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REINING IN REMEDIES IN PATENT LITIGATION: THREE (INCREASINGLY IMMODEST) PROPOSALS

Thomas F. Cotter†

Abstract

This essay, which builds on my recent work on the law and economics of comparative patent remedies, presents three proposals relating to the enforcement of domestic patent rights. The first, which may be close to being adopted in the United States, is for the courts and the International Trade Commission (ITC) to adopt a general presumption, grounded in patent law and policy, that patent owners who have committed to license their standard essential patents (SEPs) on fair, reasonable, and nondiscriminatory terms are not entitled to permanent injunctions or exclusion orders, but rather only to a damages in the form of an ongoing royalty calculated on the basis of what a reasonable licensor and licensee would have agreed to prior to the adoption of the standard in question. Countries such as Germany that have addressed the issue of remedies for the infringement of SEPs within the context of competition law, while otherwise leaving in place an almost-automatic entitlement to permanent injunctive relief, have in my view taken the wrong tack.

Second, I argue that Congress should amend Patent Act Section 289, which permits design patent owners to recover the infringer's profits, so as to require that such awards reflect only the profit derived from the use of the infringed design (and not the entire product of which the design is a part). Such apportionment is the norm in other countries (and in U.S. copyright and trademark law). By contrast, the archaic U.S. design patent rule threatens substantial overdeterrence and overcompensation, as reflected in the recent jury award in Apple v. Samsung.

[†] Briggs and Morgan Professor of Law, University of Minnesota Law School. I thank the Santa Clara High Technology Law Journal for its sponsorship of the symposium "The Mobile Revolution," at which I spoke on February 22, 2013; and participants at a March 3, 2013 seminar at De Paul University College of Law. All opinions expressed above, and any remaining errors, are my responsibility alone.

My third suggestion—really more of a thought experiment inspired by Judge Posner's opinion in Apple v. Motorola than a serious proposal for reform—is to consider whether it would be possible to eliminate the unique U.S. practice of trial by jury in a wide swath of U.S. patent cases by statutorily recasting awards of reasonable royalties as a form of equitable restitution rather than as compensation.

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INTRODUCTION

Notwithstanding the passage of the America Invents Act in 2011,¹ and nearly a decade's worth of Supreme Court and Federal Circuit cases that have cut back on some of the latter court's earlier, more expansive, interpretations of patent rights,² criticism of the U.S. patent system only seems to intensify with every passing year.³ Much, though hardly all, of the criticism centers on the conduct of patent assertion entities (PAEs)—otherwise known more pejoratively as "patent trolls"—those patent-holding entities which, according to Professor Colleen Chien, filed over 60% of all civil actions for U.S. patent infringement in 2012.⁴ Many of these actions involve patents relating to software, business methods, telecommunications, and

^{1.} Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) [hereinafter AIA].

See, e.g., Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013) (holding that naturally-occurring DNA sequences are not patentable subject matter, even if separated from the rest of the human genome); See, e.g., Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (2012) (holding that a therapeutic method that involved merely applying "well-understood, routine, conventional activity" to a naturally-existing correlation did not constitute patentable subject matter); Bilski v. Kappos, 130 S. Ct. 3218 (2010) (holding that business methods are patentable subject matter, but that the specific method at issue was merely an abstract idea); MedImmune, Inc. v. Genentech, Inc., 549 U.S. 118 (2007) (expanding the ability of potential infringement defendants to initiate actions for declaratory relief); Microsoft v. AT&T Corp., 550 U.S. 437 (2007) (construing the extraterritorial reach of U.S. patent law narrowly); KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398 (2007) (reversing Federal Circuit case law on nonobviousness); eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006) (holding that prevailing patent owners are not automatically entitled to injunctive relief); Merck KGaA v. Integra Lifesciences I, Ltd., 545 U.S. 193 (2005) (broadly interpreting a statutory experimental use exception). Relevant Federal Circuit case law that springs to mind cuts sensibly back on overly generous interpretations of patentees' rights to damages—though, as argued above, I think that some further reforms may be desirable. See also LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51, 67 (Fed. Cir. 2012) (narrowly construing the entire market value rule); Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292 (Fed. Cir. 2011) (characterizing the twenty-five percent rule of thumb as "a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation," and holding evidence relying on the rule inadmissible under Daubert); Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009) (reversing \$350 million damages award). To be sure, not all of the recent cases have been in the direction of narrowing patent rights; and one of the most contentious current issues, relating to the patentability of DNA sequences, remains pending before the Supreme Court as of this writing.

^{3.} See, e.g., Richard A. Posner, Why There Are Two Many Patents in America, THE ATLANTIC, July 12, 2012, available at http://www.theatlantic.com/business/archive/2012/07/why-there-are-too-many-patents-in-america/259725/ (criticizing many features of the U.S. patent system, including the use of jury trials to resolve patent disputes).

^{4.} Colleen V. Chien, Santa Clara Univ., Patent Assertion Entities 23 (Dec. 10, 2012), available at http://www.justice.gov/atr/public/workshops/pae/presentations/290073.pdf (statistics current through Dec. 1, 2012).

information technology (IT).⁵ Only a small percentage of these lawsuits are believed to involve deliberate copying on the part of accused infringers; most result from independent invention on the part of companies that were, at least initially, unaware of the patents in suit.⁶ To be sure, most pending patent applications are published eighteen months after filing,⁷ and all of them become public records once the patent is granted.⁸ Nevertheless, high-tech firms in particular generally ignore patents, 9 due both to the sheer quantities of patents granted and to the opacity with which they are drafted, which sometimes turns the "notice" function of patents into something of a ioke. 10 Not surprisingly, U.S. patent litigation is also enormously expensive, 11 and the risk of crippling liability ever-present; in 2011 alone, there were six patent damages verdicts in excess of \$100 million.¹² As a result, patent critics argue that, in many fields of technology, patents no longer serve their intended purpose of providing an incentive to invent and disclose but rather operate as, essentially, a tax on innovation.¹³ Anyone who produces—or, in some instances, simply uses—a high-tech product or service automatically becomes an attractive target for patent litigation.¹⁴

^{5.} See Michael Risch, Patent Troll Myths, 42 SETON HALL L. REV. 457, 475-78 (2012); see also Daniel O'Connor, One in Six Active U.S. Patents Pertain to the Smartphone, DISRUPTIVE COMPETITION PROJECT, Oct. 17, 2012, http://www.project-disco.org/intellectual-property/one-in-six-active-u-s-patents-pertain-to-the-smartphone/.

^{6.} See Christopher A. Cotropia & Mark A. Lemley, Copying in Patent Law, 87 N.C. L. REV. 1421, 1459-60 (2008).

^{7.} See 35 U.S.C. § 122(b) (2013); U.S. PAT. & TRADEMARK OFF., PERFORMANCE AND ACCOUNTABILITY REPORT: FISCAL YEAR 2012 177, available at http://www.uspto.gov/about/stratplan/ar/USPTOFY2012PAR.pdf (last visited Sept. 28, 2013) (providing data on number of applications filed, published, and granted, from 2008 to 2012).

^{8. 35} U.S.C. § 153 (2013).

^{9.} See Mark A. Lemley, Ignoring Patents, 2008 MICH. St. L. REV. 19, 20 (2008).

^{10.} See James Bessen & Michael J. Meurer, Patent Failure: How Judges, Bureaucrats, and Lawyers Put Innovators at Risk 194–98 (2008).

^{11.} See AM. INTELL. PROP. LAW ASS'N, AIPLA REPORT OF THE ECONOMIC SURVEY 35 (2011) (reporting that the median cost of litigating a patent infringement suit with less than \$1 million at risk through to judgment as of 2011 is estimated to be \$650,000; for a suit with up to \$25 million at risk, \$2.5 million; and for a suit with over \$25 million at risk, \$5 million).

^{12.} Univ. of Houston Law Ctr., U.S. Patent Litigation Statistics, PATSTATS.ORG, http://www.patstats.org/Patstats3.html (last visited Feb. 22, 2013) (reporting 26 through November 30, 2012); Don Clark, A Record Patent Verdict, WALL ST. J., Dec. 26, 2012, at B1.

^{13.} E.g., Larry Popelka, Only Lawyers Win in Patent Wars, BLOOMBERG BUSINESSWEEK, Apr. 24, 2012, http://www.businessweek.com/articles/2012-04-24/patent-wars-lawyers-are-the-only-winners (stating that "in most industries today, patents have simply become a tax on innovation, a necessary evil for defensive purposes, helping no one but patent attorneys").

See, e.g., In re Innovatio IP Ventures LLC Patent Litig., No. 1:11-cv-09308 (N.D. Ill. 2013) (granting in part and denying in part a PAE's motion to dismiss various claims premised

In this environment, calls for further reform of the patent system have taken many forms, ranging from outright abolition of the patent system¹⁵ to more targeted efforts directed at matters such as claim drafting and claim construction, disclosure, and patent prosecution, and further reforms to areas such as patentable subject matter¹⁷ and nonobviousness. Others have called for the introduction of new defenses to liability, such as an independent invention defense of the patent system, including the patent term, to the characteristics of different fields of technology. Yet other suggestions go to the issue of patent enforcement, such as proposals for instituting specialized patent trial courts or competing patent appellate courts; or for switching over to some version of the "English Rule" under which the losing party would be responsible for the winner's attorney's fees in all or most, not just "exceptional," cases.

on the defendant's assertion of patent rights against "numerous hotels, coffee shops, restaurants, supermarkets, and other commercial users of wireless internet technology located throughout the United States").

- 15. See Michele Boldrin & David K. Levine, The Case Against Patents, 27 J. ECON. PERSP. 3 (2013).
- 16. See, e.g., Mark A. Lemley, Let's Go Back to Patenting the 'Solution,' Not the Problem, WIRED, Oct. 31, 2013, http://www.wired.com/opinion/2012/10/mark-lemley-functional-claiming/; Mark A. Lemley & Kimberly A. Moore, Ending Abuse of Patent Continuations, 84 B.U. L. REV. 63 (2004); Oskar Liivak, Rescuing the Invention from the Cult of the Claim, 42 SETON HALL L. REV. 1 (2012); Sean B. Seymore, The Teaching Function of Patents, 85 NOTRE DAME L. REV. 621 (2010).
- 17. E.g., Peter J. Menell, Forty Years of Wondering in the Wilderness and No Closer to the Promised Land: Bilski's Superficial Textualism and the Missed Opportunity to Return Patent Law to Its Technological Mooring, 63 STAN. L. REV. 1289 (2011).
- 18. See Michael Abramowicz & John F. Duffy, The Inducement Standard of Patentability, 120 YALE L.J. 1590 (2011).
- 19. Oskar Liivak, Rethinking the Concept of Exclusion in Patent Law, 98 GEORGETOWN. L.J. 1643 (2010); Samson Vermont, Independent Invention as a Defense to Patent Infringement, 105 MICH. L. REV. 475 (2006).
- 20. E.g., Katherine J. Strandburg, What Does the Public Get? Experimental Use and the Patent Bargain, 2004 WIS. L. REV. 81, 83.
- 21. See, e.g., Posner, supra note 3 (floating the idea of "reducing the patent term for inventors in industries that do not have the peculiar characteristics of pharmaceuticals"). See also DAN L. BURK & MARK A. LEMLEY, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 49-65 (2009) (arguing that, in practice, different technologies receive different levels of protection).
- 22. Jay P. Kesan & Gwendolyn G. Ball, Judicial Experience and the Efficiency and Accuracy of Patent Adjudication: An Empirical Analysis of the Case for a Specialized Patent Trial Court, 24 HARV. J.L. & TECH. 393, 396 (2011).
- 23. See Craig Allen Nard & John F. Duffy, Rethinking Patent Law's Uniformity Principle, 101 Nw. U. L. Rev. 1619, 1623-24 (2007).
 - 24. For a proposal that would have resulted in more awards of attorney's fees, see Saving

My own scholarship has focused to a large extent on remedies and other aspects of patent enforcement, both in the United States and in other major patent systems, so it should come as no surprise that the ideas for reform that most readily occur to me tend to center on modifications to this area of patent law.²⁵ This essay will argue in favor of three reforms in particular, arranged in order of their likely political feasibility. The first, which has received the most attention thus far and appears to have the best prospect for making its way into mainstream U.S. (if not foreign) patent practice, is the adoption of a general presumption that a patent owner's commitment to license assertedly standard-essential patents (SEPs) on fair, reasonable, and nondiscriminatory (FRAND) terms disqualifies the patent owner from obtaining injunctive relief in any judicial or administrative forum. In particular, I will argue that concerns on the part of some economists that such a rule would inhibit innovation are exaggerated; and that conceptualizing the matter primarily as an antitrust (competition law) issue rather than as a straightforward patent law issue (as is the practice at present in Germany, for example), 26 is also a mistake. 27

High-Tech Innovators from Egregious Legal Disputes (SHIELD) Act of 2012, H.R. 6245, 112th Cong. § 285A(a) (2012) available at http://www.govtrack.us/congress/bills/112/hr6245/text (proposing to amend the Patent Act by providing that "in an action disputing the validity or alleging the infringement of a computer hardware or software patent, upon making a determination that the party alleging the infringement of the patent did not have a reasonable likelihood of succeeding, the court may award the recovery of full costs to the prevailing party, including reasonable attorney's fees, other than the United States."). Since this bill was introduced in August 2012, six other anti-patent troll bills have been introduced in Congress, and the State of Vermont has enacted its own legislation. For summaries of these developments (current as of August 2013), see Camilla Hrdy, What Is Happening in Vermont? Patent Reform From the **Bottom** Up, PATENTLY-O (May 27, 2013, http://www.patentlyo.com/patent/2013/05/what-is-happening-in-vermont-patent-law-reformfrom-the-bottom-up.html; Matt Rizzolo, A Round-Up of Proposed "Patent Reform" Bills on THE **ESSENTIAL PATENT** BLOG http://essentialpatentblog.com/2013/05/a-round-up-of-proposed-patent-reform-laws-on-capitolhill/; Donald Zuhn, New Patent Litigation Bill Introduced in House, PATENTDOCS (July 16, 2013, 11:59 PM), http://www.patentdocs.org/2013/07/new-patent-litigation-bill-introduced-in-See also Thomas F. Cotter, Attorney Fee Shifting in Patent Litigation, house.html. COMPARATIVE PATENT REMEDIES (June 7, 2013, 5:13 http://comparativepatentremedies.blogspot.com/2013/06/attorney-fee-shifting-in-patent.html (discussing recent recommendations by President Obama and others).

^{25.} As for the other reforms noted above, my own view is that some of them have merit, while others do not; but that many of them are surely politically infeasible or otherwise impractical in the short run—which, however, does not imply that they are unworthy of serious consideration.

^{26.} See THOMAS F. COTTER, COMPARATIVE PATENT REMEDIES: A LEGAL AND ECONOMIC ANALYSIS 247-48 (2013). For discussion of more recent developments relating to the use of competition law as a tool for denying injunctions in patent cases involving SEPs subject to FRAND obligations, see Thomas F. Cotter, Univ. of Minn., Presentation at Munich

The second would be to reform the law of patent damages as it relates to design patents. Contrary to the practice of just about every other country in the world, U.S. law does not permit awards of the infringer's profit attributable to the infringement for utility patent infringement (and this may be just as well, as discussed in Part II below). Nevertheless, we have continued to allow such awards for design patent infringement—and when we do so, we do it wrong. More precisely, the relevant statute (35 U.S.C. § 289) arguably requires courts to award the defendant's entire profit from sales of infringing products, without any apportionment for the amount of the profit attributed to the design patent and the amount attributable to other, noninfringing, product features. This too differs from practice just about everywhere else, 28 and (more importantly) has no conceivable economic justification.²⁹ On the other hand, until recently the peculiarities of U.S. practice in this regard probably have had little practical impact, given the relative scarcity of design patent litigation and the small stakes typically at issue in these cases. The \$1 billion jury verdict handed down in August 2012 in Apple, Inc. v. Samsung Electronics Corp., however—a case involving, among other things, three design patents that the jury found valid and infringed belies any notion that this area of U.S. law can still be regarded as an unimportant backwater.30 Unfortunately, the simple expedient of properly apportioning the infringer's profits does not appear to be

Intellectual Property Law Center Lecture Series: The Comparative Law and Economics of Standard Essential Patents and FRAND Royalties (July 8, 2013), available at http://www.miplc.de/research/lecture-series/2013/cotter/.

^{27.} Which is not to say that it can never be a matter for antitrust or competition law to address. See, e.g., Jon Leibowitz, Fed. Trade Comm'n Chairman, Google Press Conference: Opening Remarks as Prepared for Delivery (Jan. 3, 2013), available at http://www.ftc.gov/speeches/leibowitz/130103googleleibowitzremarks.pdf (proposing that FTC Act § 5 may require firms to abide by commitments to license SEPs on FRAND terms).

^{28.} See COTTER, supra note 26, at 197-209, 270-74, 323-27, 353-58.

^{29.} See infra Part II. See also COTTER, supra note 26, at 67-68, 149-51, 198-200.

See Amended Verdict Form at 6-7, 15-16, Apple Inc. v. Samsung Elecs. Corp., No. 11-CV-01846-LHK (N.D. Cal. Aug. 24, 2012), available at http://cdn.slashgear.com/wpcontent/uploads/2012/08/ApplevSamsung-1931.pdf. On March 1, 2013, Judge Koh ordered a new trial on damages with respect to some of the accused products in suit, on the ground that the jury award with respect to those products was based on an erroneous legal theory. She allowed the jury award to stand with respect to other products, in the amount of \$598,908,892. See Apple Inc. v. Samsung Elecs. Corp., 926 F. Supp. 2d 1100 (N.D. Cal. 2013). Following the November 2013 retrial, the jury returned a verdict for Apple on the remaining claims in the amount of \$290 million. See Thomas F. Cotter, COMPARATIVE PATENT REMEDIES 21, 2013, 6:55 PM), available (Nov. at http://comparativepatentremedies.blogspot.com/2013/11/jury-awards-290-million-in-applev.html.

permissible under the governing statute,³¹ absent some creative interpretation; a legislative fix therefore would be desirable.

A third area of patent enforcement that I believe is ripe for reform is undoubtedly the most quixotic. I believe that the time has come to seriously consider doing away with jury trials, to the extent possible, in patent matters. U.S. patent practice is unique among the nations of the world in its use of juries, 32 and the divergence is more stark today than ever before: since the early 1980s, the percentage of jury trials in U.S. patent cases has increased from 14.4% to 55.2%.³³ Statistics on win rates and damages awards also show that juries typically are much more sympathetic to patent owners than are judges; and to my knowledge, all of the nearly thirty U.S. patent cases that have resulted in nine- or ten-figure damage verdicts were jury cases.³⁴ Perhaps the time has come to acknowledge that the emperor has no clothes. Indeed, if one views the patent system, as I do, as nothing more (or less) than a form of industrial policy or regulation, it seems increasingly nonsensical to delegate patent questions, including the calculation of the amount of "damages adequate to compensate for the infringement,"35 to a quaint eighteenth century institution made up of twelve lay jurors selected, not entirely randomly, from the general population. Regardless of one's views as to the merits of keeping or doing away with juries, the obvious legal objection to what I am

^{31.} See 35 U.S.C. § 289 (2013) (stating that the infringer of a design patent "shall be liable to the owner to the extent of his total profit").

^{32.} See COTTER, supra note 26, at 172-74, 260, 287, 297.

Of course, the majority of cases don't proceed to trial, but are settled or disposed of on dispositive motions before trial. See J. Shawn McGrath & Kathleen M. Kedrowski, Trends in Patent Damages, July 6, 2001, at 3, available at http://www.docs.piausa.org/ABA/07-06-01-ABA-Report-On-Patent-Damages.pdf (reporting that 3-4% of patent infringement actions filed from 2000 to 2006 went to trial). One reason is that some important issues—among them, claim construction, see Markman v. Westview Instr., Inc., 517 U.S. 370 (1996)-are viewed as questions of law for the judge alone. Nevertheless, even among the cases that settle or are disposed of on dispositive motion, the prospect of proceeding to trial to jury surely factors into the parties' and courts' views of the likelihood and magnitude of success in the event of trial. The percentages also don't include International Trade Commission (ITC) investigations, which make up a very small percentage of all patent infringement actions (and come with their own set of problems). For discussion, see Colleen V. Chien & Mark A. Lemley, Patent Holdup, the ITC, and the Public Interest, 98 CORNELL L. REV. 1 (2012); Thomas F. Cotter, The International Trade Commission: Reform or Abolition? A Comment on Colleen V. Chien & Mark A. Lemley, Patent Holdup, the ITC, and the Public Interest, 98 CORNELL L. REV. ONLINE (2013), http://cornelllawreview.org/files/2013/05/Cotterfinal.pdf.

^{34.} To be sure, many of these awards were reduced or vacated post-trial or on appeal, which tends to lessen the resulting harm. See COTTER, supra note 26, at 119. Still, this is hardly a ringing endorsement of the trial by jury system.

^{35. 35} U.S.C. § 284 (2013).

suggesting is that the right to trial by jury is a constitutional right, enshrined in the Seventh Amendment to the Constitution. Absent a revolution, that might seem to pretty much eliminate any prospect for eliminating the institution of trial by jury in civil patent cases. But I'm not entirely sure this is right (though I acknowledge it may be). Inspired in part by Judge Posner's observation last summer in Apple v. Motorola. 36 that, analytically, an award of reasonable royalties can be viewed as a type of restitutionary relief—requiring disgorgement of the costs the defendant saved by not having obtained a license ex ante-I will assert that there is a nontrivial argument that awards of reasonable royalties could be recharacterized as a form of equitable relief, akin to an award of defendant's profits, for which there is no constitutional right to trial by jury. To be sure, such a reform (even assuming that my analysis is correct) would probably require a statutory amendment, given the current statute's suggestion that royalties are a form of compensatory damages, which are, legal, not equitable, in nature. I wouldn't expect such a statutory change anytime soon. And the analysis would apply only to awards of reasonable royalties, not lost profits, which could not in any way be characterized as equitable, although to the extent my proposal would eliminate the right to trial by jury in cases in which patentees seek reasonable royalties, it would eliminate them in most cases, given that royalties are awarded in over 80% of cases today in which patent owners prevail.³⁷ Importantly, it would eliminate jury trials in virtually all cases asserted by PAEs, which by definition do not make or sell any products and thus would have no entitlement to recover lost profits anyway. And that, I contend, would be a good thing.

Parts I and II discuss the two sober proposals, relating to FRAND royalties and awards of defendant's profits. Part III maps out the territory that only the safely tenured may enter, by laying out a tentative case for the elimination of trial by jury in a wide swath of patent cases, consistent with the Seventh Amendment. Part IV concludes.

^{36.} Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 910 (N.D. Ill. 2012) (Posner, J., sitting by designation).

^{37.} See CHRIS BARRY ET AL., 2012 PATENT LITIGATION STUDY: LITIGATION CONTINUES TO RISE AMID GROWING AWARENESS OF PATENT VALUE 11 (2012) (stating that, from 2006-11, reasonable royalties were awarded in 81.9% of cases in which damages were awarded, lost profits in 32.2%, and price erosion damages in 1.7%; the numbers add up to more than 100% because some patentees recover a combination of lost profits and royalties).

I. INJUNCTIONS AND STANDARD-ESSENTIAL PATENTS

My first proposal for the further reform of patent remedies is for the courts and agencies to adopt, as a general rule, the proposition that a patentee's commitment to license its patents on FRAND terms means that the patentee is not entitled to a permanent injunction or (at the International Trade Commission, or "ITC") an exclusion order. Doctrinally, a patentee's commitment to license its patents on FRAND terms indicates that prospective damages, in the form of the FRAND royalty the defendant did not pay, would be an adequate remedy and that the patentee is not faced with the prospect of irreparable harm. Under eBay Inc. v. MercExchange, L.L.C., 38 the existence of an adequate remedy at law and the absence of irreparable harm militate against the entry of permanent injunctive relief.³⁹ Relatedly, the ITC should deny exclusion orders in such instances, because the entry of such an order would (for reasons discussed below) disserve the public interest.⁴⁰ Moreover, as a matter of state contract law, a promise to license one's patents on FRAND terms

38. eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006).

According to well-established principles of equity, a plaintiff seeking a permanent injunction must satisfy a four-factor test before a court may grant such relief. A plaintiff 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.

Id.

The ITC itself held in In the Matter of Certain Electronic Devices, Including Wireless Communication Devices, Portable Music and Data Processing Devices, and Tablet Computers, that the public interest did not preclude the entry of an exclusion order in a case involving an SEP subject to a FRAND obligation. See In re Certain Elec. Devices, Including Wireless Commc'n Devices, Portable Music and Data Processing Devices, and Tablet Computers, Inv. No. 337-TA-794, USITC Pub. (July 5, 2013) (Final). But on August 3, 2013, the U.S. Trade Representative vetoed the exclusion order. See Letter from Amb. Michael B.G. Froman, to Hon. Irving A. Williamson, Chairman, U.S. Int'l Trade Comm'n (Aug. 3, 2013), available at http://online.wsj.com/public/resources/documents/AppleLetter.pdf.

^{39.} See Apple, Inc., 869 F. Supp. 2d at 913-15 (holding that Motorola was not entitled to injunctive relief for the infringement of a purportedly standard essential patent).

^{40.} See Chien & Lemley, supra note 33, at 41; Colleen V. Chien et al., RAND Patents and Exclusion Orders: Submission of 19 Economics and Law Professors to the International Trade Commission, Soc. Sci. Research Network, July 9, 2012, http://ssrn.com/abstract=2102865; U.S. Dep't of Justice & U.S. Pat. & Trademark Off., Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments, JUSTICE.GOV (Jan. 8, 2013), www.justice.gov/atr/public/guidelines/290994.pdf [hereinafter DOJ/PTO Statement]. The ITC is required to take various public interest factors into consideration in deciding whether or not grant an exclusion order barring infringing merchandise from entering the United States. See 19 U.S.C. § 1337(d).

may vest rights in other parties as third-party beneficiaries, as some courts have now held.⁴¹

Perhaps more importantly, as a matter of policy courts and other enforcers of patent rights should deny permanent injunctions in such cases, because injunctions would present a substantial, and unnecessary, risk of patent holdup.⁴² As I have stated previously:

[P]atent holdup involves the strategic use of a patent that reads on a relatively small-value component of a multicomponent end product to extract ex post rents that are disproportionate to the ex ante value of the invention in comparison with the next-best available alternative. The strategy rests upon the patent owner's ability to obtain an injunction against the distribution of the end product, after the costs of designing, producing, and distributing the end product have been sunk. At that point, unless the cost of designing around the patent is sufficiently low, the infringer will be willing to pay much more than he rationally would have negotiated ex ante in order not to pull the product from the shelves.... To the extent holdup occurs, therefore, it may enable the patent owner to reap economic rents that far exceed the royalties she could have negotiated ex ante, before the infringer became locked in to a given design and while other market alternatives may have been available; these rents in turn threaten to inflate the deadweight loss beyond what it otherwise would have been, and thus to impose short-term efficiency losses that may not be justified by any corresponding increase in incentives to invent.... Thus at least where infringement is inadvertent in the sense that it does not involve deliberate copying but rather independent invention; the cost to the user of avoiding infringement ex ante and of designing around the patent ex post is high; and the patent owner can threaten shutdown in order to extract rents that far exceed the patent's ex ante value, the holdup strategy can be compared to a sort of private tax levied on innovation as practiced by end users. As such, holdup arguably threatens not only short-term efficiency losses but also longer-

^{41.} See Microsoft Corp. v. Motorola, Inc., No. C10–1823JLR, 2012 WL 5993202, at *12-14 (W.D. Wash. Nov. 30, 2012) (holding that Motorola is not entitled to injunctive relief for Microsoft's alleged infringement of patents subject to a FRAND commitment, and reiterating that Microsoft is a third-party beneficiary of Motorola's contractual promise to license the patents on FRAND terms); Apple, Inc. v. Motorola Mobility, Inc., 2012 WL 3289835, at *18-24 (W.D. Wis. Aug. 10, 2012) (holding that Apple was a third-party beneficiary of Motorola's FRAND commitment).

^{42.} Doug Lichtman, Understanding the RAND Commitment, 47 Hous. L. Rev. 1023, 1042 (2010).

term, dynamic efficiency losses as well. 43

In the context of SEPs, the risk of patent holdup seems particularly high, because *if* the patent is indeed standard essential, the defendant almost by definition cannot readily design around it ex post. There is also reason to believe that inadvertent infringement—i.e., independent invention, not deliberate copying—dominates in the IT sector, ⁴⁴ which is precisely where we are likely to find many SEPs to begin with. To be sure, there is (in theory) some risk that denying the patent owner the ability to negotiate a higher royalty (as would be the case if a permanent injunction were in place) may reduce the ex ante ⁴⁵ incentive to invest in creating new technologies. This is the argument presented, in mathematical form, by Ganglmair et al. in a recent paper. ⁴⁶ As an empirical matter, however, I doubt that there is

The proper method of computing a FRAND royalty starts with what the cost to the licensee would have been of obtaining, just before the patented invention was declared essential to compliance with the industry standard, a license for the function performed by the patent. That cost would be a measure of the value of the patent qua patent. But once a patent becomes essential to a standard, the patentee's bargaining power surges because a prospective licensee has no alternative to licensing the patent; he is at the patentee's mercy. The purpose of the FRAND requirements, the validity of which Motorola doesn't question, is to confine the patentee's royalty demand to the value conferred by the patent itself as distinct from the additional value—the hold-up value—conferred by the patent's being designated as standard-essential.

Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 913 (N.D. Ill. 2012). See also Lichtman, supra note 42, at 1043. In conversation, John Schlicher made a similar suggestion to me some years ago—that the hypothetical license should be calculated as of a date just prior to the defendant's decision to adopt a particular technological solution to a problem, rather than from the date on which infringement actually begins. I have previously suggested that Schlicher's approach would be impractical. See Cotter, supra note 32, at 127 n.207; Thomas F. Cotter, Four Principles for Calculating Reasonable Royalties in Patent Infringement Litigation, 27 SANTA CLARA COMP. & HIGH TECH. L.J. 725, 739 n.67 (2011). But in the SEP context that objection would appear to fall away, because it is possible to pinpoint the date on which the standard was adopted; and estimating the royalty the parties would have negotiated prior to standardization would be more consistent with the broader principle I have advocated, that royalties should "replicate[] the result the parties themselves would have negotiated ex ante in a world without holdup risk." Thomas F. Cotter, Patent Holdup, Patent Remedies, and Antitrust Responses, 34 J. CORP. L. 1151, 1182 (2009).

46. See Bernhard Ganglmair et al., Patent Hold Up and Antitrust: How a Well-Intentioned Rule Could Retard Innovation, J. INDUS. ECON. 261-62 (2012) (arguing that the expectation that the patentee can recover only FRAND damages, and not injunctive relief, in

^{43.} Cotter, supra note 32, at 59-60.

^{44.} See Cotropia & Lemley, supra note 6.

^{45.} More precisely, in contrast to the typical (non-SEP) setting in which royalties for past harms are calculated on the basis of what the hypothetical willing licensor and licensee would have agreed as of the date infringement began, in the context of a commitment to license an SEP on FRAND terms the relevant date should be the date just prior to the adoption of the relevant standard. As Judge Posner explains:

much reason to be concerned about this risk in the context of SEPs. The fact that the patent *is* standard essential, after all, means that it is going to be licensed on a widespread scale: at least in terms of volume, the patent owner has already hit the jackpot.⁴⁷ And, more generally, there is little if any empirical evidence that the patent incentive has much of an impact at all outside the pharmaceutical sector,⁴⁸ which is one of the *least* likely sectors to be affected by the proposed rule.

As far as calculating the prospective FRAND royalty is concerned, the appropriate measure should be the amount to which reasonable parties would have agreed ex ante. True, recent Federal Circuit case law (not involving FRAND commitments) has permitted—indeed, encouraged—courts to take into account the change in bargaining power that occurs following the entry of a judgment for the plaintiff, and thus to award prospective royalties that are higher than the royalties awarded for past (prejudgment) infringement. As I have previously observed, I think this is a mistake, because it undermines what I view as the principal policy rationale—the avoidance of patent holdup—that would support the decision not to award a permanent injunction in a given case. Nevertheless, even if we accept the Federal Circuit's case law on

effect may diminish the royalty a patentee can negotiate ex ante and thus negatively affect patent incentives). Similarly, the authors of two papers recently published in the Journal of Competition Law and Economics argue that (specifically within the context of European law) eliminating or reducing the availability of injunctive relief for the infringement of SEPs subject to FRAND obligations sometimes may enable prospective licensees to engage in "reverse holdup," that is, to extract below-FRAND licensing rates under some circumstances. See Gregor Langus et al., Standard-Essential Patents: Who Is Really Holding Up (and When)?, 9 J. COMP. L. & ECON. 253 (2013); Peter Camesasca, Injunctions for Standard-Essential Patents: Justice Is Not Blind, 9 J. COMP. L. & ECON. 285 (2013). In future work, I intend to address the arguments raised in these papers and to consider their applicability in the U.S. context. Initially, though, my reaction is that the "opportunistic" behavior the authors perceive on the part of prospective licensees is less of a threat to innovation than is the risk of holdup on the part of patent owners, for the reasons stated in the text above.

^{47.} See DOJ/PTO Statement, supra note 40, at 5.

^{48.} See, e.g., Boldrin & Levine, supra note 15; Wesley M. Cohen et al., Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not) (Nat'l Bureau of Econ. Research, Working Paper No. 7552, 2000), available at http://www.nber.org/papers/w7552. There may still be good reasons for awarding patents, though, even in the IT sector. See Stuart Graham & Saurabh Vishnubhakat, Of Smart Phone Wars and Software Patents, 27 J. ECON. PERSP. 67, 69-70 (2013).

^{49.} See ActiveVideo Networks, Inc. v. Verizon Comm'ns, Inc., 694 F.3d 1312, 1342-43 (Fed. Cir. 2012); Amado v. Microsoft Corp., 517 F. 3d 1353, 1362 (Fed. Cir. 2008).

^{50.} See Cotter, supra note 26, at 127-28; see also Mark A. Lemley, The Ongoing Confusion over Ongoing Royalties, 76 Mo. L. REV. 695 (2011).

prospective royalties as, for now, an unalterable feature of current patent practice, it seems to me that it should be permissible to deviate from that precedent in a case involving FRAND royalties, given that the patent owner has committed to the licensing of the patent in suit on FRAND—not *supra*-FRAND—terms. The amount of the prospective royalty therefore should be computed using the same royalty base and rate used to compute the royalty due for past infringement.⁵¹

Besides patent and contract law, the other principal body of law that potentially could impact the licensing of SEPs on FRAND terms is competition law. The Federal Trade Commission (FTC), for example, has resolved two recent antitrust investigations with consent orders that obligate patent owners to license their SEPs on FRAND terms.⁵² Indeed, outside the United States, some courts appear to prefer competition law to patent law as the doctrinal tool for requiring FRAND licensing. In the E.U. in particular, courts in some countries still view injunctions as the (nearly) automatic remedy for the infringement of a patent, even though the E.C.'s 2004 Enforcement Directive would appear to permit national courts to adopt an *eBay*-like rule.⁵³ Germany in particular—the locus of up to 80% of all

^{51.} I therefore largely agree with Judge Robart's application of a modified version of the *Georgia-Pacific* standards to calculate a FRAND royalty in the breach of contract case brought by Microsoft against Motorola. *See* Microsoft Corp. v. Motorola, Inc., Case No. C10-1823JLR (W.D. Wash. Apr. 25, 2013). For further discussion (and a few nuances), see Thomas F. Cotter, *Some Initial Reactions to Judge Robart's Opinion in Microsoft v. Motorola*, INTELLECTUALIP (May 3, 2013), http://intellectualip.com/?s=robart.

Motorola Mobility LLC and Google Inc., No. C-4410 (F.T.C. Jan. 3, 2013) (decision and order), available at www.ftc.gov/os/caselist/1210120/130103googlemotorolado.pdf; Robert Bosch GmbH, No. C-4377 (F.T.C. Nov. 26, 2012) (decision and order), available at www.ftc.gov/os/caselist/1210081/121126boschdo.pdf. Cf. Florian Mueller, DoJ/USPTO Position Paper on FRAND SEP Remedies Muddies the Water, FOSS PATENTS (Jan. 8, 2013), http://www.fosspatents.com/2013/01/dojuspto-position-paper-on-frand-sep.html DoJ/USPTO Position Paper] (arguing that the FTC-Google consent order has too many loopholes); Florian Mueller, Comparison of the FTC's Standard-Essential Patent Agreements Bosch, Foss **PATENTS** (Jan. 2013), http://www.fosspatents.com/2013/01/comparison-of-ftcs-standard-essential.html **Ihereinafter** Standard-Essential Patent Agreements].

^{53.} Specifically, article 12 of the Directive states that members "may provide that, in appropriate cases," courts may order, in lieu of an injunction, "pecuniary compensation to be paid to the injured party instead of applying the measures provided for in this section if that person acted unintentionally and without negligence, if execution... would cause... disproportionate harm and if pecuniary compensation... appears reasonably satisfactory." Council Directive 2004/48, art. 12, 2004 O.J. (L 195) 23 (EC). Over the course of the last century, there have been a small number of decisions in the U.K. in which courts have denied prevailing patent owners injunctive relief, though it would be premature to conclude that the U.K. is moving in the direction of eBay. See COTTER, supra note 26, at 180-81. Recently,

patent infringement lawsuits in Europe⁵⁴—provides an illustrative case. In the 2009 Orange-Book-Standard case, the German Federal Supreme Court (the Bundesgerichtshof, or BGH) held that competition law may sometimes obligate the owner of an SEP to license that patent on FRAND terms. Specifically, the court stated that an infringer may not be enjoined if it proves, first, that it "made an offer, ready for acceptance, on contractual conditions, which the patent holder cannot refuse without thereby treating the party seeking a license unequally without good cause as compared with similar enterprises or impeding him inequitably" in violation of German competition law, which forbids a "market-dominant patent holder" from abusing its market-dominant position by refusing "to conclude a contract offered to him on non-obstructive and non-discriminatory terms." Second, the infringer must "behave[] as if the patent holder had already accepted his offer" by paying "the consideration that the licensee would be obliged to pay according to a non-discriminatory or non-obstructive licence contract."55 Notwithstanding the potential opening presented by Orange-Book-Standard, commentators have expressed the view that the Orange-Book-Standard conditions are simply too onerous to guard against the risk of patent holdup.⁵⁶ (Indeed, in the Orange-Book-Standard case itself, the BGH affirmed the awarding of injunctive relief against the defendants because they had not proven the court's two conditions. More recently, however,

however, the English Patent Court did deny a permanent injunction in an infringement action brought by IPCom against Nokia, reportedly on the ground that the patent in suit was standard-essential. See Florian Mueller, UK High Court Denies a Patent Injunction Against Nokia in Light of a FRAND Commitment, FOSS PATENTS (May 30, 2012), http://www.fosspatents.com/2012/05/uk-high-court-denies-patent-injunction.html; Nokia NYJ v. IPCom GmbH & Co. KG, [2012] EWHC 3545 (Pat) (Eng.) (order relating to expert testimony in the upcoming trial on damages).

^{54.} See Cotter, supra note 32, at 233.

^{55.} Bundesgerichtshof [BGH] [Federal Supreme Court] May 6, 2009, GRUR INT. 747 (Ger.), translated in 41 IIC 369, 369-75 (2010).

^{56.} See DoJ/USPTO Position Paper, supra note 52 (stating that "German courts consider FRAND licensing offers made by implementers of standards (but unfortunately don't attach any importance to FRAND pledges made by patent holders) under the Orange Book Standard framework," and describing Germany as "the only major jurisdiction in Europe to be firmly on the side of FRAND abusers"). See also Florian Mueller, Mannheim Court Continues to Weaken the FRAND Defense—Bad News for Apple, Nokia, HTC, Others, FOSS PATENTS (Feb. 9, 2012), http://www.fosspatents.com/2012/02/mannheim-court-continues-to-weaken.html; Marcus Grosch, Patent Infringement Proceedings before the Landgericht Mannheim and the Oberlandesgericht Karlsruhe, in Zeitschrift für Japanisches Recht [Journal of Japanese Law], Sonderheft [Special Issue] 3, Patent Littigation in Japan and Germany 41, 48 (Guntram Rahn ed., 2011); Hanns Ullrich, Patents and Standards: A Comment on the German Federal Supreme Court Decision Orange Book Standard, 41 IIC 337 (2010).

the European Commission has signaled that it might be willing to take a more aggressive approach, based on E.U. competition law, for requiring the licensing of SEPs—which approach would then be binding on German courts. ⁵⁷ Stay tuned.)

I don't deny that competition law may play a role in regulating the conduct of SEP owners, when appropriate; but I do think it is a mistake to expect competition law routinely to correct for the overenforcement of IP rights. In particular, I have argued elsewhere that courts should be wary of expanding the "essential facilities" doctrine (or its European counterpart, "abuse of dominant position"), because, among other things, such doctrines require courts or agencies (to some degree) to act like public utility commissions determining the "just price" for access to the facility in question.⁵⁸ That particular criticism may not have much weight with respect to SEPs, however, if one believes, as I do, that in this particular context there is no viable alternative to having a court or agency set the amount of FRAND royalties when the parties themselves fail to do so. But there are other reasons why I would prefer not to see an overreliance upon competition law in this context. One objection is that we probably shouldn't become too comfortable with the routine invocation of doctrines such as essential facilities and abuse of dominant position. Even if these doctrines arguably fit the situation at hand better than they fit many other fact patterns, the potential for "mission creep" remains; once loosed upon the world, these doctrines may not be so easily confined. A second objection comes at the problem from the other end, namely that the essential facilities doctrine (even in its European incarnation) simply may not apply often enough to address the holdup problems arising from refusals to license SEPs on FRAND terms. At best, this detour into competition law requires proof of, among other things, the patent owner's possession of monopoly power in a well-defined market, all of which seems a bit beside the point if the principal objection is patent holdup. Patent holdup, as I have defined it above, is undesirable even when it harms only one competitor and not competition as a whole; a patent owner may not wind up in possession of monopoly power but still inflict unnecessary costs on rivals, which in turn harms at least some

^{57.} See Press Release, European Commission, Antitrust: Commission Sends Statement of Objections to Samsung on Potential Misuse of Mobile Phone Standard-Essential Patents (Dec. 21, 2012), available at http://europa.eu/rapid/press-release_IP-12-1448_en.htm.

^{58.} See Thomas F. Cotter, The Essential Facilities Doctrine in ANTITRUST LAW AND ECONOMICS 157, 169 (Keith N. Hylton ed., 2010).

consumers. Put another way, if I am right that the social costs of tolerating patent holdup outweigh the benefits (whatever those may be), that should be reason enough to reject the entitlement to injunctive relief and to award damages-only, without the detour into competition law principles.⁵⁹ Whether the German courts, which still tend to look upon patent law through the lens of "property" rules—much like the U.S. courts pre-eBay—will be persuaded by this reasoning nevertheless remains to be seen.

II. AWARDS OF PROFITS IN DESIGN PATENT CASES⁶⁰

In a case involving the infringement of a utility patent, the prevailing plaintiff has the option under Patent Act Section 284 to recover its own lost profit resulting from the defendant's infringing sales, or a reasonable royalty. At one time, a third option—the recovery of the profit the *infringer* made from sales of infringing products, which depending on the circumstances could be higher than the plaintiff's own lost profits or a reasonable royalty—also was available, but in 1946 Congress eliminated this option for utility patents on the ground that the calculation of the defendant's profits was often too complex and time-consuming. Congress did not eliminate this third option in design patent cases, however, where it remains today in Section 289.

Awards of defendant's profits are also sometimes permissible in U.S. copyright and trademark infringement cases, ⁶² but design patent litigation is different from these other bodies of law in one crucial

^{59.} The idea that IP law does, and should, calibrate the costs and benefits of protection on its own, without unnecessarily invoking antitrust principles, has been a recurring theme of my scholarship. See, e.g., id. at 173-74; Thomas F. Cotter, The Procompetitive Interest in Intellectual Property Law, 48 WM. & MARY L. REV. 483 (2006).

^{60.} This Part is adapted from Thomas F. Cotter, Apple v. Samsung and Awards of Defendant's Profits: The Potential for Overcompensatory Damages in Design Patent Infringement Cases, INTELLECTUALIP (Aug. 29, 2012), http://intellectualip.com/2012/08/29/apple-v-samsung-and-awards-of-defendants-profits-the-potentially-for-overcompensatory-damages-in-design-patent-infringement-cases/. For another critical take on current law, and some alternative proposals for reinterpretation or reform, see Mark A. Lemley, A Rational System of Design Patent Remedies (Stanford Law School, Working Paper No. 2226508, 2013), available at http://ssrn.com/abstract=2226508. For further discussion of design patent damages, see Collin B. Harris & Andrew M. Ollis, Design Patent Damages, 2 No. 5 LANDSLIDE 56 (2010).

^{61.} For analysis of whether, technically, it was the 1946 legislation, the 1952 Patent Act, or Supreme Court case law interpreting the 1946 legislation that did away with this remedy in the design patent arena, see Nike, Inc. v. Wal-Mart Stores, Inc., 138 F.3d 1437, 1440-43 (Fed. Cir. 1998).

^{62. 15} U.S.C. § 1117(a); 17 U.S.C. § 504(a), (b).

respect. The issue is how to calculate the profits the defendant earned as a result of the infringement. From an economic standpoint, the correct methodology would be to (1) calculate the profit the defendant earned from sales of infringing products; (2) estimate the profit the defendant would have earned from the sales of those products, if the defendant had avoided infringing by using the best available noninfringing alternative; and (3) subtract (2) from (1). remainder (3) is the profit the defendant earned from the unauthorized use of the plaintiff's IP right. This methodology is difficult to perform in the real world, however, and so as an alternative in copyright and trademark cases⁶³—and in patent cases litigated in other countries as well, where recovery of the infringer's profits remains an available remedy⁶⁴—courts will instead (1) calculate the profit the defendant earned from sales of infringing products; (2a) estimate the percentage of those profits that are attributable to the unauthorized use of the plaintiff's IP right; and (3a) multiply (1) by (2a). This methodology recognizes that a complex end product, or work of authorship, often derives some of its value from parts that are

^{63.} For comprehensive citation to the relevant case law, see 5 J. Thomas McCarthy, McCarthy on Trademarks and Unfair Competition § 30.65 (4th ed. 2013); 4 Melville W. Nimmer & David Nimmer, Nimmer on Copyright § 14.03 (2012); William F. Patry, Patry on Copyright § 22:145 to :147 (2012).

The popularity of this remedy varies from country to country. In Canada, it has become the most common remedy for patent infringement over the past thirty years, and in Germany the remedy received a boost in the 2000 Gemeinkostenanteil decision. Bundesgerichtshof [BGH] [Federal Supreme Court] Nov. 2, 2000, GRUR 329, 2001 (Ger.), translated in 33 IIC 900 (2002). In this design patent case, the BGH held that for purposes of determining a defendant's profits, the defendant may not deduct overhead costs that would have been incurred even absent the infringement. The U.K. applied the disgorgement remedy for the first time in over 100 years in the Patent Court's 1998 decision in Celanese Int'l Corp. v. BP Chemicals Ltd., (1999) R.P.C. 203 (U.K.), and after amending its patent law France recently applied the remedy for the first time in Cour d'appel [CA] [regional court of appeal] Colmar, Sept. 20, 2011, PIBD No. 953, III, at 6. This remedy also accounts for the largest patent (actually, utility model) damages award ever rendered in China-the RMB 330 million (approximately \$50 million) awarded by the Wenzhou Intermediate People's Court in the 2007 case of Chint Group Corp. v. Schneider Electric Low-Voltage (Tianjin) Co. There are some important differences among these countries in deciding what costs are properly deductible from the defendant's gross profits, and with respect to the question of whether courts should take noninfringing alternatives into account in determining how much of the defendant's profit is attributable to use of the patent. The consensus in virtually all of these countries, however, is to apportion the defendant's profits so that the plaintiff recovers only the amount of the defendant's profit that is properly attributable to the unauthorized use of the patented invention. The one major exception to this principle was the Chinese judgment in Chint, but the Chinese Supreme People's Court has since cautioned that courts should take care not to award profits attributable to other features of the defendant's products. For further discussion, see COTTER, supra note 26, at 197-209, 270-74, 323-37, 356-57.

original to the defendant.65

What seems odd about design patent litigation in the United States is that, arguably, courts may not engage in step (2a) above: that is, they may not reduce the award based on some estimate of the importance (or lack thereof) of the design patent to the defendant's profit. Section 289 of the Patent Act states:

Whoever during the term of a patent for a design, without license of the owner, (1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be liable to the owner to the extent of his *total profit*, but not less than \$250, recoverable in any United States district court having jurisdiction of the parties [emphasis added].⁶⁶

According to the Federal Circuit, Congress included the words "total profit" when it revised the statute—over one hundred years ago—expressly to overrule *Dobson v. Dornan*,⁶⁷ a case in which the Supreme Court had required the plaintiff to apportion the profit the defendant earned from the use of an infringing carpet design as opposed to the rest of the carpet (resulting, in that case, in only nominal damages).⁶⁸ By not apportioning the profit attributable to the infringement, U.S. design patent law appears out of step with the rest of the world and—more importantly—with economic rationality.

In the typical design patent case, this departure from economic rationality may not matter very much, because (based on my admittedly anecdotal understanding) damages in such cases tend to be low anyway in comparison with awards in utility patent litigation. The \$1.05 billion *Apple v. Samsung* verdict that was handed down in August 2012, however, is the exception that proves the rule. Three

^{65.} Of course, difficulties can arise simply in determining (1), the profit the defendant earned from sales of infringing products. What costs should be subtracted from the defendant's revenue—only variable costs, or some portion of allocable overhead? For discussion, see Stephen E. Margolis, *The Profits of Infringement: Richard Posner v. Learned Hand*, 22 BERKELEY TECH. L.J. 1521 (2007).

^{66. 35} U.S.C. § 289 (2013).

^{67.} Dobson v. Dornan, 118 U.S. 10 (1886).

^{68.} See Nike, Inc. v. Wal-Mart Stores, Inc., 138 F.3d 1437, 1441-42 (Fed. Cir. 1998); Trans-World Mfg. Corp. v. Al Nyman & Sons, Inc., 750 F.2d 1552, 1567 (Fed. Cir. 1984).

^{69.} The median patent damages award from 1995-2011 is reported to be \$5.3 million. See BARRY ET AL., supra note 37, at 7. The Barry et al. study does not clearly indicate whether it includes all patents (utility and design) or just utility patents.

^{70.} See Amended Verdict Form at 15-16, Apple Inc. v. Samsung Elecs. Corp., No. 11-CV-01846-LHK (N.D. Cal. Aug. 24, 2012), available at http://cdn.slashgear.com/wp-

of the patents Samsung was found to have infringed in that case were design patents;⁷¹ and according to an interview with the jury foreman, the jury award was based on the \$8.16 billion in revenue Samsung earned from the sales of allegedly infringing devices, multiplied by the jury's estimate of Samsung's profit margin on those devices (somewhere between 12 and 13%). Apple v. Samsung, therefore, is the unusual case in which the monetary award for infringement of a design patent is enormous, and in which the non-apportionment rule has some bite—indeed, from an economic perspective, too much bite, assuming that the profits Samsung earned from the sales of its devices were attributable in part to other, noninfringing features of the Samsung devices. In this regard, U.S. design patent law arguably substantial overcompensation raises potential for overdeterrence.⁷³

I concede that the calculation of defendants' profits in design patent cases is hardly the most pressing issue in the world of patent reform. But design patents may be making something of a comeback in the United States;⁷⁴ and in any event, there is no good reason for

content/uploads/2012/08/ApplevSamsung-1931.pdf.

^{71.} See id. at 6-7.

^{72.} See Dan Levine, Velvin Hogan, Foreman in Apple Samsung Case, Says Jury Didn't Want \$1 Billion Verdict To Be Just a Slap on the Wrist, THE HUFFINGTON POST, Aug. 25, 2012, http://www.huffingtonpost.com/2012/08/25/velvin-hogan-foreman-apple-samsung n_1830411.html.

^{73.} Fortunately, though, the case law squarely holds that damages awarded under Section 289 may not be trebled under Section 284. *See* Braun Inc. v. Dynamics Corp. of Am., 975 F.2d 815, 824 (Fed. Cir. 1992).

See Dennis Crouch, Smith on Design Patents, PATENTLY-O (Dec. 16, 2012, 8:19 PM), http://www.patentlyo.com/patent/2012/12/smith-on-design-patents.html ("Design patents are more valuable than ever and their trajectory continues to rise."); Ashby Jones, Downward Yoga Pants War, Wall ST. Sept. http://online.wsj.com/article/SB10000872396390443696604577645891750143350.html ("[S]lowly, design patents are coming into vogue across a widening number of industries."). Concededly, the number of design patents is still only a fraction of the number of utility patents, and the increase in the numbers of both have run roughly parallel. Specifically, the number of design patents granted increased by 38%, from 15,451 to 21,356 from 2002 to 2011. By comparison, the number of utility patents granted increased by 34%, from 167,330 to 224,505. U.S. Patent Statistics, Calendar Years 1963-2011, U.S. PATENT AND TRADEMARK OFFICE, http://www.uspto.gov/web/offices/ac/ido/oeip/taf/reports.htm#by_type. Moreover, according to Andrew Torrance, there are only 83 separate, published decisions "in which a final determination was made regarding the issues of validity or infringement of a patented design" from 1982 to 2011. See Andrew W. Torrance, Beauty Fades: An Experimental Study of Federal Court Design Patent Aesthetics, 19 J. INTELL. PROP. 389, 396 (2012). Design patents appear to be more important in some countries than in others, with China (380,290 registrations in 2011 alone!), the E.U. (86,326), and Germany (49,905) leading the pack globally. WORLD INTELL. PROP. ORG. (WIPO), WORLD INTELLECTUAL PROPERTY INDICATORS 190-92 (2012).

retaining the current rule. Unfortunately, changing it may require a statutory amendment, unless Samsung (and other design patent infringement defendants) can convince courts to construe the words "article of manufacture" in Section 289 to mean something less than the entire end product—for example, a detachable component. If that construction were to prevail, the plaintiff would be entitled only to an award of profits attributable to the component, rather than the end product. The only case I am aware of, however, in which this issue has been litigated to judgment is a Second Circuit decision from 1915, which Samsung cited in its post-trial brief. A legislative fix would be the most sensible approach, though I imagine that this issue probably doesn't rank very high on Congress's near-term agenda.

III. JURIES AND REASONABLE ROYALTIES

Trial by jury must be one of the most conspicuously bad good ideas anyone ever had.

-Richard Dawkins⁷⁶

Although I think Professor Dawkins probably overstates his case—jury trials may well play a positive role in many types of disputes, including criminal matters—my third proposed reform, nevertheless, would minimize the impact of juries in calculating patent damages (and, by extension, in deciding patent infringement matters generally). As noted above, no other country uses juries to decide patent cases; and in my view, the right to trial by jury contributes to the high cost of patent litigation and to overinflated damages awards. Regardless of whether I'm right or wrong, it's an

^{75.} See Bush & Lane Piano Co. v. Becker Bros., 222 F. 902 (2d Cir. 1915) (in a case involving the infringement of a design patent on a piano case, holding that the profits to be awarded should be limited to the profits attributable to the case, not the entire piano), rev'd, 234 F. 79 (2d Cir. 1916). Judge Koh apparently was not persuaded, though perhaps some other tribunals would be. See Apple Inc. v. Samsung Elecs. Corp., 926 F. Supp. 2d 1100, 1111 (N.D. Cal. 2013).

^{76.} RICHARD DAWKINS, A DEVIL'S CHAPLAIN: REFLECTIONS ON HOPE, LIES, SCIENCE, AND LOVE 38 (2003).

^{77.} See Tegal Corp. v. Tokyo Electron Am., Inc., 257 F.3d 1331, 1340-41 (Fed. Cir. 2001) (holding that there is no right to trial by jury if the patentee seeks equitable relief only).

^{78.} See COTTER, supra note 26, at 173-74, 260, 287, 297.

^{79.} Although I recognize that the plural of "anecdote" is not "data," for one bit of anecdotal evidence that supports my thesis see LaserDynamics, Inc. v. Quanta Computer, Inc., 694 F.3d 51 (Fed. Cir. 2012). In *LaserDynamics*, the jury initially awarded \$52 million in damages, "almost the exact amount proffered by" plaintiff's expert; following a successful

interesting exercise to consider whether juries *could* be eliminated in some or all patent infringement cases, if the political will existed to carry out the necessary reforms.⁸⁰

In relevant part, the Seventh Amendment states that "[i]n suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved."⁸¹ The Supreme Court has long interpreted the amendment to "preserve" the right to trial by jury as it existed at English common law in 1791.⁸² At that time, there was a right to trial by jury in patent infringement cases in

motion for new trial, a judgment awarded \$8.5 million; ultimately, this amount as well was reversed on appeal due to the Federal Circuit's disagreement with the expert's methodology.

- For other discussions of possibilities for reducing the use of juries in patent cases, see Dave Healey, Are Reasonable Royalties a Jury Issue? (Feb. 18, 2011), available at http://www.utexas.edu/law/journals/tiplj/documents/symposia/2011/Slides/DJH%20Equity%20 Slides%20Feb15%20-%20Fish%20Template%20-%20Healey.pdf (arguing that reasonable royalties should be considered equitable, and thus should be set by judges rather than by juries); Dave Healey, Reasonable Royalties Should Be Tried to the Bench: Part II, Continue the Debate, PATENTMATH (Oct. 3, 2010), http://patentmath.com/reasonable-royalties-should-be-tried-to-thebench-part-ii-continue-the-debate/ (arguing the same); Mark A. Lemley, Why Do Juries Decide Valid?, PATENTLY-O (Apr. 12, 2013), http://www.law.stanford.edu/publications/why-do-juries-decide-if-patents-are-valid (arguing that, as a historical matter, juries should not determine reasonable royalties).
 - 81. U.S. CONST. amend. VII.
- 82. See, e.g., Markman v. Westview Instr., Inc., 517 U.S. 370, 376 (1996). The overall framework for evaluating whether a litigant has a Seventh Amendment right to trial by jury is as follows:

[W]e ask, first, whether we are dealing with a cause of action that either was tried at law at the time of the founding or is at least analogous to one that was... If the action in question belongs in the law category, we then ask whether the particular trial decision must fall to the jury in order to preserve the substance of the common-law right as it existed in 1791.

- ... As to the first issue, going to the character of the cause of action, "[t]he form of our analysis is familiar. First we compare the statutory action to 18th-century actions brought in the courts of England prior to the merger of the courts of law and equity."
- ... The Court has repeatedly said that the answer to the second question "must depend on whether the jury must shoulder this responsibility as necessary to preserve the substance of the common-law right of trial by jury."
- ... [T]he sounder course, when available, is to classify a mongrel practice (like construing a term of art following receipt of evidence) by using the historical method, much as we do in characterizing the suits and actions within which they arise. Where there is no exact antecedent, the best hope lies in comparing the modern practice to earlier ones whose allocation to court or jury we do know.
- ... Where history and precedent provide no clear answers, functional considerations also play their part in the choice between judge and jury to define terms of art.

Id. at 376-78, 388 (citations omitted).

England, and juries assessed the damages owed in these cases.⁸³ (Injunctions could be sought in the court of chancery.) The cases I have read thus far give little indication as to precisely *how* juries assessed damages, however.⁸⁴ The first explicit discussions of damages methodology that I am aware of come in the mid- to late nineteenth century, when we find English and Scottish decisions addressing lost profits, established royalties, and eventually reasonable royalties.⁸⁵

As for U.S. practice, it seems reasonably clear that juries did not award reasonable royalties as such in 1791 because that remedy didn't exist in this country at that time. The Patent Act of 1790 did permit juries to award "damages," however, without specifying how they were to calculate them. 86 The 1793 Act, by contrast, authorized awards of "at least . . . three times the price, for which the patentee has usually sold or licensed to other persons, the use of the said invention". Essentially, an established royalty to be multiplied as the trier of fact saw fit. The Act of 1800 "returned to the general damage measure of the 1790 act but added to it the trebling feature of the 1793 act."88 In 1819, Congress authorized the federal courts to exercise both law and equity jurisdiction over patent cases, and in 1836 specified that a patent owner could recover actual damages in an action at law and an injunction in equity. Thus, "at law, the plaintiff could recover his damages (but not the defendant's profits); in equity, the plaintiff (complainant) could, as an incident to a claim for injunctive relief, recover the defendant's profits (but not damages) through the equitable remedy of an accounting."89 Courts of law also came to award lost profits in appropriate cases, but the development of the reasonable royalty concept (as opposed to established royalties)

^{83.} A selection of cases from approximately the relevant time period can be found in WILLIAM CARPMAEL, LAW REPORTS OF PATENT CASES (1845). See, e.g., Morris v. Bramsom, (1776) 1 Carp. Rep. 30, 34 (K.B.); Smith v. Dickenson, (1804) 1 Carp. Rep. 238, 240 (Common Pleas); Sykes v. Sykes, (1824) 1 Carp. Rep. 433, 433 (K.B.); Lewis v. Marling, (1829) 1 Carp. Rep. 475, 478 (K.B.).

^{84.} Further research may (or may not) succeed in pinning down whether English juries at that time based damages on established royalties, or as something akin to "general damages" in defamation cases.

^{85.} See COTTER, supra note 26, at 194-95.

^{86.} See DONALD S. CHISUM, CHISUM ON PATENTS, § 20.02[1][a], at 20-12 (2011). The discussion above will cite to Chisum's exposition of the relevant history.

^{87.} Id. at 20-12.1.

^{88.} Id. at 20-12.1 to -13.

^{89.} Id. § 20.02[1][b], at 20-14; id. § 20.02[1][d], at 20-16 to -17. In 1870, Congress authorized courts of equity to award damages as well. See id. at 20-19.

only began to emerge in the mid to late nineteenth century and was not firmly part of U.S. jurisprudence until the early twentieth century. As noted above, Congress abolished restitution in all but design patent cases in 1946, and in 1952 it enacted 35 U.S.C. § 284, which provides that "[u]pon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court."

Given this history, options for eliminating juries in patent cases, consistent with the Seventh Amendment, would appear to be small in number. One possibility, recently floated by Judge Posner, is to make patent infringement triable only in an administrative, non-article III forum. This might do the trick, but (I should think) would be very difficult to implement, even if the political will for eliminating jury trial rights were present. Another possibility would be to invoke the so-called "complexity" exception to the Seventh Amendment, but the exception (assuming it exists at all) has yet to be applied in this country; and even if it were applicable to some patent cases, it probably couldn't be used to eliminate juries across the board.

A third option would be to tinker with remedies. In this regard, the most obvious means for eliminating juries would be to eliminate reasonable royalties and replace them with awards of defendant's profits, which (as noted above) historically were considered an equitable remedy for which there was no right to trial by jury. But I don't think this would be a good idea. As I have argued elsewhere, because awards of defendant's profits (or cost savings, which are economically equivalent) would render the defendant worse off—perhaps substantially worse off—than the defendant would have been, but for the infringement, such awards pose a serious risk of

^{90.} For discussion, see id. § 20.02[1][d], at 20-24 to -34.

^{91.} See Posner, supra note 3, (proposing "eliminating court trials including jury trials in patent cases by expanding the authority and procedures of the Patent and Trademark Office to make it the trier of patent cases, subject to limited appellate review in the courts"). For a critique of judicial deference to congressional eliminations of jury trials in proceedings before non-article III tribunals, see Martin H. Redish & Daniel J. LaFave, Seventh Amendment Right to Jury Trial in Non-Article III Proceedings: A Study in Dysfunctional Constitutional Theory, 4 WM. & MARY BILL OF RIGHTS L.J. 407 (1995).

^{92.} For discussion, see Jennifer F. Miller, Should Juries Hear Complex Patent Questions?, 2004 DUKE L. & TECH. REV. 4. On the more general question of whether the Seventh Amendment permits a "complexity exception," see, for example, James Oldham, On the Question of a Complexity Exception to the Seventh Amendment Guarantee of Trial by Jury, 71 OHIO ST. L.J. 1031 (2010).

overdeterrence (even assuming that the profits are calculated correctly, unlike in the design patent realm).⁹³ I'm not convinced that eliminating juries would be worth incurring that risk.

The better option, if it were feasible, would be to retain reasonable royalties (which in theory, and abstracting away from uncompensable costs such as attorneys' fees and opportunity costs, render the patentee no better off and the infringer no worse off than either would have been but for the infringement) but to recharacterize them, through statutory amendment, as equitable in nature, thus depriving the plaintiff seeking to obtain reasonable royalties of the right to trial by jury. But would this work? Given that reasonable royalties, as such, didn't exist in 1791, courts would look for the closest analogy and might conclude that either established royalties or "general damages," both available in courts of law in the late eighteenth century, fit the bill. Moreover, once reasonable royalties did enter the picture in the mid-nineteenth century, they often were viewed as a form of compensatory relief awardable in an action at law (though as noted above, by 1870 courts of equity were authorized to award both profits and damages, and sometimes awarded reasonable royalties as damages).

I want to at least raise the possibility, however, that these objections may be premature. In *substance*, reasonable royalties can be viewed as either a form of compensatory or restitutionary relief, as Judge Posner pointed out recently in *Apple v. Motorola*:

The monetary remedy in patent cases is measured as I have already noted either by the patentee's loss or by the value of the infringement to the infringer. The premise of the alternative measure—value to the infringer—is that had the infringer negotiated for a license rather than infringing, that value would have been transmuted into a license fee paid to the patentee, and the loss of that fee constitutes damages suffered by the patentee. "Restitution measured by the market value of an unauthorized use appeared at an early date as a remedy for patent infringement, in cases where the patentee was unable to prove either his own damages or the infringer's profits. (Although such an award has always been denominated 'damages' in the context of patent infringement, it is more accurately described as a species of restitution for the value of a benefit wrongly obtained.) Unlike the accounting for the infringer's profits, restitution measured by use

value survives in the current Patent Act."94

Now, I don't think there's any way to bend the language of the current statute (Section 284) to recharacterize royalties as equitable. After all, royalties are just as easily characterizable as compensatory damages if, in accordance with the willing licensor-willing licensee framework, they are intended to restore the patentee to the position it would have occupied, but for the infringement; and the statute explicitly refers to "damages adequate to compensate for the infringement, but in no event less than a reasonable royalty." But suppose that Congress amended Section 284 to read something like this:

The prevailing claimant may recover damages adequate for the infringement, in the amount of either his or her lost profit or an established royalty; or, the claimant may recover, as an equitable remedy, a reasonable royalty as measured by the restitution of the license fee a willing licensee in the position of the infringer would have paid to a willing licensor in the position of the claimant, but for the infringement. ⁹⁶

Could we then say that, because reasonable royalties are a type of restitutionary relief, a plaintiff seeking only an award of reasonable

^{94.} Apple, Inc. v. Motorola, Inc., 869 F. Supp. 2d 901, 915-16 (N.D. Ill. 2012) (quoting Restatement (Third) of Restitution and Unjust Enrichment § 42, cmts. c and f (2011))(citing George E. Palmer, The Law of Restitution § 2.7, pp. 93-94 (1978); Roger D. Blair & Thomas F. Cotter, "An Economic Analysis of Damages Rules in Intellectual Property Law," 39 William & Mary L. Rev. 1585, 1650 (1998)). See also id. at 910 ("The difference between conventional damages and a royalty is that often a royalty is actually a form of restitution—a way of transferring to the patentee the infringer's profit, or, what amounts to the same thing, the infringer's cost savings from practicing the patented invention without authorization."). In relevant part, the portion of Palmer on Restitution cited above by Judge Posner asserts that a reasonable royalty is a "recovery based on unjust enrichment," that is, "the fair market value of the interest wrongfully used or misappropriated by the tortfeasor." George E. Palmer, The Law of Restitution § 2.7, pp. 93-94 (1978).

^{95.} See, e.g., See Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009) (describing the willing licensor-willing licensee framework as an attempt "to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began").

^{96.} The term "established royalty" might have to be statutorily defined as well to avoid gaming, perhaps by simply setting forth the relevant criteria for determining an establishing royalty as found in the existing case law. See Roger D. Blair & Thomas F. Cotter, Rethinking Patent Damages, 10 TEX. INTELL. PROP. L.J. 1, 7-8 (2001) (setting forth those factors and noting that awards of established royalties are uncommon, given the differences between the infringer and other licensees, if any). The current statute's references to "damages" in the second paragraph of § 284 ("When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed. Increased damages under this paragraph shall not apply to provisional rights under section 154(d)") might also have to be suitably tweaked.

royalties has no right to a trial by jury because in 1791, restitution would have been viewed as an equitable remedy? Arguably, this would distinguish the present situation from Feltner v. Columbia Pictures Television, Inc., in which the Supreme Court held that statutory damages in copyright law are a type of legal remedy because, inter alia, the defendant made "no attempt to draw an analogy between an action for statutory damages under Section 504(c) and any historical cause of action—including those actions for monetary relief that we characterized as equitable, such as actions for disgorgement of improper profits."

On the other hand, maybe this proposal is too clever by half: perhaps you can't just eliminate a constitutional entitlement by such statutory legerdemain.⁹⁸ And one could certainly argue, with some

^{97.} Feltner v. Columbia Pictures Television, Inc., 523 U.S. 340, 352 (1998). Juries would remain in cases in which patent owners seek lost profits—but since lost profits are available, conceptually, only when the plaintiff competes against the defendant directly or through an exclusive licensee, see Thomas F. Cotter, *Patent Remedies and Practical Reason*, 88 TEX. L. REV. 125, 134-35 (2010), PAEs would be unable to claim entitlement to lost profits. I suppose there is some risk they could try to game the system by making and selling some articles, and thus potentially losing some profits, in the event of infringement. But so far we aren't seeing many PAEs reacting in this manner to avoid the effects of *eBay*, and presumably a claim for lost profits that cannot be substantiated would be subject to dismissal on a motion for summary judgment, thus leaving *only* a claim for injunctive relief and restitution.

I also am inclined to think that, under the above proposal, a patentee who seeks only reasonable royalties would not be entitled to a jury simply by requesting in addition a damages (or royalty) enhancement. Current § 284 provides that "the court may increase the damages up to three times the amount found or assessed," and as a matter of judicial interpretation such enhancements are available only for "willful" infringement, i.e., infringement that was both objectively and subjectively reckless. See In re Seagate Tech., LLC, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). Traditionally, the Federal Circuit viewed willfulness as a question of fact for the trier of fact to determine, and the amount of a damages enhancement, if any, as a matter of discretion for the judge alone. Recently, however, the court recharacterized willfulness as a question of law. See Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., 682 F.3d 1003, 1007 (Fed. Cir. 2012) (stating that "the ultimate legal question of whether a reasonable person would have considered there to be a high likelihood of infringement of a valid patent should always be decided as a matter of law by the judge"), cert. denied, S. Ct. (2013). In any event, if reasonable royalties could be recharacterized as restitutionary and if this would mean that there is no right to a trial by jury on a patent infringement claim for which reasonable royalties (and not lost profits) were sought, I don't think there would be a right to trial by jury on any individual questions of fact that might inform the ultimate legal determination of willfulness either. If I understand Tegal Corp. v. Tokyo Electron Am., Inc., 257 F.3d 1331 (Fed. Cir. 2001) correctly, where the patentee seeks only equitable relief there is no right to a trial by jury on individual questions of fact-let alone questions of law-that might arise in the litigation.

^{98.} Cf. Dairy Queen, Inc. v. Wood, 369 U.S. 469, 477-78 (1962) ("[T]he constitutional right to trial by jury cannot be made to depend upon the choice of words used in the pleadings"). Or, one might suggest, the proposal above is a little like the recently-floated idea to eliminate the national debt by minting and depositing with the Federal Reserve a trillion-dollar coin. See

force, that after the Supreme Court's seminal Seventh Amendment decisions in Beacon Theatres⁹⁹ and Dairy Queen, 100 that there is a right to trial by jury in an infringement action even when the only monetary relief the plaintiff requests is styled as an "accounting" of the defendant's profits. If so, then merely recasting an award of reasonable royalties as a restitution of the benefit the defendant enjoyed by not having paid a royalty ex ante would hardly avoid the right to a jury trial.¹⁰¹ This line of argument may indeed be dispositive. I would note, however, that in an article addressing the right to trial by jury in trademark infringement actions, Mark Thurmon makes a powerful case, first, that the relief actually sought in Dairy Queen (though designated as an "accounting") was, in reality, nothing more than damages for breach of a franchise contract (i.e., a legal remedy); and second, that U.S. courts (even post-Dairy Queen) generally have characterized the restitution of a defendant's profits as an equitable remedy. 102 Thurmon argues that this characterization remains accurate, even though in 1791, a court of equity would have awarded restitution only as an incident to an award of injunctive relief (i.e., there was no independent right to seek an accounting of profits from a court of equity, absent a request for an injunction); and that as a result there is no constitutional right to trial by jury in a case in which the only monetary relief a trademark owner seeks is an award of defendant's profits. 103 Of course, even if Thurmon is correct in his analysis of the equitable nature of awards of defendant's profits, it may be that courts would resist viewing awards of reasonable royalties—even in the parallel universe in which my proposed statutory amendment were enacted—as being equitable in nature. As Thurmon also notes, at common law "contract and quasicontract actions were legal, even when the relief provided was

Annie Lowry, A Trillion Dollar Coin Brings a Jackpot of Jests, N.Y. TIMES, Jan. 9, 2013, http://www.nytimes.com/2013/01/10/business/a-trillion-dollar-coin-brings-a-jackpot-of-jests.html. Something tells us that it just can't be that easy.

^{99.} Beacon Theatres, Inc. v. Westover, 359 U.S. 500 (1959) (holding that, following the merger of law and equity courts, parties have a right to trial by jury on legal claims even if those claims would have been decided by a court of equity pre-merger).

^{100.} Dairy Queen, 369 U.S. at 900-01 (holding that, in a trademark action in which the plaintiff sought a money judgment, the defendant had a constitutional right to trial by jury).

^{101.} See PATRY, supra note 63, § 22:149 (making precisely this argument with respect to claims for awards of defendant's profits in copyright infringement actions).

^{102.} See Mark A. Thurmon, Ending the Seventh Amendment Confusion: A Critical Analysis of the Right to a Jury Trial in Trademark Cases, 11 Tex. INTELL. PROP. L.J. 1, 16-27, 95-101, 104-08 (2002).

^{103.} See id.

restitutionary"—for example, in an action for "money had and received."¹⁰⁴ In such cases, "the terms of the parties' agreement, whether real or implied, governed both the question of liability and the measure of recovery."¹⁰⁵ If courts made a similar analogy to the hypothetical agreement between a willing licensor and licensee in a patent infringement action, the relief sought would, arguably, remain legal in nature.

At the end of the day, I make no claims to being a Seventh Amendment scholar, and I recognize that the preceding analysis is hardly exhaustive of the Seventh Amendment issues that would arise from enacting my proposed statutory amendment. All that I intend to suggest is that Judge Posner's characterization of reasonable royalties as a type of restitutionary relief is theoretically justifiable; and that the question of whether such awards therefore *could* be deemed "equitable" for Seventh Amendment purposes merits further, and deeper, consideration. *Perhaps* we could eliminate jury trials in a wide swath of patent cases, if only we really wanted to do so.

More modestly, I think we could demand some further reforms of current practice in order to reduce the risk of dysfunctional jury decisions. Recent decisions from the Federal Circuit¹⁰⁶ (and Judge Posner's decision in *Apple v. Motorola*, if it withstands appellate scrutiny) that require greater pretrial scrutiny of proposed expert testimony to ensure that it conforms to the Federal Rules of Evidence and the Supreme Court's *Daubert* trilogy are surely a step in the right direction. In addition, I would suggest that judges require juries to be more explicit, through the use of special verdicts or interrogatories, ¹⁰⁷ about *how* they are calculating damages. The fact that the jury in *Apple v. Samsung* could return a verdict in excess of \$1 billion without having to provide any explanation of where that figure came from is, in my view, an embarrassment to the American judicial system. There is no reason for the "black box" of the jury to be

^{104.} Id. at 37-38.

^{105.} *Id.* The Restatement of Restitution also emphasizes that merely calling a form of relief "restitutionary" does not necessarily mean that it is equitable, as opposed to legal. *See* RESTATEMENT (THIRD) OF RESTITUTION § 4 cmts. c, d (2011) (referring to "the assertion that a claim in restitution or unjust enrichment is by its nature equitable rather than legal" as a "widespread error," and that "[i]f restitution to the claimant is accomplished exclusively by a judgment for money, without resort to any of the ancillary remedial devices traditionally available in equity but not at law, the remedy is presumptively legal").

^{106.} See LaserDynamics, 694 F.3d 51; Uniloc USA, 632 F.3d 1292; Lucent Techs., 580 F.3d 1301.

^{107.} See FED. R. CIV. P. 49.

^{108.} To be fair, the jury did list specific amounts for each infringing Samsung device. See

quite so opaque.

CONCLUSION

This essay presents three proposals for further reform of the U.S. system of patent enforcement. The first, which as of this writing actually seems on its way toward acceptance, is the adoption of a general principle that a patent owner who has committed to licensing its standard essential patents on FRAND terms should be held to that commitment—meaning that both injunctions and exclusion orders should be off the table. Patent law itself should be adequate to reach this conclusion without the need for complicating matters by invoking antitrust. The second proposal, of more limited scope, would be to bring Patent Act Section 289 into conformity with economic rationality (and practice in other nations) by permitting design patent owners to recover only for the portion of the defendant's profit that is actually attributable to the infringing design. This reform probably, though perhaps not necessarily, would require congressional action. The third proposal, which probably lies more in the realm of fantasy, would be to eliminate the right to trial by jury in a large portion of U.S. patent cases by statutorily recharacterizing reasonable royalties as a form of equitable relief in the nature of restitution. recharacterization is theoretically plausible, though whether the scheme would actually succeed in depriving nonmanufacturing patent owners of jury trial rights is less certain; and in any event, I concede that it surely isn't politically feasible. More modest reforms to the jury system, however, including the increased scrutiny of proposed expert testimony and the use of special verdicts or interrogatories on damages, are both feasible and desirable.

Amended Verdict Form at 16, Apple Inc. v. Samsung Elecs. Corp., No. 11-CV-01846-LHK, (N.D. Cal. Aug. 24, 2012), available at http://cdn.slashgear.com/wpcontent/uploads/2012/08/ApplevSamsung-1931.pdf. And Judge Koh, in her order of remittitur, was able to reverse-engineer how the jury reached its award. See Apple Inc. v. Samsung Elecs. Corp., 926 F. Supp. 2d 1100, 1108-09 (N.D. Cal. 2013). But the jury was not asked to show how it arrived at those figures.