

Michigan Innovation and Intellectual Property Legal Writing Competition

Blind Score Sheet

Entry # **2013001**

Total Points: _____

Novelty and timeliness of topic (Is topic an unsettled issue relating to the innovation and IP law fields) _____ (1-3)

Notes:

Evidence of Research (number and quality of authorities; how they are used) _____ (1-3)

Notes:

Depth of Analysis (how well did entry explore the issues of the topic and the authorities) _____ (1-3)

Notes:

Clear Topic and Thesis (was topic clear and did entry resolve and support the thesis) _____ (1-3)

Notes:

Format and Structure (Was paper formatted and organized in an appropriate manner; were statements of law correct) _____ (1-3)

Notes:

Style, Professionalism (clear work; flows well; few typos, spelling, citation errors) _____ (1-3)

Notes:

TOTAL: _____ (/18)

Notes:

Judge Name: _____

THE EXPERIMENTAL USE EXCEPTION TO PATENT INFRINGEMENT SHOULD BE EXPANDED: THE PROPOSAL OF A MODIFIED EXCEPTION COMPRISING A BRIGHT-LINE RULE PERMITTING EXPERIMENTAL USE UPON DELIVERY OF EXPRESS NOTICE OF INTENT

I. INTRODUCTION

On August 1, 2012, a federal jury awarded \$1 billion in damages to the crop biotechnology leader Monsanto Company (“Monsanto”) saying that its arch rival E.I. Dupont De Nemours and Company (“DuPont”) had “willfully infringed a patent covering Roundup Ready soybeans,” the “world’s most widely grown genetically engineered crop.”¹ “Monsanto ha[d] developed certain technologies that allow it to produce genetically-modified seed products by transferring into crop seed genes that give the resulting plants new genetic qualities, called transgenic traits.”² Monsanto actively protects these technologies through use of the United States patent system.³ At issue here was Monsanto's patented Roundup Ready® soybean and corn traits⁴, which Monsanto developed upon discovering a gene that makes plants resistant to a commonly used herbicide.⁵

Perhaps what is most surprising about the case and its extraordinary verdict⁶ is that DuPont never marketed nor commercially exploited any plants or plant seeds which contained

¹ Andrew Pollack, *Monsanto Wins Big Award in a Biotech Patent Case*, N.Y. TIMES (Aug. 1, 2012), http://www.nytimes.com/2012/08/02/business/monsanto-wins-big-award-in-a-biotech-patent-case.html?_r=0.

² *Monsanto Co. v. E.I. DuPont De Nemours and Co.*, 4:09CV00686 ERW, 2010 WL 234951, at *1 (E.D. Mo. 2010).

³ *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1332 (Fed. Cir. 2006).

Monsanto owns U.S. Patent No. 5,352,605 (“the '605 patent”), which is directed toward insertion of a synthetic gene consisting of a 35S cauliflower mosaic virus (“CaMV”) promoter, a protein sequence of interest, and a stop signal, into plant DNA to create herbicide resistance. Monsanto also owns U.S. Patent Nos. 5,164,316; 5,196,525; and 5,322,938 (collectively “the McPherson patents”), which are directed toward insect resistant traits.

Id.

⁴ U.S. Patent No. RE 39,247E (filed July 18, 2003).

⁵ *Monsanto*, 2010 WL 234951, at *1.

⁶ *Id.* (“The verdict was the fourth-largest jury award in a patent trial in U.S. history . . .”).

the patented genes.⁷ DuPont used the patented genes, without authorization,⁸ “in developing a line of soybean seeds called Optimum GAT, which it later abandoned.”⁹ DuPont had hoped to combine the traits of its existing plant lines with the traits of Monsanto’s patented genes in order to produce a line with superior characteristics than either possessed individually.¹⁰ Although Monsanto was unable to establish that it lost any profits as a result of DuPont’s infringing use¹¹ of the genes, it was still able to recover a \$1 billion verdict based on the hypothetical reasonable royalty DuPont would have paid to enter into a license for the use.¹² Although DuPont attempted to argue that its experimentation with the patented genes fell inside the scope of the experimental use exception to patent infringement, this argument was not accepted by the trial court.¹³

II. THE EXPERIMENTAL USE EXCEPTION TO PATENT INFRINGEMENT

A. Background of the Exception

In contrast to the United States Copyright Act¹⁴, the Patent Act “does not provide any general exemption from patent infringement liability for uses of patented inventions that are not

⁷ Susan Decker & Jack Kaskey, *DuPont Seeks New Trial in \$1 Billion Monsanto Patent Victory*, BUSINESSWEEK (Sept. 27, 2012), available at <http://www.businessweek.com/news/2012-09-27/dupont-seeks-new-trial-in-1-billion-monsanto-verdict> (“Wilmington, Delaware-based DuPont, which generated \$38 billion in revenue last year, never commercialized its product combining Roundup Ready and GAT.”).

⁸ Jack Kaskey & Susan Decker, *Monsanto’s \$1 Billion Patent Claim Against DuPont Nears End*, BUSINESSWEEK (Aug. 1, 2012), available at <http://www.businessweek.com/news/2012-08-01/monsanto-s-1-billion-patent-claim-against-dupont-to-go-to-jury> (“Adding a second glyphosate-tolerance gene to Roundup Ready crops is prohibited by the companies’ licensing agreement, U.S. District Judge Richard Webber previously ruled.”).

⁹ *Jury awards Monsanto \$1B in patent case vs DuPont*, *supra* note 8.

¹⁰ Kaskey & Decker, *supra* note 14 (“DuPont claimed during the trial that Monsanto sued only after it was shown data that the two genes work better than either GAT or Roundup Ready alone. DuPont argues there was nothing wrong with making the combination because Monsanto’s Roundup Ready patent is invalid and unenforceable.”).

¹¹ 35 U.S.C.A. § 271(a) (West 2012) (“Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.”).

¹² Mark A. Lemley, *Distinguishing Lost Profits from Reasonable Royalties*, 51 WILLIAM & MARY L. REV. 655, (2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1133173.

¹³ *Monsanto Co. v. E.I. DuPont De Nemours & Co.*, 2010 WL 518087, at *10 n.9 (E.D.Mo.).

¹⁴ 17 U.S.C.A. § 107 (West).

authorized by the patent owner.”¹⁵ Even use of an invention for mere purposes of personal convenience ordinarily constitutes infringement.¹⁶

However, there are exceptions to infringement, such as the experimental use doctrine. “The experimental use doctrine of patent law protects alleged infringers who use patented inventions solely for experimental purposes, such as testing whether a device functions as claimed or re-creating a process to observe its effects from a scientific perspective.”¹⁷

Since its first enunciation, the experimental use defense has only infrequently been applied to excuse unauthorized uses of patented inventions.¹⁸ It has been acknowledged that “[t]his has probably resulted because in the same year that it was created, it was held that users with ‘intent to use for profit’ could not avail themselves of the defense.”¹⁹ This requirement has translated into a longstanding notion that use of a patent with commercial intent should not be protected by the experimental use doctrine.²⁰ As such, courts generally have historically applied the exception restrictively.²¹

This limitation has proven to be quite strict; the doctrine does not apply for experimental use which is of a commercial nature.²² Any unauthorized sale of the invention is considered to be a commercial use and will thus fall outside the scope of the defense.²³

Gradually, “the focus of the inquiry shifted from whether the alleged infringing use was for profit or financial gain, to whether it furthered legitimate business interests” – regardless of

¹⁵ Janice M. Mueller, *The Evanescent Experimental Use Exemption from United States Patent Infringement Liability: Implications for University and Nonprofit Research and Development*, 56 BAYLOR L. REV. 917, 923 (2004).

¹⁶ D. CHISUM, PATENTS § 16.03[1] (2012).

¹⁷ Tom Saunders, *Renting Space on the Shoulders of Giants: Madey and the Future of the Experimental Use Doctrine*, 113 YALE L.J. 261, 261 (2003).

¹⁸ Israelsen, *supra* note 24, at 458.

¹⁹ Saunders, *supra* note 23, at 264; *Sawin v. Guild*, 21 F. Cas. 554, 555 (C.C.D. Mass. 1813) (Story, J.).

²⁰ Saunders, *supra* note 23, at 263.

²¹ Jordan P. Karp, *Experimental Use As Patent Infringement: The Impropriety of A Broad Exception*, 100 YALE L.J. 2169, 2170 (1991).

²² CHISUM, *supra* note 22, § 16.03[1].

²³ Israelsen, *supra* note 24, at 461.

commercial gain.²⁴ More recently, the U.S. Court of Appeals for the Federal Circuit (“Federal Circuit”), which exercises “exclusive nationwide jurisdiction over patent-based appeals,” has interpreted the doctrine in such a narrow way that, “for all practical purposes, the doctrine has become a nullity.”²⁵ The Federal Circuit has stressed that “use in keeping with the legitimate business of the alleged infringer does not qualify for the experimental use defense.”²⁶

B. Application of the Exception in Monsanto v. DuPont

How could Monsanto be awarded \$1 billion in damages when DuPont had never marketed nor commercially exploited any plants or plant seeds which contained the patented genes? Why did the experimental use exception not apply here? The answer lies in the nature of patent damages and the more recent decisions of the Federal Circuit regarding the experimental use exception.

The Patent Code guarantees to a successful claimant “damages adequate to compensate for the use made of the invention by the infringement but in no event less than a reasonable royalty,”²⁷ meaning that a patentee can be entitled to compensation regardless of whether they have suffered actual pecuniary loss.²⁸ Although the arguments between the parties regarding the calculation of damages are currently sealed,²⁹ the award *appears* to be based on the royalties that DuPont would have paid had it negotiated a license ahead of time.³⁰ The court held that it was

²⁴ Elizabeth A. Rowe, *The Experimental Use Exception to Patent Infringement: Do Universities Deserve Special Treatment?*, 57 HASTINGS L.J. 921, 926 (2006).

²⁵ Mueller, *supra* note 21, at 918; *Madey v. Duke Univ.*, 307 F.3d 1351, 1362 (Fed. Cir. 2002), *cert. denied*; 539 U.S. 958 (2003); *Integra Lifesciences I, Ltd. v. Merck KGaA*, 331 F.3d 860, 867 (Fed. Cir. 2003); *Roche Products, Inc. v. Bolar Pharm. Co.*, 733 F.2d 858, 863 (Fed. Cir. 1984) (“[U]nlicensed experiments conducted with a view to the adaption of the patented invention to the experimenter’s business is a violation of the rights of the patentee to exclude others from using his patented invention.”).

²⁶ CHISUM, *supra* note 22, § 16.03[1][c]; *Madey*, 307 F.3d at 1362.

²⁷ 35 U.S.C.A. § 284 (West 2012).

²⁸ Karp, *supra* note 29, at 2177.

²⁹ Bernard Choa, *Non-Public Litigation: The Hidden Story of Monsanto v. DuPont*, PATENTLYO (Aug. 11, 2012), <http://www.patentlyo.com/patent/2012/08/non-public-litigation-the-hidden-story-of-monsanto-v-dupont.html> (“Monsanto’s damages theory is hidden from the public view.”).

³⁰ *Id.*

irrelevant whether or not DuPont intended to commercialize all of the seeds at issue since creating the seeds fell within the scope of DuPont's legitimate business.³¹

III. A VIABLE ALTERNATIVE FOR A LIMITED EXPERIMENTAL USE EXCEPTION TO PATENT INFRINGEMENT

This section lays out an unambiguous bright-line rule which both achieves the desired results of those who advocate a broad experimental use exception doctrine while avoiding any of the harms those who support a narrow doctrine prevent. The proposal is a modification of the experimental use exception to infringement which relies, in part, on an effect it would have on the calculation of infringement damages.

The Patent Act authorizes courts to increase the damages found during a patent infringement suit by up to three times the actual calculated value.³² A finding of willful infringement is the most common basis for increasing damage awards in patent infringement suits.³³ An increase is appropriate when the infringer fails to mount "a good faith and substantial challenge to the validity of the patent or the existence of infringement."³⁴

Willful damages must be clearly and convincingly proven by the evidence.³⁵ In order "to establish willful infringement, the patentee must show . . . that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent."³⁶ One key factor in determining whether an infringer acted recklessly is "whether the infringer, once he

³¹ *Id.*

"[U]se is disqualified from the defense if it has the slightest commercial implication" or if it is "in keeping with the legitimate business of the alleged infringer." [I]t is clear that the creation of genetically-modified seed products by corporations in the business of selling such products likewise does not qualify.

Id.

³² CHISUM, *supra* note 22, § 20.03[4][b]; 35 U.S.C.A. § 284 (West 2012).

³³ CHISUM, *supra* note 22, § 20.03[4][b].

³⁴ *Id.* § 20.03[4][b].

³⁵ *Id.* § 20.03[4][b][v][I].

³⁶ *Id.* (citing *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007)).

knew of the other’s patent protection, investigated the scope of the patent and formed a good-faith belief that it was invalid or that it was not infringed.”³⁷ “Many decisions have awarded a trebling increase without further analysis once it has been found that the infringer’s activities were sufficiently willful and wanton.”³⁸

The proposal is for a modification to the experimental use exception to patent infringement which both rewards inventors in complex technology industries for their contributions, while allowing our society to fully realize the disclosure of the invention to the public. This could be accomplished by judicial reinterpretation of the doctrine, which is appropriate as the doctrine itself was judicially created.³⁹ After all, the common law experimental use exemption “is premised on a judicial interpretation of the statutory prohibition of unauthorized ‘use’⁴⁰ of a patented invention” under the federal statute which defines patent infringement.⁴¹

The modified rule would take the following form: An experimental use which does not result in a commercial detriment to a patentee does not constitute infringement, so long as the patentee was put on express notice of the intended experimental use beforehand. The phrase “does not result in a commercial detriment to the patentee” is used in place of “results in a commercial benefit to the user” in order to avoid complications regarding the involvement of third parties. For purposes of this rule, a failure to collect licensing fees for the initial experimental use would not constitute a commercial detriment to the patentee.

³⁷ *Id.* § 20.03[4][b][vi][B] (citing *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 827 (Fed. Cir. 1992)).

³⁸ *Id.* § 20.03[4][b][vi].

³⁹ *But see*, *Rowe*, *supra* note 32, at 949 (“Congress should only step in to chip away the rights of patent-holders when it determines that a compelling need has been established in a particular area.”).

⁴⁰ 35 U.S.C.A. § 271 (West 2012).

⁴¹ *Strandburg*, *supra* note 56, at 120.

This new, bright-line approach to the experimental use doctrine is advantageous in every conceivable way. The rights of the patentee will still be adequately protected and it is anticipated that the licensing income generated by patents will actually *increase*. As such, the goal of the patent system in stimulating investment in patent-yielding research and development will also be well served. The previously mentioned benefit to the public of being able to fully understand and learn from patents will be enhanced. Most importantly, society will benefit from the race-to-the-top system which will exist once impediments to experimentation are removed, resulting in a technological boom.

How might these expectations be realistic? Although the benefits of the new rule in promoting the understanding of new technologies and in incentivizing academic research may seem straightforward, the assertion that the pecuniary value of a patent will increase might be seem to be counter-intuitive. The answer revolves around the actual effect of the new rule on the changes in behavior that it will create in both the patentee and experimental user.

The substantive rights provided by the Patent Act will all remain in place under the modified experimental use doctrine. In fact, there is only one situation under the new rule in which a patentee would be adversely affected – when the experimental use at issue yields nothing of any commercial interest. In such a situation, the patentee would lose its ability to collect a licensing fee. As explained below, the lack of a mandatory licensing fee in such a situation provides extensive benefits to society and the public, while being the more equitable arrangement.

How can the exclusion of a category of users from having to enter into licensing arrangements result in an increase in licensing fees collected by the patentee? The mechanism by which this will occur is the simple and elegant result of the new bright-line rule. Because an

experimental user is required to provide express notice of their intent to use the invention to the patentee, the user will have subjected themselves to the danger of a finding of willful infringement and an award to the patentee of treble damages. The express notice which the patentee receives from the experimental user will serve as powerful evidence during any eventual litigation that the user was both aware that their activity infringed upon the patent and that they believed the patent to be valid – thus making a strong case to support an allegation of willful infringement.⁴²

Additionally, receiving express notice that the experimental use of a patentee's invention is intended will greatly assist in monitoring that use and policing its results.

In the event that a development occurs during the experimental use of the invention that could result in a commercial detriment to the patentee, the threat of litigation coupled with a fear of a finding of willful infringement will serve as a figurative Sword of Damocles hanging over the user's head. The result of such peril is clear – it will serve as an impetus to the experimental user to enter into a license agreement with the patentee.⁴³

It is anticipated that permitting initial experimental use of a patentee's invention will result in the patentee being able to license to an even greater number of potential users than they would if experimental use were illegal; not only will the patentee still be able to seek out and obtain licenses from those interested in commercial applications for the invention, but those seeking to use for experimental purposes will themselves seek out the patentee. The only way in which the patentee will end up licensing to a smaller pool of licensees under the new rule is when there is an insufficient number of experimental users who are satisfactorily able to advance their research to the point at which it becomes of commercial interest.

⁴² *i4i Ltd. P'ship. v. Microsoft Corp.*, 598 F.3d 831, 860 (Fed. Cir. 2010), *aff'd*, 131 S. Ct. 2238 (2011).

⁴³ Jason Rantanen, *Slaying the Troll: Litigation As an Effective Strategy Against Patent Threats*, 23 SANTA CLARA COMPUTER & HIGH TECH. L.J. 159, 163 (2006) (“In many cases, the mere threat of litigation may allow the patent holder to achieve its goal - especially when that goal is to force a license of its patent.”).

Further, regarding those known experimental users who later seek to obtain licensing rights to the patentee's invention, the patentee will know that they are in a superior bargaining position at such time. After all, the reason that the experimental user will be seeking out the patentee for a license is because they have developed something of commercial interest; they may already have crossed the line and begun infringing the patent. This places the patentee in a position through which they can maximize the pecuniary value of their patent.

Regarding experimental users who go on to infringe the patentee's patent without attempting to obtain a license, there are two points to consider. First, there is nothing preventing infringers from doing so currently. According to Monsanto, this behavior is exactly the type which DuPont engaged in at the case at hand.⁴⁴ Even in the scenario in which a user neither puts the patentee on notice of their intent to use the invention nor seeks out a license before making a commercial use of it, the patentee is in no worse of a position than they were under the current rule for experimental use.

Second, assuming that DuPont had given express notice of its intent to experiment with Monsanto's invention under the new rule, Monsanto would have at least had that knowledge beforehand. This knowledge would have made it easier for Monsanto to police DuPont's use of its invention, as was previously mentioned. Monsanto would know that it would need to closely monitor the products that DuPont brought onto the market to see if there was any indication that its patent had been used for commercial purposes; this would make it much less likely that DuPont would be able to escape with any unscrupulous use of Monsanto's invention without being detected. Further, DuPont would have been much more hesitant to engage in any

⁴⁴ MONSANTO, <http://www.monsanto.com/Documents/the-real-facts-on-dupont-submission.pdf> (last visited Nov. 25, 2012).

infringing uses because of its knowledge that it might be subject to willful infringement damages.

It can be plainly seen that if the new rule had been in effect during the events leading up to this lawsuit, Monsanto would both have retained the vast majority of its patent rights and been in a superior position for enforcing those rights. The only situation in which Monsanto would no longer be in a position to maximize the pecuniary value of its patent would be if DuPont's experimentation did not result in anything of commercial value. However, as was the case here, a potential user of an invention may be hesitant to enter into a costly licensing scheme when there is no guarantee of ultimate success. After all, who would risk paying a \$1 billion licensing fee for the right to engage in commercially worthless experimentation?⁴⁵

IV. CONCLUSION

It is clear that a broadening of the experimental use exception to patent infringement is sorely needed. The Monsanto case is a perfect example of the flaws with the doctrine as it now stands; a party has been charged a \$1 billion royalty for engaging in experimentation which was commercially worthless. It is urged that appellate courts use this case as an opportunity to adopt a modified experimental use exception – one comprising a bright-line rule permitting experimental use, but coupled with an express notice requirement.

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⁴⁵ Whittington, Harris & Kaskey, *supra* note 8.

* Author's Name Omitted.