

**“INEXTRICABLY COMMINGLED”: A RESTITUTION  
PERSPECTIVE IN PATENT REMEDIES**

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I. INTRODUCTION

Traditional theories of patent damages can be classified as sound-  
ing either in restitution or in torts. A restitution approach provides a  
remedy for the harm of unjust enrichment: the infringer has received,  
at the expense of the patentee, a benefit to which she was not entitled.  
The measure of damages under this approach is determined by consid-  
ering primarily what the infringer unfairly gained. A torts approach  
provides a remedy for the injury to the patentee. The primary question  
is what it would take to make the patentee whole, i.e. “had the

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[i]nfringer not infringed, what would [the] [p]atent [h]older[] have made?"<sup>1</sup>

Since 1964, courts have evaluated patent remedies squarely from the torts perspective, embracing compensatory damages over disgorgement. The Federal Circuit has stated that the purpose of patent damages is to compensate patentees, not to punish infringers or to disgorge their profits.<sup>2</sup> However, this approach is not necessarily sound from a historical, economic, legal, or policy perspective.<sup>3</sup> Fundamentally, the restitution approach and the torts approach are different ways to address the same question. Both approaches are based on a hypothetical ex ante negotiation between the parties. Because restitution offers different tools for damage calculation, damage calibration in restitution is often more precise.

Disgorgement as the standard remedy is not a viable proposal. This Note argues instead that courts can and should use the tools of restitution, specifically equitable burden shifting and relaxation of burdens of proof, in calculating patent damages, particularly in cases of willful infringement. These tools could clarify the *Georgia-Pacific* factors<sup>4</sup> for reasonable royalties and calibrate more carefully willful damages. A restitution approach would lead to more predictable, economically sensible damage awards. Part II of the Note provides a brief introduction to restitution and discusses the historical development of patent damages. Part III of the Note outlines how a restitution perspective would work in the context of a reasonable royalty calculation, using Judge Posner's recent opinion in *Apple v. Motorola*<sup>5</sup> as an illustration. Part IV of the Note describes a restitution approach to willful damages. Finally, Part V sketches the primary advantages of this approach, including its effect on non-practicing entities.

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1. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964) (quoting *Livesay Window Co. v. Livesay Indus., Inc.*, 251 F.2d 469, 471 (5th Cir. 1958)).

2. *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1223 (Fed. Cir. 1995); Mark A. Lemley, *Distinguishing Lost Profits from Reasonable Royalties*, 51 WM. & MARY L. REV. 655, 655 (2009) [hereinafter Lemley, *Distinguishing Lost Profits*].

3. I am not the first to argue for the restitution perspective over the torts perspective. See David W. Opperbeck, *Patent Damages Reform and the Shape of Patent Law*, 89 B.U. L. REV. 127, 132 (2009); Caprice L. Roberts, *The Case for Restitution and Unjust Enrichment Remedies in Patent Law*, 14 LEWIS & CLARK L. REV. 653 (2010). My argument continues this focus on restitution, but I propose using the procedural tools of restitution in addition to, and sometimes instead of, the restitutionary remedy of disgorgement.

4. *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

5. 869 F. Supp. 2d 901 (N.D. Ill. 2012).

## II. RESTITUTION AND ITS ABANDONMENT

A. *What is Restitution?*

Restitution<sup>6</sup> follows three general principles in calculating what is owed as the result of an unjust enrichment.<sup>7</sup> First, restitution, a doctrine strongly influenced by equity, is concerned with fairness.<sup>8</sup> The court is encouraged to consider the entire situation surrounding the transaction and the relative faults on both sides.<sup>9</sup> For example, when a house is mistakenly built on land that does not belong to the owner who hired the builder, the court will examine whether the builder knew the land was the wrong plot, whether the real owner was aware the house was being built, what opportunity the builder had to remove the house, what damage the builder's trespass may have caused, and how the real owner has actually benefited from the mistake.<sup>10</sup> These factors eclipse those a court would examine in a traditional suit for trespass, demonstrating the broader contextual nature of restitution.

Second, restitution tries to calibrate penalties to the degree of culpability of the unjustly enriched party.<sup>11</sup> One common remedy in restitution is disgorgement,<sup>12</sup> which focuses on what the wrongdoer gained as a result of the transaction.<sup>13</sup> The basic purpose of disgorgement is to return the party that unjustly benefited from the transaction to the same position that she would have occupied had the transaction never occurred.<sup>14</sup> This remedy always includes recovery of the initial

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6. Restitution can be used either to refer to a particular remedy or more generally as a field of law. See Andrew Kull, *Rationalizing Restitution*, 83 CAL. L. REV. 1191, 1191–92 (1995). This Note generally uses the term in the latter sense — the field of patent law should borrow from the approaches used in the field of restitution. However, this Note does not argue for the remedy of restitution as the sole or normal remedy in patent law.

7. An unjust enrichment is generally when one person receives property to which she is not entitled. See RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 1 cmt. a (2011). The person receiving the property does not have to have committed a wrong; for instance, she may have received the enrichment as a result of the other party's mistake. See *id.* at cmt. f.

8. GEORGE E. PALMER, *THE LAW OF RESTITUTION* 5 (1978) (“[A]ttention is centered on the prevention of injustice.”). For a discussion of the relationship of equity and restitution, and an analysis of whether restitution is an equitable doctrine, see Emily Sherwin, *Restitution and Equity: An Analysis of the Principle of Unjust Enrichment*, 79 TEX. L. REV. 2083, 2085–90 (2001).

9. See Sherwin, *supra* note 8, at 2094–95.

10. See *Beacon Homes, Inc. v. Holt*, 146 S.E. 2d 434, 440 (N.C. 1966).

11. See Dennis Klimchuk, *The Scope and Structure of Unjust Enrichment*, 57 U. TORONTO L.J. 795, 799 (2007).

12. Under equity, this remedy was called an “equitable accounting.” PALMER, *supra* note 8, at 24–29.

13. See RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 51 (2011) (“The object of restitution in such cases is to eliminate profit from wrongdoing while avoiding, so far as possible, the imposition of a penalty.”).

14. *Id.*

amount that was unjustly gained, but whether it includes additional profits made with the unjustly received property depends on the relative culpabilities of the two parties.<sup>15</sup> An innocent recipient of an unjust benefit must return only the benefit.<sup>16</sup> However, a party who knowingly or intentionally accepts unjust enrichment is liable for consequential damages.<sup>17</sup> For example, a person who finds a dollar on the ground may be required to give the dollar back, but, if she invests that dollar in the lottery and wins, she would not have to give up all of the proceeds.<sup>18</sup> However, if someone steals a dollar out of another's wallet, she may be required to divest all of the consequential gains from that dollar — including the lottery winnings.<sup>19</sup>

Finally, restitution emphasizes flexibility. The standard of proof for certain elements depends on the enriched party's level of culpability. For example, when funds, some validly received and some unjustly received, are combined or "commingled," presumptions about which funds are due to the claimant are relaxed if the enriched party is innocent.<sup>20</sup> Restitution may also allow for claims against third parties who were involved in a wrongful transaction, even though the third party did not commit the wrong.<sup>21</sup> Finally, restitution may sometimes induce courts to relax rules about certain wrongs, such as the statute of limitations.<sup>22</sup>

Restitution fell out of favor in American legal tradition in the last half-century, but interest in it has increased in the last decade. In the 1930s, American legal scholars were active in defining and advancing the field.<sup>23</sup> However, by the mid-1990s law schools taught few classes on it and many lawyers did not understand it.<sup>24</sup> A new Restatement was published in 2011,<sup>25</sup> and now many scholars are studying and

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15. *See id.* at cmt. a.

16. For example, a debtor may send a check to the wrong person because she has made a mistake in the address. The company that receives the check would have no reason to know that they were not the intended recipient of the check without going out of their way to verify the debt, so they are innocent in taking the money. Still, the company has to return the funds if the check writer had no debt with that company. *See* RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT §§ 50, 51(2) (2011).

17. *See id.*

18. *See id.*

19. *See id.* at § 51(4).

20. *See id.* at § 59 cmt. b. (2011) ("The balance initially struck by the tracing rules is graduated, moreover, to reflect the equitable position of the persons at whose expense restitution is awarded.")

21. *See* ANDREW BURROWS, *THE LAW OF RESTITUTION* 29 (2d. ed. 2002).

22. *See id.* at 27.

23. *See* Caprice L. Roberts, *The Restitution Revival and the Ghosts of Equity*, 68 WASH. & LEE L. REV. 1027, 1038 (2011).

24. Kull, *supra* note 6, at 1195–96.

25. *See* RESTATEMENT (THIRD) OF UNJUST ENRICHMENT AND RESTITUTION (2011).

writing about restitution.<sup>26</sup> Equitable patent remedies have gone through a similar period of disfavor, and they too are due for a revival.

### *B. The Historical Development of Patent Remedies*

Historically, patent remedies depended on whether the suit was brought in law or equity.<sup>27</sup> In a court of law, the patentee could receive the remedy of damages, which were a measure of the loss to the patentee.<sup>28</sup> In a court of equity, the patentee could receive an injunction against future infringement and a disgorgement of the infringer's profits.<sup>29</sup> This division continued until 1870, when the Patent Act allowed the recovery of damages in equity suits, although profits were still unavailable at law.<sup>30</sup> The Federal Rules of Civil Procedure merged law and equity in 1937.<sup>31</sup>

Under the old system of law and equity, many patentees wanted the remedy of disgorgement despite the availability of damages.<sup>32</sup> Patentees could have problems proving an established royalty if they had not licensed the invention to any other manufacturer.<sup>33</sup> If the patentee did not manufacture or sell the item, she could not prove her own lost profits, and was entitled only to nominal damages.<sup>34</sup> Usually, however, the infringer would have some record of sales and unjust profits earned.<sup>35</sup> Equity also had a more straightforward pleading sys-

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26. Roberts, *supra* note 23, at 1040–41.

27. For an excellent recounting of the history of patent damages, see Roberts, *supra* note 3, at 656–69.

28. The remedies available were generally either the rate of an established royalty or lost profits. 7 DONALD S. CHISUM, CHISUM ON PATENTS: TREATISE ON THE LAW OF PATENTABILITY, VALIDITY AND INFRINGEMENT § 20.02 (2012). From this point forward I will call the patentee's lost profits "damages."

29. *Id.* I will refer to the infringer's profits as "profits." Election of a remedy in one court would foreclose the remedies offered in the other system for the infringements involved in that suit. *Id.* It is important to remember that an equitable remedy was only available if a remedy at law was inadequate, so there was not a straight election between the two systems.

30. Act of July 8, 1870, ch. 230, § 55, 16 Stat. 198, 206 (repealed 1952).

31. FED. R. CIV. P. 2; see also *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1031 (Fed. Cir. 1992).

32. See *Root v. Ry. Co.*, 105 U.S. 189, 190 (1881) (seeking an equitable accounting even though the patent in question had expired so no injunction was available).

33. See, e.g., *City of Seattle v. McNamara*, 81 F. 863, 865 (9th Cir. 1897) (holding no established royalties and no sales by any person other than the infringer meant no market had been established that could be infringed upon); *Houston, E. & W. Tex. Ry. Co. v. Stern*, 74 F. 636, 640 (5th Cir. 1896) (holding that trial court should have told the jury to award nominal damages where the only actual licenses had been issued ten years earlier).

34. *Tilghman v. Proctor*, 125 U.S. 136, 143 (1888).

35. *Burdell v. Denig*, 92 U.S. 716, 720 (1875) (arguing that a master could "examine defendant's books and papers, and examine him on oath, as well as all his clerks and employ[ee]s").

tem and adopted discovery tools, such as interrogatories, earlier.<sup>36</sup> Finally, cases at law for damages were tried to a jury, whereas cases in equity were tried to a judge.<sup>37</sup>

Courts consistently struggled with apportionment<sup>38</sup> of the infringer's unjust profits in cases where the entire profit could not be traced directly to the patented invention or process.<sup>39</sup> First the Supreme Court ruled that if the funds were so "inextricably commingled" that the infringer could not adequately apportion them, the patentee was entitled to the entire unjust profits.<sup>40</sup> Just three years later, the Court ruled that where the patent simply covered an improvement to an existing machine, the patentee had the initial burden to apportion.<sup>41</sup> When the patentee could not make this showing, it was entitled to only nominal damages.<sup>42</sup>

Congress intervened with the Patent Act of 1946.<sup>43</sup> The Act dropped any reference to the infringer's unjust profits as a remedy.<sup>44</sup> Whether this deletion was meant to end profits as a remedy or simply

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36. Stephen N. Subrin, *How Equity Conquered Common Law: The Federal Rules of Civil Procedure in Historical Perspective*, 135 U. PA. L. REV. 909, 918–19 (1987).

37. See *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 379–80 (1996) (examining historical evidence in deciding that claim construction decisions should be made by a judge, not a jury); cf. *Parke-Davis & Co. v. H.K. Mulford Co.*, 189 F. 95, 115 (C.C.S.D.N.Y. 1911) ("I cannot stop without calling attention to the extraordinary condition of the law which makes it possible for a man without any knowledge of even the rudiments of chemistry to pass upon such questions as these. . . . [O]nly a trained chemist is really capable of passing upon such facts. . . .") (L. Hand, J.).

38. Apportionment is the division of profits between the patented element and all of the other elements that produce the final product. *Garretson v. Clark*, 111 U.S. 120, 121 (1884) ("[T]he patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate its results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.").

39. See *id.* ("The patentee . . . must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features . . . or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine . . . is properly and legally attributable to the patented feature.") (quoting *Garretson v. Clark*, 10 F. Cas. 40, 44 (C.C.N.D.N.Y. 1878)) (internal quotation marks omitted).

40. *Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 618–19 (1912).

41. *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 646 (1915).

42. *Id.* at 643, 647. This confusion arose partially because disgorgement was tied to the equitable principles of tracing, a set of complicated rules that arose to explain when one asset could be recovered in place of another. See LIONEL D. SMITH, *THE LAW OF TRACING* 3 (1997).

43. Act of August 1, 1946, Pub. L. No. 587, 60 Stat. 778.

44. See *id.*; see also Act of February 18, 1922, Pub. L. No. 147, 42 Stat. 389 ("[I]n any such case for an infringement the complainant shall be entitled to recover, in addition to the profits to be accounted for by the defendant, the damages the complainant has sustained. . . .").

make damages the default is unclear.<sup>45</sup> The Act also made the “reasonable royalty” a floor on patent damages.<sup>46</sup> Courts had created the reasonable royalty as a response to the situation in which the patentee could neither prove a royalty amount nor lost profits.<sup>47</sup> Courts would soon accept the invitation inherent in the Act and establish the reasonable royalty as the standard measure of patent damages, jettisoning disgorgement as a remedy.

*C. The Aro Rule Against Disgorgement and the Subsequent  
Anti-Restitution Regime*

Lower court opinions initially divided on whether the 1946 Patent Act prohibited use of the infringer’s unjust profits as a remedy.<sup>48</sup> The Supreme Court resolved this split in *Aro Manufacturing Co. v. Convertible Top Replacement Co.* (“*Aro II*”).<sup>49</sup> Writing for the plurality, Justice Brennan announced that the 1946 Act precluded disgorgement.<sup>50</sup> Examining the legislative history, Justice Brennan concluded that Congress intended to make damages the sole remedy for past infringement.<sup>51</sup> He declared that the proper way of assessing damages was to ask what the patentee would have received but for the in-

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45. The House report on the bill stated an intention to make general damages the normal remedy for patent infringement, “rather than profits and damages.” H.R. REP. NO. 79-1587, at 1 (1946). The report went on to criticize the equitable accounting remedy, stating that it often delayed patent cases and that “the difficulty of adducing convincing proof of necessary facts is peculiarly exemplified in patent-infringement suits where profits are claimed.” *Id.* It also stated that in cases where the patent was an improvement on an existing machine, it often was “impossible to apportion profits due to the improvement.” *Id.* at 2. Nonetheless, the report went on to state, “the bill would not preclude the recovery of profits as an element of general damages.” *Id.* The Senate Committee later adopted the House report in its entirety. *See* S. REP. NO. 79-1503, at 2 (1946).

46. 60 Stat. at 778.

47. *See, e.g.,* *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 646–57 (1915) (approving factors such as the nature of the invention, its utility, and the extent of use in determining a “reasonable royalty”); *Suffolk Co. v. Hayden*, 70 U.S. (3 Wall.) 315, 320 (1865) (allowing consideration of the value of the invention to the infringer where the patentee could not show licenses or sale of the patented product); *U.S. Frumentum Co. v. Lauhoff*, 216 F. 610, 616 (6th Cir. 1914) (analogizing to the determination of value of real property when the market value was difficult to discern).

48. The Seventh Circuit decided that disgorgement could no longer be pled directly, although “whether an infringer’s profits is an element of [general] damages depends upon the facts of each individual case.” *Ric-Wil Co. v. E. B. Kaiser Co.*, 179 F.2d 401, 407 (7th Cir. 1950), *cert. denied*, 339 U.S. 958 (1950). The Fifth Circuit allowed recovery of unjust profits as an element of damages. *See Graham v. Jeffroy Mfg., Inc.*, 253 F.2d 72, 74 (5th Cir. 1958), *cert. denied*, 358 U.S. 817 (1958).

49. 377 U.S. 476 (1964).

50. *Id.* at 505–06.

51. *Id.* at 505.

fringement.<sup>52</sup> Justice Brennan made it clear that patent damages depended only on the patent owner's loss, not the infringer's gain.<sup>53</sup>

Despite criticisms of Justice Brennan's opinion,<sup>54</sup> lower courts adopted it and refused to allow patentees to recover the infringer's profits. The Seventh Circuit disallowed recovery of the infringer's entire unjust profits as a reasonable royalty, stating that allowing an award equal to the profits would be "the practical equivalent of allowing recovery of the profits themselves."<sup>55</sup> However, the court stated that the infringer's unjust profits could be used to help determine the amount of the defendant's damages or a reasonable royalty.<sup>56</sup> In *Rite-Hite Corp. v. Kelley Co.*, the Federal Circuit stated that a reasonable royalty was valid even though the court did not examine the infringer's unjust profits.<sup>57</sup> After *Aro II*, it seemed that an inquiry into the infringer's wrongful gains from patent infringement was irrelevant to most suits.

#### D. Problems with a Movement Away from Restitution

Although the 1946 Patent Act suggests a congressional intent to move away from using the infringer's profits as the typical measure of damages, the *Aro II* opinion overstates the legal arguments for complete abandonment of the infringer's unjust profits as a damages measure.<sup>58</sup> The opinion claims "it is clear under the present statute only damages are recoverable."<sup>59</sup> Such a clear statement against recovery of the infringer's profits is not supported. The opinion ignores the House of Representatives Report on the 1946 Act that states "the bill would not preclude the recovery of profits as an element of general damages."<sup>60</sup>

Justice Brennan's opinion also acknowledges that he decided the damages issue even though neither party nor the court below had raised it.<sup>61</sup> The Court might have waited for a case where the patentee claimed the infringer's profits before construing the statute's effect on

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52. *Id.* at 507. In *Aro II*, because the defendant was only a contributory infringer installing replacement parts, the patentee lost no money because of the infringement, and the patentee was entitled to only nominal damages. *Id.* at 510.

53. *Id.* at 507.

54. See *infra* Part II.D.

55. *Zegers v. Zegers, Inc.*, 458 F.2d 726, 727 n.3, 729 (7th Cir. 1972).

56. *Id.* at 728.

57. 56 F.3d 1538, 1555 (Fed. Cir. 1995). The *Rite-Hite* court upheld this royalty award, even though the award granted was likely greater than the infringer's profits. See *id.* at 1576 (Nies, J., dissenting).

58. Roberts, *supra* note 3, at 668.

59. *Aro Mfg. Co. v. Convertible Top Replacement Co.* ("Aro II"), 377 U.S. 476, 506 (1964).

60. H.R. REP. NO. 79-1587, at 2 (1946).

61. *Id.* at 502.



profits. Justice Harlan abstained from the part of the opinion addressing damages, arguing that the damages issues were not ripe.<sup>62</sup> Including Justice Brennan, only four justices signed this part of the opinion.

Even if the opinion were legally correct, the no-profits rule does not create the correct economic incentives.<sup>63</sup> To deter infringement, the penalty for infringing has to outweigh the infringer's potential profits.<sup>64</sup> From an economic perspective, in order to deter infringement, "injurers should be made to pay for the harm their conduct generates, not less, not more."<sup>65</sup> Legally, the patentee should be placed in the same position that she would have been in had infringement not occurred.<sup>66</sup> If the infringer and the patentee were equally efficient at producing the patented product and there were no detection or enforcement costs, disgorgement of profits would be the same as the patentee's lost profits.<sup>67</sup> However, even assuming zero transaction costs,<sup>68</sup> profits and damages diverge when one manufacturer is more efficient than the other.<sup>69</sup>

If the patentee is a more efficient user of the patented technology, then the infringer's profits will generally be less than the patentee's lost profits.<sup>70</sup> Because the total return on the patented technology decreases in this situation, the most efficient policy is to impose an in-

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62. *Id.* at 502 n.18.

63. For an in-depth examination of recent developments in patent doctrine and their economic effects, see generally Opperbeck, *supra* note 3.

64. Roger D. Blair & Thomas F. Cotter, *An Economic Analysis of Damages Rules in Intellectual Property Law*, 39 WM. & MARY L. REV. 1585, 1620 (1998) [hereinafter Blair & Cotter, *Economic Analysis*].

65. A. Mitchell Polinsky & Steven Shavell, *Punitive Damages: An Economic Analysis*, 111 HARV. L. REV. 869, 873 (1998) (explaining that a lesser penalty will not sufficiently deter and a greater penalty will lead to an inefficiently high level of caution, which will cause high prices). The analysis is more complicated once we examine subjective valuations that wrongdoers have of the gains they receive. See Keith N. Hylton, *Punitive Damages and the Economic Theory of Penalties*, 87 GEO. L.J. 421, 428–29 (1998). With patent infringement we can assume that the lost profits of the patentee and the profits of the infringer can generally be determined by market prices, so subjective valuation is not a significant issue. See Roger D. Blair & Thomas F. Cotter, *Rethinking Patent Damages*, 10 TEX. INTELL. PROP. L.J. 1, 76 (2001) [hereinafter Blair & Cotter, *Rethinking Damages*] (comparing a court's "superior, hindsight information about the true value of the patent" to the parties' conjectural valuations during licensing negotiations).

66. *Aro Mfg. Co. v. Convertible Top Replacement Co.* ("Aro II"), 377 U.S. at 507.

67. Blair & Cotter, *Economic Analysis*, *supra* note 64, at 1625.

68. I use the term "transaction costs" to include all "institution costs," including both pre-infringement costs of negotiation and allocation and post-infringement costs of detection and litigation.

69. The following analysis will assume that the patentee is producing the patented article.

70. Blair & Cotter, *Economic Analysis*, *supra* note 64, at 1626–28. For the infringer to make the maximum amount, they will match the patentee's price. The patentee can also sell at the same price, at which point aggregate profits will diminish and there will be a deadweight loss. *Id.* at 1626–27. Alternatively, the patentee can decrease her price, leading to a point at which the infringer will end up with zero profits and the patentee's profits will decrease. See *id.* at 1627–28.

junction rather than forcing a transaction between the parties.<sup>71</sup> The maximum recovery the patentee could receive for the pre-injunction infringement is lost profits, followed by the infringer's profits, and finally a reasonable royalty.<sup>72</sup> Disgorgement of the infringer's profits would be sufficient to erase any incentive that the infringer has to infringe.<sup>73</sup> However, once transaction costs are added, and especially given a low rate of infringement detection, it may be economically necessary to allow recovery of the patentee's lost profits in order to sufficiently disincentivize infringement.<sup>74</sup>

If the infringer is a more efficient user of the patented technology, then the infringer's profits will generally be greater than the patentee's lost profits.<sup>75</sup> Here, the infringer's involvement in the market increases the total amount of profit from the patented technology, and the most efficient policy is to encourage the patentee to license the technology to the infringer.<sup>76</sup> The patentee would recover the greatest amount if the remedy is calculated by the infringer's profits, then by reasonable royalty, and finally, by the patentee's lost profits.<sup>77</sup> Assessment of a reasonable royalty should be enough to remove the infringer's ex ante incentive to infringe.<sup>78</sup> If the transaction and detection costs are transferred to the infringer, disgorgement of the infringer's profits may be sufficient to prevent infringement.<sup>79</sup>

This analysis of economic efficiency raises a serious question: can courts accurately determine the more efficient producer? Some commentators have argued courts are ill suited to answer this type of question.<sup>80</sup> There are two possible default rules that do not require courts to determine who is more efficient. One rule would assume by default that the infringer is less efficient, thereby avoiding forcing a transaction on the patentee. This assumption would treat intellectual

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71. *Cf. id.* at 1631–32.

72. *See id.* at 1630–32. The situation becomes more complicated if we take into account the marginal cost curve of the patentee and any limits on production the patentee experiences. *See Blair & Cotter, Rethinking Damages, supra* note 65, at 3. If the infringer has a great deal more manufacturing capacity than the patentee, it is possible that her profits could actually be greater than the lost profits of the patentee. However, this result seems unlikely in a situation where the patentee is a more efficient producer of the product. One could also argue that a “reasonable royalty” is nonsensical here because there is no royalty at which the patentee would license the patented technology to the infringer ex ante. Economically, there is no reason for the patentee to license to a less efficient producer.

73. Blair & Cotter, *Economic Analysis, supra* note 64, at 1632.

74. *Id.* at 1635. These lost profits should, however, be capped at the “but for” profit that the patentee would have made, taking into account the marginal cost curve and the patentee's production capacity. *See Blair & Cotter, Rethinking Damages, supra* note 65, at 51–52.

75. Blair & Cotter, *Economic Analysis, supra* note 64, at 1628–30.

76. *Id.* at 1628–29.

77. *See id.* at 1630.

78. *Id.* at 1632.

79. *Id.* at 1632 n.165.

80. *See, e.g., Blair & Cotter, Rethinking Damages, supra* note 65, at 59.

property rights under the rules of property — rather than tort — and may provide greater incentives for ex ante bargaining.<sup>81</sup> However, this default rule could increase the cost of patented technologies by allowing patentees to sometimes choose inefficient production models.<sup>82</sup> A different approach would be to allow recovery of profits as the default patent remedy, based on the analysis above, which suggests that profits are more consistently close to economically desired damage amounts. Patentees presumably have a better sense than the courts do of who is the more efficient producer and, therefore, are better suited to choose whether to pursue lost profits or a reasonable royalty.

### III. HOW A RESTITUTION PERSPECTIVE WOULD WORK

#### A. Using Equitable Factors to Reform Georgia-Pacific

To calculate a reasonable royalty, the Federal Circuit has blessed<sup>83</sup> the fifteen-factor test first laid out in *Georgia-Pacific Corp. v. U.S. Plywood Corp.*<sup>84</sup> This test is meant to recreate the hypothetical ex ante negotiation that would have occurred between the parties if they had negotiated a reasonable royalty before infringement occurred.<sup>85</sup> The *Georgia-Pacific* approach has significant problems. The first and most serious is that the test is unpredictable.<sup>86</sup> Different

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81. Blair & Cotter, *Economic Analysis*, *supra* note 64, at 1614.

82. See Blair & Cotter, *Rethinking Damages*, *supra* note 65, at 67 (illustrating situation in which a small decrease in the patentee's profit margin causes a large decrease in the social deadweight loss).

83. See, e.g., *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324–25 (Fed. Cir. 2009); *Unisplay, S.A. v. Am. Elec. Sign Co.*, 69 F.3d 512, 517 & n.7 (Fed. Cir. 1995).

84. 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

85. *Lucent Techs.*, 580 F.3d at 1324. Another approach to calculating a reasonable royalty is the “analytical method.” This involves first examining the infringer's projection of profits on the article that infringes and then apportioning the expected profits between the infringer and the patentee in a way that would have been reasonable ex ante, as based on the infringer's typical profit margins. *Id.*; see also SKENYON ET AL., PATENT DAMAGES LAW AND PRACTICE § 3:8. Although the Federal Circuit has approved the analytical method, it has been applied far less frequently than the *Georgia-Pacific* test. *Lucent Techs.*, 580 F.3d at 1324. The author of this Note could locate only one Federal Circuit case following the analytical method. See *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 899 (Fed. Cir. 1986). Two district court cases have applied the analytical method. See *Novozymes A/S v. Genencor Int'l, Inc.*, 474 F. Supp. 2d 592, 606 (D. Del. 2007); *Fresenius Med. Care Holdings, Inc. v. Baxter Int'l, Inc.*, No. C 03-1431 SBA, 2006 WL 1390416, at \*7 (N.D. Cal. May 18, 2006). A third district court declined to follow the analytical method, claiming it was not useful for method patents. See *Johns-Manville Corp. v. Guardian Indus. Corp.*, 718 F. Supp. 1310, 1313–14 (E.D. Mich. 1989). The author of this Note could not locate any other cases using this method of calculating a reasonable royalty.

86. The Federal Circuit has acknowledged that “any reasonable royalty analysis necessarily involves an element of approximation and uncertainty.” *Lucent Techs.*, 580 F.3d at 1325 (quoting *Unisplay*, 69 F.3d at 517) (internal quotation marks omitted).

courts have stressed the importance of different factors.<sup>87</sup> It is unclear how courts are supposed to balance the fifteen factors.<sup>88</sup> Litigants often focus only on factors they believe will sway the amount of damages in their favor.<sup>89</sup> Damages experts are almost always necessary, and the open-ended nature of the test increases the monetary and temporal costs of patent litigation.<sup>90</sup> Some have suggested that the open-ended nature of these factors has led to runaway jury awards, resulting in over-assertion of patent claims and a chilling of beneficial innovation.<sup>91</sup> Many commentators have called for the test to be overhauled or abandoned.<sup>92</sup> Moreover, the vagueness and indeterminacy of the *Georgia-Pacific* calculation may induce infringement. Because awards vary so wildly,<sup>93</sup> infringers may believe they will gain by infringement, even if they lose the subsequent patent infringement suit.<sup>94</sup> Conversely, the open-ended nature of the calculation may result in damages that overcompensate the patentee,<sup>95</sup> encouraging non-practicing entities (“NPEs”) to bring suit and chilling downstream innovation.

Using the tools developed in restitution would create a more calibrated and predictable measure of damages. First, the infringer’s profits should be the maximum amount that can be recovered in a claim for a reasonable royalty. Sometimes courts disallow damages above profits, reasoning that an infringer would not pay more than their profits (or expected profits) to use the patent.<sup>96</sup> This approach is also

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87. Bo Zeng, *Lucent v. Gateway: Putting the “Reasonable” Back into Reasonable Royalties*, 26 BERKELEY TECH. L.J. 329, 353–54 (2011); see also Christopher B. Seaman, *Reconsidering the Georgia-Pacific Standard for Reasonable Royalty Patent Damages*, 2010 BYU L. REV. 1661, 1705–06 (2010).

88. *Patent Reform Act of 2009: Hearing on H.R. 1260 Before the H. Comm. on the Judiciary*, 111th Cong. 70 (2009) (statement of Prof. John R. Thomas, Georgetown Univ.); see also *Apple, Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 911 (N.D. Ill. 2012) (“[C]ould a judge or a jury really balance 15 or more factors and come up with anything resembling an objective assessment?”).

89. Daralyn J. Durie & Mark A. Lemley, *A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 628–29, 632 (2010).

90. See *id.* at 635 (explaining that judges are less likely to fulfill their *Daubert* role as a gatekeeper of expert testimony under the *Georgia-Pacific* regime).

91. See Amy L. Landers, *Let the Games Begin: Incentives to Innovation in the New Economy of Intellectual Property Law*, 46 SANTA CLARA L. REV. 307, 343–45 (2006).

92. See, e.g., Durie & Lemley, *supra* note 89, at 644; Zeng, *supra* note 87, at 357–58 (suggesting a stronger role for judges as gatekeepers).

93. See *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1323, 1325, 1340 (Fed. Cir. 2009) (overturning jury verdict for \$358 million when the defendant and the plaintiff had asked for \$6.5 million and \$561.9 million respectively); *Apple, Inc. v. Motorola, Inc.*, No. 1:11-CV-08540, 2012 WL 1959560, at \*4 (N.D. Ill. May 22, 2012) (noting that the parties differed in their damages estimates by a factor of 140).

94. Blair & Cotter, *Economic Analysis*, *supra* note 64, at 1635.

95. Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1058–59 (2005) [hereinafter Lemley, *Property*].

96. See, e.g., *TWM Mfg. Co. v. Dura Corp.*, 789 F.2d 895, 900 (Fed. Cir. 1986); *Polaroid Corp. v. Eastman Kodak Co.*, 16 U.S.P.Q.2d (BNA) 1481, 1534–35 (D. Mass. 1990).

fair to the patentee, as she will claim her own lost profits if they are greater than the infringer's profits.<sup>97</sup> Limiting a reasonable royalty to the patentee's lost profits would prevent patentees from winning windfall judgments disproportionate to the actual harm they suffered,<sup>98</sup> potentially encouraging patentees to license their inventions when they realize they are not the most efficient producers.

Another element of a restitution approach would be to have the court look at damages from a non-litigation perspective, asking experts to employ the same methods they would use if consulting with a company concerned about a potential future infringement. The fundamental question the court would ask in this situation is what the benefit was worth to the party that was unjustly enriched;<sup>99</sup> the benefit is usually worth the market price.<sup>100</sup> Determining the value of the patented technology to the infringer is presumably part of what the *Georgia-Pacific* reasonable royalty calculation is supposed to do, but it would do so more reliably if it more closely examined the real-world context.

One way to properly value the patented technology is to allow the infringer to present evidence about the cost of a design-around. Many patents perform functions that can be achieved with alternative designs. If the infringer had known about the patent before using it, she would have likely tried to design around the patent rather than purchase an expensive license.<sup>101</sup> If the infringer can prove what this design-around would have cost at an ex ante stage, it is likely that this cost would more accurately approximate what the patent was worth to her.<sup>102</sup> Although traditional restitution would not necessarily recog-

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97. See Lemley, *Distinguishing Lost Profits*, *supra* note 2, at 655.

98. See *Apple, Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 917–18 (N.D. Ill. 2012) (stating that without any proof of value to infringer, an injunction or a reasonable royalty would be a windfall to the plaintiff).

99. See *Brumby v. Smith & Plaster Co. of Ga.*, 181 S.E.2d 303, 305 (Ga. Ct. App. 1971) (stating that the proper measure of damages in the case of quantum meruit is the value to the owner, rather than the cost incurred by the party responsible for the unexpected benefit).

100. RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 51 (2011). However, restitution will sometimes examine the subjective value of the enrichment to the party receiving it, especially when fairness dictates such a result. See *Marshall v. Bahnsen*, 57 S.E. 1006, 1006–07 (Ga. Ct. App. 1907) (upholding a \$270 judgment for a “horse doctor” visit even though the price was far above the market rate for veterinary services).

101. See, e.g., *Grain Processing Corp. v. Am. Maize-Products Co.*, 185 F.3d 1341, 1351 (Fed. Cir. 1999). If the infringer believes that the patent is invalid, she would probably infringe. However, this concern is evaluated in the current willful infringement analysis (examining the reasonableness of the infringer's belief that the patent was invalid). That requirement would provide better pre-infringement incentives if the patentee were required to give notice of the patent. See *infra* notes 134–36 and accompanying text.

102. See *Grain Processing Corp.*, 185 F.3d at 1351; see also John D. Culbertson & Roy Weinstein, *Product Substitutes and the Calculation of Patent Damages*, 70 J. PAT. & TRADEMARK OFF. SOC'Y 749, 756 (1988) (“[N]o competitor is likely to negotiate a royalty rate that produces payments substantially greater than the design-around cost.”).

nize this measure of damages, it fits into the “restitution approach” because it asks what the technology is worth to the infringer, not what the patentee paid to develop it or expected in profits from it.<sup>103</sup>

Apportionment remains a concern.<sup>104</sup> The change in the 1946 Patent Act did not solve the problem, and it seems that today’s courts struggle as much as ever with apportionment, particularly under the whole market value rule.<sup>105</sup> Restitution suggests that any difficulty proving apportionment should be resolved against the wrongdoer.<sup>106</sup> This presumption may lead to a recovery for the patentee that is larger than the harm she has actually suffered.<sup>107</sup> However, when coupled with a low likelihood of detecting infringement and an uncertainty that the patentee is able and willing to pursue a legal response, disgorgement may result in the correct economic level of deterrence.<sup>108</sup>

Although the cap on a reasonable royalty may in some cases decrease awards for patentees, restoring an equitable burden-shifting regime would make it easier for patentees to prove their damages. If patentees can prove infringement as well as the total amount of the infringer’s profits from the infringing item, the burden should shift to infringers to prove which portion of their profits should be excluded as unrelated to the patent.<sup>109</sup> Even if a patented method or manufacture is a very small part of the infringer’s product, proving the profits from the sale of the whole product often gives a reliable, concrete figure.<sup>110</sup> After the whole profits are proven, the infringer probably has

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103. See *Apple*, 869 F. Supp. 2d at 915–16. This approach depends on the infringer not knowing about the patent before infringement and not having a chance to design around it at that time, so it should not be used in cases of willful infringement. See *infra* Part IV.

104. The apportionment problem caused Congress to drop the reference to profits from the 1946 Patent Act. See H.R. REP. NO. 79-1587, at 2 (1946); S. REP. NO. 79-1503, at 2 (1946).

105. See, e.g., Blair & Cotter, *Rethinking Damages*, *supra* note 65, at 16–17; see also *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 66 (Fed. Cir. 2012); *Rite-Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1565 (Fed. Cir. 1995) (Nies, J., dissenting); *Oracle Am., Inc. v. Google Inc.*, No. C 10-03561 WHA, 2011 WL 6055505, at \*5–7 (N.D. Cal. Dec. 6, 2011); *Cornell Research Found., Inc. v. Hewlett-Packard Co.*, No. 5:01-CV-1974, 2007 WL 4349135, at \*59 (N.D.N.Y. Jan. 31, 2007).

106. RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 42 (2011).

107. *Id.* at cmt. d.; cf. *Taylor v. Meirick*, 712 F.2d 1112, 1120 (7th Cir. 1983) (explaining in copyright case that the infringer’s lost profits may be greater than the copyright holder’s loss, but that this is the correct level of damages for deterrence).

108. See Blair & Cotter, *Economic Analysis*, *supra* note 64, at 1636.

109. The Supreme Court previously approved this approach to apportionment when disgorgement was a remedy available under the 1870 Patent Act. See *Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 621–22 (1912) (“[The burden is] so shifted . . . after the plaintiff has proved the existence of profits attributable to his invention and demonstrated that they are impossible of accurate or approximate apportionment.”).

110. Anthony D. Raucci, *A Case Against the Entire Market Value Rule*, 69 WASH. & LEE L. REV. 2233, 2242 (2012).

better records to document apportionment.<sup>111</sup> Judge Posner applied this restitution approach in *Apple v. Motorola*.<sup>112</sup>

*B. Lessons from Apple v. Motorola*

In *Apple v. Motorola*, Judge Posner refused to consider allowing injunctive relief, which he characterized as a windfall to Apple, because Apple had proven neither a loss of profit to itself nor a gain to Motorola from using the patented technology.<sup>113</sup> He also did not allow Apple to recover a reasonable royalty, and he stated “a royalty is actually a form of restitution — a way of transferring to the patentee the infringer’s profit, or, what amounts to the same thing, the infringer’s cost savings from practicing the patented invention without authorization.”<sup>114</sup> Posner would likely favor capping any reasonable royalty calculation at the infringer’s profits.

The key insight from Judge Posner’s opinion in *Apple v. Motorola* is that damages should be calculated in the same manner as costs in a non-litigation context.<sup>115</sup> When judging the experts’ opinions, Judge Posner continually compared their techniques to the methodology they would have used if the company had hired them to determine whether it should buy a license to the patent or try a design-around. So, for example, Judge Posner rejected Apple’s patent damages expert, stating:

So again imagine . . . [a] conversation between Napper [Apple’s patent damages expert] and Motorola, which I’ll pretend hired Napper to advise on how at lowest cost to duplicate the patent’s functionality without infringement: Motorola: “What will it cost us to invent around, for that will place a ceiling on the royalty we’ll pay Apple?” Napper: “Brace your-

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111. *Westinghouse Elec.*, 225 U.S. at 621–22 (“The rule of law and equity is strict and severe on such occasion. . . . All the inconvenience of the confusion is thrown upon the party who produces it, and it is for him to distinguish his own property or lose it.” (alteration in original) (quoting *Hart v. Ten Eyck*, 2 Johns. Ch. 62, 108 (N.Y. Ch. 1816)) (internal quotation marks omitted).

112. 869 F. Supp. 2d 901 (N.D. Ill. 2012).

113. Judge Posner stated:

A related reason for withholding injunctive relief in this case is that it would be likely to impose costs on the alleged infringer disproportionate both to the benefits to it of having infringed and to the harm to the victim of infringement, and would thus be a windfall to the patentee and a form of punitive rather than compensatory damages imposed on the infringer.

*Id.* at 917.

114. *Id.* at 910.

115. *Id.* at 913.

self: \$35 million greenbacks.” Motorola: “That sounds high; where did you get the figure?” Napper: “I asked an engineer who works for Apple.” Motorola: “*Dummkopf!* You’re fired.”<sup>116</sup>

Posner’s inflammatory prose aside, he is making a restitution argument. Apple should not be allowed to prove damages by proving the cost of creating the patented feature, as this number does not illustrate their lost profits, the infringer’s profits, or a reasonable royalty. Instead, Judge Posner wants information of the real value of the patent to Motorola. One way to prove this value would be to assess what Motorola would have had to pay in order to design around, as Judge Posner realized: “The cost (including lost sales) of having to invent around is therefore one method of estimating the reasonable royalty for a license.”<sup>117</sup>

Judge Posner takes this same approach with regard to apportionment. In order to solve the apportionment issue, he says that Apple needed to prove exactly what the prevention of a partially obscured notification window was worth to Motorola’s customers.<sup>118</sup> Posner rejected Apple’s expert testimony on this feature as well:

Dummy! You haven’t estimated the value of the non-obstruction feature. You’ve just estimated the value of the notification window. What you need to do is find out how many consumers think it worthwhile to pay a higher price for a Motorola phone to avoid occasional partial obstruction of that window.<sup>119</sup>

Fundamentally, Judge Posner is asking for the value of the patent to Motorola’s customers. In other words, he wants the expert to determine the extra cell phone profits that Motorola captured by using Apple’s patented feature, or the amount by which Motorola was unjustly enriched. Rather than referring to a long, open-ended set of factors, Judge Posner is asking the litigants to determine this amount based on the same methods they would use to determine whether to secure a license or design around.

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116. *Apple, Inc. v. Motorola, Inc.*, No. 1:11-cv-08540, 2012 WL 1959560, at \*9 (N.D. Ill. May 22, 2012).

117. *Apple*, 869 F. Supp. 2d at 907.

118. The “notification window” is the bar on the top of the iPhone that displays wireless signal, cell phone signal, battery life, and similar information. The patent states that this window is never “partially obscured” on the iPhone, even when the user opens different applications. *Apple*, 2012 WL 1959560, at \*2.

119. *Id.* at \*5.



## IV. RESTITUTION IN WILLFUL INFRINGEMENT

## A. In re Seagate and the Current Approach

Proving willful damages has become significantly more difficult since the Federal Circuit's opinion *In re Seagate Tech., LLC* in 2007.<sup>120</sup> *Seagate* set up a two-part test for willful infringement.<sup>121</sup> First the patentee must show "clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."<sup>122</sup> The second prong is that the infringer herself knew about the likelihood of infringing the patent or that it was so obvious that the infringer should have known.<sup>123</sup> Proving both the objective and subjective prongs of this test is difficult,<sup>124</sup> especially for patentees without complete access to the infringer's records.

When judges do find willful infringement, the Patent Act authorizes the court to award enhanced damages, up to treble the amount of actual damages proven for infringement.<sup>125</sup> Treble damages can drastically increase the amount of the award to the patentee,<sup>126</sup> which may justify a heightened standard of proof. The Federal Circuit has acknowledged that enhanced damages should be calibrated at an amount between what has been proven at trial and treble damages,

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120. 497 F.3d 1360, 1371 (Fed. Cir. 2007).

121. *Id.*

122. *Id.* Notice that this standard requires proof of two different issues — whether or not the patent was valid and whether or not the activities infringed the patent. *See* *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 827 (Fed. Cir. 1992) (noting factor of "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"). This prong has been interpreted in *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs.* as a question of law to be decided by the judge before the case goes to the jury. *See* 682 F.3d 1003, 1006–07 (Fed. Cir. 2012).

123. *Seagate*, 497 F.3d at 1371.

124. *See* Christopher B. Seaman, *Willful Patent Infringement and Enhanced Damages After In Re Seagate: An Empirical Study*, 97 IOWA L. REV. 417, 444 (2012); Randy R. Micheletti, *Willful Patent Infringement After In Re Seagate: Just What Is "Objectively Reckless" Infringement?*, 84 CHI.-KENT L. REV. 975, 992 (2010).

125. 35 U.S.C. § 284 (2006 & Supp. V 2012). Judges typically award these treble damages. *See* Seaman, *supra* note 124, at 470–71 (finding an average enhanced damages award of 243% of the amount of damages when the judge made a finding of willfulness). The enhanced damages are much lower when the jury, and not the judge, finds willfulness. *Id.* (finding an average enhanced damages award of 182%, or about double damages, when the jury finds willful infringement).

126. *See, e.g.*, *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 859 (Fed. Cir. 2010), *aff'd*, 131 S. Ct. 2238 (2011) (upholding award of \$40 million in enhanced damages); *Krippelez v. Ford Motor Co.*, 670 F. Supp. 2d 815, 824 (N.D. Ill. 2009) (awarding \$21 million in enhanced damages).

depending on the seriousness of the infringer's conduct.<sup>127</sup> They have outlined nine factors to balance in determining the size of the enhanced damages,<sup>128</sup> which judges evaluate.<sup>129</sup> An equitable approach to willful damages would calibrate the infringer's liability more carefully and economically than the current balancing approach.

*B. Restitution Would Carefully Calibrate Remedies Based on the Infringer's Fault*

The patent field could import a restitutionary focus on the culpability of the wrongdoer to create a sliding scale of infringement, with corresponding remedies. At one end of the spectrum, willful infringers would still fall under the *Seagate* standard.<sup>130</sup> Willful infringers would be those who blatantly disregard others' patent rights by copying or purposefully infringing a known patent. In addition, less stringent categories of infringement eligible for enhanced liability should be added. These additional levels would have a greater deterrent effect on persons contemplating infringement, as well as ensuring economically fair compensation to the patentee.<sup>131</sup>

Infringers who should have been more diligent about potential infringement would be classified as "negligent patent infringers," a classification that would function similarly to the "conscious wrong-

127. *i4i Ltd. P'ship*, 598 F.3d at 858 (approving enhanced damages of far less than the treble amount); *Read*, 970 F.2d at 826 (examining "the egregiousness of the defendant's conduct based on all the facts and circumstances.").

128. *Read*, 970 F.2d at 827. The nine factors are:

- (1) [W]hether the infringer deliberately copied the ideas or design of another[]
- (2) [W]hether 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) [T]he 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. . . .
- (9) Whether defendant attempted to conceal its misconduct.

*Id.*

129. See, e.g., *Krippelz*, 670 F. Supp. 2d at 820–24.

130. It may be better to state that parties should be subject to complete disgorgement, including for consequential gains, for up to treble damages. However, because the 1946 Patent Act disallows disgorgement generally, keeping the *Seagate* standard and charging the statutory maximum is not inconsistent with a restitutionary scheme. See RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 42 cmt. c (2011). Interestingly, common law restitution allows disgorgement on profits that the infringer *should have made*, even if they did not efficiently use the property in question to make those profits. *Id.* § 53 cmt. b. Courts generally have shied away from awarding these damages because they would be difficult to calculate in the patent infringement context. See *Root v. Ry. Co.*, 105 U.S. 189, 195 (1881).

131. Roberts, *supra* note 3, at 684; see also Opderbeck, *supra* note 3, at 132.

doer” in restitution.<sup>132</sup> The basic criteria for this category would center on whether the infringer made a good faith effort to avoid infringing. First, the court would examine whether the infringer knew or should have known about the patent. If the patentee gave notice of the patent, then the court could disgorge gains for infringement occurring after the notice.<sup>133</sup> The patentee should give notice to easily identifiable potential infringers because the patentee has more information about the patent.<sup>134</sup> Creating slightly larger potential damages for infringement occurring after notice would incentivize patentees to provide notice.<sup>135</sup>

The negligent infringer category would also include infringers who did not know about the patent in question but who could have easily discovered the patent if they had conducted a search. Although courts have clearly rejected any standard that would require other companies to extensively search prior art before making a product, a cursory inquiry into products known to the company and its engineers aligns well with business practices and would protect the property nature of patent rights.<sup>136</sup> If later inventors invent without trying to determine which patent rights already exist, the “market has gone from competitive to bilateral monopoly” and would result in greater social costs.<sup>137</sup>

Second, the court would examine the reasonableness of the infringer’s beliefs about validity and infringement. The validity inquiry would focus to some extent on the clarity of the patent as written.<sup>138</sup> Currently, once the patentee shows that it was objectively unreasonable to believe the patent was invalid, the infringer is potentially liable

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132. See RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 51(3) (2011).

133. See Henry E. Smith, *Institutions and Indirectness in Intellectual Property*, 157 U. PA. L. REV. 2083, 2127 (2009) (“[N]otice and reliance in the presence of the danger of opportunism were at the heart of traditional equity.”).

134. Herbert Hovenkamp, *Notice and Patent Remedies*, 88 TEX. L. REV. SEE ALSO 221, 225 (2011), <http://www.texasrev.com/wp-content/uploads/Hovenkamp-88-TLRSA-221.pdf> (“Giving notice of one’s own property rights is often far cheaper than searching for the possible but uncertain rights of others.”).

135. See Mark P. Gergen, John M. Golden & Henry E. Smith, *The Supreme Court’s Accidental Revolution? The Test for Permanent Injunctions*, 112 COLUM. L. REV. 203, 247 (2012) (“The traditional approach’s concern with good faith attaches importance to the possibility that individualized and timely notice of infringement will lead to an inference of bad faith [on the part of the infringer]. Correspondingly, the failure of a patentee to provide notice to an unknowing infringer could justify withholding a remedy.”).

136. Hovenkamp, *supra* note 134, at 224 (“An effective property-rights regime requires a reliable, cost-effective system for providing notice, as well as the right set of incentives for responding to notice once it is given.”).

137. *Id.*

138. *Cf.* Smith, *supra* note 133, at 2129 (“A patent that is very unclear or difficult to find, particularly if a result of the patentee’s deliberate lack of clarity, could be a factor weighing against an injunction.”).

for treble damages.<sup>139</sup> Under the restitutionary approach, the infringer with an unreasonable belief that the patent is invalid would be subject to disgorgement of profits, which would likely be less than treble damages.<sup>140</sup>

Once a patentee had proven the infringer was negligent, the damages awarded could be increased. In a case where the patentee is the more efficient user of the technology, the patentee would be entitled to her entire lost profits.<sup>141</sup> For a negligent infringer, the standard of proof for lost profits could be relaxed slightly.<sup>142</sup> The patentee would still have to prove demand for the product, lack of non-infringing substitutes, her typical profit on sales, and the approximate number of sales she believes were lost as a result of infringement,<sup>143</sup> but she would not have to prove that she would have actually made these sales in the absence of infringement.<sup>144</sup> The court could also relax the apportionment requirement in this situation, allowing the patentee to claim the entire profits and placing the burden on the defendant to apportion the profit to the patented feature.<sup>145</sup>

If the negligent patentee is not a more efficient user of the technology, the damages awarded should be the infringer's profits.<sup>146</sup> As discussed previously, the infringer's profits are not generally recoverable under the Patent Act, but there is nothing in the legislative history showing Congress intended the patentee to never recover the infringer's profits.<sup>147</sup> Again, the court could relax certain standards to make it easier to prove the infringer's profits. These restitutionary enhanced damages would give courts more power to finely calibrate awards based on their understanding of the infringer's fault.<sup>148</sup> Under this

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139. *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 826 (Fed. Cir. 1992).

140. If disgorgement of profits would lead to a recovery that was greater than treble damages, the damages would have to be capped at treble damages under the terms of the Patent Act. *See* 35 U.S.C. § 284 (2006 & Supp. V 2012).

141. Lost profits represent the maximum amount of damages in this situation. *See supra* Part II.D.

142. This practice is especially well established in the context of tracing rules. *See generally* RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 59 (2011).

143. *Panduit Corp. v. Stahl Bros. Fibre Works, Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978).

144. The requirement that the patentee show that she would have made the sales the infringer made has not been strictly enforced. *See Datascope Corp. v. SMEC, Inc.*, 879 F.2d 820, 826 (Fed. Cir. 1989).

145. *See Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co.*, 225 U.S. 604, 622 (1912). Many courts may already be allowing a laxer standard of apportionment in the reasonable royalty context when they follow the entire market value rule, especially in cases where they feel the patentee is entitled to lost profits but she cannot prove them. *See Lemley, Distinguishing Lost Profits, supra* note 2, at 656.

146. In this case the infringer's profits are the maximum amount of damages. *See supra* Part II.D.

147. *See supra* Part II.D.

148. *See* RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 51(2) (2011).

approach, many infringers would remain in the innocent infringement category.

## V. PRIMARY ADVANTAGES OF THE RESTITUTION APPROACH

### A. Increased Fairness Between the Parties

Patent damages are not meant to punish the infringer, but simply to return the patentee to the situation she would have been in had infringement not occurred.<sup>149</sup> However, even when courts have adopted this view of patent damages,<sup>150</sup> they continue to honor the idea that infringers should not profit from their wrongdoing.<sup>151</sup> In many situations an infringer is able to profit from her wrongdoing even though the patentee is compensated to the full amount of her loss.<sup>152</sup>

Fundamental fairness to both the patentee and the infringer requires a damages standard that ensures the infringer will not profit from her wrongdoing. For the patentee, restitution of the infringer's illicitly gained profits fulfills the bargain of the patent system.<sup>153</sup> The primary justification for offering inventors a limited monopoly assumes high innovation costs and ease of adoption by later competitors, who did not have to incur the innovation costs.<sup>154</sup> Patent rights are necessary because without protection there would be insufficient incentive for the inventor to invent in the first place.<sup>155</sup> Another justification focuses not only on rewarding innovation but also on "efficient allocation of . . . resources" between different inventors.<sup>156</sup> The

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149. *Pall Corp v. Micron Separations, Inc.*, 66 F.3d 1211, 1223 (Fed. Cir. 1995); Lemley, *Distinguishing Lost Profits*, *supra* note 2, at 655.

150. *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 507 (1964); *Glenayre Elecs., Inc. v. Jackson*, 443 F.3d 851, 872 (Fed. Cir. 2006).

151. *See Ultra-Precision Mfg., Ltd. v. Ford Motor Co.*, 411 F.3d 1369, 1379 (Fed. Cir. 2005).

152. For example, if the infringer is more efficient, or sells a product that is as a whole cheaper and easier to produce than what the patentee sells, but simultaneously uses a patented component, then it is likely that the infringer could profit. *See Blair & Cotter, Economic Analysis*, *supra* note 64, at 1639.

153. That is, the patent holder will have an exclusive market in the patented product. The patent bargain is largely conceptualized as the patentee receiving a monopoly for a limited period in return for disclosing the information about the new technology. 35 U.S.C.A. § 154(a)(1), 154(a)(2) (2013) (conferring "the right to exclude others from making, using, offering for sale, or selling the invention . . . 20 years from the date on which the application for the patent was filed in the United States"); *see also* Andrea Figler Ventura, *Mourning the Consumer Demand Test: Restoring the Proper Analysis to Antitrust Monopoly Lev-Leveraging Claims Against Patent Holders*, 36 SW. U. L. REV. 107, 112–13 (2007).

154. *See Blair & Cotter, Rethinking Damages*, *supra* note 65, at 47–48.

155. *Id.*

156. Edmund W. Kitch, *The Nature and Function of the Patent System*, 20 J.L. & ECON. 265, 266 (1977). The patentee has a natural incentive to efficiently manage the property rights granted by the patent. *Id.* at 276. Some have argued that patents do not deserve this type of protection because ideas do not deserve the same type of protection as real property.

patentee's monopoly is undermined if infringers can enter the market, use the patented technology, and profit. In the most extreme case, where the patentee has not granted any licenses and remains the sole producer of the patented technology, the infringer's entrance into the market may have even more devastating effects on the patentee, including consumer confusion, permanent impacts on the patentee's reputation, and even bankruptcy if the patented technology is the patentee's only product.<sup>157</sup>

Simultaneously, a damages award that is capped at restitution of the infringer's unfairly made profits is fair for the infringer. If the infringer did not intentionally infringe, then she should not be punished by paying more than her unfairly gotten gains.<sup>158</sup> If the patentee's lost profits are more than the infringer's profits, logically the infringer should make the patentee whole.<sup>159</sup> However, where the patentee has no profits, and especially where she is not actively practicing the patented invention herself, the infringer should not be expected to pay more than what was earned on the prohibited transaction.<sup>160</sup> Patentees should not use the patent system to pursue undeserved treble damages or inflated reasonable royalties that will lead to an overdeterrence of downstream innovation.<sup>161</sup> A more carefully calibrated, equity-type balancing of willful damages will mean that patentees are unlikely to seek treble damages unless they have specific evidence of an infringer's affirmative misconduct that meets the *Seagate* standard.<sup>162</sup>

One could argue that allowing increased damages will overdeter socially beneficial downstream innovation.<sup>163</sup> The restitutionary approach, by carefully calibrating damages based on different levels of

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*See, e.g.,* Lemley, *Property*, *supra* note 95, at 1033. However, threshold concerns about whether a wrong has been committed at all are best left to patent validity and infringement rules, not damages rules. *Cf.* Blair & Cotter, *Rethinking Damages*, *supra* note 65, at 84 (questioning the wisdom of allowing courts to impose a working requirement and a compulsory license in the context of non-practicing entities when Congress has refused to impose these requirements).

157. *Cf.* Opperbeck, *supra* note 131, at 181 (discussing the importance of patent protection for status goods because of the effect of competition on branding and marketing on demand).

158. Blair & Cotter, *Economic Analysis*, *supra* note 64, at 1611, 1649.

159. *See* 7 CHISUM, *supra* note 28, at § 20.01.

160. *See* Lemley, *Distinguishing Lost Profits*, *supra* note 2, at 661. Regardless of the logic of capping the award at the infringer's profits, courts have sometimes allowed awards that leave the infringer with no profit. *See* Golight, Inc. v. Wal-Mart Stores, Inc., 355 F.3d 1327, 1338 (Fed. Cir. 2004) (upholding a reasonable royalty award that left infringer with no profit margin).

161. *See* Polinsky & Shavell, *supra* note 65, at 873.

162. Currently lost profits are routinely alleged in patent cases. Seaman, *supra* note 124, at 442–43.

163. *See* Polinsky & Shavell, *supra* note 65, at 906–07 (arguing that reprehensibility should not be included in calculating punitive damages because it will lead to a level of care that is socially inefficient).

wrong, is less likely to overdeter than the current all-or-nothing approach. Also, carefully calibrating the reprehensibility of the infringer's conduct means the penalty can reflect how concerned society is about deterring it.<sup>164</sup> Infringement after clear notice by the patentee that is carried out with intent to cut into the patentee's profits should be punished with greater damages.<sup>165</sup> A more finely calibrated scale of reprehensibility ensures that "innocent" patent infringers will compensate patentees but will not be deterred from socially beneficial innovation by inflated reasonable royalty awards.<sup>166</sup>

### B. Abusive Patent Practices

Given the traditional emphasis in restitution on fairness, a restitution approach could also take into account additional factors in the case where a patentee is using the patent abusively. Two potential instances of "abusive" use come to mind: (1) the recent practices of some NPEs,<sup>167</sup> particularly aggressive NPE litigants or "patent trolls,"<sup>168</sup> and (2) the use of patents to engage in unfair competition or business practices.<sup>169</sup> A restitution approach should take these uses into account and not allow enhanced damages when they are present. Beyond equitable fairness concerns, three reasons underlie this conclusion: (1) economically, restitution of the infringer's profits, or even consideration of what the invention was worth to the infringer, would over-compensate the patentee; (2) from a restitution perspective, the infringer is likely an "innocent wrongdoer" in this situation; and

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164. Hylton, *supra* note 65, at 456.

165. Hovenkamp, *supra* note 134, at 231.

166. See Lemley, *Distinguishing Lost Profits*, *supra* note 2, at 656.

167. The term "non-practicing entity" is used in two different situations. One is for "firms [that] use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees." *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (Kennedy, J., concurring). The other is a firm that is not practicing a particular patent, although it may practice other inventions, even patented inventions. See generally Blair & Cotter, *Rethinking Damages*, *supra* note 65, at 75–76 (describing reasons why a patent holder may not practice a particular patent). Here it is used in the former sense.

168. Not all NPEs are patent trolls. One definition of a patent troll is "somebody who tries to make a lot of money off a patent that they are not practicing and have no intention of practicing and . . . [have] never practiced." *Overstock.com, Inc. v. Furnace Brook, LLC*, 420 F. Supp. 2d 1217, 1218 (D. Utah 2005) *aff'd*, *Overstock.Com, Inc. v. Furnace Brook, LLC*, 191 F. App'x 959 (Fed. Cir. 2006) (quoting Elizabeth D. Ferrill, *Patent Investment Trusts: Let's Build a PIT to Catch the Patent Trolls*, 6 N.C. J.L. & TECH. 367, 367 (2005)) (internal quotations omitted).

169. An example is "patent holdup," which results when a patent holder uses the patent, combined with the threat of litigation and an eventual injunction, to extract far more value in a licensing negotiation than the patented product is worth. Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 Tex. L. Rev. 1991, 1992–93 (2007). Some behavior that fits into this category may be properly taken care of through other causes of action that deal directly with unfair competition.

(3) strict enforcement of patent remedies in this situation would not uphold the underlying aims of the patent system.

Restitution of the infringer's profits is the right economic tool when the infringer is a more efficient user of the intellectual property than the patentee,<sup>170</sup> but this result is unsatisfactory in the case of abusive patent use. A patentee's rights are still enforceable, even if the patentee is not using the patent, since she may be able to license it.<sup>171</sup> However, if the only gain that the patent holder would receive from the patent is a license fee, then she should not be allowed to receive more than a reasonable licensing fee in a patent dispute.<sup>172</sup> Restitution as a remedy should be off the table.<sup>173</sup>

Restitution would likely treat the infringer as an "innocent wrongdoer" in this situation. If a patented technology is not being used, the infringer is less likely to be aware that the technology is already patented.<sup>174</sup> Even if the infringer knows the technology was patented, she may not know that the patent has been transferred to the NPE, and she may believe that the patent has been abandoned if the original patentee is no longer manufacturing the patented technology.<sup>175</sup> In this situation, the infringer can be treated like someone who receives a money payment without realizing she was not meant to receive it: an innocent wrongdoer.<sup>176</sup> An innocent wrongdoer should have to pay at most the reasonable royalty when there are no lost profits for the patentee to recover.<sup>177</sup> The situation would change if the infringement were willful. Even NPEs should be eligible for restitution in willful infringement cases.<sup>178</sup>

It is important for the institutional integrity of the patent system to comply with the terms of the patent monopoly, yet society in general benefits when the most efficient user of the technology is able to

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170. See *supra* Part II.D.

171. Lemley, *Distinguishing Lost Profits*, *supra* note 2, at 655–56.

172. Blair & Cotter, *Rethinking Damages*, *supra* note 65, at 76.

173. *Id.*

174. Hovenkamp, *supra* note 134, at 228 ("People do not often surreptitiously acquire land, leave it vacant, and then make a surprise announcement of ownership only after someone else has developed it."). Infringers probably do not know about the patent they are infringing in the majority of cases. Willfulness is only ruled on in about 2% of patent cases filed. Seaman, *supra* note 124, at 436.

175. Tom Ewing, *Indirect Exploitation of Intellectual Property Rights by Corporations and Investors*, 4 HASTINGS SCI. & TECH. L.J. 1, 95 (2012).

176. See RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 51 cmt. c (2011).

177. *Id.* at cmt. d.

178. Some may argue that allowing these damages will exacerbate the NPE problem since NPEs will continue to file meritless suits on the outside chance that they would be able to prove willful infringement and receive a large award. However, the proposal does not change the current status quo. Typical NPE suits should be decided on the basis of existing licensing fees, and NPEs should not have access to restitutionary remedies.



commercialize it.<sup>179</sup> Efficiency of use drives down costs for the end consumer, leads to future innovation, and mitigates patent stacking problems.<sup>180</sup> Abusive patentees are engaging in behavior that threatens future innovation.<sup>181</sup> Although we should not completely abrogate the bargain of the patent system, it is in society's best interest to encourage use by a more efficient user.<sup>182</sup> An acceptable license amount will be less than the total profit that the licensee would make from the sale of the patented technology. In this situation, disgorgement of the infringer's profits results in over-compensation to the patentee, providing additional incentives not to license and to continue abusive behavior. All of these factors should encourage courts to follow restitution's traditional inquiry into "clean hands," disallowing some recoveries to abusive patentees.

## VI. CONCLUSION

This Note argues that a restitutionary approach should be used by courts in calculating patent damages, particularly in situations when the infringer is a more efficient user of the patented technology than the patentee. Based on the history of the Patent Act, it is unlikely that courts will pursue this approach on their own, Judge Posner's recent opinion in *Apple v. Motorola* notwithstanding. However, attorneys should consider using the restitution approach when calculating and pleading damages in patent cases, especially when pleading exemplary damages.

In order to use this approach, the attorney should ask: What was the value to the infringer of the patented technology? Potentially related questions include: How expensive would it have been for the infringer to design around the patent? What would customers have been willing to pay for the technology without the patented feature? In a non-litigation context, how would the patentee and the infringer have valued the technology? Although litigants are unlikely to focus on these questions when they believe they could claim a higher amount under the current *Georgia-Pacific* reasonable royalty stand-

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179. See John M. Golden, *Principles for Patent Remedies*, 88 TEX. L. REV. 505, 520, 558 (2010).

180. See F. Russell Denton, *Rolling Equilibriums at the Pre-Commons Frontier: Identifying Patently Efficient Royalties for Complex Products*, 14 VA. J.L. & TECH. 48, 52–53 (2009) (describing the tragedy of the anti-commons and the possibility of a decline in innovation or complex patent stacking problems).

181. See Marshall Leaffer, *Patent Misuse and Innovation*, 10 J. HIGH TECH. L. 142, 150 (2010).

182. Some may argue that creating separate legal rules for patent trolls is not efficient and solutions should be very narrowly drawn. See Smith, *supra* note 133, at 2126–27 (“We have partially withdrawn the delegation of development and commercialization decisions from the owner and built additional context into the law’s interface between the actors.”).

ard, courts' insistence on these more precise questions as a replacement for the *Georgia-Pacific* standard will help to make patent remedies more fair, economically sensible, and predictable.