## IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

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No. 1:11-cv-08540

APPLE, INC. and NeXT SOFTWARE INC., (f/k/a NeXT COMPUTER, INC.),

Plaintiffs,

v.

MOTOROLA, INC. and MOTOROLA MOBILITY, INC.,

Defendants.

## OPINION and ORDER of June 22, 2012

POSNER, Circuit Judge, sitting by designation. In my opinion and order of May 22, following the Daubert hearing held on the 16th, I ruled that proposed testimony by three of the parties' damages experts (one for Apple and two for Motorola) was inadmissible. Apple, Inc. v. Motorola, Inc., No. 1:11-cv-8540, 2012 WL 1959560 (N.D. Ill. May 22, 2012); see Fed. R. Evid. 702, 703. This ruling precipitated motions by both parties for summary judgment with respect to their opponents' damages claims, followed by motions for summary judgment directed at each other's injunction claims as well. These submissions prompted me to ask the parties to brief the question whether, if all damages and injunctive claims dropped from the case, the case could be

kept alive by Apple's claim for declaratory relief. Motorola had in its answer to Apple's amended complaint asked for a declaratory judgment that each of Apple's patents sought to be enforced in this suit was invalid. But unlike Apple it acknowledges that such a request can't keep a case going once all claims for monetary or injunctive relief are rejected.

After further briefing, and an oral hearing on June 7, I tentatively concluded that the case would have to be dismissed. And so I canceled the trials on liability, which had been scheduled to begin on June 11. I said that an opinion would follow, definitively resolving the question. On June 13, however, I granted Apple's request, made at the June 7 hearing, for a further hearing on injunctive relief. I said that I had "decided to grant Apple's request...for 'a hearing at which the parties could attempt to satisfy the eBay factors and do a traditional injunction hearing.'... [At the hearing] each party may argue that it would be entitled to injunctive relief as to its patent or patents were the other party found to have infringed. The parties may submit briefs, if they wish, no later than the close of business on Monday, June 18. The parties should be prepared to address the possibility of substitution for an injunction of an equitable decree for a reasonable royalty going forward. They should indicate any evidence in the existing record (for it is too late to supplement the record) bearing on the question of injunctive or other equitable relief. And if Motorola means to argue for injunctive relief it should be prepared to address the bearing of FRAND on the injunction analysis."

The parties filed briefs and responses and the hearing was held as scheduled. The question whether the case must be dismissed without a determination of liability is now fully ripe for decision. I begin with the damages claims and then move to the equitable issues addressed in the recent submissions and hearing and then to declaratory relief.

Damages. When the summary judgment motions were filed, my expectation was that the liability trials (one a trial of Apple's claims of infringement, the other of Motorola's claims of infringement) would be followed immediately (if any claims of infringement were upheld in the liability trials) by trials on issues of relief: a jury trial on damages and a bench trial on equitable relief. The trials on relief would have involved five patents—four Apple patents ('002, '263, '647, and '949) and one Motorola patent ('898)—if all were found to have been infringed. Apple concedes that my exclusion of proposed testimony by its damages expert witness Brian W. Napper dooms its claims for damages for infringement of the '002 and '949 patents, and that leaves only the '263 and '647 patents for me to consider in evaluating Motorola's motion for summary judgment on damages.

Regarding the '263 (the realtime patent), I said in my *Daubert* ruling that "Mr. Napper asserts in his expert report that it would cost Motorola \$29 to \$31 million to add a chip to [each of] its smartphones that would replace the function performed by the invention that is the subject of the '263 patent. The disabling objection [to Napper's proposed testimony] is...[that he] obtained the essential information, namely the identity of the chip that would avoid infringement, from an agent of the party rather than from a disinterested source. The agent in this case is Nathaniel Polish, Apple's principal technical expert." 2012 WL 1959560, at \*9.

Apple wants to substitute Dr. Polish, a computer scientist whose competence to testify as an expert witness on liability was not questioned, for Napper as its damages expert for the '263. The expert report by Polish on which Apple relies (Polish filed more than one report) does say that Motorola could have bought a chip (that is, a piece of computer hardware) that would have enabled Motorola to perform the same functions performed by the '263, without infringing. But Polish did not iden-

tify the chip, let alone price it, let alone suggest that he had searched across all (or at least many, or some, or even a few) of the chips that Motorola might have bought, or of alternative ways in which it might have invented around Apple's patent. (To simplify, I'll generally call all ways of substituting a noninfringing for an infringing invention "inventing around.") All the report says is that "running without a DSP [digital signal processor] would be slower and the CPU would realize a substantially shorter battery life. Thus, it is likely that instead of pursuing this approach, a different solution would be purchasing an additional chip to provide dedicated audio and video decoding capabilities. Such a multi-chip solution would not need the codecs currently running on the DSPs in the Accused Products" (emphasis added).

Napper says that Polish named the chip to him in a private conversation not mentioned in Polish's report. That was too late and anyway the mere existence of a chip that would substitute for the '263 is not enough to establish damages. An expert's report must contain "a complete statement of all opinions the witness will express and the basis and reasons for them." Fed. R. Civ. P. 26(a)(2)(B)(i) (emphasis added). There is no basis in Polish's report for a claim that his mystery chip is a feasible, let alone an economical, substitute for the '263.

Apple has not asked me to allow Polish to supplement his report. Nor would the needed supplementation be within his competence as disclosed in his report. There is no suggestion that he is familiar with the range of chips that might constitute feasible and economical substitutes for the '263. A competent damages witness would be one who was involved in the procurement of chips, or who advised as a consultant on the choice of chips; there is no suggestion that Polish has such experience. He was, it is true, listed as a damages witness. But his only role in a damages trial was to be to testify about technical matters relevant to damages, namely design around. And the only opinion in his expert report that is relevant to design around is his

statement about the existence of the chip that he later told Napper about.

The only testimony that I have found in Polish's four expertwitness reports that actually bears on damages is a statement that Motorola's DSP chip (alleged to infringe Apple's '263 patent) is part of a set of chips, and the set costs \$14.05. Polish said the DSP function is a substantial part of the overall functionality of the chip set, and so the value of the DSP in the allegedly infringing devices—a value that might be used to estimate the royalty to which Apple would be entitled if the DSP infringes Apple's '263 patent-should be a substantial fraction of the \$14.05. But Polish didn't estimate the fraction, and this compelled Napper to acknowledge in his report that since "the DSP within the accused products is integrated with other functionality, and not sold or priced separately, I am unable to determine the portion of the \$14.05...that would relate to DSP functionality, though I understand it is a substantial piece." Apple has not tried to base a damages estimate on this chip.

Apple argues that to establish a prima facie case it need only show that there is one chip, however costly, somewhere in the world of computer hardware, that Motorola could have substituted for the '263. It argues that the cost of that chip is a sufficiently accurate estimate of Apple's damages to shift the burden of production to Motorola to prove the existence of cheaper chips. Such an allocation of burdens of production might make sense if knowledge of those alternatives to Apple's proposed avoiding infringement were uniquely within of Motorola's knowledge and difficult for Apple to access even with all the tools of modern discovery. Campbell v. United States, 365 U.S. 85, 96 (1961) ("the ordinary rule, based on considerations of fairness, does not place the burden upon a litigant of establishing facts peculiarly within the knowledge of his adversary"); cf. McDonnell Douglas Corp. v. Green, 411 U.S. 792 (1973); Ybarra v. Spangard, 154 P.2d 687 (Cal. 1944); Duncan v. Duckworth, 644 F.2d 653, 656 (7th Cir. 1981). That is not argued, however, and would not be credible. The parties—both leading manufacturers of cell phones—have equal access to information about computer hardware for such devices.

Other than in a case of unequal access by one side of the lawsuit (rare given modern discovery, at least when the opposing parties are roughly equal in resources and sophistication, as Apple and Motorola are), a plaintiff to withstand summary judgment must present enough evidence to make a prima facie case—that is, enough evidence to justify a trier of fact in finding in favor of the plaintiff if the defendant presents no contrary evidence. Reeves v. Sanderson Plumbing Products, Inc., 530 U.S. 133, 142-43 (2000); Texas Department of Community Affairs v. Burdine, 450 U.S. 248, 252-55 (1981). Even if Motorola presented no evidence concerning other chips, the mere fact that there is a chip that might substitute for the alleged infringing invention would not enable the trier of fact to infer that the cost of that chip approximates the cost that Motorola avoided by (allegedly) infringing, and hence the royalty it might have had to pay Apple for a license to use Apple's patented chip.

At the June 7 hearing, Apple's counsel remarked—about requiring a patentee to "identify or be able to opine that that is the absolute lowest cost best design-around, so it is the best measure of damages"—"I am not aware of any law to that effect." True, but Apple still must show that the chip that it suggested that Motorola could have purchased was a commercially reasonable design-around. As I said (not very articulately, I'm afraid) at that hearing, "Apple didn't have to show that the chip identified by Dr. Polish was the very best design-around. Obviously, there are limits to how much of a burden you place on [the plaintiff. If] Dr. Polish said...this is the standard thing, this is what other people use[, t]hat might well be enough, but—of course, that's not in his report, and I don't think a computer scientist really is...the only expert you need on damages. You

need someone who is involved more in a financial part of the company or the selling part, the marketing, the procurement [part]."

I also agree with what Apple's counsel said next: "our belief is [that] the law is that as long as your expert puts forth a cognizable, proper measure of damages, one that if by itself were presented to a jury, it would be sustainable as proper evidence, that that is sufficient to bear the burden of proof by that party at that time" (emphasis added). I take it by "sustainable as proper evidence" counsel did not mean admissible, which goes without saying, but that the evidence establishes a prima facie case. Polish's testimony about the chip does not establish a prima facie case. It invites guesswork. That won't do.

The '647, to which I now turn, is an Apple patent on what is called "structure detection and linking." The term refers to a cell phone's ability to recognize patterns such as phone numbers, web addresses, and dates in text and then present the user with a menu of possible responses, such as calling the phone number or creating a calendar entry. I rejected Napper's attempt to use sales of an iPhone application called "Clipboard Manager" to estimate the value of the functions performed by the '647. No rational iPhone owner would knowingly purchase Clipboard Manager for its structure detection and linking capabilities, because the capabilities built into the iPhone for doing these things are already superior to the Clipboard Manager's method of structure detection and linking.

Apple argues that there is an alternative basis for assessing damages for the alleged infringement—Napper's proposed testimony (which I was not asked to exclude at the *Daubert* hearing) about the cost of duplicating the functions performed by the '647 without infringing. That estimate, intended to make Napper's proposed damages figure (the one based on Clipboard Manager that I disallowed) seem conservative, was based on the time it took another cell phone manufacturer, HTC, to design

around the '647 patent after the International Trade Commission, finding that HTC cell phones infringed the '647, threatened to forbid their importation to the United States. In re Certain Personal Data & Mobile Communications Devices & Related Software, Inv. No. 337-TA-710 (Dec. 19, 2011), http://info.usitc.gov/ouii/public/337inv.nsf/RemOrd/710/\$File/33 7-ta-710.pdf (visited June 22, 2012). An infringer enjoined from using a patented invention has to stop selling the infringing product until it purges the infringement, as by an inventaround. The cost (including lost sales) of having to invent around is therefore one method of estimating the reasonable royalty for a license.

The estimate of Apple's damages based on HTC's experience was an afterthought; it occupies only two pages in Napper's report and says nothing about HTC the company, or about HTC's cell phones, or about the engineering resources that HTC devoted to modifying its phones in response to the International Trade Commission's exclusion order, which permitted HTC to import the offending phones for four more months before it had to prove that it had successfully designed around the '647. Napper's report also doesn't mention that the International Trade Commission's construction of the patent's claims differs from my construction of the same claims. So while at the June 7 hearing Apple's counsel was literally correct in saying that HTC was "faced with the exact same patent," the statement was misleading because as construed the claims were different and that means that the cost of designing around may have been different, an issue that responsible expert testimony would have to address but that Napper's report ignores.

Apple argues last-minute that *any* act of infringement, even if it gives rise to no measurable damages, is an injury entitling it to a judgment. It points to a distinction between a breach of contract and a tort. A breach of contract is a wrong, so even if the victim of the breach (the other party to the contract) fails to

prove that he was injured by it he is entitled to judgment and the symbolic award of nominal damages. *Mindgames, Inc. v. Western Publishing Co.*, 218 F.3d 652, 654 (7th Cir. 2000); E. Allan Farnsworth, *Contracts* § 12.8, p. 784 (3d ed. 1999). In contrast, a tort does not come into existence until there is an injury, without which negligence or recklessness or other tortious behavior, in the sense of behavior that *if* it causes an injury gives rise to a tort, is not a basis for relief. *Chang v. Baxter Healthcare Corp.*, 599 F.3d 728, 733–34 (7th Cir. 2010); W. Page Keeton et al., *Prosser & Keeton on the Law of Torts* § 30, pp. 164–65 (5th ed. 1984); cf. *Restatement (Second) of Torts* § 899, comment c (1977).

To this as to most legal generalizations there is an exception: intentional trespass to land is a tort actionable even if no damage results. *Restatement (Second) of Torts, supra,* § 163. The reason is to prevent the trespasser from acquiring title by adverse possession. *Chang v. Baxter Healthcare Corp., supra,* 599 F.3d at 733. A suit for "harmless" trespass is analogous to a suit to quiet title, though the latter proceeding is *in rem* and thus if successful establishes title good against the world rather than just against a single trespasser.

More fundamentally, exclusion is *the* fundamental right that ownership of property confers and it is not limited (as tort rights are) to intrusions that cause palpable injury. It would be ridiculous to think that to get an injunction against people picnicking on your front lawn you'd have to prove they weren't cleaning up after themselves or were sitting in your favorite picnic spot.

A patent is property too, and a suit to establish the validity or scope of a patent by means of a suit against an alleged infringer would be analogous to a "harmless trespass" suit, see Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 895 F.2d 1403, 1406 (Fed. Cir. 1990), and could therefore justify an award of nominal damages if no injury were proved. Dobson v. Dornan, 118 U.S. 10, 17 (1886); Nike, Inc. v. Wal-Mart Stores, Inc., 138 F.3d 1437, 1441 (Fed. Cir. 1998). Nominal dam-

ages are awarded in other types of case as well, for example cases in which a violation of procedural due process is proved even if no actual injury is shown. E.g., Farrar v. Hobby, 506 U.S. 103, 112 (1992). Why nominal damages are ever awarded is a separate question, for which I doubt there is a satisfactory answer. Nominal damages "may be little better than a fossil remnant of an earlier legal system, when it was thought that to say such things as that 'from my earliest reading, I have considered it laid up among the very elements of the common law, that, wherever there is a wrong, there is a remedy to redress it; and that every injury imports damage in the nature of it; and, if no other damage is established, the party injured is entitled to a verdict for nominal damages,' Webb v. Portland Mfg. Co., 29 Fed. Cases 506, 507 (Cir. Ct. Me. 1838) (Story, J.), was to say something, rather than to talk in a circle." Habitat Education Center v. United States Forest Service, 607 F.3d 453, 460 (7th Cir. 2010).

But without questioning the propriety of an award of nominal damages in patent-infringement as in other classes of case, I strongly doubt (despite a contrary intimation in *Morrow v. Microsoft Corp.*, 499 F.3d 1332, 1339 (Fed. Cir. 2007)) that a patentee can *sue* for nominal damages, at least not in a federal court given the meaning that the Supreme Court has given to the terms "Cases" and "Controversies" in Article III of the Constitution. Without an actual or prospective tangible injury, a federal court has no subject-matter jurisdiction. In *Farrar v. Hobby, supra*, the plaintiffs sued for \$17 million but were awarded nominal damages because they failed to prove actual damages. They had not sued for nominal damages. What rational person would?

It's not as if nominal damages were compensation for a nominal harm. They are a symbolic recognition of a wrong that produced no harm, though it may have infringed a right. You can't go into federal court and say you had a contract with X and X broke it and you're really annoyed even though you sustained no injury of any sort (in fact you made money because you re-

contracted at a higher price) so please give me a judgment for \$1 that I can pin on my wall. No more can Apple be permitted to force a trial in federal court the sole outcome of which would be an award of \$1. Which anyway it doesn't want to do. When Motorola filed a motion for summary judgment contending that Apple cannot establish "any amount of damages arising from alleged infringement of" its patents, Apple did not respond that summary judgment should be denied because Apple could obtain nominal damages if it proved infringement; it responded that Motorola was wrong to think Apple couldn't establish substantial damages.

But I must consider the possible bearing of 35 U.S.C. § 284, a provision of the Patent Act that provides in relevant part that "upon 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" (emphasis added). This conceivably could be read to entitle a patentee to a royalty if it proves infringement even if it presents no evidence at all of harm; and presumably the royalty that the court would award wouldn't be a nominal royalty. Neither party is seeking such relief here—a substantial royalty predicated on no showing of harm. But for completeness I want to dispel any impression that such relief—substantial "compensatory" damages for no tangible injury—would be proper even apart from constitutional limitations on the jurisdiction of the federal courts.

A reasonable royalty is a form of damages when awarded in the damages phase of an infringement litigation, though it usually is a form of equitable relief, as we'll see, when it is imposed, in lieu of an injunction, to prevent future harm to the patentee. 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. Although the Federal Circuit in *Dow Chemical Co. v. Mee Industries, Inc.*, 341 F.3d 1370, 1382 (Fed. Cir. 2003), spoke of "the presumption of damages when infringement is proven," it quickly added: "But, the district court's obligation to award some amount of damages 'does not mean that a patentee who puts on little or no satisfactory evidence of a reasonable royalty can successfully appeal on the ground that the amount awarded by the court is not 'reasonable' and therefore contravenes section 284." *Id.* 

The quotation is from Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., supra, 895 F.2d at 1407, so we go to that opinion and learn (id.) that "one who fails to submit evidence in support of a position cannot be heard on appeal to complain that the trial court failed to find facts upholding that position," quoting Railroad Dynamics, Inc. v. A. Stucki Co., 727 F.2d 1506, 1519 (Fed. Cir. 1984). Lindemann cites Devex Corp. v. General Motors Corp., 667 F.2d 347, 363 (3d Cir. 1981), affirmed on other grounds, 461 U.S. 648 (1983), which had "affirm[ed an] award of zero damages for lack of evidence" and in doing so had said that "the statute [35 U.S.C. § 284] requires the award of a reasonable royalty, but to argue that this requirement exists even in the absence of any evidence from which a court may derive a reasonable royalty goes beyond the possible meaning of the statute." Not even nominal damages could be awarded.

Any intimation that proof of infringement is alone enough to warrant a remedial order (as when *Dow* posits an "obligation to award some amount of damages" if infringement is proved) was scotched by the Supreme Court in *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391–92 (2006). And with specific reference to calculating a royalty, *Dow* itself instructs district courts not pull the royalty out of a hat but instead "to consider the so-called *Georgia-Pacific* factors in detail, and award such

reasonable royalties as the record evidence will support." 341 F.3d at 1382 (citation omitted); see also *Lucent Technologies, Inc.* v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009); Parental Guide of Texas, Inc. v. Thomson, Inc., 446 F.3d 1265, 1270 (Fed. Cir. 2006).

So let's take a look at those factors (*Georgia-Pacific Corp. v. United States Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970)):

A comprehensive list of evidentiary facts relevant, in general, to the determination of the amount of a reasonable royalty for a patent license may be drawn from a conspectus of the leading cases. The following are some of the factors *mutatis mutandis* seemingly more pertinent to the issue herein:

- 1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
- 2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
- 3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
- 4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
- 5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
- 6. The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
- 7. The duration of the patent and the term of the license.
- 8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
- 9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.

- 10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
- 11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
- 12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
- 13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
- 14. The opinion testimony of qualified experts.
- 15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

This is a formidable list. The "some" in the second sentence is particularly rich—how many additional factors may be lurking somewhere? And could a judge or a jury really balance 15 or more factors and come up with anything resembling an objective assessment? We needn't try to answer these questions. Apple has not presented admissible evidence that the *Georgia-Pacific* factors support its damages claim.

The remaining patent for which damages are sought is Motorola's '898, part of a portfolio of patents for enabling communication between cell phones and cell towers (called "cellular base stations" in the patent). The '898 and '559 (a Motorola patent for which I granted Apple's motion for summary judg-

ment of noninfringement) have both been declared by Motorola to be "standards essential" patents. These are patents that cell phone makers *must* use to communicate over specified telecommunications networks and therefore that the patentee (Motorola) has committed to licensing to anyone on fair, reasonable, and nondiscriminatory (acronym "FRAND," or sometimes "RAND"—the word "fair" adds nothing to "reasonable" and "nondiscriminatory") terms, as required by the standardssetting organizations as a condition of the patented technology's being deemed essential to compliance with the standard.

My summary judgment order of June 5, finding that Apple had not infringed Motorola's '559 patent, may seem inconsistent with the proposition that Apple's 3G ("third generation") mobile devices, which are governed by the Universal Mobile Telecommunications Standard (UMTS), must therefore use patents declared essential to that standard, such as the '559. But there is no inconsistency. Motorola's standards-essential patents (including the '898 still at issue in this case) are merely claimed to be standards-essential. The European Telecommunications Standards Institute collects declarations by companies that claim to own patents essential to compliance with the UMTS standard, but the Institute does not determine whether they really are essential. See "ETSI IPR Database FAQ," www.etsi.org/website/aboutetsi/iprsinetsi/IPRdb\_FAQ.aspx (visited June 22, 2012); Apple Inc. v. Samsung Electronics Inc., No. 11-CV-01846, 2012 WL 1672493 (N.D. Cal. May 14, 2012). Apple showed that although its cell phones generate the preamble sequences (the subject of Motorola's '559 patent) required by the 3G UMTS standard, they do not do so in the manner claimed by '559, and so the '559 isn't essential.

With its principal damages witness for the '898, Carla S. Mulhern, excluded as a result of my *Daubert* ruling, Motorola has fallen back on another of its expert damages witnesses, Charles R. Donohoe, who was not excluded. Mr. Donohoe is qualified to

opine on the licensing of standards-essential patents, but the bottom line of his 8-page declaration (he did not submit a formal report, as Rule 26 requires, Fed. R. Civ. P. 26(a)(2)(B); Meyers v. National R.R. Passenger Corp., 619 F.3d 729, 734 (7th Cir. 2010); Gay v. Stonebridge Life Ins. Co., 660 F.3d 58, 62 (1st Cir. 2011)) is that if Apple had wanted to license any of the patents in Motorola's standards-essential portfolio, the license fee would have exceeded the product of the percentage of the portfolio represented by the patent and the value of the entire portfolio. Suppose the portfolio contained 100 patents and they would command a reasonable royalty of \$700 million to a firm that licensed all 100. One patent is 1 percent of 100 patents and 1 percent of \$700 million is \$7 million. But according to Donohoe's declaration, the license fee for that single patent, if licensed on its own rather than as part of a package deal that comprised the entire portfolio, would be "up to" 40 to 50 percent of the royalty for the entire portfolio—that is, up to \$350 million.

That "up to" covers a lot of ground. Even a royalty of only million would be mathematically disproportionate (Donohoe's term is "nonlinear") for using a single patent in a portfolio of 100 patents worth in the aggregate a \$700 million royalty, because \$14 million is 2 percent of \$700 million rather than 1 percent (1 out of 100 patents). How to pick the right nonlinear royalty? Donohoe's declaration does not answer that essential question, and there is no suggestion that any other witness can answer it. In his deposition Donohoe tried to retract the "up to" of his declaration by testifying that the royalty for a single patent in the portfolio "should be at least 40 to 50 percent of overall rate is my experience" (emphasis added)-still openended, though now on the upside. He gave no reason for his change of mind, no estimate of the shape of the nonlinear royalty function, no basis, in short, for his estimate of "at least 40 to 50 percent" of a reasonable royalty for the entire portfolio. And he admitted that he knows nothing about the portfolio that includes the '898 patent; his 40-to-50 percent figure is a statement about portfolios of standards-essential telecommunications patents in general.

It might seem that at a minimum Motorola could argue for the linear price—in my example, 1 percent of the value of the portfolio. But it does not make that fallback argument; it's going for broke. Moreover, if the proper pricing is nonlinear, Motorola would need evidence that the '898 patent is not *less* valuable than the average patent in the portfolio, for in that case it would merit less than a linear proportion of the portfolio's value. It hasn't presented any such evidence.

"Going for broke" is the inescapable characterization of Motorola's damages claim. Motorola claims to be entitled to a minimum royalty of 2.25 percent for a license for the patents in the portfolio that contains the '898. Though it's the only patent in the portfolio that remains in this suit, Motorola claims to be entitled to damages equal to (or "up to," or "at least"—it seems not to have made up its mind) 40 to 50 percent of 2.25 percent, which would be 0.9 to 1.125 percent of sales of Apple devices that infringe the '898.

At the June 7 hearing Motorola's lawyer said that in future litigation it would prove that Apple had infringed the other patents in the portfolio as well and so Motorola would prove its entitlement to 2.25 percent of all sales. In his words: "Apple is infringing all the standards-essential patents [this was said before I granted Apple summary judgment regarding its alleged infringement of Motorola's '559 patent] that Motorola owns by selling its cell phones that communicate on these wireless networks. As...a practical reality, we cannot sue on a hundred patents in one case, or 75.... There are other cases pending, and there are cases in various stages of development at the International Trade Commission. But the ultimate result would have to be, as a result of all the litigations, that Apple would pay Motorola whatever the standards-essential license negotiated

fee would be. We say it's 2.25 percent, but I'm not going to be able to prove to you that that's the right number today" (emphasis added). And now it's too late.

There is another decisive objection to Motorola's damages claim. 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. Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 313–14 (3d Cir. 2007); Daniel G. Swanson & William J. Baumol, "Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power," 73 Antitrust L.J. 1, 7–11 (2005). Motorola has provided no evidence for calculating a reasonable royalty that would be consistent with this point.

So damages are out for both parties. But a patentee can also seek injunctive relief for infringement, and both parties seek such relief, as I have already noted with respect to Apple.

Injunctive Relief. To begin with Motorola's injunctive claim, I don't see how, given FRAND, I would be justified in enjoining Apple from infringing the '898 unless Apple refuses to pay a royalty that meets the FRAND requirement. By committing to license its patents on FRAND terms, Motorola committed to license the '898 to anyone willing to pay a FRAND royalty and thus implicitly acknowledged that a royalty is adequate com-

pensation for a license to use that patent. How could it do otherwise? How could it be permitted to enjoin Apple from using an invention that it contends Apple *must* use if it wants to make a cell phone with UMTS telecommunications capability—without which it would not be a cell *phone*.

The Federal Trade Commission recently issued a policy statement which implies that injunctive relief is indeed unavailable for infringement of a patent governed by FRAND. "Third Party United States Federal Trade Commission's Statement on the Public Interest," filed on June 6, 2012, in *In re Certain Wireless Communication Devices, Portable Music & Data Processing Devices, Computers & Components Thereof,* Inv. No. 337-TA-745, www.ftc.gov/os/2012/06/1206ftcwirelesscom.pdf (visited June 22, 2012). This was said in the context of an exclusion order by the International Trade Commission, but its logic embraces any claim to enjoin the sale of an infringing product. For the FTC says it's "explaining the potential economic and competitive impact of injunctive relief on disputes involving SEPs [standard-essential patents]." *Id.* at 2. It goes on to note that

a royalty negotiation that occurs under threat of an exclusion order may be weighted heavily in favor of the patentee in a way that is in tension with the RAND commitment. High switching costs combined with the threat of an exclusion order could allow a patentee to obtain unreasonable licensing terms despite its RAND commitment, not because its invention is valuable, but because implementers are locked in to practicing the standard. The resulting imbalance between the value of patented technology and the rewards for innovation may be especially acute where the exclusion order is based on a patent covering a small component of a complex multicomponent product. In these ways, the threat of an exclusion order may allow the holder of a RAND-encumbered SEP to realize royalty rates that reflect patent hold-up, rather than the value of the patent relative to alternatives.

*Id.* at 3–4; see also (besides the *Broadcom* case and the Swanson & Baumol article) Douglas Lichtman, "Understanding the RAND Commitment," 47 *Houston L. Rev.* 1023, 1039–43 (2010); Mark A. Lemley, "Intellectual Property Rights and Standard-Setting Organizations," 90 *Cal. L. Rev.* 1889, 1916 (2002).

Motorola counters that Apple's refusal to negotiate with it after rejecting its initial offer of a 2.25 percent royalty warrants injunctive relief; by opting not to take a license ex ante, it argues, Apple should lose the FRAND safe harbor. But Apple's refusal to negotiate for a license (if it did refuse—the parties offer competing accounts, unnecessary for me to resolve, of why negotiations broke down) was not a defense to a claim by Motorola for a FRAND royalty. If Apple said no to 2.25 percent, it ran the risk of being ordered by a court to pay an equal or even higher royalty rate, but that is not the same thing as Motorola's being excused from no longer having to comply with its FRAND obligations. Motorola agreed to license its standards-essential patents on FRAND terms as a quid pro quo for their being declared essential to the standard. FTC Statement on the Public Interest, supra, at 2. It does not claim to have conditioned agreement on prospective licensees' making counteroffers in license negotiations.

Motorola argues further that deprived of the possibility of injunctive relief, it will not be able to extract a reasonable royalty from Apple. Suppose, hypothetically, that the maximum reasonable FRAND royalty would be \$10 million. If Motorola therefore demanded such a royalty, Apple, knowing that litigation is costly, would refuse, and Motorola would accept a lesser amount. Of course litigation would also be costly for Apple, and this might induce it to pay the \$10 million rather than fight. But the deeper objection to Motorola's argument is that the "American rule," which with immaterial exceptions makes the winning party in a litigation bear his litigation costs rather than being able to shift them to the loser, does not deem damages an inad-

equate remedy just because, unless backed by a threat of injunction, it may induce a settlement for less than the damages rightly sought by the plaintiff. You can't obtain an injunction for a simple breach of contract on the ground that you need the injunction to pressure the defendant to settle your damages claim on terms more advantageous to you than if there were no such pressure.

A further objection to Motorola's claim for injunctive relief applies to Apple's claim for such relief as well. The grant of an injunction is not an automatic or even a presumptive consequence of a finding of liability, either generally or in a patent case—in fact the Supreme Court has held that the standard for deciding whether to grant such relief in patent cases is the normal equity standard. eBay Inc. v. MercExchange, L.L.C., supra, 547 U.S. at 391–92; see also Ecolab, Inc. v. FMC Corp., 569 F.3d 1335, 1351-52 (Fed. Cir. 2009). And that means, with immaterial exceptions, that the alternative of monetary relief must be inadequate. "[T]he inadequacy of one's damages remedy is normally a prerequisite to injunctive relief." Hoard v. Reddy, 175 F.3d 531, 533 (7th Cir. 1999); see also Walgreen Co. v. Sara Creek Property Co., 966 F.2d 273, 274 (7th Cir. 1992). "[A] plaintiff seeking an injunction is quite often successful precisely because he cannot calculate the damages he suffers." Pelletier v. Stuart-James Co., 863 F.2d 1550, 1558 n. 15 (11th Cir. 1989). A FRAND royalty would provide all the relief to which Motorola would be entitled if it proved infringement of the '898 patent, and thus it is not entitled to an injunction.

In fact neither party is entitled to an injunction. Neither has shown that damages would not be an adequate remedy. True, neither has presented sufficient evidence of damages to withstand summary judgment—but that is not because damages are impossible to calculate with reasonable certainty and are therefore an inadequate remedy; it's because the parties have failed to present enough evidence to create a triable issue. They had an

adequate legal remedy but failed to make a prima facie case of how much money, by way of such remedy, they are entitled to. That was a simple failure of proof.

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." Restatement (Third) of Restitution and Unjust Enrichment § 42, comments c and f (2011); see also 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).

There is no question of collectability in this case, a common reason why a damages remedy is inadequate. Both parties have deep pockets. And neither has acknowledged that damages for the infringement of its patents could not be estimated with tolerable certainty. On the contrary, each insists not only that damages are calculable but that it has calculated them. The problem is not that damages cannot be calculated, but that on the eve of trial, with the record closed, it became apparent that the parties had failed to make a responsible calculation.

Apple claims that Motorola profited from infringement by incorporating the desirable features of Apple's patented technology into its own devices without either paying a royalty for a license to use the patents or incurring the cost of inventing around them. Apple has never contended that these benefits to Motorola of infringement cannot be quantified. It merely has failed, despite its vast resources and superb legal team, to do so in a minimally acceptable manner—failed whether because of mistakes in trial preparation (which even the best lawyers can make), or because too many cooks spoil the stew (Apple is represented by three law firms in this litigation), or maybe because the infringements did not deprive Apple of any profits (I'll come back to this counterintuitive point).

Apple also contends that it's losing market share (which could happen though its sales were growing—as they have been—because a competitor, namely Motorola, was growing faster) to Motorola, and also losing future customers to Motorola because of infringement, and requests an injunction to limit Motorola's penetration of the market and preserve Apple's own customer base. But it has not laid a foundation for such relief.

To begin with, as far as the record shows, an injunction would not avert such losses, because of the ease of designing around the patent claims at issue. The costs of designing around the '647 patent (structure detection and linking) would be similar to the costs of designing around the '002 (unblockable taskbar); both invent-arounds would just require reprogramming Motorola's smartphones to avoid at least one claim limitation. (A claim is not infringed if at least one "limitation" (element) of the claim is not present in the allegedly infringing device. *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 812 (Fed. Cir. 2002); *Lemelson v. United States*, 752 F.2d 1538, 1551 (Fed. Cir. 1985).) Given my claims construction of the '647 patent, Motorola could design around simply by creating copies

of the code that performs structure detection and linking for each particular program rather than by using a common-code module for all programs; for without a common code there is no "analyzer server," as required by the patent claim. Motorola could similarly include programs that occasionally block the taskbar to avoid '002. As far as the '263 patent (realtime) is concerned, there is no evidence of the cost of inventing around the surviving claims in it, and for all the records shows the cost may be slight. And finally I noted in my May 22 opinion how easy and cheap it would be for Motorola to avoid infringing the finger-gesture claim in the '949 patent.

If, then, Apple couldn't exclude Motorola from the market with an injunction because of the ease of inventing around, the only thing Apple lost as a result of the alleged infringements was royalties capped at the minimum design-around cost. Its alleged loss of market share because Motorola's smartphones do the same thing (either via license or design-around) would have occurred with or without an injunction, and so doesn't establish the inadequacy of damages.

Thus, while difficulty of quantifying loss of goodwill or of market share might justify injunctive relief in some cases, in this case an injunction would in all likelihood be ineffectual in preventing such loss. (No damages are sought for past such loss.) Unsurprisingly, there's no evidence of loss of market share or customer goodwill by Apple, and no basis for expecting such loss in the future. The price differences between the iPhone, which is Apple's smartphone, and Motorola smartphones suggest that the markets for the two classes of product are not perfectly overlapping, and so a small improvement in a Motorola smartphone attributable to infringement may not take significant sales from Apple. And while the patents themselves (or some of them at least) may well have considerable value, after the claims constructions by Judge Crabb and myself and after my grants of partial summary judgment only a handful of the

original patent claims remain in the case; infringement of that handful may not be a source of significant injury past, present, or future. For a variety of reasons patents in the field of information technology often have little if any value except defensively. See Alan Devlin, "Systemic Bias in Patent Law," 61 *De-Paul L. Rev.* 57, 77–80 (2011), and references cited there.

A related reason for withholding injunctive relief in this case is that it would be likely to impose costs on the alleged infringer disproportionate both to the benefits to it of having infringed and to the harm to the victim of infringement, and would thus be a windfall to the patentee and a form of punitive rather than compensatory damages imposed on the infringer. Not only is there no evidence of gain to Motorola or loss to Apple even though if there were gain or loss Apple should have been able to quantify it, but in addition an injunction could force Motorola to remove lucrative products from the market for as long as it took to remove the infringing features—minor features in complex devices most features of which are not alleged to infringe—from its products, or to invent around the infringing features.

This point about potential harm to the infringer from an injunction may seem to imply that had Motorola refrained from infringing Apple's patents (supposing it did infringe, an unanswered question, obviously), it would have had to pay a very large license fee to Apple as the alternative to a costly invent around. And such an implication might seem inconsistent with my determination that Apple has failed to show that Motorola derived significant benefits from the alleged infringements; for if there are no big benefits from infringing, there would be no big license fee for being allowed to continue to use the patents infringed on. But this ignores the fact that the market for smartphones (the kind of advanced cell phones sold by Apple and Motorola) has grown rapidly since Motorola's alleged infringements began three years ago. Sales of smartphones grew

by almost two-thirds last year alone. An injunction issued today might do much greater harm to Motorola than the license fee that Apple would have charged had Motorola sought one when the alleged infringements began.

Apple could have sought, in lieu of an injunction against the sale of Motorola's devices, an order that Motorola pay a reasonable royalty for continued use of the inventions covered by the Apple patents. Such an order would impose a compulsory license on Apple in exchange for its receiving a perpetual royalty. (The Federal Circuit prefers the term "ongoing royalty," Paice LLC v. Toyota Motor Corp., 504 F.3d 1293, 1313 n. 13 (Fed. Cir. 2007).) It would be an equitable remedy imposed as a substitute for an injunction against infringement. Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc., 670 F.3d 1171, 1192 (Fed. Cir. 2012), vacated in part on other grounds, 2012 WL 2149764 (Fed. Cir. June 14, 2012). (Equitable remedies, contrary to the familiar dichotomy between monetary and equitable relief, are often monetary. E.g., McReynolds v. Merrill Lynch, 672 F.3d 482, 483 (7th Cir. 2012); Hoelzer v. City of Stamford, 972 F.2d 495, 498 (2d Cir. 1992).)

A compulsory license with ongoing royalty is likely to be a superior remedy in a case like this because of the frequent disproportion between harm to the patentee from infringement and harm to the infringer and to the public from an injunction, a factor emphasized in Justice Kennedy's concurring opinion in *eBay Inc. v. MercExchange, L.L.C., supra,* 547 U.S. at 396–97, in which he pointed out that "when the patented invention is but a small component of the product the companies seek to produce and the threat of an injunction is employed simply for undue leverage in negotiations, legal damages may well be sufficient to compensate for the infringement and an injunction may not serve the public interest." He could have been describing this case. Three Justices joined his opinion, and no Justice expressed disagreement with it.

The ongoing royalty will usually be the reasonable royalty as of the time of first infringement. If the infringement occurred in 1999, say, the royalty would be a percentage of the sale price of the infringing product and would continue as long as the licensee continued to sell the product, as in Shatterproof Glass Corp. v. Libbey-Owens Ford Co., 758 F.2d 613, 628 (Fed. Cir. 1985). Ms. Mulhern, the Motorola damages expert whom I excluded, thought that Apple should have paid Motorola \$298 million for the right to use the '898. That would not have been for a perpetual license. It was simply the product of multiplying Apple's sales revenues, during the period from the beginning of the alleged infringement to the present, from devices allegedly infringing the '898, by a percentage (we haven't been able to figure out precisely what percentage) in Donohoe's 40 to 50 percent range (actually, since his range actually was "up to 40 to 50 percent," the lower end was not 40 percent but zero percent) of 2.25 percent. The reasonable royalty going forward would be the product of multiplying by the same percentage the estimated future sales by Apple of infringing devices. The failure to justify the percentage leaves Motorola without a basis for calculating a going-forward royalty, as it has proposed no alternative to the method just suggested.

Apple's damages case consisted of an attempt to calculate the reasonable royalty for the period up to trial—the money that Motorola owed it for past infringement. Had Apple been able to prove its damages case (as well as establish liability for infringement of its patents), those damages (that is, the reasonable royalty, looking backwards) would have been the basis for fixing a reasonable royalty to be paid for each future sale in lieu of an injunction, that is, the per-unit royalty going forward, or as it is sometimes called the "running royalty." Damages are designed to place the patentee in the position it would have occupied had the patent not been infringed; had the patent not been infringed the royalty would have been an estimate of the future

as well as the present value of being allowed to practice the patent. An alternative to the running royalty would be a lump-sum royalty representing the present value of the expected future royalties, by analogy to a lump-sum damages award for lost future earnings in a tort case.

An award of damages could have given Apple damages in the form both of restitution of any past gains by Motorola from the infringements and of the present value of a reasonable royalty for future use by Motorola of the patented inventions. Although an order to pay a royalty in the future certainly sounds like an equitable order (a mandatory injunction) and can be one as we noted earlier, the Federal Circuit in *Telcordia Technologies*, *Inc. v. Cisco Systems*, *Inc.*, 612 F.3d 1365, 1378–79 (Fed. Cir. 2010), indicated that alternatively it could be part of a jury's verdict on damages. If past damages are awarded along with future damages either calculated as a lump sum or as a nonequity running-royalty order, there would be no occasion to order equitable relief.

I am mindful that *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1361–62 (Fed. Cir. 2008), holds that the retrospective reasonable royalty (damages "going backward") should be lower than the prospective royalty ("going forward") to reflect the parties' greater certainty in the latter case—infringement having been determined by a court and not merely claimed by the patentee—that the device really does infringe a valid patent. See also *Bard Peripheral Vascular, Inc. v. W.L. Gore & Associates, Inc., supra, 670* F.3d at 1193. This is consistent with the proposition that the forward royalty is an injunction substitute, so not really damages, so not really based on what the parties might have negotiated years earlier. Fair enough. But nothing in the record of this case—a record now closed—enables me to calculate the adjustment necessary to determine either a running royalty or a lump-sum royalty.

Although both parties asked for injunctive relief, neither named an expert witness who would testify about such relief—either about an injunction or about the equitable substitute of a compulsory license at a reasonable royalty were an injunction denied. Neither party suggested that any of its damages experts had an opinion about such a royalty, except that one of them, Professor Dennis Carlton, properly challenged Motorola's claim to be entitled to what in effect would be a hold-up royalty for standards-essential patents.

The reports of the damages experts no more provide a rational basis for computing royalties going forward than for computing royalties going backward, even if they are different rates. Damages experts in a patent case would be expected to estimate running royalties as well as past damages, but none has done so in this case.

But all this is an aside because in the brief Apple filed on June 18 in response to my order of June 13 it states that it cannot compute a prospective royalty (either a running or a lump-sum royalty) because that computation would depend on expert evidence that I struck. Instead it argues that it is entitled to an injunction because it has no adequate damages remedy for future losses attributable to continuing infringement by Motorola.

A patentee cannot base a claim to an injunction on a self-inflicted wound, such as sponsoring a damages expert who prepares a demonstrably inadequate report. What is true, but a different point, is that the fact that a patentee seeks and even obtains damages for past harm from infringement does not disable it from obtaining injunctive relief. *Acumed LLC v. Stryker Corp.*, 551 F.3d 1323, 1328 (Fed. Cir. 2008). It might have been able to quantify only a small part of the harm that it had incurred, and similarly might be able to quantify only a small part of the future harm it would incur if the infringement continued. And then it might well be entitled to an injunction, as well as to (only partially adequate) damages for past infringement.

Apple in conjuring loss of consumer goodwill and of market share tries to make the kind of case for an injunction that was made successfully by the plaintiff in i4i Ltd. Partnership v. Microsoft Corp., 598 F.3d 831, 862 (Fed. Cir. 2010), where the court concluded that "a small company was practicing its patent, only to suffer a loss of market share, brand recognition, and customer goodwill as the result of the defendant's infringing acts. Such losses may frequently defy attempts at valuation, particularly when the infringing acts significantly change the relevant market, as occurred here." Apple is not a "small company"; its market capitalization exceeds that of Google and Microsoft combined. To suggest that it has suffered loss of market share, brand recognition, or customer goodwill as a result of Motorola's alleged infringement of the patent claims still in play in this case is wild conjecture. And until about a week ago Apple had not suggested in this litigation that the losses it allegedly suffered or will suffer from the alleged infringement "defy attempts at valuation."

In its latest written and oral submissions Apple attempts what I told its legal team at a pretrial conference I would not let it do in the liability trials then envisaged: turn the case into an Apple versus Motorola popularity contest. Apple wanted me to allow into evidence media reports attesting to what a terrific product the iPhone is. I said I would not permit this because the quality of the iPhone (and of related Apple products, primarily the iPad) and consumers' regard for it have, so far as the record shows, nothing to do with the handful of patent claims that I had ruled presented triable issues of infringement. Apple's "feel good" theory does not indicate that infringement of these claims (if they were infringed) reduced Apple's sales or market share, or impaired consumer goodwill toward Apple products. Typical is the statement in Apple's brief of June 18 that "an Apple survey identified watching streaming videos from YouTube among the top ten planned activities for consumers using iPads in the United States." The '263 patent in issue in this litigation is not a claim to a monopoly of streaming video!

Apple is complaining that Motorola's phones as a whole ripped off the iPhone as a whole. But Motorola's desire to sell products that compete with the iPhone is a separate harm—and a perfectly legal one—from any harm caused by patent infringement.

Because there are such substantial grounds for skepticism concerning the harm that Apple is likely to incur from continued infringement, cf. Lucent Technologies, Inc. v. Gateway, Inc., supra, 580 F.3d at 1333, it would not be proper even to consider ordering an injunction without evidence that would enable me to compare the costs and benefits of an injunction with the costs and benefits of the substitute equitable remedy of a compulsory license with a reasonable royalty, that is, a running (ongoing) royalty. Apple, as noted earlier, has acknowledged that it can't estimate a royalty substitute for an injunction—not because such an estimate is inherently infeasible but because I struck the proposed testimony of its indispensable damages witness, Mr. Napper. While such a royalty may perhaps, as held or assumed in the Telcordia case, be part of a damages remedy (the remedy "at law" as distinct from an equitable remedy), it certainly can be a substitute equitable remedy for an injunction. This possibility is germane to the "balance of hardships" component of eBay's test for whether to grant an injunction in a patent case. 547 U.S. at 391.

Apple tries to elide the issue of a royalty substitute for an injunction by trivializing the costs of an injunction to Motorola. It says it has no objection to delaying the effective date of the injunction for a period of three months to allow Motorola to try to invent around the Apple patents. If Motorola succeeded during that period in inventing around—that is, in duplicating the functionality of Apple's patents without infringing them—the cost of the injunction to Motorola would be no greater than if

Motorola had invented around in the first place rather than infringing.

I am not persuaded by Apple's soothing reassurance that a tailored injunction would avert significant hardship Motorola. Apple ignores the following possibilities: that a noninfringing invent-around cannot be completed, installed, and tested within three months (Motorola might therefore return to court seeking a modification of the injunction); that the cost to Motorola of retooling its production lines to make the redesigned devices would be considerable and a further source of delay in completing the invent-around in three months; that Motorola might have to destroy (if it is not feasible to rebuild) the smartphones that are in its inventory or in the inventories of distributors and can be refitted with the invent-around only at a cost so stiff as to make the devices unsalable at a competitive price; and, perhaps most ominous, that Apple will sue Motorola alleging that the redesigned phones still infringe its patents, just as it is challenging HTC's design-around of the '647 in current proceedings before the International Trade Commission.

Also ignored are the harm that an injunction might cause to consumers who can no longer buy preferred products because their sales have been enjoined, and the cost to the judiciary as well as to the parties of administering an injunction—which under the rubric of "public interest" is another factor that *eBay* requires me to weigh in deciding whether to grant injunctive relief. 547 U.S. at 391. The danger that Apple's goal in obtaining an injunction is harassment of its bitter rival, requiring particularly watchful supervision by the court should it issue the injunction, is suggested by the fact that while a delayed injunction would in principle render no benefit to Apple besides harming its competitor by forcing it to waste time and money finding a new way of performing the functions now performed in an allegedly infringing manner, an ongoing royalty would yield sig-

nificant income to Apple—yet which it wants to forgo in favor of imposing costs and litigation burdens on its adversary.

Because of the potential costs to Motorola and the federal judiciary I could not responsibly order injunctive relief in favor of Apple without knowing whether the lower cost of a compulsory license at a reasonable royalty would produce a better balance of hardships. I note, amplifying earlier points, the absence of evidence that if Motorola is infringing the patent claims at issue, it is imposing a significant cost on Apple. Consider the '002, which Apple charges is infringed by Motorola's preventing partial obstruction of its smartphones' notification windows. There is no evidence, and it seems more than unlikely, that occasional partial obstruction would appreciably reduce the value of Motorola's smartphones to consumers—Apple didn't even bother to install a notification window on its devices until last year. Consider next the '949, which Apple contends is infringed by Motorola's enabling customers who buy a Motorola smartphone with a Kindle reader pre-installed to turn pages by tapping on the screen rather than by swiping a finger across it (which actually is more like turning pages than tapping is). Consider the '263, the realtime patent, alleged to be infringed by Motorola's adopting a method for avoiding glitches in "real time" communications (such as movies) that has not been shown to provide a superior experience to consumers than alternative, noninfringing realtime software or hardware or otherwise drive consumer demand for the iPhone. And consider the '647 (structural linking and detection), which also provides unproved consumer benefits.

The notion that these minor-seeming infringements have cost Apple market share and consumer goodwill is implausible, has virtually no support in the record, and so fails to indicate that the benefits to Apple from an injunction would exceed the costs to Motorola. An injunction that imposes greater costs on the defendant than it confers benefits on the plaintiff reduces net

social welfare. That is the insight behind the "balance of hard-ships" component of the *eBay* standard for injunctive relief in patent cases.

And I must not lose sight of the basic principle that injunctive relief is available only when the remedy at law is inadequate—that is, only when damages would not provide complete relief. As noted in *Stickle v. Heublein, Inc.*, 716 F.2d 1550, 1563 (Fed. Cir. 1983)—though the point is too obvious to require a citation—a patentee can't obtain an injunction (and, by parity of reasoning, an ongoing royalty in lieu of an injunction) if either damages or an equitable substitute such as a running royalty would provide complete relief. Ordinarily a running royalty, combined with the damages remedy for past sales, should provide full compensation to the patentee, thus obviating injunctive relief.

Apple could have sought such a remedy, but did not. It bases its claim for injunctive relief on future harms that it claims cannot be quantified for purposes of a monetary remedy, namely loss of consumer goodwill and of market share. In fact such losses are conventional items of damages. But assume they can't be quantified in this case. An injunction would not prevent these losses, as I have explained, given the feasibility of avoiding the effect of the injunction by either doing without a functionality that may be worth very little (such as the functionality that prevents application programs from ever partially, though not entirely blocking, a notification window, in the '002, or that enables pages in a Kindle application to be turned by tapping rather than swiping, in the '949), or by inventing around, such as inventing around the '263, which, because of the deficiencies of Napper's expert report, I cannot conclude would be expensive, or inventing around the '647 patent by reprogramming Motorola's smartphones to avoid at least one claim limitation, for example by simply creating copies of the code that performs structure detection and linking for each particular program rather than using a common code module for all programs, because if there is no common code there is no "analyzer server," as required by the patent claim.

By failing to present a minimally adequate damages case, Apple has disabled itself from arguing that damages would not provide a complete remedy, going forward in the form of running royalties, as well as backward. It harps on loss of consumer goodwill and market share, as a ground for an injunction, but not only has no real evidence of such loss, but, given the nature of the patent claims, it is not a loss that an injunction would avert. Apple's case for injunctive relief flunks the irreparable injury, balance of hardships, and public interest standards of *eBay*.

The deadline for discovery was April 23, 2012, and for expert reports March 20, and supplementation of expert reports continued through late April. The expert and the other witnesses have been deposed. The parties do not claim to have been rushed unduly by Judge Crabb (who presided over the litigation before the case was assigned to me) or by me. They are proud, as they should be, of their ability to provide superb service to their clients under time pressure that would crush less skilled and resourced firms and clients. There is no question of surprise, or haste in ruling on the issues of relief. The parties have had a full opportunity to present all evidence germane to summary judgment proceedings on relief. Apple describes the brief that it filed on June 18 as its offer of the evidence it would present at a full evidentiary hearing on relief, and does not evince a desire, or claim a right, to present additional evidence. It turns out that despite the parties' best efforts, they do not have evidence to withstand summary judgment on damages and injunctive relief.

Declaratory Relief. The parties seek declaratory judgments of invalidity and noninfringement of their opponents' patents. Motorola concedes, as I said at the outset of this opinion, that once damages and injunctive relief drop out, it has no basis for

seeking declaratory relief. Apple, however, argues (or argued, for it may have dropped its request for declaratory relief) that with the case ready for trial after an extensive and very costly pretrial period (it made this argument at the June 7 hearing, held just four days before the trials had been scheduled to begin), it is a waste of resources to abort the trials. It is true that any continued sale of Motorola products, including the products involved in this case that are alleged to violate Apple's patents would be a fresh act of alleged infringement and Apple could bring a new suit just like this one, though it would have to contend with a possible defense of collateral estoppel to some or many of its claims and contentions. But as Motorola points out, if a plaintiff fails to establish any basis for an award of relief, the defendant is entitled to a judgment dismissing the case with prejudice even if a future lawsuit between the parties, continuing their dispute, can be anticipated. "[A]n actual controversy cannot be based on a fear of litigation over future products." Amana Refrigeration, Inc. v. Quadlux, Inc., 172 F.3d 852, 855-56 (Fed. Cir. 1999); cf. ATA Airlines, Inc. v. Federal Express Corp., 665 F.3d 882, 896 (7th Cir. 2011).

A party may sue for declaratory relief in federal court only if either it or its opponent could bring a federal suit for injunctive or monetary relief. See *Franchise Tax Board v. Construction Laborers Vacation Trust*, 463 U.S. 1, 19 and n. 19 (1983); *Skelly Oil Co. v. Phillips Petroleum Co.*, 339 U.S. 667, 671–74 (1950). An insurance company that denies coverage can seek a declaratory judgment against its insured, because the insured could sue the company for having broken the insurance contract by denying coverage. And a firm alleged to have infringed a patent can seek a declaratory judgment of noninfringement against the patentee because the latter could sue the former for infringement. But when the court has determined that neither party could obtain monetary or injunctive relief against the other, as in this case, a declaratory judgment in favor of either party would confer no

tangible benefit on the victor and so there would be no federal subject-matter jurisdiction. *Jordan v. Sosa*, 654 F.3d 1012, 1026–27 (10th Cir. 2011); *Hickman v. State of Missouri*, 144 F.3d 1141, 1142 (8th Cir. 1998).

In any event the decision whether to grant declaratory relief is discretionary, 28 U.S.C. § 2201(a) (courts "may"—not "must"—issue declaratory judgments); *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 136 (2007); *Wilton v. Seven Falls Co.*, 515 U.S. 277, 286–89 (1995), and Apple concedes that "[t]here is no controlling case law that prevents that exercise of discretion [over whether to exercise declaratory judgment authority] in this case." Even if I could grant a declaratory judgment in this case, I would not do so, because the issuance of such a judgment would have no practical effect.

Form of Dismissal. It remains only to consider the appropriate form of the judgment of dismissal (actually dismissals, because there are two suits—Apple's and Motorola's—which were consolidated for the sake of judicial economy). It might seem that the case has become moot, because the parties cannot obtain any benefit from further proceedings. But that is not correct. They can't obtain any benefit from further proceedings in this case but they can appeal its dismissal. And even if no appeal were planned, the case would not be moot, because a failure of proof, whether with respect to liability or to remedy, while it ends a case does not make the case moot. A dismissal for mootness ordinarily (though with exceptions, for example because of voluntary cessation by the defendant of his alleged misconduct, or because the case is capable of repetition but evades review) is without prejudice. Fed. R. Civ. P. 41(b); *University of Pittsburgh v.* Varian Medical Systems, Inc., 569 F.3d 1328, 1332-33 (Fed. Cir. 2009); Brereton v. Bountiful City Corp., 434 F.3d 1213, 1216-17 (10th Cir. 2006). And when a suit is dismissed without prejudice, so that the dismissal is not res judicata, the loser can (again with exceptions) refile it. In re IFC Credit Corp., 663 F.3d 315, 320

(7th Cir. 2011); *Robinson v. Sherrod*, 631 F.3d 839, 843 (7th Cir. 2011). It would be ridiculous to dismiss a suit for failure to prove damages and allow the plaintiff to refile the suit so that he could have a second chance to prove damages. This case is therefore dismissed with prejudice; a separate order to that effect is being entered today.