
Note

Combating Joint Ventures in Suppression: Taking Inventory of the Legal Arsenal

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What happens to a technology suppressed? In the 1980s and 1990s, Sony and Philips collaborated as key players in the development of recordable and rewritable compact disc technology.¹ The companies, however, had each individually developed and patented a solution for encoding position information, enabling a CD reader/writer to maintain proper positioning while writing data to the disc.² In order to promulgate a uniform set of recordable CD standards for the industry, the two companies agreed to promote Philips's analog method, on the basis that it was more implementable than Sony's digital encoding.³ Sony and Philips then authored a publication entitled "Recordable CD Standard," informally referred to as the "Orange Book."⁴ The two jointly licensed the patents to manufacture Orange Book-compliant discs, yet still chose to include Sony's unused digital patent.⁵ Additionally, the license offered to manufacturers included an agreement not to use Sony's pa-

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1. *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1322 (Fed. Cir. 2010) (en banc), *cert. denied*, 131 S. Ct. 2480 (2011).

2. *Id.*

3. *Id.*

4. *Id.*; see also *Understanding CD-R & CD-RW: Physical, Logical and File System Standards*, OPTICAL STORAGE TECH. ASS'N, <http://www.osta.org/technology/cdqa2.htm> (last visited Oct. 13, 2011) (providing more specific information on the standards contained in the Orange Book).

5. Sheri Qualters, *Full Federal Circuit Narrowly Applies Patent Misuse Doctrine*, NAT'L L.J. (Sept. 2, 2010), <http://www.law.com/jsp/article.jsp?id=1202471475859>.

tent to compete with Philips's technology nor to use it as a basis for an alternative technology.⁶ Essentially, Sony and Philips, in the course of a joint venture, decided to promote one patent, while relegating the other to be an undeveloped and unexplored alternative.

Technology suppression—purposefully withholding new and potentially useful inventions from society—is intuitively worrisome. Since an improvement or variation on another's invention still requires the original inventor's permission to be used or sold,⁷ a patent on a pioneering technology likely represents control of all its derivatives.⁸ For this reason, perhaps the law should fully encourage the development of these budding scientific avenues. The grant of a patent, however, comes with no affirmative obligation to use the technology; instead, the patentee is merely given the temporary right to prevent others from doing so.⁹ It seems difficult, then, to make productive use obligatory while still respecting this fundamental tenet of patent law. Moreover, it is largely unresolved whether a joint venture, like the one between Sony and Philips, would result in different approaches than those suggested by existing legal precedent.

Part I of this Note explores the history of antitrust law as courts have applied it to patents, the development of the misuse doctrine, and an overview of patent damages and compulsory licenses. Part II addresses the strengths and shortcomings of applying each of these approaches. Finally, Part III encourages the courts to embrace a reworking of patent remedies to limit joint ventures in technology suppression, as the best of several imperfect solutions. This Note proposes only awarding damages to suppressed patent holders—taking advantage of the information available in joint ventures—to best deter those that harm society by stifling innovation and impeding competition.

6. *Id.*; see also *Princo*, 616 F.3d at 1322–23 (outlining further details about the package license agreement).

7. See ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY: CASES AND MATERIALS* 49 (4th ed. 2007) (explaining the phenomenon of “blocking patents”).

8. See, e.g., *Brenner v. Manson*, 383 U.S. 519, 534 (1966) (noting that a patent “may confer power to block off whole areas of scientific development”).

9. See 35 U.S.C. § 154(a) (2006).

I. DEVELOPMENT AND DOCTRINE: AVAILABLE LEGAL AVENUES

Several legal theories may be available to prevent joint ventures from suppressing technology. Section 1 of the Sherman Antitrust Act forbids any contract in restraint of trade.¹⁰ This section may apply, though it would be subject to the flexible “Rule of Reason,”¹¹ relying on courts to decide whether the arrangement is more harmful to competition than helpful.¹² Another avenue, the doctrine of patent misuse, allows an otherwise-infringer to invoke an affirmative defense: that the holder has wrongly used a patent beyond its appropriate scope.¹³ Alternatively, commentators have proposed an application of compulsory licensing for patents,¹⁴ where a court would refuse to grant an injunction prohibiting the infringer’s use or sale, but would instead force the patentee to accept some sort of reasonable compensation arrangement from the infringer.¹⁵

A. PATENTS AND ANTITRUST: AN UNEASY BALANCE

There is an inherent tension between patent rights and antitrust law.¹⁶ Patent law derives from a constitutional authorization to grant inventors the exclusive right to their discoveries for a limited time.¹⁷ This right compensates inventors for contributing to the public good, namely, in disclosing new and useful inventions.¹⁸ The Sherman Act, on the other hand, was designed to counteract monopolistic activities that became a

10. 15 U.S.C. § 1 (2006).

11. *Am. Needle, Inc. v. Nat’l Football League*, 130 S. Ct. 2201, 2216 (2010).

12. *See infra* notes 24–26 and accompanying text.

13. *Princo Corp. v. Int’l Trade Comm’n*, 616 F.3d 1318, 1328 (Fed. Cir. 2010) (en banc), *cert. denied*, 131 S. Ct. 2480 (2011) (quoting *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1426 (Fed. Cir. 1997)).

14. *E.g.*, Kurt M. Saunders, *Patent Nonuse and the Role of Public Interest as a Deterrent to Technology Suppression*, 15 HARV. J.L. & TECH. 389, 397 (2002).

15. *Id.* at 434.

16. Robin Feldman, *Patent and Antitrust: Differing Shades of Meaning*, 13 VA. J.L. & TECH. 5, ¶ 1 (2008), http://www.vjolt.net/vol13/issue3/v13i3_a5-Feldman.pdf [hereinafter Feldman, *Patent and Antitrust*].

17. U.S. CONST. art. I, § 8, cl. 8.

18. *Brenner v. Manson*, 383 U.S. 519, 534 (1966) (“The basic *quid pro quo* contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility.”).

concern in the late 19th century.¹⁹ In the absence of reasonable substitutes for a certain commodity, the holder of a monopoly—whether under a lawful patent grant or otherwise—is able to charge a higher price than would otherwise be feasible.²⁰ It is not hard to predict conflict between a system providing inventors with lawful monopolies and laws forbidding monopolization.

The Sherman Act's first two sections outline unacceptable anticompetitive behavior. The Act prohibits any monopolization—or attempt at monopolization—over any part of trade.²¹ Also forbidden is a contract, conspiracy, or combination to monopolize or otherwise restrain trade.²² Notably, the two violations each require a different level of proof: a conspiracy to restrain trade would likely be easier for a plaintiff to prove than a monopolization over trade.²³

Courts often apply the rule of reason to determine whether anticompetitive behavior rises to the level of an antitrust violation.²⁴ The rule of reason asks whether the actions at issue *unduly* restrict or obstruct trade.²⁵ A showing of procompetitive interests can usually overcome allegations of a violation.²⁶ To streamline the inquiry, courts have determined that some anticompetitive activity gives rise to a presumption of a Sherman

19. See *Apex Hosiery Co. v. Leader*, 310 U.S. 469, 492–93 (1940) (commenting on public concerns that ultimately served as a backdrop for the Sherman Act).

20. See Robin C. Feldman, *The Insufficiency of Antitrust Analysis for Patent Misuse*, 55 HASTINGS L.J. 399, 436–37 (2003) [hereinafter Feldman, *Insufficiency*] (noting that in antitrust inquiries “a firm must have market power in order to create anticompetitive effects” while a patentee “theoretically has power over the market represented by those . . . interested”).

21. 15 U.S.C. § 2 (2006).

22. *Id.* § 1; see also *Am. Tobacco Co. v. United States*, 328 U.S. 781, 788 (1946) (“[Sections] 1 and 2 of the Sherman Act require proof of conspiracies which are reciprocally distinguishable from and independent of each other although the objects of the conspiracies may partially overlap.”).

23. See *Am. Tobacco Co.*, 328 U.S. at 788 (noting “a conspiracy in restraint of trade . . . may stop short of monopoly” but suggesting “a conspiracy to monopolize” may not be satisfied by a “restraint short of monopoly”).

24. *Standard Oil Co. v. United States*, 221 U.S. 1, 62 (1911).

25. See *United States v. Am. Tobacco Co.*, 221 U.S. 106, 179 (1911) (reiterating the rule of reason articulated in *Standard Oil Co. v. United States* as determining whether an act unduly restrained trade).

26. See *Bd. of Trade of Chi. v. United States*, 246 U.S. 231, 240 (1918) (observing approvingly that a policy at the Chicago Board of Trade “helped to improve market conditions”).

Act violation.²⁷ Examples of such conduct include price fixing, division of markets, group boycotts, and tying arrangements.²⁸ Of particular relevance to patents is the notion of tying—that is, the conditioning of the sale of one product on the purchase of another (usually undesired) item.²⁹

Patent holders may also create anticompetitive effects by offering licenses only to selected collections of patents. Companies sometimes offer joint licenses for a certain group of patents, referred to as a patent pool or package license.³⁰ Aggregating intellectual property rights in this way has benefits, the most significant likely being the reduction in transaction costs.³¹ A cross-licensing agreement among firms may also promote collaboration, enabling technologies that may not otherwise be available.³² Patent pools, however, also enable collusion between firms and may foreclose competition, especially when the pool's use becomes foundational and widespread—such as when it becomes an industry standard.³³

In light of these dangers, the Department of Justice's Antitrust Division considered the idea of declaring patent pools il-

27. See *N. Pac. Ry. Co. v. United States*, 356 U.S. 1, 5 (1958) (“[T]here are certain agreements or practices which . . . are conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry . . .”).

28. *Id.* But see *Ill. Tool Works v. Indep. Ink, Inc.*, 547 U.S. 28, 31–37 (2006) (rejecting tying of patented products as a per se antitrust violation unless market power is shown).

29. See *Ill. Tool Works*, 547 U.S. at 31 (providing a definition of “tying”); Sarita Frattaroli, Note, *Dodging the Bullet Again: Microsoft III’s Reformulation of the Foremost Technological Tying Doctrine*, 90 B.U. L. REV. 1909, 1910 (2010) (“Tying occurs when a seller requires a consumer to purchase a second good in order to purchase the first good.”). The Clayton Antitrust Act statutorily prohibits these arrangements, though courts have viewed the requirements under this provision and the Sherman Act to be substantially the same. 15 U.S.C. § 14 (2006); see Thomas F. Cotter, *Four Questionable Rationales for the Patent Misuse Doctrine* 3 n.17 (Univ. of Minn. Law Sch. Legal Studies Research Paper Series, Research Paper No. 10-30, 2010), available at <http://ssrn.com/abstract=161275> (noting the minority and majority views about substantive requirements for tying to be an antitrust violation).

30. David W. Van Etten, Note, *Everyone in the Patent Pool: U.S. Philips Corp. v. International Trade Commission*, 22 BERKELEY TECH. L.J. 241, 242 (2007).

31. See *id.* (“Package licenses promise transactional efficiency: it is easier, quicker, and cheaper to conduct transactions with one pool containing multiple patents than it is to transact individual patents separately.”).

32. See Philip B. Nelson, *Patent Pools: An Economic Assessment of Current Law and Policy*, 38 RUTGERS L.J. 539, 540 (2006).

33. *Id.* at 542.

legal during the 1970s,³⁴ but, eventually, the Department reversed course and instead touted the procompetitive benefits of these arrangements.³⁵ Acknowledging that patent pooling can have benefits for competition,³⁶ the Department of Justice gave its blessing to a specific proposed package licensing arrangement, on the condition that the patent pool contained no patents that would otherwise compete against each other.³⁷ Moreover, an independent expert would verify that the patent pool contained no substitutable technologies—in other words, that all the patents included were “essential.”³⁸ This verification satisfied the Antitrust Division, and it suggested that if these standards were met it would not prosecute the patent holder for antitrust violations.³⁹ Presumably, any patent pool that meets these requirements would likewise be safe from government prosecution, though private action would remain a possibility.

Antitrust law, as it currently stands, would at best only be moderately effective against technology suppression. With a private plaintiff’s rule of reason-weighted burden and a governmental reluctance to prosecute, the law would have to counterbalance these to be an effective method of preventing technology suppression. There are other possible avenues of combating suppression, however, which are exclusive to patent law.

B. THE NEBULOUS DOCTRINE OF PATENT MISUSE

Another avenue available to deter joint ventures from engaging in technology suppression is the patent misuse doctrine. Misuse, when employed as a term of art, is a defense to a patent infringement claim—stemming from the equitable doctrine

34. Roger B. Andewelt, *Analysis of Patent Pools Under the Antitrust Laws*, 53 ANTITRUST L.J. 611, 620 (1984).

35. Letter from Joel I. Klein, Assistant Attorney Gen., Dep’t of Justice, Antitrust Div., to Garrard R. Beeney, Esq., Sullivan & Cromwell (Dec. 16, 1998), available at <http://www.justice.gov/atr/public/busreview/2121.pdf>.

36. *See id.* (referring to patent pooling as having “competitive benefits”).

37. *Id.*; *see also* Van Etten, *supra* note 30, at 246 (discussing the proposed plan and the DOJ’s acceptance).

38. Van Etten, *supra* note 30, at 246; Letter from Joel I. Klein to Garrard R. Beeney, *supra* note 35.

39. *See* Letter from Joel I. Klein to Garrard R. Beeney, *supra* note 35 (“For these reasons, the Department is not presently inclined to initiate antitrust enforcement action against the conduct you have described.”).

of unclean hands⁴⁰—available against a patentee who used her patent in a way that is outside the scope of her granted rights, with anticompetitive effect.⁴¹ While patent misuse will necessarily overlap with the realm of antitrust law, courts have reiterated that the fields are not precisely identical.⁴² The ambiguity surrounding the justifications and boundaries of the largely court-made⁴³ misuse doctrine has invited vigorous debate over the role it should play.⁴⁴ Patent misuse, shaped in large part by courts, has some singular nuances owing to its equitable roots. Recently, however, Congress has weighed in on the role the doctrine should play in modern jurisprudence.

1. A Court-Created Doctrine

The early developments of patent misuse followed the contours of another doctrine: patent exhaustion. The patent exhaustion doctrine reflects the idea that a patentee is adequately compensated by the first sale of a patented product; the owner may not continue to assert control over subsequent purchasers of the product.⁴⁵ In *Motion Pictures Patents Co. v. Universal Film Manufacturing Co.*, the patent misuse doctrine's earliest roots, the Supreme Court held invalid an arrangement in which the seller of a patented movie projector affixed a notice to its product, requiring the consumer and all future users to use only the seller's movies.⁴⁶ In rejecting this restraint, the Court noted that any additional control over a product "cannot be derived from or protected by the patent law, which allows a grant only of the right to an exclusive use of the new and useful discovery . . . and nothing more."⁴⁷ It also disapprovingly characterized the patentee's attempts to "continue the pa-

40. *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1372 (Fed. Cir. 1998).

41. *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1328 (Fed. Cir. 2010) (en banc), *cert. denied*, 131 S. Ct. 2480 (2011) (citing *Windsurfing Int'l, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986)).

42. *See, e.g., C.R. Bard, Inc.*, 157 F.3d at 1372 ("Patent misuse is viewed as a broader wrong than antitrust violation Thus misuse may arise when the conditions of antitrust violation are not met.").

43. *Princo*, 616 F.3d at 1329.

44. *See, e.g.,* Thomas F. Cotter, *Misuse*, 44 HOUS. L. REV. 901, 903 (2007) (proposing a limited application); Feldman, *Insufficiency*, *supra* note 20, at 402 (criticizing the Federal Circuit's current formulation); Mark A. Lemley, Comment, *The Economic Irrationality of the Patent Misuse Doctrine*, 78 CALIF. L. REV. 1599, 1600 (1990) (declaring misuse redundant).

45. 5 DONALD S. CHISUM, CHISUM ON PATENTS § 16.03[2][a] (2011).

46. 243 U.S. 502, 506–07 (1917).

47. *Id.* at 513.

tent . . . after it has expired” and “create a monopoly . . . wholly outside of the patent.”⁴⁸ The Court’s analysis addressing impermissibly expanding a patent’s scope solidified the framework for the development of the misuse doctrine.⁴⁹

2. Peculiarities of Misuse

Patent misuse possesses several characteristics that distinguish it from antitrust and standard patent litigation. First, a finding of patent misuse results only in the unenforceability of the patent for as long as the patent holder’s wrongdoing persists.⁵⁰ Courts have specifically rejected the contention that damages, instead of unenforceability, may be available to an aggrieved party.⁵¹ In private enforcement of antitrust law, on the other hand, a successful plaintiff can recover treble damages.⁵² The remedy for patent misuse also departs from general patent law, where successful defenses result in invalidation,⁵³ permanent unenforceability,⁵⁴ or simply the escaping of liability.⁵⁵ Because courts have little discretion in determining the magnitude of an appropriate remedy, patent misuse is somewhat less flexible in creating disincentives for suppression.

The patent misuse doctrine also has a relaxed standing requirement, again distinguishing it from antitrust law.⁵⁶ A defendant need not show that she was specifically injured by the misuse,⁵⁷ making it theoretically available to more patent defendants than antitrust would be to otherwise-plaintiffs.⁵⁸ Ad-

48. *Id.* at 518.

49. *See* Cotter, *supra* note 44, at 907 (noting the origin of the patent misuse doctrine in case law).

50. CHISUM, *supra* note 45, § 19.04.

51. *E.g.*, *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1427 (Fed. Cir. 1997).

52. 15 U.S.C. § 15a (2006).

53. *See, e.g.*, *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 736 (2002) (noting that failure to meet patent requirements results in invalidity).

54. *E.g.*, *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 877 (Fed. Cir. 1988).

55. *See, e.g.*, *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625 (2008) (reiterating “initial authorized sale of a patented item terminates all patent rights,” meaning an infringer cannot be liable in damages). *See generally* CHISUM, *supra* note 45, § 19.01.

56. *See* *Morton Salt Co. v. G. S. Suppiger Co.*, 314 U.S. 488, 494 (1942) (holding that the plaintiff’s conduct is disqualifying, “regardless of whether the particular defendant has suffered from the misuse of the patent”).

57. *See id.*

58. Cotter, *supra* note 44, at 902.

ditionally, some behaviors are considered per se indicators of patent misuse, while the antitrust route would require a more thorough proof of anticompetitive harm.⁵⁹ Commentators have noted—sometimes pejoratively—that patent misuse in some cases can be antitrust “on the cheap,”⁶⁰ since it costs less to raise the misuse defense once already sued for antitrust than to initiate a separate antitrust trial. Regardless of the merits of these features, they are distinct elements of patent misuse, and can offer both distinct advantages and drawbacks when applying the doctrine to technology suppression.

3. Congressional Reform

Five years after the patent misuse doctrine received notable criticism from Judge Richard Posner,⁶¹ the Senate drafted a bill that would have codified his view.⁶² The Senate bill, following the Seventh Circuit Court of Appeals, would have brought the proof required under a patent misuse defense into harmony with established antitrust standards.⁶³ Following some arguments that the Senate bill would be too rigid and broad,⁶⁴ the eventual 1988 Patent Misuse Reform Act⁶⁵ instead focused on two types of agreements that Congress felt should not be subject to a strict per se presumption of illegality.⁶⁶

First, the statute severely limits a court from finding misuse in the tying of one patented product to another.⁶⁷ A court, when investigating such an arrangement, must do so in “view

59. See *id.* at 923 (suggesting that the agreement at issue in *Brulotte v. Thys Co.*, 379 U.S. 29 (1964), would have been more difficult to prove under an antitrust theory). This is not to say antitrust does not have its own per se rules, but rather, that they are not coextensive.

60. Patent Hawk (Gary Odom), THE PATENT PROSPECTOR (Aug. 30, 2010, 5:20 PM), <http://www.patenthawk.com/blog/2010/08/misuse.html>.

61. See *USM Corp. v. SPS Techs., Inc.*, 694 F.2d 505, 510–12 (7th Cir. 1982).

62. S. 438, 100th Cong. (1988).

63. See *id.*

64. See Richard Calkins, *Patent Law: The Impact of the 1988 Patent Misuse Reform Act and Noerr-Pennington on Misuse Defenses and Antitrust Counterclaims*, 38 DRAKE L. REV. 175, 196–201 (1989) (reviewing the pertinent legislative history).

65. Act of Nov. 19, 1988, Pub. L. No. 100-703, § 201, 102 Stat. 4674, 4676.

66. See Calkins, *supra* note 64, at 197.

67. 35 U.S.C. § 271(d)(5) (2006).

of the circumstances,”⁶⁸ a fact-specific inquiry that has the trappings of a rule of reason test imported from antitrust law.⁶⁹

Second, the act declares that it is not patent misuse to simply “refuse[] to license or use any rights to the patent.”⁷⁰ Notably, however, the statutory phrasing appears only to protect single entities, not joint ventures.⁷¹ Regardless of their exact extent, however, the congressional reforms embodied in the 1988 Act undoubtedly prevented any further grand expansion of misuse and sent a firm legislative message.⁷²

C. REFORMING PATENT REMEDIES: MOVING PAST INJUNCTIVE RELIEF

Another method of attack against joint ventures in technology suppression could be a rethinking of patent remedies, since this can alter the incentives that lead to their formation in the first place. Patent remedies are specifically outlined in the Patent Act.⁷³ A court has wide discretion in determining damages, and may award lost profits, reasonable royalties, or some other measure of economic injury.⁷⁴ Even after a jury decides on what constitutes just compensation to an aggrieved party, a court has the freedom to amplify damages as much as threefold.⁷⁵ In addition to remedies traditionally available at

68. *Id.*

69. See Cotter, *supra* note 29 (noting how one court has read in a rule of reason test, even though the Federal Circuit has not opined on the matter); see also *In re Recombinant DNA Tech. Patent and Contract Litig.*, 850 F. Supp. 769, 777 (S.D. Ind. 1994) (inferring a rule of reason approach from legislative history).

70. 35 U.S.C. § 271(d)(4).

71. See *id.* § 271(d) (“No patent owner . . . shall be denied relief . . .” (emphasis added)).

72. See Calkins, *supra* note 64, at 228 (speculating about the ramifications of the 1988 Act); see also *Princo Corp. v. Int’l Trade Comm’n*, 616 F.3d 1318, 1329–30 (Fed. Cir. 2010) (en banc), *cert. denied*, 131 S. Ct. 2480 (2011) (“Congress enacted section 271(d) not to broaden the doctrine of patent misuse, but to cabin it.”).

73. 35 U.S.C. §§ 283, 284 (2006).

74. *Id.*; see also Roger D. Blair & Thomas F. Cotter, *Rethinking Patent Damages*, 10 TEX. INTELL. PROP. L.J. 1, 7 (2001) (noting how no version of the Patent Act has offered specific guidance in the calculation of damages, leaving courts to develop their own metrics).

75. 35 U.S.C. § 284. This increase, however, most commonly follows a finding of either willful infringement or bad faith litigation. CHISUM, *supra* note 45, § 20.03[4][b]; see also *Jurgens v. CBK, Ltd.*, 80 F.3d 1566, 1570 (Fed. Cir. 1996) (“Because increased damages are punitive, the requisite conduct for imposing them must include some degree of culpability.”).

law, the Patent Act also provides for equitable relief in the form of injunctions.⁷⁶

1. Patent Damages: The Traditional Standard

Patent damages may better allow courts to craft appropriate remedies for infringement under widely varying circumstances, including when a defendant is infringing a suppressed patent. For example, a court may award lost profits assuming a patentee establishes causation between the infringing action and a reduction in profitability.⁷⁷ These can be a direct loss of sales, decreased profits from the infringer's adding to the market's supply, or other injury.⁷⁸ Moreover, a court can look to noninfringing transactions to guide it.⁷⁹ For example, if an infringed product is one which the patentee regularly licenses at an established price, a court can simply substitute this value as an estimate of lost profits from an infringing use.⁸⁰

Alternatively, if lost profits are too difficult or vague to be calculated accurately, the Patent Act permits a court to award reasonable royalties.⁸¹ Courts often try to simulate what would have happened at a hypothetical negotiation between the plaintiff and the defendant at the time of infringement.⁸² In determining the appropriate amount for a reasonable royalty, the trier of fact considers many factors.⁸³

76. 35 U.S.C. § 283.

77. CHISUM, *supra* note 45, § 20.05.

78. *See Blair & Cotter, supra* note 74, at 10–11 (providing a list of injuries courts have found acceptable to award lost profits).

79. *See id.* at 7.

80. *See id.* at 7–8 (noting that the law permits this substitution if several factors are met).

81. 35 U.S.C. § 284; *see also* CHISUM, *supra* note 45, § 20.03[3] (“The courts developed the reasonable royalty measure as a means of providing a just recovery to a patent owner who could not, for evidentiary or other reasons, prove lost profits or an established royalty.”).

82. CHISUM, *supra* note 45, § 20.03[3][a].

83. *Id.* § 20.03[3][b]. These factors were compiled in a federal district court case, *Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), *modified sub nom.*, *Georgia-Pacific Corp. v. U.S. Plywood-Champion Papers, Inc.*, 446 F.2d 295 (2d. Cir. 1971), which has received favorable treatment by the Federal Circuit, *see* *Lucent Technologies v. Gateway, Inc.*, 580 F.3d 1301, 1335 (Fed. Cir. 2009) (“[T]he flexible analysis of all applicable *Georgia-Pacific* factors provides a useful and legally-required framework . . .”).

2. Injunctive Relief Before and After *eBay v. MercExchange*

Preliminary injunctions are available to patent holders, but the analysis is virtually the same as it would be under any other legal theory.⁸⁴ A more robust body of case law exists with regard to permanent injunctions—which the Federal Circuit has emphasized is usually the appropriate remedy.⁸⁵

Although it appears that injunctions were almost automatically granted after a finding of patent infringement,⁸⁶ an injunction would be inappropriate in some circumstances such as when a patent term has already expired.⁸⁷ Since the denial or grant of a permanent injunction requires the consideration of all the facts of a case, reviewed under a deferential standard,⁸⁸ much of the guiding case law has developed in the district courts.

In *eBay Inc. v. MercExchange L.L.C.*,⁸⁹ however, the Supreme Court clarified that there is some analysis required in determining when an injunction is appropriate.⁹⁰ Disapproving of the Federal Circuit's approach—basically, that patent law somehow confers a presumptive right to an injunction⁹¹—the Supreme Court in *eBay* reiterated that courts must proceed with the traditional four-factor test:⁹²

(1) that [the patent holder] 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.⁹³

84. CHISUM, *supra* note 45, § 20.04[1]; *see also* High Tech Med. Instrumentation, Inc. v. New Image Indus., 49 F.3d 1551, 1554 (Fed. Cir. 1995) (“This court has made clear that the standards applied to the grant of preliminary injunctions are the same in patent cases as in other areas of the law.”).

85. *E.g.*, Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1247 (Fed. Cir. 1989).

86. *See id.*

87. *E.g.*, Kearns v. Chrysler Corp., 32 F.3d 1541, 1549–51 (Fed. Cir. 1994).

88. Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1002 (Fed. Cir. 1986).

89. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

90. *See* CHISUM, *supra* note 45, § 20.04[2][b] (“[T]he Supreme Court addressed the proper standard for granting a permanent injunction . . .”).

91. *See* Jaideep Venkatesan, *Compulsory Licensing of Nonpracticing Patentees After eBay v. MercExchange*, 14 VA. J.L. & TECH. 26, 31–32 (2009).

92. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391–93 (2006).

93. *Id.* at 391.

Of note is Justice Kennedy's concurrence, appended to the rather brief per curiam opinion, which advocates against injunctions granted for nonpracticing patentees.⁹⁴ Such patent holders—colloquially and pejoratively known as “patent trolls”⁹⁵—attempt to use the relative certainty of an injunction to charge exceedingly high prices for a license.⁹⁶ Since an injunction prohibiting the use of a company's key product might completely destroy a business, these “trolls” might use the threat of a near-automatic injunction to unfairly leverage pre-suit or settlement negotiations.⁹⁷ Kennedy argues that in these cases, legal damages would adequately compensate the aggrieved patentee.⁹⁸ Interestingly enough, courts have adopted an approach supported by Kennedy's concurrence, denying nonpracticing patentees injunctive relief and instead awarding “ongoing royalties.”⁹⁹

In a 2002 article that predated the *eBay* decision, Kurt Saunders argued for a consideration of public interest when courts are determining whether or not to apply a compulsory licensing regime.¹⁰⁰ One of the categories Saunders targeted as injurious to the public good is nonpracticing patentees who are unwilling to license their intellectual property rights.¹⁰¹ Post-*eBay*, this particular consideration seems to have found some traction among courts, at least in effect.¹⁰² Saunders did not advocate for a comprehensive adoption of compulsory licensing¹⁰³ but observed that several statistical studies do not support the contention that a system would frustrate incentives for invention and disclosure.¹⁰⁴ Modifying the remedies available to patent holders is one way to alter the environment that en-

94. *Id.* at 396–97 (Kennedy, J., concurring).

95. See generally John M. Golden, “Patent Trolls” and Patent Remedies, 85 TEX. L. REV. 2111 (2007) (illustrating the use of the term).

96. *eBay*, 547 U.S. at 396–97 (Kennedy, J., concurring).

97. *Id.*

98. *Id.*

99. See Venkatesan, *supra* note 91, at 39–40. These are interchangeably referred to as “compulsory licenses.” *Id.* at 39. But see *Paice LLC v. Toyota Motor Corp.*, 504 F.3d 1293, 1313 n.13 (Fed. Cir. 2007) (explaining the Federal Circuit's rationale for distinguishing the two and preference for using “ongoing royalty”).

100. Saunders, *supra* note 14, at 451.

101. *Id.* at 441.

102. See *supra* notes 94–99 and accompanying text.

103. See Saunders, *supra* note 14, at 451.

104. *Id.* at 439–41. A goal of the patent system is to encourage invention and disclosure. See *supra* note 18 and accompanying text.

courages these technology-suppressing joint ventures to exist in the first place.

These three broad areas of the law—antitrust law, patent misuse, and patent damages—each offer separate advantages and vulnerabilities to deter joint ventures from suppressing technologies. This Note examines the problem of joint ventures that suppress technology by attempting to merge it into existing doctrine. Because none of the existing avenues is an obvious and clear fit, the inquiry is about which round hole can best accommodate joint suppression's square peg.

II. WEIGHING THE ALTERNATIVES

In countering the social costs of technology suppression, there are several legal avenues available. Applying a traditional and familiar antitrust analysis has the advantage of robust case law and established doctrine, but the litigation is expensive, the burden of showing market power is difficult, and antitrust goals may be fundamentally misaligned with those of intellectual property.¹⁰⁵ Alternatively, the patent misuse doctrine may have an advantage in its ability to deter anticompetitive behavior outside the bounds of the Sherman Act, but its potential for abuse by litigants and its lax standing requirement may render it undesirable. Finally, compulsory licenses may find a middle ground between a patentee's intellectual property rights and the public's interest in technological development, but an inherent conflict with patent law's bundle of rights and the difficulty of managing conflicting incentives make workability unclear.

A. ANTITRUST: THE STATUS QUO IS NOT QUITE GOOD ENOUGH

Relying on an antitrust framework to deter technology suppression offers some advantages, like its venerable history and comprehensive court-made doctrine. It also presents some formidable challenges, including tough standing requirements and a potential to overemphasize only part of the effects stemming from those joint agreements.

105. It is necessary to clarify that when this Note proposes antitrust law as a solution, it means to present antitrust as being the *exclusive* solution. The other avenues are presented as alternatives supplementing existing antitrust enforcement, and presumably providing better deterrence.

1. Antitrust Law Is a Well-Developed Doctrine Applied Frequently by Courts

The Sherman Act, enacted in 1890,¹⁰⁶ has enjoyed a long history of scholarly analysis and regular use by litigants.¹⁰⁷ One consequence of this history has been the development of a robust court-created jurisprudence.¹⁰⁸ For example, courts have been applying the rule of reason for nearly one hundred years.¹⁰⁹

While the Act's longevity alone does not necessarily suggest a better solution for solving the issue of technology suppression,¹¹⁰ the sheer length and frequency of considering the issue points toward a more refined test.¹¹¹ Indeed, commentators have noted the relative "coheren[ce]" of antitrust law.¹¹² The Supreme Court has also declared certain behavior per se anticompetitive, often making judicial determinations easier.¹¹³ Detracting from the efficiency of these declarations, however, is the fact that they are often slow to materialize.¹¹⁴ While courts

106. Sherman Antitrust Act, ch. 647, 26 Stat. 209 (1890) (codified as amended at 15 U.S.C. §§ 1–7 (2006)).

107. See, e.g., Admin. Office of the U.S. Courts, *U.S. District Courts—Civil Cases Terminated, by Nature of Suit and Action Taken, During the 12-Month Period Ending March 31, 2010*, U.S. CTS., <http://www.uscourts.gov/> (last visited Oct. 14, 2010) (click on "Statistics,"; then click on "Caseload Statistics 2010,"; then click on "Table C-4") (showing that in 2010, for example, 1078 cases were initiated in federal courts under antitrust laws).

108. See, e.g., *Nw. Airlines, Inc. v. Transp. Workers Union of Am.*, AFL-CIO, 451 U.S. 77, 98 n.42 (1981) ("In antitrust, the federal courts enjoy more flexibility and act more as common-law courts than in other areas governed by federal statute."); see also Alan Devlin & Michael Jacobs, *Antitrust Error*, 52 WM. & MARY L. REV. 75, 87–89 (2010) (explaining the ambiguity in the statute and the necessity for the courts to provide an analytical framework).

109. See *supra* notes 24–25 and accompanying text.

110. See DEANNA D. SELLOW, CONFIDENT PUBLIC SPEAKING 394 (2d ed. 2005) (explaining the "appeal to tradition" logical fallacy, i.e., the mistaken belief that some method is superior just because it has been in practice for a long time).

111. See *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 900–02 (2007) (noting that the Court has "continued to temper, limit, or over-rule" aspects of the doctrine).

112. Christina Bohannon, *IP Misuse as Foreclosure*, 96 IOWA L. REV. 475, 476 (2011).

113. See *supra* notes 27–28 and accompanying text.

114. See Feldman, *Insufficiency*, *supra* note 20, at 419 (observing that courts generally use per se analysis only after observing that the behavior in question is nearly always anticompetitive).

have experience with joint ventures¹¹⁵ and unilateral technology suppression,¹¹⁶ an antitrust scrutiny of the combination of the two might require lengthy judicial examination.

Moreover, patent misuse doctrine has been in development—though, granted, in flux—since the early part of the twentieth century,¹¹⁷ and relying on antitrust for its history alone does not confer an appreciable comparative advantage. Though the courts' history with antitrust provides an established framework,¹¹⁸ it is unlikely that familiarity with interpreting the Sherman Act is, by itself, a persuasive reason to foreclose alternative approaches to preventing joint ventures from suppressing technologies.

2. Antitrust Claims Have Important Limits on Litigants' Ability To Sue

Optimally, to deter technology suppression by joint ventures, those injured should have the ability to bring suit. In antitrust law, a private plaintiff must overcome several difficult hurdles in proving her case. The plaintiff must show both individual harm (standing) and anticompetitive effects to prevail.¹¹⁹ In the case of tying, though spared a full inquiry of anticompetitive effects under the rule of reason,¹²⁰ a successful plaintiff must instead show that the defendant possesses market power in the relevant field.¹²¹

115. See, e.g., *Standard Oil Co. v. United States*, 221 U.S. 1, 31–32 (1911) (describing an agreement between more than seventy business entities).

116. See, e.g., *SCM Corp. v. Xerox Corp.*, 645 F.2d 1195, 1204–09 (2d Cir. 1981) (discussing Xerox's unilateral refusal to use or license many of its patents); see also Gerald Sobel, *The Antitrust Interface with Patents and Innovation: Acquisition of Patents and Grant-Backs, Non-Use, Fraud on the Patent Office, Development of New Products and Joint Research*, 53 ANTITRUST L.J. 681, 683–89 (1984) (providing background for the *SCM Corp.* case).

117. See Bohannon, *supra* note 112, at 479 (tracing back to the “seminal” patent misuse case in 1917); see also *supra* notes 46–49 and accompanying text (discussing that case).

118. See Bohannon, *supra* note 112, at 477 (arguing that “antitrust law provides courts with a well-developed set of rules by which to judge the complexities of effects on competition”).

119. See *Transitron Elec. Corp. v. Hughes Aircraft Co.*, 487 F. Supp. 885, 892 (D. Mass. 1980), *aff'd*, 649 F.2d 871 (1st Cir. 1981) (explaining that “[p]atent misuse requires a lesser showing than a Sherman Act violation,” because proving individual harm and anticompetitive effects are not necessary).

120. See *supra* note 29 and accompanying text.

121. *Ill. Tool Works v. Indep. Ink*, 547 U.S. 28, 46 (2006) (“[I]n all cases involving a tying arrangement, the plaintiff must prove that the defendant has market power in the tying product.”).

These showings become even more difficult for a plaintiff suing a joint venture that is suppressing a technology.¹²² For example, in terms of standing, the party—a licensee, current or potential competitor, or even a member of the public—likely will have a difficult time demonstrating individual harm.¹²³ The alleged damages often will simply be too speculative to prove an actionable injury.¹²⁴ Perhaps this high bar to entry is good, as it likely would prevent frivolous litigation. Since anti-trust trials are infamously expensive,¹²⁵ the threats of these high costs could enable plaintiffs with attenuated connections to coerce large settlements.¹²⁶ The problem is, the individual “injuries” that joint ventures in technology suppression tend to cause are, indeed, more speculative and difficult to quantify: the elimination of a firm’s chance to develop a technology into a viable commercial alternative or the public’s chance to enjoy it. Frustratingly, the advantages of antitrust litigation—keeping out meritless claims—also serve to bar those plaintiffs that would be aggrieved by a harmful joint venture suppressing technology.

3. Antitrust May Overemphasize Procompetitive Effects

Antitrust law developed to maintain controls on the free market.¹²⁷ One could state the goal of antitrust jurisprudence succinctly as “competition.”¹²⁸ Likewise, intellectual property’s oversimplified catchphrase would be “innovation.”¹²⁹ Nevertheless, the juxtaposition of those aims illustrates a key problem

122. See *Princo Corp. v. Int’l Trade Comm’n*, 616 F.3d 1318, 1350 (Fed. Cir. 2010) (Dyk, J., dissenting) (“The antitrust laws . . . provide no adequate remedy for the suppression of competition.”), *cert. denied*, 131 S.Ct. 2480 (2011).

123. See Bohannon, *supra* note 112, at 514 (noting a potential rival producer’s difficulty in showing a technology “would have come to fruition and would have become commercially successful but for the IP holder’s restraint”).

124. See *id.*

125. Paul J. Stancil, *Atomism and the Private Merger Challenge*, 78 TEMP. L. REV. 949, 996–97 (2005). Stancil also discusses the overwhelming risks associated with antitrust litigation. *Id.*

126. Cf. Golden, *supra* note 95, at 2128–29 (making a similar argument for the high costs of patent infringement defense).

127. EARL W. KINTNER ET AL., 1 FEDERAL ANTITRUST LAW § 1.16 (2010); see also Devlin & Jacobs, *supra* note 108, at 75 (explaining how antitrust law has been driven by evolving perceptions of economics).

128. See Bohannon, *supra* note 112, at 500 (referring to “antitrust’s competitive ideal”).

129. See *id.* at 499 (describing intellectual property law’s role as “the engine of innovation”).

with cabining suppressive joint ventures within antitrust law: its harm may lie largely outside of competitive concerns.¹³⁰

Because an analysis under § 1 of the Sherman Act would be subject to a rule of reason inquiry, a court would look for procompetitive effects to determine if the agreement is legal.¹³¹ Arrangements to suppress do often provide legitimate benefits to the relevant market. For example, package licensing might help to simplify the search of a potential licensee.¹³² If a party needs ten different patents to make a certain product, a package license permits “one stop shopping,” contributing to a more efficient market.¹³³ Since these effects invariably fall under a rule of reason analysis, while the stifling of future innovation may not,¹³⁴ antitrust analysis would likely overemphasize the former over the latter.¹³⁵ Antitrust addresses some, but not all, the concerns that joint ventures in technology suppression introduce.

B. PATENT MISUSE: THE CLUMSY ALTERNATIVE

Patent misuse is a frequently overlooked doctrine that could be a powerful tool in combating suppression, particularly because of its lax standing requirement. It is not clear, however, to what extent the doctrine can survive a substantial reinterpretation and a new application—being invoked to deter joint ventures that suppress technology.

1. Misuse Is A Doctrine Embattled

Academically, judicially, and legislatively, the doctrine of patent misuse is losing favor. Critics question whether there is *any* persuasive justification for its existence.¹³⁶ Alternatively, it

130. See *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1344 (Fed. Cir. 2010) (Dyk, J., dissenting) (noting that an effect of suppression was that it “preclud[ed] licensees from developing alternatives”), *cert. denied*, 131 S.Ct. 2480 (2011).

131. See *supra* notes 24–26 and accompanying text.

132. Van Etten, *supra* note 30, at 243; see *supra* notes 30–32 and accompanying text.

133. See Van Etten, *supra* note 30, at 243 (explaining the necessity to contract with too many parties creates inefficiencies).

134. See Bohannon, *supra* note 112 (“[C]ase law has embraced an antitrust standard for misuse, which may be coherent, but is less faithful to the core IP values of promoting innovation and protecting access to the public domain.”).

135. See *id.* at 479 (noting an antitrust approach would place “too much attention on market power in the patented . . . technology and too little on the foreclosure of rival products or technologies”).

136. See, e.g., Cotter, *supra* note 29, at 21 (“The analysis presented above

is put forward as a workable tool, but not before being substantially reformulated.¹³⁷ Meanwhile, in the courts, the doctrine persists in sort of a fragmented double existence: the Federal Circuit generally scrutinizing under an antitrust-inspired standard,¹³⁸ while both that court and the Supreme Court reiterate that at least some of patent misuse lies beyond the reach of antitrust.¹³⁹ The Federal Circuit en banc majority in a recent case, however, seems to favor the demise of patent misuse, lamenting that the Supreme Court's precedents on the doctrine have not been overruled.¹⁴⁰ Moreover, Congress has moved toward restricting misuse,¹⁴¹ suggesting perhaps a loss of confidence in its utility and hinting toward its ultimate elimination.

With courts and scholars alike struggling to justify patent misuse's modern role, it seems a stretch to reconstruct it for use as a tool in combating joint ventures involving suppressed technology. Such an application would require at least a significant reconstruction of the doctrine by the court. Moreover, while a joint venture that refuses to license or use its patent might not be protected from a finding of misuse,¹⁴² to interpret § 271(d) in this way seems, in a sense, disingenuous to the statute's purpose and spirit.¹⁴³ Even notwithstanding these objections, there is ambiguity whether the suppressed patent holder

calls into question the need for *any* patent misuse doctrine" (emphasis in original)).

137. See, e.g., Bohannon, *supra* note 112, at 478 ("[M]isuse has been shooting at the wrong targets.").

138. See Cotter, *supra* note 29, at 4–5 (commenting that the Federal Circuit uses a rule of reason test from antitrust when faced with behavior that is neither legal nor illegal per se).

139. See *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 140 (1969) ("[I]t does not necessarily follow that the misuse embodies the ingredients of a violation of . . . the Sherman Act . . ."); *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1372 (Fed. Cir. 1998) ("Patent misuse is viewed as a broader wrong than antitrust violation . . .").

140. *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1329 n.2 (Fed. Cir. 2010) (en banc), *cert. denied*, 131 S.Ct. 2480 (2011).

141. See 35 U.S.C. § 271(d) (2006) (providing limits on misuse).

142. See *id.* (referring repeatedly to "the patent owner"). A joint venture may not be safe under this provision because the nub of the harm is not simply the refusal to license or use, as implicated under subdivision 5, but rather to enter into an agreement to suppress a technology, regardless of market power. See *id.*

143. Cf. *Richard Calkins, supra* note 64, at 228 (1989) (claiming that the 1988 Patent Misuse Reform Act was one small step toward the goal of a more *laissez-faire* market). Presumably, Congress wanted to limit the application of misuse. See *id.* at 177 ("Congress started to restrict the rights of infringers to assert misuse defenses . . .").

or the promoted patent holder (or both) is guilty of misuse. This lack of clarity is perhaps demonstrative of the underlying problem: patent misuse is an ill-adapted tool for addressing suppressive joint ventures.

2. Lenient Standing Will Undermine the Legitimacy of Claims

A lax standing requirement is one of patent misuse's most striking features: a defendant need not show an injury resulting from the alleged wrongdoing.¹⁴⁴ From a standpoint of optimal deterrence, one considers the factors that would best discourage the undesired suppressive behavior. In this respect, patent misuse could theoretically be useful—in providing more access to a greater number of parties by lowering the threshold for consideration, the likelihood of addressing misconduct increases.¹⁴⁵

Problems arise, however, because misuse may be prone to overdeterrence. The standing requirements to bring a suit are so lax that the fear of litigation or of being improperly sanctioned discourages legitimate patent uses.¹⁴⁶ Imagine searching for a certain person in a phonebook. Because phonebooks list names alphabetically, one might search only the pages that start with the same letter as of the person's last name. The restriction of one's search to only probable candidates is analogous to implementing a standing requirement. Conversely, if one is not selective at all in determining how to search, there will be a great deal of predictably incorrect listings through which to pore. Additionally, the more pages one scans, the more likely one is to make a mistake. In the context of patent misuse, the lower threshold for standing may likewise increase the erroneous punishing of procompetitive acts.

Moreover, there is also no guarantee that applying patent misuse for joint ventures in technology suppression—and therefore, a lower standing requirement—would correlate with increased deterrence of the *sort* of harm that really matters. Misuse, for all its potential for increased access, sometimes al-

144. See *supra* notes 56–58 and accompanying text.

145. Cf. Cotter, *supra* note 29, at 5–9 (presenting the merits of, though ultimately rejecting, this argument).

146. See *id.* (“By doing away with any standing requirement and rendering misused patents unenforceable in their entirety, misuse doctrine risks overdetering procompetitive or neutral conduct that might be difficult to distinguish from anticompetitive conduct.”).

lows access for the wrong reasons.¹⁴⁷ For example, in *Princo Corp. v. International Trade Commission*, Princo sought to manufacture discs compliant with the Orange Book standard—meaning they were interested in using the *promoted* patent, not the suppressed patent.¹⁴⁸ Subsequently, Princo stopped paying the licensing fees for the patent pool.¹⁴⁹ The crucial question is if the law should provide a weapon to licensees who are simply upset with their fee arrangements. Princo raised the misuse defense, notwithstanding a lack of evidence that Princo intended to develop or use the suppressed patent.¹⁵⁰ Apparently, Princo was simply citing suppression as support for its claim that Philips’s behavior was anticompetitive.¹⁵¹ Thus, while Princo may have objected to the suppression of the patent’s development, it objected in name only—as it had no true interest in using the technology.

C. REMEDY REFORM: BALANCING THE INTERESTS OF THE PATENTEE AND THE PUBLIC

To deter joint ventures that suppress a technology, courts could look to limit the power that holders of suppressed patents possess. If courts were to deny injunctive relief for nonpracticing patentees, and instead award damages only—in the form of a compulsory license (alternatively known as reasonable or ongoing royalties)—it would likely represent a compromise between the interests of the patent owner and the public. It would, however, provide an analytical challenge attempting to discern the various incentives and equitable considerations involved in the application of such a scheme. Finally, it is unclear whether denying equitable relief would be fundamentally incompatible with the tenets of the patent system.

1. Awarding Only Reasonable Royalties Is a Reasonable Compromise

One of the most compelling reasons for courts to assign compulsory licenses in cases of technology suppression is that it

147. At least, it allows access for reasons redundant in light of antitrust.

148. 616 F.3d 1318, 1323 (Fed. Cir. 2010) (en banc), *cert. denied*, 131 S.Ct. 2480 (2011); *see also supra* notes 1–6 and accompanying text.

149. *Princo*, 616 F.3d at 1323.

150. *Id.*

151. *See* Reply Brief of Appellants at 15–16, *Princo*, 616 F.3d 1318 (No. 2007-1386) (arguing that the Lagadec patent was removed from price and technological competition under a heading asserting “anticompetitive effect”).

would make the patent available for public consumption and development while still compensating the patentee.¹⁵² Yet, this compromise does not represent a perfect middle ground, because it may harm the patentee.¹⁵³ It is most likely that the patentee will be worse off, since encroaching on her absolute right to exclude others (and, historically, receive an injunction)¹⁵⁴ essentially reduces the value of the patent.¹⁵⁵ This, however, may be an unsympathetic argument when considered in the context of nonpracticing patentees.¹⁵⁶ Alternatively, one may perceive the diminution in value as its redistribution to the public.¹⁵⁷ Since others can develop or use the invention, the public is able to reap any social good able to be derived from the patent.¹⁵⁸ Thus, when the public is also considered, compulsory licenses might represent a reasonable compromise among the patentee, licensee, and the social good.

2. Developing a Workable Formula is Complicated

The complex relationship between parties in a joint venture gives rise to a difficult set of calculations for a remedial compulsory licensing scheme. Moreover, the incentives created by such a scheme become somewhat more unpredictable compared to unilateral suppression. First, the contractual relationship between the two parties in the joint ventures makes understanding the forced licensing more complicated. For example, under this scheme, if a third party infringes a suppressed patent in a pool,¹⁵⁹ a court would likely form an after-

152. See *supra* notes 17–1819 and accompanying text.

153. Cf. ARTHUR L. CORBIN, CORBIN ON CONTRACTS § 55.15 (Joseph M. Perillo, ed. 2009) (noting that in the efficient breach theory of contracts, the ideal situation is where at least one party is made better off, and none worse off).

154. See Venkatesan, *supra* note 91, at 33 (noting the general rule in the Federal Circuit had been to nearly automatically grant injunctions).

155. See *id.* at 34 (“Without the right to obtain an injunction, the patentees’ right to exclude would be reduced to a fraction of its value, reducing the incentives for scientific and technological research.”). See generally Einer Elhauge, *Do Patent Holdup and Royalty Stacking Lead to Systematically Excessive Royalties?*, 4 J. COMPETITION L. & ECON. 535 (2008) (discussing the tendencies to underestimate the proper royalties for a patentee).

156. See *supra* notes 94–98 and accompanying text.

157. See Saunders, *supra* note 14, at 398 (“This . . . optimizes social welfare . . . through the patentee’s use or license to others.”).

158. See *id.*

159. Patent pools are discussed *supra*, notes 30–33 and in accompanying text.

the-fact licensing agreement between the suppressed patent owner and the infringer.¹⁶⁰

Though copyright law also essentially does this in its compulsory licensing schemes, the context is quite different from any that would render a similar approach workable in patent law.¹⁶¹ One of the more straightforward provisions makes an option available to copyright owners of musical works,¹⁶² where they can be paid a statutorily set royalty by those wishing to make or distribute the work.¹⁶³ Patents, on the other hand, are so varied in form and purpose that any attempt to create a uniform set of royalties would be futile. An appropriate amount for a patent license would be unable to be determined in advance.

The possibility that a court could constructively create nonexclusive licenses would make suppression agreements much less attractive, since presumably nearly all of the agreement's value to the pool is in the elimination of competition.¹⁶⁴ Additionally, it is the possibility of obtaining an injunction that can make a nonworked patent so valuable.¹⁶⁵ While the actual contribution from a patent might be financially miniscule, the prospect of shutting down a product or business gives a nonworked patentee significant leverage.¹⁶⁶

It is therefore necessary to consider exactly how troubling joint ventures are, since taking away their primary value will significantly curtail their formation. On the other hand, perhaps the consequences of forced licenses will be minimal because infringing firms face such a significant battle to compete. Even given free rein to practice and develop a newly licensed

160. Indeed, the hypothetical negotiation is assumed to be between the infringer and the patent owner. CHISUM, *supra* note 45, § 20.03[3][a] n.4.

161. See 17 U.S.C. § 115 (2006); see also *id.* §§ 111(c), 114(d)(2), 118 (making licensing agreements available for other copyrightable media).

162. *Id.* § 115(c)(1).

163. *Id.* § 115.

164. In *Princo*, Sony received thirty-six percent of the revenue from licensing the Orange Book CD-RW pool. *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1344–45 (Fed. Cir. 2010) (en banc) (Dyk, J., dissenting). *cert. denied*, 131 S.Ct. 2480 (2011). This was the case even though the Lagadec patent provided no value to licensees, since they were forbidden to use it outside of making Orange Book compliant discs (which did not use the Sony technology). *Id.*

165. See Rob Kelley, *BlackBerry Maker, NTP Ink \$612 Million Settlement*, CNN MONEY (Mar. 3, 2006), http://money.cnn.com/2006/03/03/technology/rimm_ntp/ (explaining how BlackBerry maker RIM and NTP, a patent holding company, reached an enormous settlement, because NTP could shut down RIM's use of a wireless email service, presumably through an injunction).

166. See *id.*

patent, firms may decline to do so because the technology has already been put at a disadvantage by the industry's acceptance of the promoted standard.¹⁶⁷ In that case, it is unclear whether the remedial scheme would provide an adequate incentive for firms to attempt to unseat a joint venture sitting on an unutilized technology. Overall, establishing any sort of compulsory licensing scheme would be difficult because of the complications involved in creating a formula that properly balances all of the appropriate considerations.

3. Forced Licensing Is Not Fundamentally Inconsistent with Patent Law

The right to exclude is one of the fundamental rights of the patent system.¹⁶⁸ Indeed, the Patent Act squarely addresses this power.¹⁶⁹ At first blush, a forced licensing regime seems to be at odds with this. It is questionable, however, whether these remedial schemes would truly frustrate the patent system, or simply be contrary to tradition.

The United States is a party to the international Agreement on Trade-Related Aspects of Intellectual Property Rights, which explicitly allows for compulsory licensing arrangements.¹⁷⁰ Countries have in fact considered and implemented these schemes,¹⁷¹ presumably without causing devastating economic collapse. As with other doctrines in patent law,¹⁷² a practice that seems bizarre and fundamentally incompatible might simply seem that way because of the history of the American patent system.

167. See Van Etten, *supra* note 30, at 245 (observing that package licenses can discourage other firms from investing in displacing the existing standard).

168. See, e.g., Venkatesan, *supra* note 91, at 33 ("Patent rights were not created to give patentees the right to use the patented technologies, a right they already had. A patent provides the right to *exclude* others, unconditionally." (emphasis in original)).

169. 35 U.S.C. § 154(a)(1) (2006).

170. Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 31, Apr. 15, 1994, 33 I.L.M. 81 [hereinafter TRIPS]. The TRIPS agreement is not self-executing, however, and cannot be asserted in any claim or defense except by the United States. *In re Rath*, 402 F.3d 1207, 1210 n.2 (Fed. Cir. 2005) (citing 19 U.S.C. § 3512(c)(1) (2000)).

171. Blair & Cotter, *supra* note 74, at 84.

172. See, e.g., Mark A. Lemley & Colleen V. Chien, *Are the U.S. Patent Priority Rules Really Necessary?*, 54 HASTINGS L.J. 1299, 1303 (2003) (noting the distinctive first-to-invent priority system that was used in U.S. patent law as opposed to the rest of the world, which follows a first-to-file system).

III. REMEDY RECONSTRUCTION: AN ACCEPTABLE BALANCE

Finding a middle ground between the patentee and the public is the most attractive solution. The public enjoys the benefits of patents in use, while the patentee is justly compensated for her inventive investment. This would mean a court should refuse an injunction and award only damages wherever a joint venture's patent is going unused and unlicensed. Because an agreement to share profits provides information on the value of the suppressed patent, a court can better determine a fair license. This is so despite the inherent limitations of a court's analysis.

A. JOINT VENTURES PROVIDE COURTS WITH BETTER INFORMATION

Courts examining joint ventures have a distinct advantage over those looking into unilateral attempts to suppress technology, namely, there is often a negotiation that provides some insight into the firms' assessment of the suppressed patent's value. For example, in the *Princo* case that alleged anticompetitive collusion between Philips and Sony, Sony received thirty-six percent of the license fees from the package license, although it only contributed one patent: a patent that was useless because of the conditions of the license agreement.¹⁷³ This sort of disproportionate arrangement could serve as an important indicator regarding the social harm—the anticompetitive harm—generated by a patent's suppression. *Princo*, in fact, raised this argument in their reply brief.¹⁷⁴ The en banc majority in *Princo* did not comment on this fact, although the dissent expressed surprise at the disproportionate rewards flowing to Sony.¹⁷⁵

One can infer that the disparity between actual patent contribution and the share of compensation is likely related to how well the parties believe the patent will compete. In other words, the more consideration flowing to the suppressed patent holder, the higher the likelihood the joint venture is suppressing a potentially viable product. Imagine two parties, in an artificially simplified world,¹⁷⁶ with two alternative technologies each in

173. See *supra* note 164.

174. Reply Brief of Appellants, *supra* note 151 at 17–18.

175. *Princo Corp. v. Int'l Trade Comm'n*, 616 F.3d 1318, 1344–45 (Fed. Cir. 2010) (en banc) (Dyk, J., dissenting). *cert. denied*, 131 S.Ct. 2480 (2011).

176. Some factors that are ignored here and should be considered are discussed *infra*.

early development, *A* and *A**. If they want to invest in, develop, and license only one technology, and they can identify their respective chances of success beforehand, then the firms will likely bargain to an even split of the licensing revenue, with, say, *A* promoted and *A** suppressed. This is so because neither firm would be willing to take less than fifty percent of licensing revenue, the expected value of the patents, before a winner is chosen. This is similar to betting on a coin flip with one dollar at stake. The rational bargain is fifty cents to each party, since neither party can determine the outcome *ex ante*. The problem with this sort of agreement is that it can be the wrong choice for the public good.

If *A** turns out to have more social value, one could say *A** was wrongly suppressed. The public is injured by the firms' choice to promote *A* and suppress *A**. Though the firms made the choice assuming the two technologies were of equal value, the firms guessed wrong. If, instead, *A* and *A** were allowed to freely compete, *A**'s superiority would eventually be discovered, and the public would ultimately benefit.

To continue the coin analogy, this Part proposes inferring something about the odds of the flip from the *ex ante* agreement to split the prize. To that effect, this Note proposes that the courts align the compulsory license price with the social harm generated: the more disproportionate the agreement, the less compensation a nonpracticing patentee should receive from an infringer. Courts should implement this as a consideration in calculating reasonable royalties, giving the judge a tool that is more responsive to the unique facts of each case. Since holders of potentially valuable suppressed patents in joint ventures would receive reduced damages from infringement, this solution would help encourage technological development in lieu of agreements to suppress.

This determination would happen in the context of a patent infringement suit, at the damages stage. First, a court would make the threshold inquiry that there was a joint venture that suppressed the patent in question. Next, the court would look at all the evidence, including any agreements between the parties. Finally, the court would take all this into consideration while crafting an appropriate royalty arrangement.¹⁷⁷ If the patent holder agreed to suppress *A** for ten percent of *A*'s profits, a court would minimally discount any com-

177. For a discussion of other considerations in determining reasonable royalties, see *supra* notes 81–83 and accompanying text.

pulsory license, since the firms' agreement suggests A^* has limited ability to compete on its own. If, however, a patent holder agreed to suppress A^* for ninety percent of the A 's profits, a court would severely discount any royalty paid to A^* , because the agreement indicates that A^* would compete extremely well against A .

The degree that this argument is persuasive depends on whether the assumptions made were somewhat realistic: the next section examines whether the inference claimed above is at all practical in real world applications.

B. COURTS CAN LOOK TO AGREEMENTS DESPITE OTHER REASONS FOR BARGAINING

Parties entering into a joint venture to promote one patent and suppress another always lack information about the actual marketability and future value of their respective patents. The principle of capturing some of the future is one of the rationales for several patent law doctrines.¹⁷⁸ Moreover, it is not likely that the two technologies will be perfectly substitutable. Still, there are similar difficulties in determining reasonable royalties in the analysis courts use today, so this limitation puts parties at least no worse off than under current approaches.¹⁷⁹

Next, owners of a suppressed patent may have legitimate reasons to accept a different price relative to its projected value. For example, a party might have no reasonable mechanism in place for licensing a certain technology. In that case, the disadvantaged party would likely be willing to accept a diminished share of the shared licensing revenue. Alternatively, one party may have a significant interest in keeping the other's patent from being licensed or used, likely because of some threat to a related good. Here, that party would be willing to pay a premium under a joint agreement to suppress.

Interestingly, these imperfections may in fact help determine a more ideal royalty. If it is beneficial to deter most strongly the agreements that harm the public the most, and deter least those that cause little harm, perhaps an analysis of the agreement can still provide useful indicators. For example, if a firm is truly unprepared to license or use a patent on its

178. See CHISUM, *supra* note 45, § 16.02[1][a] (explaining blocking patents and the doctrine of equivalents).

179. See Blair & Cotter, *supra* note 74, at 37–40 (discussing the current system of reasonable royalties, including the *Georgia-Pacific Corp.* factors discussed *supra* Part I.C.1).

own, society suffers less harm, since the product may not have made it into the market anyway. Since the firms would devalue this patent, taking the shares of revenue into account would accurately find this sort of behavior less anticompetitive than it otherwise would be. Likewise, a company fearing competition on other fronts besides its substitutable patent will pay a premium, and this will result in an overestimation of the value of the patent. This also makes sense: the firm paying the premium is denying the public access to a patent that it has understood to be valuable. Hence, it should invite greater deterrence.

CONCLUSION

Preventing joint ventures where one technology is promoted at the expense of another is a complicated and nuanced problem. Primarily, these joint ventures harm society by withholding new and potentially useful inventions from the public. In preventing others from improving on a technology, these suppression joint ventures foreclose the unknown and stifle innovation. Following the contours of current legal regimes, rethinking remedies provides the best approach: a compromise between the public and the patentee. Courts should be able to use the additional evidence available in these ventures to better deter the formation of these suppressive joint ventures. Moreover, awarding only damages—instead of injunctions—balances the interests of the public in having use of a new invention, while still respecting the legitimate rights of the unused-patent holder. Ultimately, while not perfect, remedy reform provides the best opportunity for courts to deter joint ventures in technology suppression while not deviating too far from existing legal doctrine.