Inexhaustible: Patents on Self-replicating Technologies

By Yee Wah Chin

ongress shall "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."¹ The first-sale or patent-exhaustion doctrine reflects the limited nature of patents. In *Quanta Computer, Inc. v. LG Electronics, Inc.*,² the Supreme Court reaffirmed the principle that the authorized sale of a patented item exhausts the patent as to that item.

However, in the context of self-replicating technology, it is unclear how the patent-exhaustion/first-sale doctrine should apply. This is exemplified by genetically modified or transgenic seeds. The patent-exhaustion/first-sale doctrine establishes that the authorized sale of a genetically modified seed exhausts the patent rights in that seed, so that the purchaser may deal freely with that seed. Yet, if the purchaser plants the seed, and thus grows a plant that generates seed, what are the patent rights in that second-generation seed? The Federal Circuit has concluded that the patent holder has full patent rights in the second-generation seed, so that the purchaser is limited under patent law as to what may be done with that seed.³ The potentially extreme results of this approach may be seen in Monsanto Co. v. Bowman,⁴ where a farmer who purchased second-generation seed that was mixed with other seed was found to have infringed Monsanto's patents.

This article reviews the patent-exhaustion/first-sale doctrine and its application to genetically modified seeds and proposes that contract law rather than patent law should govern the patent holder's rights after the authorized sale of an object embodying self-replicating technology.

Patent Exhaustion/First Sale After Quanta

Before *Quanta*, as a result of the Federal Circuit's interpretation in *Mallinckrodt, Inc. v. Medipart, Inc.*⁵ and *B. Braun Medical, Inc. v. Abbott Laboratories*⁶ of *United States v. Univis Lens Co.*,⁷ it appeared that a patent holder can sue for infringement to enforce restrictions on the downstream use of its patents whenever those restrictions are included in a license or sales agreement.

Some trial courts and commentators have concluded that, after *Quanta*, a patent holder has no infringement claim to enforce downstream restrictions when a patented article has been purchased in a sale authorized by the patent holder because the patent rights in that article were exhausted upon that authorized first sale. Contract remedies may still be available.

The Federal Circuit Pre-Quanta

The classic presentation of the patent-exhaustion/first-sale doctrine was made in *Adams v. Burke*,⁸ which involved patented coffin lids that coffin makers were licensed to incorporate into coffins and sell within limited geographic areas. The Supreme Court concluded that "while the right of [licensee coffin makers] to make and sell the coffin-lids [incorporated into coffins] was restricted to the circle of ten miles around Boston, the right of their customers to use the coffin-lids [incorporated into coffins] was not."⁹

In *United States v. Univis Lens Co.*,¹⁰ which was the last time the Supreme Court considered patent exhaustion/first sale until *Quanta*, special lens blanks were sold by licensed lens makers to be ground and finished by licensed buyers into patented multifocal eyeglass lenses. The Court found that the sale of lens blanks transferred all patent rights covering finished patented multifocal eyeglass lenses because even though "the patent is not fully practiced until the [licensed lens buyer] has ground and polished the blank so that it will serve its purpose as a lens . . . the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold."¹¹

However, in *Mallinckrodt* and *B. Braun*, the Federal Circuit applied the patent-exhaustion/first-sale doctrine only in the context of unconditional sales, so that a patent holder may enforce by patent law contract restrictions on downstream use of a patented article.12 Mallinckrodt involved patented medical apparatus marked with the notice "Single Use Only" and sold to hospitals. Hospitals instead transferred the apparatus to a reconditioner to enable reuse, and Mallinckrodt sued the reconditioner for infringement. The Federal Circuit found that "[i]f the sale of the UltraVent was validly conditioned under the applicable law such as the law governing sales and licenses, and if the restriction on reuse was within the scope of the patent grant or otherwise justified, then violation of the restriction may be remedied by action for patent infringement."13 Thus, patent holders may by contract avoid the effects of patent exhaustion/first sale.14 The Federal Circuit confirmed this approach in B. Braun, which involved a medical valve sold on condition that it will be used for only one purpose. It stated that "[t]his exhaustion doctrine, however, does not apply to an expressly conditional sale or license. . . . violation of valid conditions entitles the patentee to a remedy for either patent infringement or breach of contract."15

The Supreme Court precedent with the fact situation most analogous to that in *Mallinckrodt* and which therefore most clearly indicates that *Mallinckrodt* and its progeny were wrongly decided may be *Motion Picture Patents Co. v. Universal Film Manufacturing*,¹⁶ where a plate was attached to patented film projectors notifying buyers of the restriction of the use of the projectors to display only the patent holder's films. The issue was "the extent to which a patentee or his assignee is authorized by our patent laws to prescribe by notice attached to a patented machine the conditions of its use . . . under pain of infringement of the patent."¹⁷ The Court stated that "it is not competent for the owner of a patent . . . to send its machines forth into the channels of trade of the country subject to conditions as to use or royalty to be paid, to be imposed thereafter at the discretion of such patent owner."¹⁸

Quanta

Ouanta involved Intel chipsets that were made under license from LG Electronics. Intel's license stated that it does not convey any license under LG's patents to Intel's chipset buyers to use those chipsets with any non-Intel products. Intel must notify its customers of this. Quanta bought Intel chipsets and incorporated them with non-Intel memory and wires to make computers, without seeking any license from LG. Intel had notified Quanta that Quanta had no license from LG and needed a license before it may use the chipsets with any non-Intel products. LG sued Quanta for infringement. Quanta's defense was that LG's patents were exhausted when it bought the chipsets from Intel, and LG cannot sue for infringement or require Quanta to take a license. The Federal Circuit found that there was no patent exhaustion/first sale. The Supreme Court, in a unanimous decision, reversed and found that LG's patents in the chipsets were exhausted when Intel sold its chipsets to Quanta.

The Court stated that "exhaustion turns only on Intel's own license to sell products practicing the LGE Patents."¹⁹ It was undisputed that Intel could not be sued for infringement for its sales to Quanta and the sales were authorized. "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."²⁰

The key point in *Quanta* may be: "The authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights."²¹ This was emphasized several times in the opinion.²² The crux in the Court's analysis is whether a sale is authorized.²³ Whether a sale is authorized turns on whether the seller can be sued for infringement in making the sale.²⁴

After Quanta

Some trial courts, notably in *Static Control Components, Inc. v. Lexmark International, Inc.*,²⁵ have applied *Quanta* to hold that an authorized sale exhausts a patent. In *Static Control*, Lexmark sold computer printer cartridges at discount (prebate) on condition of single use and return to Lexmark. The terms are printed across the top of the cartridge boxes. Lexmark also offers cartridges at higher prices without the single use and return condition. Remanufacturers obtained cartridges from consumers who bought them at prebate prices. Lexmark sued a supplier of parts to remanufacturers of prebate cartridges.

After *Quanta*, the *Static Control* court reconsidered its earlier rejection of a patent-exhaustion/first-sale defense because:

Quanta . . . represents a change in the law . . . because the Court reasserted a broad understanding of patent exhaustion in the face of Federal Circuit case law that had narrowed the scope of the doctrine. That Federal Circuit case law had been followed as binding precedent by the district courts, including this one.²⁶

It concluded, "*Quanta* overruled *Mallinckrodt sub silentio*. The Supreme Court's broad statement of the law of patent exhaustion simply cannot be squared with the position that the *Quanta* holding is limited to its specific facts."²⁷ Under *Quanta*, "[a]fter the first authorized sale to a purchaser who buys for use in the ordinary pursuits of life, a patent holder's patent rights have been exhausted."²⁸

Therefore, "regardless of the fact that Lexmark may not have received the full value of its Prebate cartridges, after *Quanta* Lexmark may not invoke patent law in order to enforce its Prebate terms²⁹ to limit post-sale use of its printer cartridges.

A number of commentators also concluded that *Quanta* overruled *Mallinckrodt* on patent exhaustion/first use.³⁰ Thomas G. Hungar, who presented the United States' argument before the Supreme Court in *Quanta*, concludes that:

Mallinckrodt's "conditional sale" rationale is no longer good law. Once a patented article is sold or title passes by means of an authorized sale—*i.e.*, a sale that did not constitute patent infringement by the seller, because it was authorized under the patent—patent exhaustion results, and any purported restrictions on the purchaser's use or resale of the patented article are categorically unenforceable in an infringement suit.³¹

The Federal Circuit Post-Quanta

The Federal Circuit's decisions since *Quanta* reflect a narrow reading of the Supreme Court's reasoning. *ExcelStor Technology, Inc. v. Papst Licensing GmbH & Co. KG*³² is an indicator of that approach.³³

ExcelStor made and sold hard disk drives (HDDs) under license from Papst. One of ExcelStor's customers was Hitachi. ExcelStor and Hitachi separately agreed to pay royalties to Papst on drives covered by Papst's patents. ExcelStor's contract allegedly also required Papst to notify ExcelStor if any other entity was paying royalties to Papst on HDDs that ExcelStor manufactured. Upon learning that Hitachi was apparently paying royalties to Papst under an agreement that predates ExcelStor's for HDDs that Hitachi bought from ExcelStor, ExcelStor sued for a declaration that Papst violated the patent exhaustion doctrine and that its agreement with Papst violated patent exhaustion, as well as for fraud and breach of contract. The situation differs from Quanta's primarily in the existence of an agreement between the patent holder and the authorized purchaser.

The Federal Circuit affirmed the district court's dismissal of the action for lack of subject matter jurisdiction. "ExcelStor's claims, which merely invoke defenses to hypothetical claims of patent infringement, do not 'arise under' the patent laws."³⁴ The court stated that:

ExcelStor's claims do not establish federal subject matter jurisdiction because they do not require resolution of a substantial question of federal patent law. The exhaustion doctrine prohibits patent holders from selling a patented article and then "invoking patent law to control postsale use of the article." *Quanta Computer, Inc. v. LG Elecs., Inc.,* 553 U.S. ____, 128 S. Ct. 2109, 2122, 170 L. Ed. 2d 996 (2008). ExcelStor's amended complaint does not allege that Papst invoked the patent laws to control the post-sale use of the hard disk drives. . . . ExcelStor's amended complaint alleges that Papst violated the patent exhaustion doctrine by "collecting two different royalties from the same patented product." . . . But there is no federal cause of action for collecting royalties twice on the same goods.³⁵

It is unclear that *ExcelStor*'s reasoning regarding the hypothetical nature of the dispute is consistent with *MedImmune*,

Yee Wah Chin is Of Counsel at Ingram Yuzek Gainen Carroll & Bertolotti, LLP. She has represented farmers in litigation against Monsanto Co. regarding its practices relating to genetically modified seeds that involved the issue of patent exhaustion. She may be reached at ywchin@ingramllp.com.

*Inc. v. Genentech, Inc.*³⁶ and *Altvater v. Freeman.*³⁷ It is at least arguable that the requirement that Hitachi pay a royalty on HDDs it bought from ExcelStor is a post-sale condition that is unenforceable under patent law because of patent exhaustion. The question may be more ExcelStor's standing to raise the issue.

Patent Exhaustion/First Sale in the Context of Genetically Modified Seeds

"[P]atent 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."³⁸ *Static Control* exemplifies this distinction. Although Lexmark's patents in its printer cartridges were exhausted upon sale so that buyers cannot be compelled by patent law to repay the prebate if they fail to return the cartridges after use, Lexmark still had infringement claims against remanufacturers of those cartridges.³⁹

Holders of patents in genetically modified seed commonly prohibit seed buyers from using second-generation seed grown from the purchased seed to grow additional crops. This saved-seed restriction raises the issue of patent exhaustion/ first sale in the context of self-replicating technology, the patent rights over saved seed grown from seed purchased by an authorized buyer. *Quanta* is clear that the patent rights in a seed are exhausted upon its authorized sale. Is the saved seed a "production" of the patented seed and therefore an infringement?⁴⁰ "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?"⁴¹

The Federal Circuit ruled in *Monsanto Co. v. McFarling*⁴² and *Monsanto Co. v. Scruggs*⁴³ that patent exhaustion/first sale is inapplicable to saved seed. While Scruggs's seed purchases were unauthorized, McFarling's purchases were authorized, and the Federal Circuit found in *McFarling* that the saved seed restrictions were enforceable under *Mallinckrodt* and patent exhaustion/first sale was also inapplicable because the saved seed was not the subject of any sale.⁴⁴ Moreover, "[a]pplying the first sale doctrine to subsequent generations of self-replicating technology would eviscerate the rights of the patent holder."⁴⁵

The Supreme Court denied certiorari in both *McFarling*⁴⁶ and *Scruggs*.⁴⁷ Therefore, patent exhaustion/first sale is inapplicable to saved-seed restrictions, unless and until the Court accepts a case involving self-replicating technology and finds that when a self-replicating patented object is bought in an authorized sale, the patent is exhausted in that object and in any object replicated from it.

Monsanto Co. v. Bowman

Given the treatment in *Quanta* of *Mallinckrodt* and *B. Braun* as well as in other recent cases of Federal Circuit decisions, the Supreme Court may overrule *McFarling* and *Scruggs*.⁴⁸ However, the denial of certiorari in *McFarling* was possibly influenced by the solicitor general's brief⁴⁹ opposing certiorari on the ground that *McFarling* was correctly decided on its facts. The issue would need to be presented in a different context than that in *McFarling*, perhaps in one similar to *Bowman's*.

Bowman is a *pro se* defendant farmer with facts that the Supreme Court might consider in addressing patent

exhaustion/first sale in the context of self-replicating technologies. Bowman bought:

commodity soybeans from a grain elevator for the purpose of planting and harvesting a second season crop. . . . [T]he majority of the commodity soybeans he purchased contained, by happenstance or otherwise, the "Roundup Ready®" trait patented by Monsanto. . . . Monsanto restricts the sale of seeds containing its patented trait to those farmers who agree to be licensed to a single use of the seed or its progeny for planting. However, the soybeans produced from a licensed crop are then often sold by the farmer to a grain elevator, which may or may not segregate the soybeans as "carriers" of the patented trait. The license under which a farmer is authorized to produce this single crop does not restrict his sale of that crop to a grain elevator, but does state that the farmer agrees "not to save any crop produced from this seed for replanting, or supply saved seed to anyone for replanting."

After harvesting the crop he produced from the commodity soybeans, Bowman saved some of the crop for use in the next year's second season planting and, supplemented by additional purchases of commodity soybeans (the majority of which also contained the Roundup Ready[®] trait), continued that process annually until this lawsuit was filed. . . . Monsanto claims that Bowman has infringed on its patent through the unauthorized planting of the commodity soybeans which contain the Roundup Ready[®] trait and via each successive crop planted with saved seed and commodity soybeans.⁵⁰

Bowman argued patent exhaustion/first sale occurred when the licensed Roundup Ready[®] crop was sold to a grain elevator without restrictions, so that when the licensed crop was mixed with other crops and sold to farmers like him who planted them, they were not protected by patent.⁵¹ Monsanto argued that:

[a]lthough the beans produced as a result of planting Roundup Ready[®] seeds belong to the farmer, 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.⁵²

The court in Bowman noted that:

what is compelling about Bowman's argument, and the reason why the court sought further briefing, is the effect . . . that Monsanto's claim to patent protection for all soybeans that carry the Roundup Ready[®] trait has had on the ability of farmers to use commodity beans/seed to plant in lieu of buying beans/seed from Monsanto. . . . Monsanto's domination of the soybean seed market, combined with the regeneration of the Roundup Ready[®] trait and the lack of any restriction against the mixing of soybeans harvested from a Roundup Ready[®] crop from those that are harvested from a crop that was not grown from Roundup Ready[®] seed, has resulted in the commodity soybeans sold by grain dealers necessarily carrying the patented trait, thereby eliminating commodity soybeans as a low cost (but higher risk) source for planting.⁵³

Nonetheless, it found that *McFarling* applied and Bowman infringed Monsanto's patents because the Federal Circuit there relied on the "fact that Monsanto had not sold the progeny seeds . . . to eliminate a defense based upon patent exhaustion."⁵⁴ It stated:

Another reason why the *McFarling* case is persuasive in these circumstances is the Federal Circuit's rejection of the farmer's reliance on *United States v. Univis Lens Co.*... as support for the application of the doctrine of patent exhaustion....[T]he Supreme Court turned to its analysis in the *Univis* decision to assist it in reaching its conclusion in the *Quanta* case.⁵⁵

Both the reasoning and the conclusion of the *Bowman* court are questionable. As one commentator noted:

If the sale complies with all restrictions applicable at the point of sale, including the receipt of any promises required of the purchaser as a condition of the sale, it is an authorized sale, and it cannot somehow be transformed, nunc pro tunc, into an unauthorized sale at some later time if the purchaser subsequently violated the post-sale use restrictions.

* * *

[A] holding that such provisions are enforceable in patentinfringement suits would eliminate the certainty and clarity provided by the patent-exhaustion doctrine's focus on authorization at the time of sale. It would become impossible to know whether a sale actually resulted in exhaustion, because the answer could change depending on the purchaser's post-sale conduct. And a necessary corollary of deeming such provisions enforceable at patent law against purchasers who violate postsale restrictions would be that the sale by the licensee would itself necessarily constitute patent infringement, because only if the sale were retroactively deemed "unauthorized," and hence infringing, could the conclusion be reached that the sale did not exhaust the patent. Accordingly, such provisions would place licensees in the untenable position of not being able to ascertain in advance whether their sales were infringing or not.⁵⁶

Contract Law as an Alternative Remedy

Some commentators conclude that the balance of equities in the case of self-replicating technologies argues against finding patent exhaustion/first sale and in favor of enforcing post-sale restrictions under the patent law, in addition to any contract or other remedies.⁵⁷ On the other hand, the only likely "use" of the purchased patented item, the seed, is planting, which is clearly permissible in an authorized sale and in most cases results in the creation of next-generation seed, so that nextgeneration seed is the natural result that *Univis* and *Quanta* might argue is protected from infringement claims by patent exhaustion/first sale. Moreover, there are essentially only two uses of the next-generation seed: consumption or planting. There seems little principled basis to determine whether a next-generation seed is an infringement based on its use, instead of on the circumstances of its creation.⁵⁸

Footnote 7⁵⁹ in *Quanta* arguably means that, regardless of the availability of any infringement claim, patent holders may enforce contracts that include a saved-seed restriction, unless other laws, such as antitrust or state⁶⁰ laws, bar the contract.⁶¹ This is a distinction that at least one court has made recently. In *O.D.F. Optronics Ltd. v. Remington Arms Co., Inc.*,⁶² the court found that a distributor likely breached the distribution agreement and was subject to contract remedies, but that breach is barred by patent exhaustion/first sale from being the basis of patent and trademark infringement claims.

Given the equities involved, given the substantially greater

remedies under patent law relative to contract law, this may be an appropriate outcome, that an authorized sale triggers exhaustion/first sale, but contract remedies may be available because "enforcing post-sale restrictions on purchasers through patent remedies risks overcompensating patentees and . . . reasonable restrictions can be implemented readily and more appropriately through contract law."⁶³

Thus, a patent holder may license makers of objects embodying its self-replicating technology to sell the objects under contracts that restrict the disposition of secondgeneration objects replicated from the purchased object, and enforce the restrictions under contract law. In a situation such as Bowman's, Monsanto could have licensed seedmakers to sell seed embodying Monsanto technology on condition that the 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 sell the seed only for consumption. Alternatively, Monsanto could require that second-generation seed be sold only to approved buyers who have agreed to Monsanto's conditions. In either case, Monsanto's remedy for breach of the condition would be only under contract law.

Conclusion

The reach of patents on self-replicating technologies needs Supreme Court attention. Bowman's situation indicates that patent exhaustion/first sale should apply to free second-generation technology from patent claims, so long as the secondgeneration technology was derived from self-replicating technology obtained in an authorized sale. Patent holders will still have contract remedies.

Endnotes

- 1. U.S. CONST. art. 1, § 8, cl. 8.
- 2. 553 U.S. 617 (2008).
- 3. Monsanto Co. v. Scruggs, 459 F.3d 1328 (Fed. Cir. 2006);
- Monsanto Co. v. McFarling, 302 F.3d 1291 (Fed. Cir. 2002).

4. 686 F. Supp. 2d 834 (S.D. Ind. 2009).

- 5. 976 F.2d 700 (Fed. Cir. 1992).
- 6. 124 F.3d 1419 (Fed. Cir. 1997).
- 7. 316 U.S. 241 (1942).
- 8. 84 U.S. 453 (1873).

9. Static Control Components, Inc. v. Lexmark Int'l, Inc., 615 F. Supp. 2d 575, 580 (E.D. Ky. 2009).

- 10. 316 U.S. 241.
- 11. Id. at 248-49.

12. The Federal Circuit had earlier stated that "[t]he law is well settled that an authorized sale of a patented product places that product beyond the reach of the patent. . . . The patent owner's rights with respect to the product end with its sale, . . . and a purchaser of such a product may use or resell the product free of the patent, . . . This longstanding principle applies similarly to a sale of a patented product manufactured by a licensee acting within the scope of its license." Intel Corp. v. ULSI Corp., 995 F.2d 1566, 1568, 27 U.S.P.Q.2d (BNA) 1136 (Fed. Cir. 1993) (citations omitted).

13. Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 709 (Fed. Cir. 1992).

14. See, e.g., Andrew T. Dufresne, Note: The Exhaustion Doctrine Revived? Assessing the Scope and Possible Effects of the Supreme Court's Quanta Decision, 24 BERKELEY TECH. L.J. 11, 22 (2009); A Review of Recent Decisions of the United States Court of Appeals for the Federal Circuit: Area Summary: 2008 Patent Law Decisions of the Federal Circuit, 58 AM. U. L. REV. 747, 756 (2009); 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, 91-93 (2010).

15. B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1426 (Fed. Cir. 1997).

16. 243 U.S. 502 (1917).

17. Id. at 509.

18. Id. at 516.

19. Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 637, 128 S. Ct. 2109, 2122 (2008).

20. Id. at 638.

21. Id.

22. "[T]he initial authorized sale of a patented item terminates all patent rights to that item." *Id.* at 625. "Exhaustion is triggered only by a sale authorized by the patent holder." *Id.* at 2121. *See also, e.g.*, Thomas G. Hungar, *Observations regarding the Supreme Court's Decision in* Quanta Computer Inc. v. LG Electronics, Inc., 49 IDEA 517, 530–31 (2009) ("*Quanta* clearly and unambiguously holds that patent exhaustion follows as a matter of law from any 'authorized' (i.e., non-infringing) sale; indeed, the Court restates that holding at least seven times in the course of its opinion, leaving no room for doubt about the governing criterion.") (footnote omitted).

23. Hungar, supra note 22, at 530.

24. Id.

25. 615 F. Supp. 2d 575 (E.D. Ky. 2009).

26. Id. at 582-83.

27. *Id.* at 585–86. *See also, e.g.*, LG Elecs., Inc. v. Hitachi Ltd., 2009 U.S. Dist. LEXIS 20457, at *22–31 (N.D. Cal. 2009) (*Quanta* overrules Federal Circuit rulings in *Jazz Photo Corp. v. International Trade Commission*, 264 F.3d 1094 (Fed. Cir. 2001), and *Fuji Photo Film Co.*, *Ltd. v. Jazz Photo Corp.*, 394 F.3d 1368 (Fed. Cir. 2005), that authorized foreign sales do not exhaust a U.S. patent covering the item sold); Intergraph Hardware Techs. Co. v. Dell, Inc., 2009 U.S. Dist. LEXIS 3193, at *12 (E.D. Tex. 2009) (court found in substantially similar patent license context that *Quanta* made new law because Federal Circuit "long interpreted the exhaustion doctrine as applying only where the sale or license of the patented invention was an unconditional one"). *Cf.* Cornell Univ. v. Hewlett-Packard Co., 2008 U.S. Dist. LEXIS 60209, 89 U.S.P.Q. 2d (BNA) 1575 (N.D.N.Y. 2008) (court limited patent exhaustion to authorized sales within the United States); Hungar, *supra* note 22, at 543 n.128.

28. *Static Control*, 615 F. Supp. 2d at 582. *See also*, *e.g.*, *Cornell University*, 2008 U.S. Dist. LEXIS 60209, at *4 ("[D]istilled to its essence, the patent exhaustion inquiry focuses on a single question: whether or not there was an authorized sale that triggered the exhaustion of the patentee's right. This presents a factual question, appropriately addressed by a jury."); Rembrandt Data Techs., LP v. AOL, LLC, 2009 U.S. Dist. LEXIS 79610, at *34 (E.D. Va. 2009) ("the authorized sale of a patented object that is properly licensed exhausts the patent holder's rights and prevents claims of infringement against the purchaser").

29. *Static Control*, 615 F. Supp. 2d at 586. Moreover, "after *Quanta*, we understand that the Prebate agreement is not a condition on the sale of the cartridge, but rather a condition on its use." *Id.* at 587 n.9.

30. See, e.g., 1-2 Roger M. Milgrim, Milgrim on Licensing § 2.30 (2009) (Under Quanta, "[w]here the sale of a product is authorized and the exhaustion doctrine applies, an express reservation of rights communicated to the buyer will not defeat its application."); Hungar, supra note 22, at 520, 530–32 ("the *Quanta* decision amounts to a sweeping reaffirmation" of the Court's patent-exhaustion precedents and an implicit rejection of the exhaustion jurisprudence reflected in Mallinckrodt, Inc. v. Medipart, Inc. and its progeny. . . . [T]here is no longer any room for continued adherence to the Mallinckrodt line of cases. . . . Mallinckrodt's actual holding-that a patent holder's authorized sale of its patented products does not necessarily result in exhaustion-is necessarily overturned by the Quanta Court's enunciation of the governing test for exhaustion.") (footnotes omitted); Herbert Hovenkamp, Meador Lecture Series 2007-2008: Empire: Innovation and the Domain of Competition Policy, 60 ALA. L. REV. 103, 111 n.35 (2008) ("The Supreme Court [in Quanta] held that the first sale rule barred the suit, overruling the Federal Circuit's decision in Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 709 (Fed. Cir. 1992),

which had exempted 'conditional' sales such as this one from the first sale doctrine."); Harold C. Wegner, Post-Quanta, Post-Sale Patentee Controls, 7 J. MARSHALL REV. INTELL. PROP. L. 682 (2008) ("The Court sub silentio overruled Federal Circuit limitations to exhaustion while demonstrating admirable judicial restraint by deferring to another day the continued viability of contractual proscriptions on a customer's use of the goods.") (footnotes omitted); Joshua D. Sarnoff & Christopher M. Holman, Recent Developments Affecting the Enforcement, Procurement, and Licensing of Research Tool Patents, 23 BERKELEY TECH. L.J. 1299, 1363 (2008); 1-1 THOMAS J. PARKER, PATENT LICENSING TRANSACTIONS § 1.01 [2.1]; Dufresne, supra note 14, at 18, 26-27, 43. "Academic literature that has followed in the wake of the Quanta decision has grappled with the question of whether the Supreme Court intended to overrule Mallinckrodt. Several authors believe *Mallinckrodt* is no longer good law.... Others have expressed the belief, or the hope, that the Quanta holding is limited to the very specific facts, and the very specific license agreement, that confronted the Court." Static Control, 615 F. Supp. 2d at 585. See range of views cited in Hungar, supra note 22, at 517 n.60; Jason McCammon, Recent Development: The Validity of Conditional Sales: Competing Views of Patent Exhaustion in Quanta Computer, Inc. v. LG Electronics, Inc., 128 S. Ct. 2109 (2008), 32 HARV. J.L. & PUB. POL'Y 785, 791-92 (2009).

31. Hungar, supra note 22, at 533 (footnotes omitted).

32. 541 F.3d 1373 (Fed. Cir. 2008).

33. See also, e.g., Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 576 F.3d 1348 (Fed. Cir. 2009) (en banc) ("the Court's language throughout the *Quanta* opinion is focused on the similarities between method and apparatus patents in the unique context of patent exhaustion.... The Supreme Court's statement in an exhaustion context has no application here.").

34. ExcelStor Tech., 541 F.3d at 1376.

35. Id. at 1376-77.

36. 549 U.S. 118 (2007).

37. 319 U.S. 359, 364-65 (1943).

38. 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). 39. Static Control Components, Inc. v. Lexmark Int'l, Inc., 615 F. Supp. 2d 575 (E.D. Ky. 2009).

40. Dufresne, supra note 14, at 44; Sievers, supra note 38, at 373.

41. Wegner, supra note 30, at 695 (footnote omitted).

42. 302 F.3d 1291 (Fed. Cir. 2002).

43. 459 F.3d 1328 (Fed. Cir. 2006).

44. McFarling, 302 F.3d at 1299.

45. Scruggs, 459 F.3d at 1336.

46. Monsanto Co. v. McFarling, 537 U.S. 1232 (2003).

47. Monsanto Co. v. Scruggs, 549 U.S. 1342 (2007).

48. There is a consensus among commentators that the Supreme Court is asserting its authority "to rein in patentee rights . . . restoring the primacy of its own jurisprudence in patent law." Dufresne, supra note 14, at 26-27 (footnotes omitted). See also, e.g., Thomas F. Cotter, A Burkean Perspective on Patent Eligibility, Part II: Reflections on the (Counter) Revolution in Patent Law, 11 MINN. J. L. SCI. & TECH. 365, 367, 371-72 (2010) ("In the four years since . . . the United States Supreme Court has scaled back some of the Federal Circuit's more expansive readings of patent doctrine[,] . . . provided a necessary corrective to that ever-expanding system . . . and reaffirmed the vitality of the first-sale doctrine."); Bryan Nese, Bilski on Biotech: The Potential for Limiting the Negative Impact of Gene Patents, 46 CAL. W. L. REV. 137, 139 n.6 (2009) ("recent appeals to the Supreme Court from the Federal Circuit have each resulted in reversals"); John M. Golden, The Supreme Court as "Prime Percolator": A Prescription for Appellate Review of Questions in Patent Law, 56 UCLA L. REV. 657, 658, 671 (2009) ("[T]he Supreme Court has, in the past six years, asserted its dominion over patent law with frequency and force. . . . [T]he increased frequency and substance of Supreme Court review has [sic] coincided with an increase in the rate and severity of adverse results for Federal Circuit decisions. In the last ten terms studied, the Supreme Court has affirmed the Federal Circuit's decisions in only two patent

cases, vacated the Circuit's decisions in four, and reversed the Circuit's decisions in six. All four of the most recently decided cases ended in a reversal.") (footnotes omitted); 1-2 MILGRIM ON LICENSING, supra note 30, § 2.00 ("In view of the Federal Circuit's divergence from Supreme Court precedent, it was just a matter of time before the Court reasserted its role in patent law by more frequently reviewing patent cases. Beginning in 2002, the Supreme Court began to do just that and the Federal Circuit did not fare well: in a series of major decisions beginning in 2002, the Supreme Court affirmed the Federal Circuit in part once, but otherwise consistently reversed."); Wegner, supra note 30, at 682-83 ("Given uniformly anti-patentee holdings of the Supreme Court since 2002, the result in Quanta was hardly unpredictable.") (footnote omitted); Gerald Sobel, Reconsidering the Scope of the Inequitable Conduct Doctrine in View of Supreme Court Precedent and Patent Policy, 18 FeD. CIR. B.J. 169, 170 (2008) ("the Supreme Court's recent propensity to reverse Federal Circuit precedent in light of Supreme Court authority in cases such as Quanta . . ., KSR International . . ., eBay . . ., and MedImmune ...") (footnotes omitted); Gretchen S. Sween, Who's Your Daddy? A Psychoanalytic Exegesis of the Supreme Court's Recent Patent Jurisprudence, 7 Nw. J. TECH. & INTELL. PROP. 204, 206 (2009); Cecil D. Quillen Jr., Commentary on Bessen and Meurer's Patent Failure: An Industry Perspective, 16 J. INTELL. PROP. L. 57, 75 (2008); Vangelis Economou, Sacking Super Sack: Using Existing Rules to Prevent Patentees from Fleeing an Improvident Patent Infringement Lawsuit, 8 J. MARSHALL REV. INTELL. PROP. L. 90, 117 (2008) ("The Supreme Court in recent years has, possibly by design, rendered several opinions that tilt toward reining in the Federal Circuit's reliance on patent-specific applications of Supreme Court precedent.") (footnote omitted).

49. Brief for the United States as Amicus Curiae, McFarling v. Monsanto Co., 537 U.S. 1232 (2003) (No. 04-31), http://www.justice. gov/atr/cases/f209200/209268.pdf.

50. Monsanto Co. v. Bowman, 686 F. Supp. 2d 834, 835–36 (S.D. Ind. 2009) (footnotes omitted).

51. *Id.* at 836. Bowman also raised sweeping constitutionality and policy arguments, as well as the possibility of a "terminator gene' to assure that the progeny of Roundup Ready® seeds do not carry the trait" and a requirement that Monsanto revise its licenses to compel segregation of Roundup Ready® crops from other crops, all of which the court found either unsupported or beyond its realm. *Id.* at 836-37.

52. Id. at 837 (emphasis in original).

53. Id. at 836-37.

54. Id. at 839.

55. Id.

56. Hungar, *supra* note 22, at 541 (footnotes omitted). Also, the Federal Circuit in *Transcore, LP v. Electronic Transaction Consultants Corp.*, 563 F.3d 1271, 1274, 1275 (Fed. Cir. 2009), noted that, "[a]s the Supreme Court explained in *Quanta*, however, the parties' intent with respect to downstream customers is of no moment in a patent exhaustion analysis."

57. Dufresne, supra note 14, at 44.

58. 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).

59. "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. See . . . ('Whether a patentee may protect himself and his assignees by special contracts brough home to the purchasers is not a question before us, and upon which we express no opinion. It is, however, obvious that such a question would arise as a question of contract, and not as one under the inherent meaning and effect of the patent laws')." Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 637, 128 S. Ct. 2109, 2122 (2008).

60. "Within the last seven years, state legislators in Missouri and Minnesota introduced bills allowing farmers to save their seeds regardless of what the seed patentee and the licensed distributor set forth in contract." Leaven, *supra* note 58, at 140 (footnote omitted).

61. Hungar, *supra* note 22, at 534, 538–39. *See also* Zain, *supra* note 14, at 116–18.

62. 2008 U.S. Dist. LEXIS 74482, at *34-37 (S.D.N.Y. 2008).

63. Dufresne, *supra* note 14, at 12, 46–47. *See also, e.g., id.* at 45 ("[S] ocietal interests might be best served by addressing post-sale restraints on patented goods through a contract framework, as the Supreme Court alluded to in *Quanta*. Resorting to contract mechanisms would preserve flexibility in private dealings yet secure important consumer protections and restore the patent system's emphasis on fostering innovation, not maximizing profit.") (footnotes omitted); 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 14, at 119.