The University of Akron IdeaExchange@UAkron

Akron Intellectual Property Journal

Akron Law Journals

March 2016

Opening the Door to Efficient Infringement: eBay, Inc. v. MercExchange, L.L.C.

Sheri J. Engelken

Please take a moment to share how this work helps you through this survey. Your feedback will be important as we plan further development of our repository.

Follow this and additional works at: https://ideaexchange.uakron.edu/akronintellectualproperty



Part of the Intellectual Property Law Commons

Recommended Citation

Engelken, Sheri J. (2008) "Opening the Door to Efficient Infringement: eBay, Inc. v. MercExchange, L.L.C.," Akron *Intellectual Property Journal*: Vol. 2: Iss. 1, Article 3.

Available at: https://ideaexchange.uakron.edu/akronintellectualproperty/vol2/iss1/3

This Article is brought to you for free and open access by Akron Law Journals at IdeaExchange@UAkron, the institutional repository of The University of Akron in Akron, Ohio, USA. It has been accepted for inclusion in Akron Intellectual Property Journal by an authorized administrator of IdeaExchange@UAkron. For more information, please contact mjon@uakron.edu, uapress@uakron.edu.

OPENING THE DOOR TO EFFICIENT INFRINGEMENT: EBAY, INC. V. MERCEXCHANGE, L.L.C.

Sheri J Engelken*

Introduction

Before the Supreme Court's decision in *eBay*, *Inc. v. MercExchange*, *L.L.C.*, the Federal Circuit's "general rule" held sway: after a finding of patent infringement, trial courts were expected to issue permanent injunctions to halt any continuing infringement "absent exceptional circumstances." That general rule was intended to protect a patentee's right to exclude others from making, using, selling, or offering to sell the invention during the monopoly period enjoyed by the patentee. The Supreme Court in *eBay* rejected the Federal Circuit's general rule, placing the determination of whether and on what terms, if any, to grant a permanent injunction in the equitable discretion of federal trial court judges.

Justice Thomas' opinion for the Supreme Court overturning the Federal Circuit's general rule is a model of judicial minimalism. The analysis begins and ends with traditional equitable principles and the well-established four-factor test for the grant of permanent injunctive relief.⁵

^{*} Assistant Professor of Law, Gonzaga University School of Law.

^{1. 126} S.Ct. 1837 (2006).

^{2.} MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1339 (Fed. Cir. 2005), rev'd, eBay, 126 S.Ct. 1837 (2006) (such exceptional circumstances are "rare," and require an important public need such as public health).

^{3.} *Id.* at 1338-39; *see* 35 U.S.C. § 154(a)(1) (2002) ("every patent shall contain... a grant to the patentee... of the right to exclude others from making, using, offering for sale, or selling the invention").

^{4.} *eBay*, 126 S.Ct. at 1841.

^{5.} *Id.* at 1839-41. The *eBay* Court's attempt to resurrect the irreparable injury requirement for permanent injunctive relief comes after one noted scholar had already decried the death of the irreparable injury rule. *See* Douglas Laycock, *The Death of the Irreparable Injury Rule*, 103 HARV. L. REV. 687 (1990). According to Laycock, rather than actually require and assess evidence of

[A] plaintiff seeking a permanent injunction must... demonstrate: (1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.⁶

In strictly adhering to such fact-based case-by-case decisionmaking, Justice Thomas eschewed any discussion of the public policy arguments and real world considerations that led both to the Federal Circuit's recognition of a "general rule" protecting a patentee's right to exclude, as well as to modern academic criticisms of the norm that prevailing patentees are generally deserving of permanent injunctive relief.⁷ Indeed, Justice Thomas went so far as to condemn the District Court's application of the four-factor test below because the trial judge had relied on "expansive principles" perhaps rising to the level of a categorical rule in determining whether irreparable injury - the first factor of the test - was satisfied.8 Only in one paragraph in the concurrence of Justice Kennedy is there even a hint by the Court that today's environment might warrant some general rules or at the least, some standards, regarding which patentees should receive permanent injunctions, and which ones the law should satisfy exclusively with monetary relief. But that concurrence, with its cryptic references to "exorbitant fees" and "undue leverage" offered no real guideposts for future trial courts who must apply the four-factor test.9

Much ink has been spilled by law review commentators on the Supreme Court's short set of opinions in *eBay*. Some are troubled by the death knell of the Federal Circuit's general rule.¹⁰ Another questions

irreparable injury, most courts have formulated presumptions and general rules in favor of granting injunctive relief (just as the Federal Circuit did) to avoid the fact-intensive inquiry that otherwise would be necessary. *Id.* at 701-03.

^{6.} eBay, 126 S.Ct. at 1839.

^{7.} Id. at 1839. See, e.g., Alyson G. Barker, Patent Permanent Injunctions and the Extortion Problem: The Real Property Analogy's Preservation of Principles of Equity, 88 J. PAT. & TRADEMARK OFF. SOC'Y 256 (2006).

^{8.} *eBay*, 126 S.Ct. at 1840 (rejecting the District Court's "expansive principles" and "broad classifications" that might imply a "categorical rule" against the grant of permanent injunction relief in a "broad swath of cases").

^{9.} Id. at 1842.

^{10.} Miranda Jones, Permanent Injunction, a Remedy by Any Other Name Is Patently Not the Same: How eBay v. MercExchange Affects the Patent Right of Non-Practicing Entities, 14 GEO. MASON L. REV. 1035 (2007); Yixin H. Tang, The Future of Patent Enforcement After eBay v. MercExchange, 20 Harv. J.L. & Tech. 235 (2006).

whether that was ever the Federal Circuit's rule at all. 11 Some suggest that even absent a general rule, plaintiff patentees will continue to obtain permanent injunctions in the trial court in most cases. 12 Some welcome the Supreme Court's resurrection of equitable discretion and case-by-case assessment of the appropriateness of permanent injunctive relief. 13 Others suggest that application of the decision by trial courts may create a new set of problems. 14 None of the articles focusing on the *eBay* decision have addressed the extent to which the Supreme Court's holding in *eBay* might further the concept of efficient infringement.

Prior to the *eBay* decision, analogizing a patent to a contract, Julie A. Turner borrowed the theory of efficient breach from contract law¹⁵ to propose that patent infringement remedies be modified to avoid deterring or unduly penalizing infringements deemed efficient.¹⁶ The doctrine of efficient breach of contract was probably best summed up by Justice Holmes, who famously wrote that "[t]he duty to keep a contract at common law means a prediction that you must pay damages if you do not keep it – and nothing else."¹⁷

^{11.} John M. Golden, "Patent Trolls" and Patent Remedies, 85 Tex. L. Rev. 2111, 2122-23 (2007).

^{12.} Andrew Beckerman-Rodau, The Aftermath of eBay v. MercExchange: A Review of Subsequent Judicial Decisions, 89 J. PAT. & TRADEMARK OFF. SOC'Y 631, 657 (2007); Andrei Iancu & W. Joss Nichols, Balancing the Four Factors in Permanent Injunction Decisions: A Review of Post-eBay Case Law, 89 J. PAT. & TRADEMARK OFF. SOC'Y 395 (2007); Damian Myers, Reeling in the Patent Troll: Was eBay v. MercExchange Enough?, 14 J. INTELL. PROP. L. 333 (2007).

^{13.} Matthew J. May, Patent Reform, Injunctions, and Equitable Principles: A Triangle of Changes for the Future, 6 J. MARSHALL REV. INTELL. PROP. L. 671 (2007); Michael W. Carroll, Patent Injunctions and the Problem of Uniformity Cost, 13 MICH. TELECOMM. & TECH. L. REV. 421 (2007); Sue Ann Mota, eBay v. MercExchange: Traditional Four-Factor Test for Injunction Relief Applies to Patent Cases, According to the Supreme Court, 40 AKRON L. REV. 529, 541-42 (2007); Rebecca A. Hand, eBay v. MercExchange: Looking at the Cause and Effect of a Shift in the Standard for Issuing Patent Injunctions, 25 CARDOZO ARTS & ENT. L.J. 461 (2007).

^{14.} Gavin D. George, What is Hiding in the Bushes?: eBay's Effect on Holdout Behavior in Patent Thickets, 13 MICH. TELECOMM. & TECH. L. REV. 557 (2007); Jeremy Mulder, The Aftermath of eBay: Predicting When District Courts Will Grant Permanent Injunctions in Patent Cases, 22 BERKELEY TECH. L.J. 67 (2007); Jeremiah S. Helm, Why Pharmaceutical Firms Support Patent Trolls: The Disparate Impact of eBay v. MercExchange on Innovation, 13 MICH. TELECOMM. & TECH. L. REV. 331 (2006); Leslie T. Grab, Equitable Concerns of eBay v. MercExchange: Did the Supreme Court Successfully Balance Patent Protection Against Patent Trolls?, 8 N.C. J.L. & TECH 81 (2006); Mitchell G. Stockwell, Implementing eBay: New Problems in Guiding Judicial Discretion and Enforcing Patent Rights, 88 J. PAT. & TRADEMARK OFF. SOC'Y 747 (2006).

^{15.} RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW § 4.9 (6th ed. 2003).

^{16.} Julie S. Turner, The Nonmanufacturing Patent Owner: Toward a Theory of Efficient Infringement, 86 CAL. L. REV. 179 (1998).

^{17.} Oliver Wendell Holmes, The Path of the Law, 10 HARV. L. REV. 457, 462 (1897).

Illustrating Holmes' point in economic terms, Posner sketches a typical scenario where contract breach is efficient: If I breach my contract with A, I have to pay A his lost profits as damages for the breach. Where my profits from breaching exceed A's lost profits, perhaps because of a better deal with B, I can make A whole by paying those damages, yet still come out ahead. Posner suggests that penalties for breach of contract above and beyond mere compensatory remedies would deter such efficient breaches by imposing excess costs on the breaching party. Absent moral considerations that would warrant imposition of such penalties, society benefits most when efficient outcomes prevail. Description of such penalties, society benefits most when efficient outcomes prevail.

The same efficiency considerations can be applied to determine the appropriateness of various remedies for patent infringement, including the equitable remedy of a permanent injunction.²¹ Where entry of a permanent injunction would impose costs exceeding those that are necessary to compensate the patentee for the infringement, efficiency suggests that permanent injunctive relief be denied.

Prior to the *eBay* decision, the Federal Circuit's general rule meant that permanent injunctions were entered in all but rare and exceptional cases, even where such injunctions were inefficient. With *eBay*'s directive that equitable factors control the grant of such relief, efficiency considerations relevant to those factors may result in denial of permanent injunctive relief. A trial court's judicious application of the four factor test in assessing whether a permanent injunction should be granted when patents are infringed in such situations may permit efficient infringements that otherwise would not occur and remit the patentee solely to monetary remedies. In short, *eBay* opens a path to efficient infringement that was unavailable under the Federal Circuit's general rule imposing permanent injunctions on virtually all infringers, even efficient ones.

^{18.} POSNER, supra note 15, at § 4.9.

^{19.} Id. at § 4.11.

^{20.} Moral considerations are more likely to carry the day in noncommercial spheres. For example, state laws forbid the sale of children to would-be parents who would provide such children with good homes and better care, even when the existing parents are unable or unwilling to care for the children. See Id., at § 5.4.

^{21.} Cf. Harold A. Borland, The Affirmative Duty to Exercise Due Care in Willful Patent Infringement Cases: We Still Want It, 6 Hous. Bus. & Tax L.J. 176, 192-93 (2005) (rejecting the efficient breach analogy from contract law because it departs from standards of fairness and morality).

2008] OPENING THE DOOR TO EFFICIENT INFRINGEMENT

61

EBAY'S EFFECT IN SITUATIONS OF EFFICIENT INFRINGEMENT

Critics of the existing patent regime point to several common infringement scenarios that they contend lead to inefficient outcomes and warrant modification of existing law, typically in the area of infringement remedies. Commentators have suggested patent reforms in the context of non-manufacturing patent owners²² and so-called blocking patents.²³ Such critics make good cases for the conclusion that the conditions they describe are inefficient, and suggest that, in each situation, excessive resources are allocated to patent owners, thereby reducing society's realization of the value of the patented invention. By limiting the availability of one of the remedies for patent infringement, that of the permanent injunction, the Supreme Court's decision in eBay may open the door to efficient infringement in some of these situations.

A. Nonmanufacturing Patent Owners and Patent Suppression

Some patent owners are unwilling either to use their patents or to license them to others on fair and reasonable terms. This results in suppression of the patented technology, depriving society of the benefits of the invention. The patent owner's refusal to commercialize substantially defeats the patent bargain and creates harmful externalities. Disclosure requirements notwithstanding, nonuse prevents adequate dissemination of the patented technology and the know-how necessary to its use. Suppression also forces those who would proceed in the same technological direction to waste resources to design around the unused patent. Such design-arounds require some degree of innovation, but it is wasted innovation, a consumption of resources that could be devoted to development of entirely new inventions and improvements. In consequence, the commercial value of the invention is lost to society during the entire twenty years of the patent term, an inefficient outcome.

When other parties would commercialize such inventions and bring them to market, nonmanufacturing patent owners bring infringement actions to enforce their patents against the would-be marketers and seek the full panoply of remedies provided under patent law, including permanent injunctions. In such instances of market failure, Turner has suggested that, to avoid discouraging efficient infringement, such an owner who has refused to commercialize or license its patent should be

^{22.} Turner, supra note 16, 208-09.

^{23.} See Robert Merges, Intellectual Property Rights and Bargaining Breakdown: The Case of Blocking Patents, 62 TENN. L. REV. 75 (1994).

denied a preliminary injunction against the infringing defendant.²⁴ The Federal Circuit has expressed approval for the notion that a patentee's failure to commercialize its invention may preclude the showing of irreparable harm necessary for such preliminary relief.²⁵

The eBay decision affords a ready extension of this principle to the determination, after a finding of patent infringement, of whether permanent injunctive relief should be granted. As eBay makes clear, to secure entry of a permanent injunction, the patent owner must demonstrate that it has suffered an irreparable injury, and that monetary damages are not adequate to compensate for that injury.²⁶ The Federal Circuit has identified several factual showings that would suffice to demonstrate irreparable injury: competition with the defendant.²⁷ licensees in competition with the defendant, conduct by the defendant that precludes the patentee from entering the market or licensing others to enter the market, or some other commercial benefit to the patent owner from exploiting its right to exclude.²⁸ Demonstrating such facts would be extremely difficult for nonmanufacturing patent owners who suppress the patented technology by failing to commercialize it themselves and refusing to license it to others. Competitive injury is Absent evidence of a demonstrated intent to lacking entirely. commercialize or license before the patent expires, competitive injury is unlikely, and any injury to the patent owner readily compensable by monetary damages.²⁹

^{24.} Turner, supra note 16, at 205-08.

^{25.} High Tech Med. Instrumentation, Inc. v. New Image Indus., Inc., 49 F.3d 1551, 1556-57 (Fed Cir. 1995) (patentee's lack of commercial activity is significant factor in irreparable injury calculus and may defeat preliminary injunctive relief).

^{26.} eBay, Inc. v. MercExchange, L.L.C., 126 S. Ct. 1837, 1839 (2006).

^{27.} Such competition by the patent owner would include competition with devices not covered by the patent in suit. *Cf.* Rite-Hite Corp. v. Kelley Co., Inc., 56 F.3d 1538, 1546-49 (Fed. Cir.), *cert. denied*, 516 U.S. 867 (1995) (holding that patentee may recover lost profits for sales of such devices where such lost profits are foreseeable result of defendant's infringement).

^{28.} High Tech Med. Instrumentation, 49 F.3d at 1556-57.

^{29.} Laycock has identified categories of cases where monetary damages may be inadequate and the injury therefore irreparable. They include loss of irreplaceable real property, personal property and intangible rights; loss of scarce goods replaceable only with difficulty; injuries for which damages are extremely difficult to measure; risks of multiple litigation; injury by insolvent or immune defendants; interim uncertainty; and loss of legitimate tactical advantage. Laycock, *supra* note 5, at 703-21.

In his laundry list of irreplaceable intangible rights, Laycock fails to mention patent rights. *Id.* at 707-09. The most common irreparable injury scenario posing loss of an irreplaceable intangible right would be a request for injunctive relief to prevent threatened family violence; in such a case, the physical injury to the plaintiff would be irreparable. *Id.* at 709.

Hence *eBay*'s elimination of the general rule affording permanent injunctive relief in favor of an equitable test requiring actual evidence of irreparable injury is likely to open the door to efficient infringements where nonmanufacturing patent owners suppress the patented technology during the patent term. Those who infringe such patents must still pay compensatory damages, but after *eBay*, would be unlikely to face the threat of a permanent injunction. Compensatory damages would take the form of a reasonable royalty because the nonmanufacturing patent owner, by failing to commercialize the invention or compete with the defendant, could establish nothing in the way of lost profits. With a reasonable royalty as the "cost of infringement," defendants would face the same choices as those faced by parties to a contract – whether it is efficient to infringe (or breach, as the case may be).

The door is not, however, wide open. Consider a case where the patent owner does not commercially exploit the technology in the patent either itself or by licensure, and does not compete with D. D proposes to make and sell a new device in the same technology field as that of the patent. D has formed a good faith belief that the patent is either invalid or not infringed by D's proposed device, or both. D estimates that its profits from sale of the proposed device will significantly exceed the amount of any reasonable royalty, thereby making it efficient to infringe. After *eBay*, in this situation D would have incentives to infringe.

Suppose a change in these facts: D has concluded that the patent is likely valid and that its proposed device will infringe. D generously estimates the amount of a reasonable royalty and offers to license the patent from its owner for that amount, an offer the patent owner refuses. It should be equally efficient for D to infringe in this new situation, but D's decision to infringe after having knowledge of validity and infringement would open D up to serious penalties. Proceeding with efficient infringement here would likely result in a finding of willful infringement and imposition of treble damages (three times the amount of the reasonable royalty) plus attorney's fees. Despite *eBay*, in this situation D would rationally refrain from infringement. The result of *eBay* then is to open the door to efficient infringement of the patents of

^{30.} Patent Act 35 U.S.C. §§ 284-85 (2000) (court may impose treble damages and in exceptional case award attorney's fees); In re Seagate Tech. LLC, 497 F.3d 1360, 1368 (Fed Cir. 2007) (willful infringement required for enhanced damages); Golden Blount, Inc. v. Robert H. Peterson Co., 438 F.3d 1354 (Fed. Cir. 2006) (affirming district court finding that defendant's willfulness makes case exceptional).

nonmanufacturing owners who suppress the inventions, but only for those defendants not found to be willful infringers.

B. Blocking Patents

Given that knowledge is cumulative, improvements are often more useful and socially valuable than the pioneer patents on which they are based.³¹ If the owner of a pioneer patent can prevent everyone else from improving on the pioneer invention, the pioneer inventor may block all further development in the pioneer field of technology during the patent term.³² The pioneer patent blocks subsequent improvers, including those who secure improvement patents for their efforts.

Merges describes the inefficient blocking patent scenario as one involving two patents, a pioneer patent of small independent commercial value and an improvement patent on the pioneer invention with substantially higher commercial value.³³ Consider the following case: A's pioneer patent, if commercialized, would return 1X profit from sales. If B's improvement patent is commercialized, the combination would return 10X profit. The public obviously places much greater value on B's improved product. Nonetheless, A, the owner of the pioneer patent, is in a position to prevent B's commercialization of the improved product unless B buys a license from A. The owner of the pioneer patent can be expected to attempt to secure as much of the surplus value of the improvement – 9X – as possible, to the point that its demand for too great a portion of the 9X may lead to bargaining breakdown between the parties.³⁴

A general rule that imposes a permanent injunction as a matter of course following a determination of infringement leads to inefficient results in such disputes between pioneers and improvers. First, before and during any litigation between the parties, the pioneer's expectation of receiving permanent injunctive relief would lead the pioneer to demand excessive portion the surplus arising of commercialization of the improvement patent. "[T]he threat of an injunction will heavily influence the terms of a license. . . . In patent cases it allows the rightholder, not the court, to set the terms of a license agreement settling the infringement litigation."35 Thus the likely

^{31.} Andrew S. Baluch, Relating the Two Experimental Uses in Patent Law: Inventor's Negation and Infringer's Defense, 87 B.U. L. REV. 213, 243 (2007).

^{32.} Id.

^{33.} Merges, supra note 23, at 79-81.

^{34.} Id.

^{35.} Id. at 77.

imposition of permanent injunctive relief is one of the factors encouraging the pioneer to make excessive demands on the surplus value of the improvement.

Second, permanently enjoining the improver from infringing the pioneer's patent serves as an absolute block on the improver's commercialization of the improvement. Despite the high value placed on the improved product by the public, an injunction suppresses the improvement, depriving the public of its benefits.

Third, where commercialization of the improvement would be enjoined, if the improver is to have any hope of commercialization, he must attempt to design around the pioneer patent, ³⁶ wasting valuable resources that could be devoted to development of entirely new inventions and improvements. For all of these reasons, the Federal Circuit's general rule making permanent injunctions an automatic remedy after a showing of infringement led to inefficient outcomes.

The Supreme Court's decision in *eBay* should limit or even nullify some of these inefficient outcomes. Where an improver is found liable for infringement of a pioneer patent, whether a permanent injunction will be entered will depend on whether the pioneer can make the requisite showing on the four equitable factors.

Whether the pioneer will be able to establish the threshold factor – irreparable injury – will depend on the specific facts. Some pioneer inventions may compete, even if perhaps indirectly,³⁷ with the improved products. Where the pioneer can establish such competition with the defendant, injury to the pioneer's ability to compete suffices to demonstrate irreparable injury under Federal Circuit standards.³⁸ Similarly, if the pioneer has been working to develop his own improvements, the defendant's commercialization of its own infringing improvement may foreclose the patentee from successfully entering the market with his own improvement. Such foreclosure would also constitute irreparable injury.³⁹ Conversely, if the pioneer product is not in competition with the defendant's improvement, and there is no active work by the patentee or his licensees (if any) to develop improvements

^{36.} At a minimum, the improver must spend search and transaction costs attempting to ascertain whether anyone else has been successful in designing around the pioneer patent, and then pursuing license negotiations with that party.

^{37.} The less direct the competition, however, the less serious and irreparable is the injury to the pioneer. *See* Beckerman-Rodau, *supra* note 12, at 654.

^{38.} High Tech Med. Instrumentation, 49 F.3d at 1556-57.

^{39.} Id.

on the pioneer invention, the pioneer may face challenges in establishing the requisite irreparable injury.

The inadequacy of monetary remedies – the second factor that must be demonstrated by the patent owner to secure a permanent injunction⁴⁰ – is the flipside of irreparable injury: the fact that monetary remedies are inadequate is what makes the injury irreparable.⁴¹ For that reason, the same evidence that would demonstrate irreparable injury to the pioneer as a consequence of the improver's infringement would also establish inadequacy of monetary remedies.⁴² The first two *eBay* factors will rise or fall together.

To prevail on the third equitable factor, the pioneer must prove that, considering the balance of hardships between itself and the improver, a permanent injunction is warranted.⁴³ This factor gives the trial court discretion to deny permanent injunctive relief if it would impose severe hardship on the improver and result in only slight injury to the pioneer.⁴⁴

Applying *eBay*, one federal court has already relied on this factor as a basis for denying permanent injunctive relief. In *Paice LLC v. Toyota Motor Corp.*, after a jury verdict of patent infringement, the trial judge compared the irreparable injury demonstrated by plaintiff Paice to such hardships on defendant Toyota as disruption of business, potential adverse affect on the hybrid car market, and potential damage to Toyota's reputation. The court assessed Paice's irreparable injury by comparing the reasonable royalty awarded by the jury (\$25) to the overall value of Toyota's vehicles (tens of thousands of dollars). Seen in this light, the balance of hardships favored Toyota and permanent injunctive relief was denied.

Analogous reasoning and evidence would likely cause the balance of hardships to favor the infringing improver over the plaintiff pioneer. Hardships to the improver from entry of a permanent injunction are

^{40.} eBay, 126 S.Ct. at 1839.

^{41.} Laycock, *supra* note 5, at 694. "Equity will act only to prevent irreparable injury, and equity will act only if there is no adequate legal remedy. The two formulations are equivalent; what makes an injury irreparable is that no other remedy can repair it."

^{42.} Id. at 703.

^{43.} eBay, 126 S.Ct. at 1839.

^{44.} Herbert F. Schwartz, Injunctive Relief in Patent Infringement Suits, 122 U. PA. L. REV. 1025, 1045-46 (1964).

^{45.} Paice LLC v. Toyota Motor Corp., No. 2:04-CV-211-DF, 2006 WL 2385139, at *3-4 (E.D. Tex. Aug. 16, 2006), aff'd in part, rev'd in part on other grounds, Nos. 2006-1610, 2006-1631, 2007 WL 3024994 (Fed. Cir. Oct. 18, 2007).

^{46.} Id.

^{47.} *Id*.

^{48.} Id.

likely to include the same elements present in *Paice*: disruption of the improver's businesses, potential adverse affect on the market for the improvement, ⁴⁹ and potential damage to the improver's reputation. Similarly, as the trial court recognized in *Paice*, where the value of the improvement is substantially greater than that of the pioneer patent, the hardship to the defendant from an injunction is correspondingly that much greater than the injury to the pioneer if no injunction is entered. Even if the disparity in value between the pioneer product and the improvement is not as great as that between \$25 and the price of a car, substantial disparity nonetheless may tilt the balance of hardships when coupled with the hardships already mentioned. ⁵⁰ For these reasons, the balance of hardships factor could tilt in favor of the improver, thereby warranting denial of permanent injunctive relief.

To carry its burden on the fourth equitable factor, the plaintiff pioneer seeking permanent injunctive relief must demonstrate that the public interest will not be disserved by entry of a permanent injunction. This factor, too, may tip in favor of the infringing improver. Injury to customers is an appropriate consideration in assessing the public interest. In the scenario hypothesized, the public values the improved product at ten times the value it places on the pioneer product. Eliminating public access to a successful and valuable improvement disserves the public's interest in having such access. The pioneer product is evidently not an adequate substitute, or its value would not be so small in comparison to that of the improvement. Such considerations may be enough to prevent the plaintiff pioneer from carrying its burden on the fourth *eBay* factor.

On balance, where a pioneer patent is infringed by commercialization of a substantially more valuable improvement patent, application of the equitable balancing factors prescribed by *eBay* may well result in denial of permanent injunctive relief.

The door is open to efficient infringement, albeit on a case-by-case basis, and the inefficient outcomes previously identified can be substantially mitigated. Defeating the pioneer's expectation of an

^{49.} The improver's hardship case is arguably better than that of Toyota on this point insofar as Toyota enjoys no monopoly on the category of hybrid cars, whereas the improver holds a patent on the improvement. If the improver is enjoined, the entire market for the improvement dries up, not just the portion supplied by the dominant supplier in a multi-supplier market.

^{50.} As the Federal Circuit recognized on appeal in *Paice*, the district court has the power to order the infringer to pay an "ongoing royalty" during the remaining life of the patent in lieu of entering an injunction. *See Paice*, 2007 WL 3024994, at *16-17.

^{51.} eBay, Inc v. MercExchange, L.L.C., 126 S.Ct. 1837, 1839 (2006).

^{52.} Beckerman-Rodau, supra note 12, at 653.

automatic permanent injunction reduces his incentives to demand an excessive portion of the surplus arising from commercialization of the improvement patent, thus leading to fewer bargaining breakdowns. Similarly, the reduced likelihood that a permanent injunction will issue may lead the improver to refrain from wasteful attempts to design around the pioneer patent when what is at stake is a reasonable royalty. With a reasonable royalty as the "cost of infringement," the improver would face the same choices as those faced by parties to a contract — whether it is efficient to infringe (or breach, as the case may be).

As with infringement of the patents of nonmanufacturing owners, the door to efficient infringement is only partly open. The same penalties for willful infringement that deter efficient infringement of the patents of nonmanufacturing patent owners also exist for improvers who proceed to commercialize their improvements with knowledge of the validity of the pioneer patent and the likelihood that the improvement infringes. Where infringement is willful – where the improver has actual knowledge of the pioneer's patent and fails to exercise due care whether or not he is infringing – the penalties of treble damages and attorney's fees will continue to deter efficient infringement.⁵³

CONCLUSION

By rejecting the Federal Circuit's general rule that prevailing patentees are entitled to permanent injunctive relief, the Supreme Court in *eBay* opened the door to allowing efficient infringement. The four-factor test for entry of a permanent injunction lends itself to consideration of all of the circumstances that would make infringement efficient. The exorbitant licensing fees and undue bargaining leverage complained of by Justice Kennedy would be mitigated by disallowing permanent injunctions where infringement would be efficient.

By itself, however, *eBay* is insufficient to make efficient infringement the norm. Treble damages and attorney fees remain remedies in inefficient infringement situations where the defendant understands the plaintiff's patent to be valid and its own accused product to infringe that patent. Hence unless Congress acts to limit those remedies where infringement would be efficient, some efficient infringers will continue to be deterred, to the detriment of the public.

^{53.} In re Seagate Tech. LLC, 497 F.3d 1360, 1368-69 (Fed Cir. 2007).