D. Tex. 2007).

¹⁶⁹ Pivonka v. Cent. Garden & Pet Co., No. 02-cv-02394-RPM, 2008 U.S. Dist. LEXIS 12022, at *6 (D. Colo. Feb. 19, 2008); Veritas Operating Corp. v. Microsoft Corp., 562 F. Supp. 2d 1141, 1286 (W.D. Wash. 2008); Abbott Labs. v. Sandoz, Inc., 532 F. Supp. 2d 996, 999-1001 (N.D. Ill. 2007); Franklin Elec. Co. v. Dover Corp., No. 05-C-598-S, 2007 U.S. Dist. LEXIS 84588, at *22-*26 (W.D. Wis. Nov. 15, 2007); Lucent Tech., Inc. v. Gateway, Inc., No. 07-CV-2000-H (CAB), 2007 U.S. Dist. LEXIS 95934, at *22 (S.D. Cal. Oct. 30, 2007).

¹⁷¹ Informatica Corp. v. Bus. Objects Data Integration, Inc., 527 F. Supp. 2d 1076, 1082-83 (N.D. Cal. 2007).

¹⁷² VNUS Med. Techs., Inc. v. Diomed Holdings, Inc., 527 F. Supp. 2d 1072, 1073-76 (N.D. Cal. 2007).

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Moreover, these cases demonstrate that the Federal Circuit has dramatically shifted the balance on issues of willfulness by crafting a pro-infringer opinion in Seagate.¹⁷⁴ The danger of this decision is that objective recklessness may be an under-inclusive standard for deterring willful infringement if it increases the probability that a willful infringer will not have to pay enhanced damages (a The probability of actually catching willful false negative result).¹⁷⁵ infringement must also be a factor in determining the social value of the change because *Seagate* has limited the waiver of the attorney/client and work product privileges, making detecting willful infringement more difficult.¹⁷⁶ Seagate's limited waiver rule "create[s] a potent defense to willful infringement, heavily weighted in favor of accused infringers," by foreclosing discovery on the alleged infringer's "true state of mind shaped by communications with all of its counsel."¹⁷⁷ If willful infringers believe that their infringement is less likely to be detected, they may be perversely encouraged towards more egregious conduct.¹⁷⁸ To the contrary, one of the principal justifications "for enhancing damages is to deter hard-to-detect violations."¹⁷⁹ It is easy to see that "the would-be infringer may be undeterred" if it can reasonably calculate that it is unlikely to be caught.¹⁸⁰

The affirmative duty of care was commonly perceived as a risk to innovation.¹⁸¹ The fear was that potential inventors would be cautioned to avoid reviewing existing patents because of concerns regarding (1) "knowing" infringement of that patent should it become the subject of litigation and (2) the duty to obtain an opinion of counsel in regards to any overlapping patent.¹⁸² This would obviously conflict with the rationales for public

¹⁷³ See, e.g., TruePosition Inc. v. Andrew Corp., No. 05-747-SLR, 2008 U.S. Dist. LEXIS 58351, at *41 (D. Del. July 31, 2008), andBall Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc., 553 F. Supp. 2d 939, 952-53 (N.D. Ill. 2008).

¹⁷⁴ Informatica Corp., 527 F. Supp. 2d at 1080 (stating that *Seagate* has shifted the court's balance in determining whether or not to enhance for willfulness towards the defendant).

¹⁷⁵ See infra Part IV.

¹⁷⁶ In re Seagate Tech., LLC, 497 F.3d 1360, 1374-76 (Fed. Cir. 2007).

¹⁷⁷ Opposition of Respondents, *supra* note 31, at 5.

¹⁷⁸ Thomas F. Cotter, *An Economic Analysis of Enhanced Damages and Attorney's Fees for Willful Patent Infringement*, 14 FED. CIR. B.J. 291, 313 (2004) ("[T]he fact that the offender engaged in very serious misconduct *may* be evidence that he expected not to be caught, and hence in some cases might go to the probability of detection.").

¹⁷⁹ Id. at 329 n. 135.

¹⁸⁰ *Id.* at 307-08.

¹⁸¹ Kelly, *supra* note 98, at 521.

¹⁸² FEDERAL TRADE COMMISSION, TO PROMOTE INNOVATION: THE PROPER BALANCE OF

disclosure and notice underlying patent law. It should be noted, however, that it was not clear that the affirmative duty of care standard truly created over-deterrence.¹⁸³

Nonetheless, it is unlikely that Seagate corrected this perceived problem because knowledge of the patent at issue should still be a factor weighing in favor of both "objective recklessness" and the subjective "knowledge" prongs of the Seagate standard.¹⁸⁴ The Federal Circuit has declared that "legitimate defenses to infringement claims and credible invalidity arguments demonstrate the lack of an objectively high likelihood that a party took actions constituting infringement of a valid patent."¹⁸⁵ Failure to obtain an opinion in this circumstance is somewhat analogous to gross negligence.¹⁸⁶ Since there is no practical difference between gross negligence and recklessness,¹⁸⁷ lack of an opinion of counsel should still trigger willfulness under the objective recklessness standard if the patent was "known." Therefore, reviewing existing patents is still likely to be discouraged, and reliance on opinions is still a prudent means of defeating a willfulness charge,¹⁸⁸ at least as long as the opinions are obtained prior to commencement of litigation.¹⁸⁹ As it now stands, Seagate has potentially increased the risk of non-detection and underdeterrence without correcting the perceived problem of over-deterrence.

D. A disturbing lack of statutory underpinnings

Perhaps *Seagate*'s deepest flaw is its reliance on the enhanced damages provision of the Copyright Act (35 U.S.C. § 504) and the *Safeco* opinion in holding that willfulness requires recklessness as a statutory condition for punitive damages. First, unlike Section 284 of the Patent Act, Section 504

¹⁸⁴ *Id.* at 99 ("[T]he most important factor in determining willfulness is whether the defendant knew of the plaintiff's patent before she started infringing.").

¹⁸⁵ Black & Decker, Inc. v. Robert Bosch Tool Corp., 2008 U.S. App. LEXIS 207, 291 (Fed. Cir. Jan. 7, 2008) (nonprecedential decision).

- ¹⁸⁷ Smith v. Wade, 461 U.S. 30, 72 (1983) (Rehnquist, J., dissenting).
- ¹⁸⁸ Ferguson, *supra* note 74, at 181.

COMPETITION AND PATENT LAW AND POLICY 29 (2003), *available at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf [hereinafter FTC].

¹⁸³ ROGER D. BLAIR & THOMAS F. COTTER, INTELLECTUAL PROPERTY: ECONOMIC AND LEGAL DIMENSIONS OF RIGHTS AND REMEDIES 72 (Cambridge Univ. Press 2005) (noting that the lack of systemic or omnipresent risk of over-deterrence in remedies systems that award more than the reasonable royalty).

¹⁸⁶ *Id.*

¹⁸⁹ *In re* Seagate Technology, LLC, 497 F.3d 1360, 1374 (Fed. Cir. 2007) (stating that the opinions in the present case were of "marginal value" because they were received after the suit was commenced).

explicitly requires "that the infringement was committed willfully."¹⁹⁰ The glaring contradiction between the express requirement of willfulness for enhanced damages in the Copyright Act and the Patent Act's lack of a requirement suggests that if Congress had intended to create a willfulness requirement in Section 284, it would have said so explicitly.¹⁹¹

A second problem with *Seagate* is its reliance upon the *Safeco* opinion. *Safeco* was limited to the meaning of willfulness within the FCRA.¹⁹² Unlike patent infringement, violations of the FCRA are not strict liability offenses.¹⁹³ Furthermore, the FCRA explicitly requires *willfulness* for the awarding of potentially unlimited *punitive* damages.¹⁹⁴ Therefore, the *Safeco* decision "did not consider statutory damage multipliers in strict-liability offenses, such as 35 U.S.C. § 284."¹⁹⁵ These statutorily-enhanced damages (which are entrusted only to the judge's discretion) are very different than punitive damages (which leave the jury with initial discretion over the amount).¹⁹⁶

This difference in the two cases is "fatal" to the Court's analysis in *Seagate*¹⁹⁷ because it unnecessarily eliminates enhancement of damages for compensatory purposes.¹⁹⁸ The majority did not address whether district courts should also have discretion to enhance damages for compensatory purposes absent a finding of willful infringement.¹⁹⁹ However, Judge Garjarsa (in a concurrence joined by Judge Newman) examines the history of enhanced damages, the development of its case law, and the principles of statutory interpretation to argue that there should be a compensatory aspect to enhanced damages.²⁰⁰ He argues that the willfulness requirement (with it punitive limitation) arose from misinterpretation of prior cases that changed willfulness from a sufficiency for enhanced damages into a necessity.²⁰¹ He finds that enhanced damage awards are meant to satisfy both punitive and compensatory

¹⁹⁶ *Id.* at 56-57 (citing Cook County., Ill. v. United States *ex rel*. Chandler, 538 U.S. 119, 132 (2003)).

¹⁹⁷ *Id.* at 57.

¹⁹⁸ *In re* Seagate Technology, LLC, 497 F.3d 1360, 1382 (Fed. Cir. 2007) (Gajarsa, J., concurring) ("We should take this opportunity to bring patent law regarding damages into the mainstream of the general law and avoid the necessity of carving a special niche for the realm of patent law.").

¹⁹⁹ *Id.* at 8 n.2.; Chisum, *supra* note 15, at 6.

²⁰⁰ Seagate, 497 F.3d at 1376-84 (Gajarsa, J., concurring)..

²⁰¹ *Id.* at 51-52.

¹⁹⁰ 17 U.S.C. § 504(c)(2) (2006).

¹⁹¹ See Seagate, 497 F.3d at 1381-82 (Gajarsa, J., concurring).

¹⁹² Safeco Ins. Co. of Am. V. Burr, 127 S. Ct. 2201, 2208-09 (2007).

¹⁹³ See 15 U.S.C. § 1681o(a) (2006) (requiring a minimum mens rea of negligence).

¹⁹⁴ 15 U.S.C. § 1681n (2006) (emphasis added).

¹⁹⁵ Opposition of Respondents, *supra* note 31, at 56.

purposes.²⁰² Importantly, the majority's decision not to address Judge Gajarsa's opinion indicates that the Court may be willing to revisit this issue.²⁰³

In summary, *Seagate* has irrationally equated a statutory damage multiplier with punitive damages (thus unnecessarily requiring willfulness – i.e. recklessness), thereby perpetuating the judicial construct that enhanced damages are limited to situations of reprehensible conduct. It is doubtful that this will sufficiently deter willful infringers.²⁰⁴ Therefore, there will be severe problems of under-deterrence to willful infringers when damages in many patent cases are limited to a reasonable royalty (see discussion below).²⁰⁵ Under-deterrence and non-detection should be far more central concerns than objective standards in deciding whether or not to enhance damages.²⁰⁶

Seagate has a proposed goal of reducing perceived abuses in the damage enhancement system. Unfortunately, as will be shown in Part IV, it was not narrowly-tailored enough to achieve that goal without correspondingly increasing the risk of under-compensation of the patentee. As such, *Seagate*'s test could have a number of unintended consequences.²⁰⁷

IV. IS THE OBJECTIVE RECKLESSNESS STANDARD SOUND POLICY?

The patent system is a utilitarian mechanism for promoting invention and driving innovation while simultaneously encouraging the disclosure of these technological innovations in order to benefit the public.²⁰⁸ The patent laws should facilitate a socially optimal balance between the incentive to innovate, the patentee's interest in a temporary exclusionary property right, the quid pro quo of the public's benefit from disclosure, and the public's interest in circumscribing the property right such that access is not restricted more than necessary.²⁰⁹ Changes to patent laws often have the effect of favoring one or

²⁰² CHISUM ON PATENTS, *supra* note 16, § 20.03[4][b][iii].

²⁰³ Chisum, *supra* note 15, at 6.

²⁰⁴ Brief Amicus Curiae of the Philadelphia Intellectual Property Law Association, *supra* note 156, at 3.

²⁰⁵ Lemley & Tangri, *supra* note 19, at 1111.

²⁰⁶ Cotter. *supra* note 178, at 311.

²⁰⁷ Brief for Bar Association of the District of Columbia - Patent, Trademark & Copyright Section as Amicus Curiae in Support of Neither Party at 4, *In re* Seagate, 497 F.3d 1360 (Fed. Cir. 2007).

²⁰⁸ Cotter, *supra* note 178, at 314.

²⁰⁹ Brenner v. Mason, 383 U.S. 519, 534-35 (1966); Sears, Roebuck & Co. v. Stiffel Co., 376 U.S. 225, 230 (1964) (stating that patents are meant to encourage invention by rewarding the inventor, but in rewarding useful invention, the rights and welfare of the community must be fairly dealt with and effectively guarded).

more of these factors at the expense of the others.²¹⁰ This section will use available empirical data on willful infringement and some reasonable assumptions to develop a decision theory model to determine whether replacing the affirmative duty of care with an objective recklessness standard is a socially desirable change.

This section concludes that the process of enhancing damages for willful infringement was already finely balanced between patentee and infringer prior to *Seagate*. After *Seagate*, the objective recklessness standard dramatically increases the risk of false negative results (relative to a nominal corresponding decrease in false positives), thereby letting willful infringers evade enforcement. As a result, any potential benefit of an objective recklessness standard is likely to be offset by an increase in total error probability, which negatively impacts efficiency. This increase in total error probability will "prevent socially optimal levels of innovation" and disclosure, lower the expected monetary value of patent rights, decrease patentee leverage in licensing and settlement negotiations, and ultimately undermine the incentive to patent at its very core.²¹¹

A. Comparing Error Probabilities Under the Affirmative Duty of Care & Objective Recklessness Standards²¹²

One way to interpret the *Seagate* opinion is as a policy choice to correct perceived abuses in the patent system; namely that patentees were alleging willfulness without reasonable belief merely for litigation strategy or the possibility of a substantial reward.²¹³ However, there are also legitimate reasons for not requiring detailed facts of willful infringement, including information access concerns that arise because the relevant information is peculiarly within the knowledge of the defendant.²¹⁴ Therefore, fairness

²¹⁰ See FTC, supra note 182, at 1 (stating that errors or systematic biases in how patent policy rules are interpreted and applied can harm the other policy's effectiveness).

²¹¹ Benjamin H. Diessel, Comment, *Trolling for Trolls: The Pitfalls of the Emerging Market Competition Requirement for Permanent Injunctions in Patent Cases Post-eBay*, 106 MICH. L. REV. 305, 333 (2007) (noting a similar effect to the district court's interpretation of *eBay Inc. v. MercExchange*, *L.L.C.*, 547 U.S. 388 (2006)).

²¹² The author wishes to thank Dr. David R. Anderson, Professor of Quantitative Analysis, Univ. of Cincinnati College of Bus. Admin., for his review of, and vital suggestions for, the computational analysis in this section. For mathematical support of this analysis, see DAVID R. ANDERSON, DENNIS J. SWEENEY & THOMAS A. WILLIAMS, STATISTICS FOR BUSINESS AND ECONOMICS 171-173 (10th ed. 2008).

²¹³ Lemley & Tangri, *supra* note 19, at 1089-94.

²¹⁴ National Nut Co. v. Kelling Nut Co., 61 F. Supp. 76, 79 (N.D. Ill. 1945) (holding that where defendants are familiar with the machines they have made, used or sold and the plaintiff should not be bound to specify at this time all of the acts of the defendants which may be peculiarly within the knowledge of the defendants).

requires that the standard for enhancing damages should be appropriately balanced.

Some allegations of willfulness will be true, and others will be false. Ideally, the liability standard for willful infringement would prevent all the frivolous allegations while enhancing damages for all the meritorious willfulness allegations.²¹⁵ This is not realistic, however, so the liability regime should at least be designed such that the true allegations of willfulness have a stronger chance of prevailing than the false allegations.²¹⁶

Another way of comparing the two alternative standards is by comparing their false-positives and false-negatives. In the willful infringement context, a false-positive result would occur when an infringement is held to be willful even though the infringer in fact acted in good faith. A false-negative result, on the other hand, would occur when a truly willful infringer is held to have acted in good faith. Any policy choice, such as a change in the standard for finding willfulness, will usually increase one type of error while simultaneously decreasing the other.²¹⁷ Because the objective recklessness standard makes proving willful infringement more difficult (decreasing false positives), it also risks denying meritorious allegations of willfulness (increasing false negatives). Whether Seagate was a wise change in the substantive law depends on the relative costs of the two types of error, their frequency, and their underlying policy values.²¹⁸ In other words, the choice between the affirmative duty of care and the Seagate objective recklessness standard depends on the magnitude of the increase in false negative relative to the decrease in false positives. It also depends on how one compares the social costs of erroneous findings of willful infringement to the costs of erroneous findings of good faith infringement.²¹⁹

Each type of error produces a different set of social costs.²²⁰ For example, false negatives (denying valid claims of willfulness) "undermine the deterrent effect of the substantive law, waste litigation costs, lead to inefficient and unjustified settlements, and chill socially useful activity."²²¹ The socially valuable activity in the patent context is the incentive for innovation and disclosure through the awarding of monopoly rights – the very purpose of the patent system.²²² False positives (erroneous enhancement of damages) deter socially valuable activity, such as marginal improvement of patented

²¹⁵ See Robert G. Bone, The Economics of Civil Procedure 128 (2003).

²¹⁶ See id.

²¹⁷ See id. at 129 (applying false positives and false negatives in a pleading context).

²¹⁸ See id. at 130.

²¹⁹ Id.

 $^{^{220}}$ Id at 131.

²²¹ *Id.*

²²² FTC, *supra* note 182, at 2.

inventions, and harm the benefits of disclosure by discouraging the reading of patents.²²³

Because the costs of the types of error differ, their costs and probabilities can best be compared through their expected error cost - the probability of an error multiplied by its social costs.²²⁴ The choice of a willfulness standard would be an easy one if one could accurately determine the cost of each type of error and its probabilities. In comparing the two standards (duty of affirmative care vs. objective recklessness), the better choice would be the standard with the lower total expected error cost.

To determine the costs of each standard, it is necessary to first analyze the probabilities of false positive and false negative errors. Although Seagate has been generally well received as a correction to perceived abuses in the patent system,²²⁵ it may have unintended negative consequences on the incentive to patent. To illustrate this, it is best to start by looking at the conditional error probabilities under the affirmative duty of care standard. The probabilities at issue can best be analyzed through a decision process diagram (Figure 1). In this diagram, the actual state of the willfulness claim ("S"; whether or not the allegation of willfulness is meritorious or frivolous) is the first decisional branch. Accordingly, S_1 is the probability that the defendant's infringement was not willful (plaintiff's suit is frivolous) and S_2 is reciprocal probability that the defendant's infringement was willful (plaintiff's suit is meritorious). The second decisional branch is probability of the trier-of-fact's ("TOF's") actual decision ("d"; whether the defendant is found innocent or guilty of willful infringement), which is conditioned to the probability of a given claim being meritorious or frivolous. Accordingly, d_1 is the TOF's decision that the defendant is innocent of willful infringement, and d_2 is the decision that the defendant is guilty.

The ultimate goal of this analysis is to estimate the probability of a false positive error (outcome E_2) and a false negative error (outcome E_3). This can be accomplished by estimating the probability of the four decision branches of the decision process: $P(d_1|S_1) = \text{Given infringement}$ was not willful (S_1) , the probability the TOF's decision is also "not willful" (d_1) ; $P(d_2|S_1) = \text{Given}$ infringement was not willful (S_1) , the probability the TOF's decision is also "not willful" (d_2) ; $P(d_1|S_2) = \text{Given}$ infringement was willful (S_2) , the probability the TOF's decision is "not willful" (d_1) ; and $P(d_2|S_2) = \text{Given}$ infringement was willful (S_2) , the probability the TOF's decision is "willful" (d_2) .

To continue the probability analysis, it is necessary to make some background assumptions. First, the probability of a given suit being meritorious or frivolous is difficult to determine. It does seem likely that a

²²³ Kelly, *supra* note 98, at 521-22.

²²⁴ BONE, *supra* note 215, at 131.

²²⁵ Ferguson, *supra* note 74, at 179.

significant number are either intentionally frivolous or frivolous due to an honest but mistaken interpretation of the facts of the case. Thus, although 92% of all patent cases include a claim for willful infringement, not all of those are necessarily willful.²²⁶ In one scholar's normative economic analysis, for example, 20% of all suits can be estimated to be frivolous.²²⁷ This number permits the estimate of the states S_1 and S_2 as follows: the probability ("*P*") of $S_1 = 0.20 = P(S_1)$. Therefore, $P(S_2) = 1 - P(S_1) = 1 - 0.20 = 0.80$.

The second assumption that must be made involves the TOF's decisions, denoted d_1 and d_2 . Fortunately, the end result is known. According to a recent empirical study on willful infringement, willfulness was found in 55.7% (0.557) of the cases in which it was claimed.²²⁸ Therefore, willfulness was not found in 100% - 55.7% = 44.3% of the cases. In terms of d_1 and d_2 , these findings are interpreted with the following probabilities: $P(d_1) = 0.443$ and $P(d_2) = 0.557$. In terms of the four outcomes, E_1 , E_2 , E_3 , and E_4 in Figure 1, $P(d_1) = P(E_1) + P(E_3) = 0.443$, and $P(d_2) = P(E_2) + P(E_4) = 0.557$. It has also been established that the probability of a correct verdict by a TOF can be estimated at 89%,²²⁹ meaning that the corresponding probability of an incorrect verdict is 11%. In terms of this analysis, when the actual state of willfulness claim is "frivolous" (S₁), the jury's d_2 decision (creating a false positive E_2 error of finding an "innocent" infringer to be willful) will occur 11% of the time. Thus $P(d_2|S_1) = 0.11.^{230}$ Knowing this information on $P(d_2|S_1)$ and the previously identified probabilities $P(d_1) = 0.443$, $P(d_2) = 0.557$, $P(S_1) = 0.20$, and $P(S_2) = 0.80$, the remaining three decision branch probabilities can be

²²⁶ Andrew M. Newton, Comment, *Encouraging Willful Infringement? Knorr-Bremse Leaves Due Care in Patent Litigation in a State of Flux*, 15 TEX. INTELL. PROP. L.J. 91, 100 (citing Moore, *supra* note 6, at 232).

²²⁷ BONE, *supra* note 215, at 131. This assumption presupposes that the procedural hurdles to claiming willful infringement have some efficacy towards deterring frivolous filing of willfulness claims. For example, a patentee must have a good faith basis for alleging willful infringement under Fed. R. Civ. Pro. 8, *Seagate*, 497 F.3d 1360, 1374 (2007). "[A] law suit pursued in bad faith is sufficient for the awarding of attorneys' fees under § 285".*Diego, Inc. v. Audible, Inc.*, 505 F.3d 1362, 1367 (Fed. Cir. 2007). Fed. R. Civ. P. 11(b)(3) would subject an attorney making allegations without factual support to sanctions, *see* Fed. R. Civ. P. 11. Nonetheless, this value is admitted to be more of an assumption than estimation, and the analysis to follow does depend, in part, on the credence one gives to it.

²²⁸ Moore, *supra* note 6, at 236.

²²⁹ Bruce D. Spencer, *Estimating the Accuracy of Jury Verdicts*, 4 J. EMPIRICAL LEGAL STUDIES 305, 306-07 (2007) (providing estimates for the famous Kalven-Zeisel studies on judge-jury agreement rates for criminal cases).

²³⁰ See infra note 234. A sensitivity analysis is presented in note 234 so that the reader can see how this assumption affects the analysis within a range of reasonableness.

determined.²³¹ The decision branch probabilities are as follows (Figure 1): $P(d_1|S_1) = 0.89$, $P(d_1|S_2) = 0.331$; $P(d_2|S_2) = 0.669$.²³²

The probabilities of false positive and false negative errors under the affirmative duty of care standard can now be determined using the product rule:

False positive error: $P(E_2) = P(S_1) P(d_2|S_1) = 0.20(0.11) = 0.022$

False negative error: $P(E_3) = P(S_2) P(d_1|S_2) = 0.80(0.331) = 0.265$

From this analysis, these probabilities show that 2% of all willfulness determinations have a false positive error and 26.5% of them have a false negative error. Thus, the total error rate is 28.5% (2% + 26.5%), which indicates that 71.5% cases ended with the correct decision.²³³

We know that $P(d_1) = P(E_1) + P(E_3) = 0.443$.

Using the product rule and branch probabilities, we can write: $P(E_1) = P(S_1) P(d_1|S_1)$ and $P(E_3) = P(S_2) P(d_1|S_2)$.

Solving for $P(d_1)$, we have $P(d_1) = P(S_1) P(d_1|S_1) + P(S_2) P(d_1|S_2)$.

We have also stated $P(S_1) = 0.20$ and $P(S_2) = 0.80$

Since we have assumed that $P(d_2|S_1) = 0.11$, we can conclude $P(d_1|S_1) = 1 - 0.11 = 0.89$.

Therefore, we can write $P(d_1)$ as follows to solve for $P(d_1|S_2)$:

 $P(d_1) = 0.20(0.89) + 0.80 P(d_1|S_2) = 0.443$

 $0.178 + 0.80 P(d_1|S_2) = 0.443$

$$0.80 P(d_1|S_2) = 0.265$$

 $P(d_1|S_2) = 0.331$

²³³ As mentioned, the above conclusion is based on the assumption that a court finds an "innocent" infringer as being a willful infringer 11% of the time ($P(d_2|S_1) = 0.11$). The following table shows how the probabilities of false positive and false negative errors are affected by this assumption.

$P(d_2 S_1)$	$P(E_2)$	$P(E_3)$	Error	Correct
0.03	0.006	0.249	0.255	0.745
0.04	0.008	0.251	0.259	0.741
0.05	0.010	0.253	0.263	0.737
0.06	0.012	0.255	0.267	0.733
0.07	0.014	0.257	0.271	0.729
0.08	0.016	0.259	0.275	0.725
0.09	0.018	0.261	0.279	0.721
0.10	0.020	0.263	0.283	0.717
0.11	0.022	0.265	0.287	0.713
0.12	0.024	0.267	0.291	0.709

²³¹ ANDERSON, SWEENEY & WILLIAMS, *supra* note 212, at 171-73 (10th ed. 2008).

²³² The steps for the probability calculation of $P(d_1|S_2) = 0.331$ are as follows:

Of course the probabilities of willfulness being found for a given case will differ under each standard. As discussed in Part III, despite the fact that the strict standard of the Federal Circuit has not yet been completely accepted by lower courts, it is likely that the *Seagate* standard will decrease the findings of willfulness in time.²³⁴ Exactly how much of an impact the new standard will have on overall determinations of willfulness must be estimated, but a 25% change is not unreasonable.²³⁵ This estimation makes sense because the affirmative duty of care standard was similar to negligence,²³⁶ and since *Seagate* has raised the standard to recklessness, the standard has moved up one step on the four-step ladder of mental states (purpose, knowledge, recklessness, and negligence), which is equivalent to a 25% change.

With this in mind, the percentage of false positive and false negative error probabilities under the objective recklessness standard can be determined. Because objective recklessness is a more stringent standard for proving willful patent infringement, it will likely decrease the overall findings of willfulness. That is, $P(d_1)$ and $P(d_2)$, which were based on empirical evidence of willfulness determinations, will increase and decrease, respectively. Using the 25% estimation, the probabilities can be revised as follows: $P(d_1) = 0.443 +$ 0.25 = 0.693; P(d2) = 0.557 - 0.25 = 0.307. Furthermore, it is also likely that the probability of a false positive will be reduced. This should occur because the accuracy of the TOF's verdict must be related to (conditioned upon) the probability of an error occurring (whether "willfulness" is correctly determined). More specifically, a reduction in false positives is expected given the more stringent standard, the focus on objectivity in the first prong of the new standard, and the narrowing of the waiver of attorney-client privilege following reliance on opinion of counsel. This change can be implemented in the model by assuming that it will lower the critical E_2 error (that the court decisions is "willful" even though the defendant infringement was not in fact willful) from 10% to 2%. In other words, $P(d_2|S_1) = 0.02^{237}$

Using these assumptions and the previously identified probabilities $P(S_1) = 0.20$ and $P(S_2) = 0.80$, the decision branch probabilities become: $P(d_1|S_1) =$

This table shows that for reasonable assumptions of $P(d_2|S_1)$, the probability of a false positive error is 2.4% or less while the probability of a false negative error is roughly 25% o 27%. The total error rate is 25% to 29% while the percentage of correctly decided cases is 71% to 75%.

²³⁴ Resis, *supra* note 155.

²³⁵ See Informatica Corp. v. Business Objects Data Integration, 2007 U.S. Dist. LEXIS 83157, at *16 (N.D. Cal. Aug. 16, 2007) (stating that *Seagate* significantly raised the bar for a finding of willfulness), *supra* notes 152-166 and accompanying text.

²³⁶ Pall, *supra* note 108, at 674-75.

²³⁷ See infra note 240.

0.98; $P(d_1|S_2) = 0.621$; $P(d_2|S_2) = 0.379$ (Figure 2).²³⁸ Once again, the product rule can be used to compute the probabilities of false positive and false negative errors:

False Positive Error: $P(E_2) = P(S_1) P(d_2|S_1) = 0.20(0.02) = .004$

False Negative Error: $P(E_3) = P(S_2) P(d_1|S_2) = 0.80(0.621) = 0.497$

This probability analysis shows that 0.4% of all willfulness determinations under the objective recklessness standard will have a false positive error and 49.7% of all such determinations will have a false negative error. Thus, the total error rate is 0.4% + 49.7% = 50.1%, which indicates that 49.9% cases will have the correct determination.²³⁹

Comparing the probabilities under the affirmative duty of care standard to the objective recklessness standard, this analysis shows that objective recklessness will likely have a lower probability of false positive error as well as a decrease in the overall probability of finding willfulness. There is, however, a dramatic potential disadvantage to the objective recklessness standard in that it increases the probability of a false negative error from .265 to .497, which causes the total error rate to be increased from 28.5% to 50.1%. Therefore, using the decision theory model presented here, the objective recklessness standard could lead to a correct decision in only approximately 50% of willfulness determinations because of a dominant increase in the probability of a false negative error.²⁴⁰

²³⁹ The above conclusion is based on the assumption that $P(d_2|S_1)$ is lowered from 0.11 to 0.02 by the objective recklessness standard. One would anticipate that this probability is relatively low, and the following table shows how the probabilities of false positive errors and false negative errors are affected by this assumption:

$P(d_2 S_1)$	$P(E_2)$	$P(E_3)$	Error	Correct
0.02	0.004	0.497	0.501	0.499
0.03	0.006	0.499	0.505	0.495
0.04	0.008	0.501	0.509	0.491
0.05	0.010	0.503	0.513	0.487
0.06	0.012	0.505	0.517	0.483

This table demonstrates that for reasonable assumptions of $P(d_2|S_1)$, the probability of a false positive error is 1.0% or less while the probability of a false negative error is approximately 50%. The total error rate is just above 50% while the percentage of correctly decided willfulness determinations is slightly less than 50%.

²⁴⁰ An important caveat of this analysis is that its accuracy is only as good as the approximation or estimation of the numbers used. However, with the breadth of potential inaccuracy calculated here, there is a wide range within the estimated values that would provide a similar result; that is, a significant increase in error rates generated by the

²³⁸ See supra note 233 (detailing the method of $P(d_1|S_2)$ calculation).

Overall, the dramatic increase in false negative errors relative to the nominal decrease in false positives generated by the switch to the objective recklessness standard argues against its use, unless the cost of a false positive error is significantly greater than the cost of false negative error. In fact, based on the probabilities shown here, the expected cost of a false positive would have to be over one hundred times greater than the cost of a false negative for the total expected error cost (the probability of an error multiplied by the social cost of the error) to be equal.²⁴¹ It seems likely that this is not the case.

B. The Cost of False Negatives: Fear & Loathing in the Patent System

While a false positive error is certainly harmful (it is, after all, the equivalent of finding an "innocent" infringer to be "guilty"), it is reasonable to argue that a false negative error is at least equal in cost. Estimating costs in this scenario is very difficult. One must be able to quantify the adverse impact of frivolous willfulness claims on inventive activity, the costs of erroneous enhancement of damages, the costs of meritorious willfulness claims that have been unjustly screened, the erosion of the incentive to patent, deterrence of frivolous findings, and wasted litigation and settlement costs.²⁴² Nonetheless, some qualitative estimation is possible.

This paper argues that the objective recklessness standard is just as much a threat to the incentive to innovate as the affirmative duty of care. The ability to deter willful infringement is part of the value of a patent. The quid pro quo of the patent system is a limited monopoly in exchange for disclosure.²⁴³ If, after *Seagate*, the probability that even a truly willful infringer will have to pay nothing more than a reasonable royalty is dramatically increased, inventors who prefer not to have their invention licensed will opt for other methods of intellectual property protection, such as trade secret.²⁴⁴ This would result in a loss of public disclosure, which is harmful to the progression of innovation.²⁴⁵

In short, innovation is a balanced spectrum between disclosure by the inventor on the one hand and the freedom of potential competitors to continue

objective recklessness standard.

²⁴¹ BONE, *supra* note 215, at 131-32. The expected cost of a false negative in this analysis would be .497 x cost = y. The expected cost of a false positive error is .004 x cost = y. Therefore, only if the cost of a false positive is 125x greater than a false negative is total expected error cost (y) equal for both types of error.

²⁴² *Id.* at 137-40.

²⁴³ FTC, *supra* note 182, ch. 1, at 37.

²⁴⁴ ROBERT P. MERGES & JOHN F. DUFFY, PATENT LAW & POLICY: CASES AND MATERIALS 64 (4th ed. 2007).

²⁴⁵ FTC, *supra* note 182, Exec. Summary, at 2 ("Because the patent system requires public disclosure, it can promote a dissemination of scientific and technical innovation that would not occur but for the prospect of a patent.").

to innovate on the other.²⁴⁶ Legal standards that favor one (by encouraging infringement or licensing on terms favorable to the potential infringer) will often discourage the other (by weakening the property right of a patent).²⁴⁷ Only a decision favorable to both sides would truly remove the threat to innovation and promote the progress of science. This subsection will show that *Seagate* fails in this regard.

1. Under-compensation of Infringement

As discussed in Section III, the *Seagate* opinion is unlikely to optimally deter a potential willful infringer. This occurs because enhanced damages achieve optimal deterrence "when there is risk of undetection [sic] or underenforcement [sic] or (perhaps) when compensatory damages alone are unlikely to reflect the private or social harm caused by the offender's conduct, or when the offender's conduct substantially deviates from the norm."²⁴⁸ Deviations in behavior from objectively-defined standards should therefore be only one factor of many in deciding if enhanced damages should be awarded. *Seagate*, however, overvalues the objective inquiry, thereby favoring non-detection, under-enforcement and encouraging under-compensation. As Judge Gajarsa stated in his concurrence, a more reasonable course of action would be to allow a district court to use its statutory discretion to enhance a damage award when the real extent of the damage caused cannot be determined.²⁴⁹

By decreasing (if not effectively eliminating) the risk of false positives, *Seagate* will achieve some socially beneficial gains. Of course the losses incurred through false negative determinations must be subtracted from these gains in order to determine what, if any, would be the net social gain.²⁵⁰ Although the objective recklessness standard confers social benefits in the form of reducing some of the problems associated with frivolous willfulness allegations, its under-inclusiveness (i.e. false negatives) may mitigate, if not obliterate those gains.²⁵¹

First, it does not seem that the system was unfairly balanced in favor of patentees before *Seagate*. While willfulness damages can reach into the tens of

²⁴⁶ *Id.* at 3 ("A failure to strike the appropriate balance between competition and patent law and policy can harm innovation.").

²⁴⁷ Id.

²⁴⁸ Cotter, *supra* note 178, at 315 (emphasis added).

²⁴⁹ In re Seagate Technology, LLC, 497 F.3d 1360, 1378 (Fed. Cir. 2007) (Gajarsa, J., concurring).

²⁵⁰ Diessel, *supra* note 211, at 337.

²⁵¹ *Id.* (noting a similar effect for the standards for injunctive relief announced in *eBay Inc. v. MercExchange, L.L.C.*, 126 S. Ct. 1837, 1840 (2006)).

millions of dollars,²⁵² they were awarded in only 8% of trials over a two-year period.²⁵³ It is reasonable to wonder if reform was really necessary when willfulness damages represented on a small fraction of all patent damages.²⁵⁴

Second, it is quite likely that the probability of false negative results will severely under-compensate the patentee.²⁵⁵ Victims of patent infringement do not often suffer calculable lost profits.²⁵⁶ Therefore, the court must calculate a reasonable royalty, which is a difficult and inexact task.²⁵⁷ There are at least fifteen different factors to consider in calculating royalties.²⁵⁸ The difficulty of the calculation causes uncertainty and manipulation by litigators, resulting in grossly inadequate royalty rates.²⁵⁹ Moreover, patentees "are still worse off by at least the amount of legal fees they have expended to obtain those remedies."²⁶⁰ If the result of enforcing the property right leaves the patentee less well off than ignoring the infringement, a rational patentee may choose not to pursue every violation. This calls into question the value of the patent as property.

2. Erosion of Patents as Property Rights

The incentive for someone to patent and disclose an invention is only as strong as the property rights of a patent. If patents "fail as property in a basic sense," they will "not do what they are supposed to do, and, it is not likely they will spur innovation and increase social welfare."²⁶¹ *Seagate* increases the risk of this very scenario. By increasing the probability of false negative errors (relative to the corresponding decrease in false positives), it encourages infringing conduct. In the absence of a strong willfulness doctrine, it is likely that companies will be more willing to infringe a patent, preferring to "take their chances that the court will strike down the patent" or that the benefits of marketing the pirated invention during the duration of the lawsuit will be worth more than the damages.²⁶² With a lower threat of being punished, combined

²⁵² Moore, *supra* note 6, at 227 n.3.

²⁵³ *Id.* at 237.

²⁵⁴ BLAIR & COTTER, *supra* note 183, at 129.

²⁵⁵ Lemley & Tangri, *supra* note 19, at 1110.

²⁵⁶ F. Russell Denton & Paul J. Heald, *Random Walks, Non-Cooperative Games, and the Complex Mathematics of Patent Pricing*, 55 RUTGERS L. REV. 1175, 1254 (2003).

²⁵⁷ Id.

²⁵⁸ Id.

²⁵⁹ *Id.* at 1255.

²⁶⁰ Lemley & Tangri, *supra* note 19, at 1109-10.

²⁶¹ JAMES BESSEN & MICHAEL J. MEURER, PATENT FAILURE: HOW JUDGES, BUREAUCRATS AND LAWYERS PUT INNOVATORS AT RISK Ch. 1 (forthcoming Mar. 2008), *available at* http://researchoninnovation.org/dopatentswork/.

²⁶² Lemley & Tangri, *supra* note 19, at 1112.

with inaccurate royalty or lost profit determinations, efficient infringement becomes a rational business model.²⁶³ The increased costs of enforcing the patent against this additional infringement, coupled with the potential for insufficient compensation, greatly decreases incentives for patenting (*i.e.* loss of temporary market advantage). This ultimately disfavors disclosure.

This efficient infringement idea is based on the well-known economic rationale for excusing breaches of contract and tortuous conduct. If a given case of infringement would cost the infringer "*x*" amount in actual damages but would net the infringer an amount greater than "*x*" in additional profits, there is a net social gain from the breach.²⁶⁴ If the patentee is fully compensated for the infringement (e.g. awarding lost profits and future lost profits), then theoretically the patentee is no worse off than had the infringement not taken place.²⁶⁵ A logical corollary of this view is that if compensatory damages would be sufficient to deter infringement (if "*x*" = additional profit, no infringement), the threat of enhanced damages could have no effect other than to deter some efficient breaches.²⁶⁶

There are, however, a number of difficulties with this theory. As noted above, any system that encourages infringement undermines the credibility of the patent property system, which is essential to maximizing the value of the system through providing incentives to patent and disclose.²⁶⁷ Furthermore, a rationally competent potential patentee will weigh the gains against the costs when deciding whether or not to file a patent application.²⁶⁸ One of the gains is the ability to discourage future infringement. A slippery-slope standard for enhancing damages encourages infringement, undermines the rule of law, discourages disclosure, and further weakens the incentive to patent.

This is true because a patent is a property right, giving the right to exclude others from making, using, offering for sale, or selling the invention.²⁶⁹ The strength of this property right is crucial to foster innovation that would not occur except for the prospect of a patent because companies can expect increased profits from investments in research and development.²⁷⁰ As the Federal Circuit has stated, the "right to exclude recognized in a patent is but the essence of the concept of property."²⁷¹ Theories of efficient breach or

²⁶³ Wrzesinski, *supra* note 64, at 194-95.

 $^{^{264}}$ Lake River Corp. v. Carborundum Co., 769 F.2d 1284, 1289 (7th Cir. 1985) (Posner, J.) .

²⁶⁵ Id.

 $^{^{266}}$ See id.

²⁶⁷ See id.

 $^{^{268}}$ See id.

²⁶⁹ College Sav. Bank, 527 U.S. at 673.

²⁷⁰ FTC, *supra* note 182, Exec. Summary, at 2.

²⁷¹ MercExchange, LLC v. eBay, Inc., 401 F.3d 1323, 1338 (Fed. Cir. 2005) rev'd on

infringement, on the other hand, are premised upon liability.²⁷² In contrast to property rights, "liability rules merely require one who causes damage to reimburse the victim in an amount equal to the actual harm caused."²⁷³ This type of reimbursement theory directly conflicts with the property rights underlying the patent system.

Proponents of efficient patent infringement argue that "the use of liability rules within the context of patent litigation will promote the commercialization of patents and concomitant wealth maximization."²⁷⁴ This argument could have merit if one assumes that courts rarely deny a patentee's request for injunctive relief.²⁷⁵ If, however, injunctions are likely to be denied and there is no threat of enhancement beyond compensatory damages, then there is little to stop potential infringers merely writing-off the damages as part of the cost of doing business as long as profit exceeds loss.²⁷⁶

This scenario is more likely in the wake of the Supreme Court's decision in *eBay v. MercExchange*.²⁷⁷ The *eBay* opinion holds that there is no general rule in patent law that a permanent injunction should necessarily issue once infringement is determined.²⁷⁸ It further holds that the plaintiff must satisfy a four-factor test based upon traditional equitable factors before a court can grant an injunction.²⁷⁹ Importantly, *eBay* removes willfulness as a consideration in whether or not to grant an injunction.²⁸⁰

Overall, *eBay* decreases the probability of an injunction, which increases the patentee's reliance upon compensatory damages.²⁸¹ Under current doctrine, however, damages cannot be enhanced for compensatory purposes.²⁸² Moreover, it is possible to envision a myriad of legal arguments through which an infringer might convince the court that lost profits are unavailable, leaving only a reasonable royalty for compensation.²⁸³ In his *Seagate* concurrence,

²⁸⁰ Diessel, *supra* note 211, at 317-18.

 281 *Id.* at 340 (stating that the district courts' interpretation of eBay confines the availability of the injunctive remedy).

²⁸² In re Seagate Tech., 497 F.3d 1360, 1371 (Fed. Cir. 2007).

other grounds, 547 U.S. 388 (2006) (quoting Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1246-47 (Fed. Cir. 1989).

²⁷² Julie S. Turner, Comment, *The Nonmanufacturing Patent Owner: Toward a Theory of Efficient Infringement*, 86 CAL. L. REV. 179, 208 (1998).

²⁷³ *Id.* at 196.

²⁷⁴ *Id.* at 179.

²⁷⁵ Id.

²⁷⁶ Id. at 197.

²⁷⁷ See generally eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).

²⁷⁸ *Id.* at 394.

²⁷⁹ *Id* at 391-92

²⁸³ Mitchell G. Stockwell, Implementing eBay: New Problems in Guiding Judicial

Judge Gajarsa seems to recognize that a weakened injunctive right risks "manifest injustice" to the patentee (i.e. under-compensation) if damages cannot be enhanced for compensatory purposes.²⁸⁴

The consequences of eBay must factor into an injured patentee's thinking in regard to settlement.²⁸⁵ The Federal Circuit has stated that "it may be reasonable to expect that invasion of the patent right can be recompensed with a royalty rather than with an injunction."²⁸⁶ In short, "[b]efore *eBay*, a patent owner who proved infringement could count on a virtually-automatic injunction that strengthened the patentee's hand in the market and at the bargaining table. Now, an infringer can lose the battle at trial only to win the war[.]"²⁸⁷ The threat of permanent injunction was the "hammer" that patentees relied on to motivate alleged infringers to settle their suit and compel them into purchasing a license.²⁸⁸ After *eBay*, the hammer became a soft mallet and the threat of enhanced damages became a necessary deterrent to willful infringement. Now, after *Seagate*, the tables have been fully turned. It is the patentee who is being compelled towards licensing negotiations or towards settlement for a reasonably royalty.

It is perverse for a property system to push the patentee instead of the infringer towards settlement. One might think that courts would tread cautiously in crafting decisions that effectively resemble compulsory licensing. Congress has been consistently hostile to such compulsory licensing schemes.²⁸⁹ *Seagate*, however, resembles compulsory licensing in that it heavily imbalances licensure negotiations in favor of the infringer. Moreover, if, because of the decreased probabilities of injunctions and enhanced damages, all the patentee has to assert as a bargaining chip is the patent itself and is expending resources to litigate its claim, the defendant is likely to assume that

²⁸⁶ Polymer Techs., Inc. v. Bridwell, 103 F.3d 970, 974 (Fed. Cir. 1996); *See also* Pfizer, Inc. v. Teva Pharm. USA, Inc., 429 F.3d 1364, 1381 (Fed. Cir. 2005).

Discretion and Enforcing Patent Rights, 88 J. PAT. & TRADEMARK OFF. SOC'Y 747, 753 (2006) (noting common defenses to lost profit damages, such as that "readily-available alternatives exist," which "shows that the patentee's invention is not really driving the sale, so lost profits are unavailable;" additionally, "the parties would recognize such alternatives and, in their hypothetical negotiation, reach a royalty far lower than the patentee's proposal.").

²⁸⁴ Seagate, 497 F.3d at 1378-79 (Fed. Cir. 2007) (Gajarsa, J., concurring) ("[B]y reading a willfulness requirement into the statute, we are unnecessarily confining enhanced damages to a subset of cases where punitive awards appropriate, and thereby restricting district courts from exercising legitimate, remedial options. . . .").

²⁸⁵ Stockwell, *supra* note 283, at 754.

²⁸⁷ Stockwell, *supra* note 283, at 747.

²⁸⁸ Powers & Carlson, *supra* note 22, at 100-01.

²⁸⁹ Stockwell, *supra* note 283, at 756.

the patentee will settle for any nominal amount above the cost of enforcing its patent right.²⁹⁰ This under-compensation would destroy the value of obtaining a patent.

An equally dangerous scenario is that the combination of *Seagate* and *eBay* may actually encourage litigation. This derives from the simple fact that "[w]ithout the prospect of either injunctive relief or treble damages, an infringer might well conclude that willful infringement makes more economic sense than negotiating a license early in the dispute."²⁹¹ In other words, the potential enhancement of damages had encouraged infringers to enter settlement negotiations with their victims.²⁹² Because enhanced damages are now less likely, the odds are increased that the worst that could happen to an alleged infringer is to pay compensatory damages.²⁹³ Without the threat of increased damages to channel infringers into settlement or licensure, there is an increased chance that infringers will bypass those options altogether.²⁹⁴

At the very least, if the plaintiff believes she faces an all-or-nothing situation on the infringement inquiry, and the defendant is over-confident that willfulness damages are unlikely to be assessed (and that the odds of being found guilty of infringement are decreased because of the decrease in the scope of waiver), the parties are likely to adopt hard bargaining strategies during whatever settlement negotiations do occur.²⁹⁵ Hard bargaining discourages "otherwise feasible settlements," even when both parties are behaving rationally and realize that settlement could be mutually beneficial.²⁹⁶ Therefore, more alleged infringers will be encouraged to "role the dice" with litigation. This potential is worsened by the fact that *Seagate* has also limited waiver of attorney-client and work product privileges. The narrowed range of discovery could make it more difficult to correct divergent expectations, thereby frustrating settlement even further.²⁹⁷

Seagate and *eBay* have put the infringer in control of the "if and when" of licensing negations. This is precisely why "triers of fact theorize that it would be inequitable to charge the wrongdoer/infringer only that amount that a lawful negotiation would have brought."²⁹⁸ If courts are disinclined to grant injunctions, and enhanced damages are drastically more difficult to award, and

²⁹⁰ Diessel, *supra* note 211, at 335.

²⁹¹ Stockwell, *supra* note 283, at 755 n39.

²⁹² Cotter, *supra* note 178, at 312.

²⁹³ Id.

²⁹⁴ Id.

²⁹⁵ BONE, supra note 215, at 79.

²⁹⁶ *Id.* at 85.

²⁹⁷ *Id.* at 94.

²⁹⁸ Laura B. Pincus, *The Computation of Damages in Patent Infringement Actions*, 5 HARV. J.L. & TECH. 95, 124 (1991).

infringers are disinclined to negotiate, then the patentee's legal property rights are destroyed.²⁹⁹

V. CONCLUSION

It may be true that before *Seagate* some changes were needed to stop abusive gamesmanship with willfulness allegations.³⁰⁰ *Seagate*'s changes, however, are overly threatening to patentees. The relatively rare awarding of willfulness damages must be compared to *Seagate*'s deterrent power and the overall goals of the patent system: incentives to invest in research and development followed by disclosure and further innovation.³⁰¹ The objective recklessness standard threatens to undermine this system by drastically increasing the number of false negative errors relative to a nominal decrease in false positive errors. This increases the probability that willful infringers will be liable for only a reasonable royalty, severely skewing the bargaining power in licensing negotiations and pushing companies away from patent protection. Worse yet, Congress may codify this threat in the Patent Reform Act, which incorporates the objective recklessness philosophy to reduce allegations of willfulness.³⁰²

Ideally, "the rules should strive both to deter infringement (thus channeling more efficient would-be infringers into licensing transactions) and to preserve the patentee's incentives to invent and disclose."³⁰³ If the substantive law encourages infringers to undermine the incentive structure of the patent laws, social costs will be maximized at the expense of social benefits.³⁰⁴ The *Seagate* opinion is bad policy in this regard. In order to create a balanced policy between a patentee's property right and free competition, the Federal Circuit should revisit Judge Gajarsa's concurrence and allow damage

³⁰⁰ See Ferguson, supra note 74, at 173.

²⁹⁹ See Stockwell, *supra* note 283, at 755 ("[G]iven the willful infringement remedies, courts who decline to issue injunctions should consider imposing stiffer economic penalties than a mere compensatory damages award on infringers. Such penalties will incent the infringer, over time, to move away from the infringing technology, accomplishing what an injunction would do without the disruption of a sudden stop. Meanwhile, the patent owner's legal rights are respected and the court reinforces to other would-be infringers the deterrent message Congress intended."(citation omitted)).

³⁰¹ See Eisenberg, surpa note 1.

³⁰² CONG. RES. SERVICE, PATENT REFORM IN THE 110TH CONGRESS: INNOVATION ISSUES 25-26 (2008), *available at* http://www.patentlyo.com/patent/crs.pdf; STAFF OF S. COMM. ON THE JUDICIARY, 110TH CONG., REPORT ON THE PATENT REFORM ACT S.1145 15-16 (2007), *available at* http://www.ipo.org/AM/Template.cfm?Section=Search§ion=Patent_ Reform&template=/CM/ContentDisplay.cfm&ContentFileID=56897.

³⁰³ Cotter, *supra* note 178, at 307-08.

³⁰⁴ BLAIR & COTTER, *supra* note 183, at 96.

enhancement for compensatory purposes.

VI. FIGURES

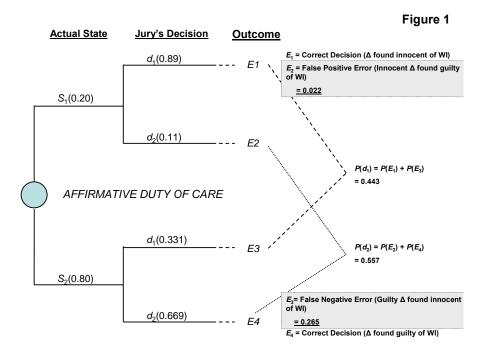


Figure 2

