Avoiding Patent Immortality for Self-Replicating Technologies

By Yee Wah Chin

I. Introduction

The Supreme Court in *Quanta Computer, Inc. v. LG Electronics, Inc.*[1] reaffirmed the principle that the authorized sale of a patented item exhausts patent protection as to that particular item. However, it is unclear how the patent exhaustion / first sale doctrine should apply in the context of self-replicating technology, such as genetically modified seed. Especially given the extreme results possible in cases such as *Monsanto Co. v. Bowman*,[2] discussed below, this article proposes that contract law rather than patent law should govern the patent holder's rights in an object embodying self-replicating technology after an authorized sale.

II. *Quanta*

Quanta involved Intel chipsets that were made under license from LG Electronics. The license excluded any license to Intel's customers to use the chipsets with non-Intel products. Quanta bought Intel chipsets and incorporated them with non-Intel components to make computers, knowing it had no license from LG to do so. LG sued Quanta for infringement. Quanta's defense was that LG's patents were exhausted when it bought the chipsets from Intel. The Federal Circuit found there was no patent exhaustion / first sale. The Supreme Court unanimously reversed and found that "exhaustion turns only on Intel's own license to sell products practicing the LGE Patents," so that "Intel's authorized sale to Quanta thus took its products outside the scope of the patent monopoly, and as a result, LGE can no longer assert its patent rights against Quanta."[3]

The principle is: "The authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights."[4]

III. Patent Exhaustion/First Sale in the Context of Self-Replicating Technology

It would seem to follow that patent rights in an object embodying self-replicating technology are exhausted upon its authorized sale. However, "patent exhaustion is limited to the purchaser's right to use and sell the product, and does not extend to the patentee's right to 'make a new article.'"[5] "When a self-replicating living invention is sold, does the purchaser have a right [under patent law] to reproduce that invention to make one—or thousands or more—copies?"[6] Specifically, in the case of genetically modified seed, is second-generation seed grown from purchased genetically modified seed a "production" of the patented seed and therefore an infringement?[7]

In *Monsanto Co. v. McFarling*[8] and *Monsanto Co. v. Scruggs*[9] the Federal Circuit held that patent exhaustion / first sale is inapplicable to saved seed. Monsanto prohibited buyers of its genetically modified seed from using second-generation seed to grow additional crops. The Federal Circuit found that Monsanto's saved-seed restrictions were enforceable under *Mallinckrodt, Inc. v. Medipart, Inc.*[10] and that patent exhaustion / first sale also was inapplicable because the saved seed was not the subject of any sale.[11] Moreover, "[a]pplying the first sale doctrine to subsequent generations of self-replicating technology would eviscerate the rights of the patent holder."[12] The Supreme Court denied certiorari in both *McFarling*[13] and *Scruggs*.[14]

A. *Monsanto Co. v. Bowman*

A fact pattern similar to that in *Monsanto Co. v. Bowman*[15] may persuade the Supreme Court to consider patent exhaustion / first sale in the context of self-replicating technologies. Bowman is a farmer who purchased commodity seed from a grain elevator that was a mixture of second-generation seed grown from Monsanto's Roundup Ready® seed and other seed. He planted the seed and saved some of the resulting crop for further planting. Monsanto sued for infringement even though it had no restrictions against the sale to grain elevators of second-generation seed with the Roundup Ready® trait and no requirement that second-generation seed be segregated from other seed by buyers such as grain elevators.[16]

Bowman argued patent exhaustion / first sale occurred when the licensed Roundup Ready® crop was sold without restriction to a grain elevator.[17] Monsanto argued that although the second-generation seed, the progeny of Monsanto's Roundup Ready® seed, belonged to Bowman, who bought it, "the technology contained in the progeny still belongs to Monsanto and without authorization, may not be duplicated through a planting of that progeny. In short, the progeny soybeans can be sold for any use *other than planting*, regardless of who is in possession."[18]

The court found that *McFarling* applied and that Bowman had infringed Monsanto's patents. The court noted that the Federal Circuit in *McFarling* relied on the "fact that Monsanto had not sold the progeny seeds…to eliminate a defense based upon patent exhaustion," and Monsanto similarly did not sell the progeny seeds that Bowman harvested.[19]

Bowman turns patent exhaustion / first sale on its head and effectively eliminates it for self-replicating technology so that a patent holder of self-replicating technology

will continue to have patent rights in any item covered by its patents, regardless of any authorized sale. The sale of second-generation seed was undisputedly authorized. If Bowman had consumed the second-generation seed that he bought, instead of planting it, Monsanto would not and could not have claimed infringement. Under *Bowman* whether patent exhaustion / first sale applies would depend on what happens after the sale instead of on the nature of the sale as authorized or unauthorized, and it would "place licensees in the untenable position of not being able to ascertain in advance whether their sales were infringing or not."[20]

The only likely "use" of "first-generation" genetically modified seed is planting, which in most cases result in the creation of next-generation seed. Therefore, the next-generation seed is the natural result that should be protected from infringement claims by patent exhaustion / first sale if the first-generation progenitor seed was acquired through an authorized sale. There is little principled basis to determine whether next-generation seed is an infringement based on its use instead of on the circumstances of its creation.[21]

B. Contract Law as the Appropriate Remedy

Footnote 7[22] in *Quanta* indicates that patent holders may enforce contractual restrictions after an authorized sale, unless other laws bar the contract.[23] This may be an appropriate outcome—that an authorized sale triggers exhaustion / first sale but contract remedies may be available—given the substantially greater remedies available under patent law relative to contract law and the equities in situations such as Bowman's.[24]

Under this approach, a patent holder may require its licensees to sell objects embodying self-replicating technology under contracts that restrict the disposition of replications and enforce the restrictions under contract law. For example, Monsanto could license seedmakers to sell seed on the condition that second-generation seed be either consumed or sold to buyers who agree to either consume the seed or isolate that seed from other seed and to sell the seed only for consumption. As an alternative, Monsanto could require that second-generation seed be sold only to approved buyers who have agreed to Monsanto's conditions. In either case, Monsanto would have contract remedies.

IV. Conclusion

Patent exhaustion / first sale should apply to free a second-generation object from patent claims where it was derived from an object obtained in an authorized sale that embodied self-replicating technology. Patent holders may rely on contract remedies.

Endnotes

1. 553 U.S. __, 128 S. Ct. 2109 (2008).
2. 686 F. Supp. 2d 834 (S.D. Ind. 2009).
3. 128 S. Ct. at 2122.
4. *Id.*
5. Jon Sievers, *Note: Not So Fast My Friend: What the Patent Exhaustion Doctrine Means to the Seed Industry after Quanta v. LG Electronics*, 14 Drake J. Agric. L. 355, 372 (2009) (footnotes omitted).
6. Harold C. Wegner, *Post-Quanta, Post-Sale Patentee Controls*, 7 J. Marshall Rev. Intell. Prop. L. 682, 695 (2008) (footnote omitted).
7. Andrew T. Dufresne, *Note: The Exhaustion Doctrine Revisited? Assessing the Scope and Possible Effects of the Supreme Court's Quanta Decision*, 24 Berkeley Tech. L.J. 11, 44 (2009); Sievers, *supra* note 5, at 373.
8. 302 F.3d 1291 (Fed. Cir. 2002).
9. 459 F.3d 1328 (Fed. Cir. 2006).
10. 976 F.2d 700 (Fed. Cir. 1992).
11. 302 F.3d at 1299.
12. 459 F.3d at 1336.
13. 537 U.S. 1232 (2003).
14. 549 U.S. 1342 (2007).
15. 686 F. Supp. 2d 834 (S.D. Ind. 2009).
16. *Id.* at 835-36.
17. *Id.* at 836.
18. *Id.* at 837 (emphasis in original).
19. *Id.* at 839.
20. Thomas G. Hungar, *Observations regarding the Supreme Court's Decision in Quanta Computer Inc. v. LG Electronics, Inc.*, 49 IDEA: The Intellectual Property Law Review 517, 541 (2009).
21. *See* Tod Michael Leaven, *Recent Development: The Misinterpretation of the Patent Exhaustion Doctrine and the Transgenic Seed Industry in Light of Quanta v. LG Electronics*, 10 N.C. J.L. & Tech. 119, 137-39 (2008).
22. "We note that the authorized nature of the sale to Quanta does not necessarily limit LGE's other contract rights. LGE's complaint does not include a breach-of-contract claim, and we express no opinion on whether contract damages might be available even though exhaustion operates to eliminate patent damages...." 128 S. Ct. at 2122 n.7.
23. Hungar, *supra* note 20, at 534, 538-39. *See also* Saami Zain, *Quanta Leap or Much Ado About Nothing? An Analysis on the Effect of Quanta vs. LG Electronics*, 20 Alb. L.J. Sci. & Tech. 67, 116-18 (2010).
24. *See, e.g.*, Dufresne, *supra* note 7, at 12, 45, 46-47; Harry First, *Controlling the Intellectual Property Grab: Protect Innovation, Not Innovators*, 38 Rutgers L.J. 365, 390 (2007) ("Antitrust enforcement is necessary to curb the excessive claims of intellectual property rights holders. It is an antidote to the intellectual property grab."); Zain, *supra* note 23, at 119.

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