

THE EXHAUSTION DOCTRINE REVIVED? ASSESSING THE SCOPE AND POSSIBLE EFFECTS OF THE SUPREME COURT'S *QUANTA* DECISION

By Andrew T. Dufresne

In *Quanta Computer, Inc. v. LG Electronics, Inc.*, the Supreme Court addressed the common law doctrine of patent exhaustion for the first time in more than sixty years.¹ The unanimous opinion rejected a categorical rule exempting method patents from exhaustion² and held that a product need only substantially embody an invention for its sale to trigger exhaustion.³ But the Court passed on an opportunity to comment broadly on post-sale restrictions used to circumvent exhaustion, engaging instead in a fact-intensive analysis of the restrictions at issue that invites narrow interpretation by lower courts.⁴ Nonetheless, *Quanta* signals Supreme Court disapproval of attempts to marginalize the exhaustion doctrine, and the opinion's practical effects may therefore reach beyond its limited holding.

This Note examines *Quanta* in the larger context of judicial decisions that have shaped the exhaustion doctrine. Part I considers the origins of first sale principles, traces the exhaustion doctrine's development in patent law, and explores the various limits courts have placed on the doctrine. Part II describes the facts and history of the *Quanta* litigation, and Part III describes the Supreme Court's three major holdings. First, the Court forcefully overturned the Federal Circuit's poorly supported categorical rule that had exempted method claims from exhaustion. Second, the Court held that the sale of even an incomplete product can exhaust claims to the finished article, reasserting and significantly clarifying its own standard for applying exhaustion to unfinished products. Third, and perhaps most significantly, the Court held the asserted claims exhausted because LG Electronics (LGE) technically failed to impose any effective restrictions on *Quanta*'s purchases. Although the opinion thus reserved significant questions regarding whether or how patentees may preserve post-sale patent

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1. 128 S.Ct. 2109 (2008).
2. *Id.* at 2117-18.
3. *Id.* at 2119-21.
4. *See id.* at 2121-22.

remedies against authorized purchasers, the Court suggested in dictum that such restrictions instead might properly be enforced through contract mechanisms.

Part IV discusses *Quanta*'s potential impact on licensing practices as well as on important Supreme Court and Federal Circuit precedent. Even though the Supreme Court rejected LGE's post-sale restrictions on factually narrow grounds, the opinion could effect significant changes by implication. Finally, Part IV also argues that enforcing post-sale restrictions on purchasers through patent remedies risks overcompensating patentees and that reasonable restrictions can be implemented readily and more appropriately through contract law.

I. THE LAW OF PATENT EXHAUSTION

The Supreme Court most famously described the patent exhaustion doctrine in *Adams v. Burke*: “[W]hen the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use.”⁵ In other words, each legitimate sale of a patented product extinguishes the patent holder's exclusive rights over the article sold, and the purchaser takes title without further restraint or obligation under the patent laws. Patent exhaustion thus operates as an affirmative defense, shielding authorized purchasers from infringement actions.⁶ Without patent exhaustion, patentees' exclusive rights over the production, use, and sale⁷ of their inventions could persist beyond the first sale, allowing the patentee to exert control—and extract compensation—down the chain of ownership for the life of the patent.⁸

A. Theoretical Foundations of Patent Exhaustion

The patent exhaustion doctrine dates to the Supreme Court's 1852 decision in *Bloomer v. McQuewan*.⁹ Thereafter, the doctrine became fixed in

5. 84 U.S. 453, 456 (1873).

6. See generally William A. Birdwell, *Exhaustion of Rights and Patent Licensing Market Restrictions*, 60 J. PAT. OFF. SOC'Y 203 (1978).

7. 35 U.S.C. § 154(a)(1) (2006).

8. Similar concerns prompted later development of the analogous “first sale” doctrine in copyright law, see *Bobbs-Merrill Co. v. Straus*, 210 U.S. 339 (1908). Interestingly, the doctrine has since been codified in U.S. copyright laws, 17 U.S.C. § 109 (2006), but remains a common law device in the patent context.

9. See *Bloomer v. McQuewan*, 55 U.S. 539, 549 (1852) (“[W]hen the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.”).

U.S. patent jurisprudence as a kind of axiomatic truth, “more slogan than policy,” dutifully repeated but rarely explained.¹⁰ Thus, exhaustion’s theoretical underpinnings remain somewhat hazy. But the cases reveal two primary motivations for the exhaustion doctrine: (1) a desire to discourage unwarranted patentee compensation, and (2) deep misgivings about attaching permanent restrictions to personal property.

1. Fair Compensation, But Nothing More: The Masonite Test

The U.S. Constitution grants Congress the power to award patents with the expressly utilitarian aim of promoting innovation.¹¹ This provision recognizes that new ideas, once revealed, are easily appropriated by others, and prospective inventors might therefore decline to invest their time, energy, and resources in research without a mechanism to capture some benefit from their inventions. Thus, patents offer “the right to exclude others from making, using, offering for sale, or selling the invention” for a limited period of time.¹² The potentially lucrative right to commercialize an invention free from competition provides a powerful incentive to offset the difficulty and risk inherent in research. In short, the patent system represents a bargain—society temporarily forgoes the benefits of market competition in return for the public good provided by the inventor’s efforts.

For society to reap the greatest benefit under such a bargain, “the proper goal of intellectual property law is to give as little protection as possible consistent with encouraging innovation.”¹³ The Supreme Court’s opinions suggest a similar desire to cap patentee returns, consistently justifying exhaustion where patentees had received due consideration.¹⁴

10. See Glen O. Robinson, *Personal Property Servitudes*, 71 U. CHI. L. REV. 1449, 1464-69 (2004).

11. U.S. CONST. art. I, § 8, cl. 8.

12. 35 U.S.C. § 154(a) (2006).

13. Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1031 (2005).

14. See *United States v. Univis Lens Co.*, 316 U.S. 241, 251 (1942) (“[T]he purpose of the patent law is fulfilled . . . when the patentee has received his reward”); *Bauer & Cie v. O’Donnell*, 229 U.S. 1, 16 (1913) (imposing exhaustion on items “previously bought, at a price which must be deemed to have been satisfactory”); *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 666-67 (1895) (“[Exhaustion] does not deprive a patentee of his just rights, because no article can be unfettered from the claim of his monopoly without paying its tribute.”); *Adams v. Burke*, 84 U.S. 453, 456 (1873) (“[T]he patentee [having] received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction”); *Mitchell v. Hawley*, 83 U.S. 544, 547 (1872) (“[When]

The Supreme Court made this rationale most explicit in *United States v. Masonite Corp.*, highlighting the balance of interests at stake in the patent system: “Whilst the remuneration of genius and useful ingenuity is a duty incumbent upon the public, the rights and welfare of the community must be fairly dealt with and effectually guarded.”¹⁵ In this spirit, the Court framed what came to be known as the *Masonite* Test for resolving exhaustion questions based on full patentee compensation at the time of sale. “The test has been whether or not there has been such a disposition of the article that it may fairly be said that the patentee has received his reward for the use of the article.”¹⁶ As conceived in cases like *Masonite*, patent exhaustion provides a necessary counterweight against patentee rights to safeguard the public interest in the patent system.

2. *Apprehension Over Servitudes Running with Chattels*

A second concern animates patent exhaustion—basic apprehension over servitudes running with personal property. Servitudes are covenants or restrictions that become legally embedded in property, binding all subsequent purchasers regardless of any connection to the original owner or even any awareness of the servitude. Traditional hostility toward such restraints on alienation traces through the common law to an early backlash against feudalism.¹⁷ The ensuing blanket prohibition against servitudes has receded as to real property but largely persists in the personal property context.^{18,19}

The patent system, governing what amounts to a special class of personal property, manifests this enduring aversion to personal property servitudes through the exhaustion doctrine. Without exhaustion, patentees could reserve exclusive rights under the patent laws in each patented article sold. Because patent infringement is a strict liability offense, this would create *de facto* servitudes running with the goods and binding all subsequent owners.

Patent exhaustion blocks such indefinite burdens on personal property, and the Supreme Court has often indirectly touted this function. For ex-

the consideration has been paid to him for the thing patented, the rule as well established that the patentee must be understood to have parted . . . with all his exclusive right . . .”).

15. 316 U.S. 265, 278 (1942) (quoting *Kendall v. Winsor*, 62 U.S. 322, 329 (1859)).

16. *Id.*

17. *Robinson*, *supra* note 10, at 1480-81.

18. *See generally* Molly S. Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885, 891-910 (2008).

19. The reasons behind this discrepancy remain a matter of historical speculation. *See generally* Zechariah Chafee, *Equitable Servitudes on Chattels*, 41 HARV. L. REV. 945, 977-87 (1928).

ample, the Court has emphasized that patented goods, once sold, become the purchaser's "private, individual property"²⁰ such that the patentee "can exercise no future control over what the purchaser may wish to do with the article."²¹ Furthermore, the Court has offered blunt commentary on the likely consequences of allowing restrictions to run with patented goods: "The inconvenience and annoyance to the public . . . are too obvious to require illustration."²²

B. Pre-*Quanta* Qualifications on Patent Exhaustion

The patent exhaustion doctrine is thus firmly rooted in Supreme Court jurisprudence dating back over 150 years. Nonetheless, the courts have carved out select circumstances under which patent owners may exert limited continuing influence over patented goods. Broadly speaking, these include reconstruction, permissible restrictions on licensees, and permissible restrictions on purchasers.

1. *The Repair/Reconstruction Dichotomy*

Under the patent laws, purchasers of patented products receive full title with the customary right to maintain their property in working order. But when repair of a lawfully purchased but completely worn-out patented product crosses to effective "reconstruction," the courts find infringement of the patentee's exclusive right to make the patented item.²³

The distinction between repair and reconstruction originated in *Wilson v. Simpson*.²⁴ There, the defendants legally obtained a patented lumber planing machine, subsequently replacing worn cutting elements without permission from the patent owner.²⁵ Rejecting the ensuing infringement claim, the Supreme Court held that such replacement constituted permissible repair: "[I]t does not follow, when one of the elements has become so worn as to be inoperative, or has been broken, that the machine no longer exists When the wearing or injury is partial, then repair is restoration, and not reconstruction."²⁶ In contrast, the defendants in a later case reconstructed patented cotton bale ties by purchasing severed and discarded bands, riveting the cut ends back together, and reselling the ties.²⁷ Distinguishing *Wilson v. Simpson*, the Court held that the defendants infringed

20. *Bloomer v. McQuewan*, 55 U.S. 539, 550 (1852).

21. *United States v. Gen. Elec. Co.*, 272 U.S. 476, 489 (1926).

22. *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 667 (1895).

23. *See, e.g., Wilson v. Simpson*, 50 U.S. 109, 123 (1850).

24. *Id.*

25. *Id.* at 124.

26. *Id.* at 123.

27. *Am. Cotton Tie Co. v. Simmons*, 106 U.S. 89, 93 (1882).

because they had not repaired worn components but wholly reconstructed ties that had been destroyed with respect to their intended use.²⁸

Thus, the distinction between repair and reconstruction hinges on whether the changes “‘in fact make a new article,’ after the entity, viewed as a whole, has become spent. . . . it must, indeed, be a second creation of the patented entity” to constitute reconstruction.²⁹ Of course, this dichotomy applies only to patented items obtained through *authorized* sales—both repair and reconstruction of illicit products simply renew an existing infringement.³⁰

2. *Restrictions on Licensees*

The courts have long recognized a distinction between licenses and sales, enforcing license conditions with infringement remedies where exhaustion would shield purchasers from comparable liability.³¹ Patent owners may license their exclusive rights to make, use, and sell their inventions to others,³² and the courts allow license restrictions that effectuate the choices patentees *would* make if making, using, or selling the invention themselves.³³

a) Price Restrictions

Patentees may dictate prices charged by their licensed distributors. “The owner of a patented article can, of course, charge such price as he may choose, and the owner of a patent may assign it or sell the right to manufacture and sell the article patented upon the condition that the assignee shall charge a certain amount for such article.”³⁴

28. *See id.* at 94 (“The band was voluntarily severed . . . it could not be used again as a tie. As a tie, the defendants reconstructed it . . . [t]he principle of [*Wilson*] was, that temporary parts wearing out in a machine might be replaced to preserve the machine . . . without amounting to a reconstruction . . .”).

29. *Aro Mfg. Co. v. Convertible Top Replacement Co. (Aro I)*, 365 U.S. 336, 346 (1961) (quoting *United States v. Aluminum Co. of Am.*, 148 F.2d 416, 425 (1925)).

30. *Aro Mfg. Co. v. Convertible Top Replacement Co. (Aro II)*, 377 U.S. 476, 497 (1964).

31. *See United States v. Gen. Elec. Co.*, 272 U.S. 476, 485 (1926) (“The distinction in law and fact between an agency and a sale is clear.”).

32. *Bauer & Cie v. O’Donnell*, 229 U.S. 1, 15 (1913).

33. *See* Mark R. Patterson, *Contractual Expansion of the Scope of Patent Infringement Through Field-of-Use Licensing*, 49 WM. & MARY L. REV. 157, 164-65 (2007) (“[M]anufacturing licensees in effect stand in the shoes of the patentee, and imposing use restrictions on them can reasonably be treated as economically equivalent to individual decisions by the patentee itself . . .”).

34. *Bement v. Nat’l Harrow Co.*, 186 U.S. 70, 93 (1902).

For example, the Supreme Court upheld a patentee's price restrictions on its manufacturing licensee in *United States v. General Electric Co.*³⁵ There, General Electric licensed Westinghouse to make, use, and sell its patented light bulbs, with the requirement that Westinghouse maintain prices set by General Electric.³⁶ The Court held that, while exhaustion prevents patentees from exerting control over purchasers, a different question arises when considering how patent holders may restrict licensees.³⁷ The Court reasoned that patentees should be able to dictate their licensed vendors' prices because those prices influence what price the patentee itself can charge.³⁸ Therefore, patentees can reasonably impose price restrictions on licensed sellers in order to protect the profit margins central to our incentive-driven patent system.³⁹ In short, exhaustion prevents "condition[s] running with the article in the hands of purchasers," not "restriction[s] put by a patentee upon his licensee as to the prices at which the latter shall sell" patented articles.⁴⁰

b) Geographic Restrictions

Similarly, patent holders may restrict licensees geographically.⁴¹ For example, a patentee may divide regional sales rights among several licensees or license only certain areas while reserving others for itself.⁴² Licensees infringe by operating outside their authorized territories; they are not, however, liable for selling (even knowingly) to customers that later move the goods for extraterritorial use.⁴³

35. *Gen. Elec. Co.*, 272 U.S. 476.

36. *Id.* at 479.

37. *Id.* at 489.

38. *Id.* at 490.

39. *Id.*

40. *Id.* at 494.

41. "[Patents] shall be assignable in law by an instrument in writing . . . [the patentee] may convey an exclusive right . . . to the whole or any specified part of the United States." 35 U.S.C. § 261 (2006). As interpreted by the courts, "assignable" incorporates licensing. *E.g.*, *Miller Insituform, Inc. v. Insituform of N. Am., Inc.*, 605 F. Supp. 1125, 1130-31 (M.D. Tenn. 1985), *aff'd*, 830 F.2d 606 (6th Cir. 1987).

42. *See, e.g.*, *Adams v. Burke*, 84 U.S. 453 (1873) (concerning a license that carved out a single, exclusive sales territory within a ten-mile radius of Boston, with all remaining areas reserved for the patent holder).

43. As long as the transaction occurs within the licensed territory, licensee sales are authorized and therefore trigger exhaustion. *See Hobbie v. Jennison*, 149 U.S. 355 (1893) (finding no liability for a Michigan licensed seller that sold patented pipes in Michigan with knowledge that the customer would immediately ship the pipes for use in Connecticut).

c) Use Restrictions

Patent owners may also incorporate use restrictions into license agreements. For example, in *General Talking Pictures*, a patent owner licensed another company to manufacture and sell patented sound amplifiers only for private, noncommercial use.⁴⁴ The licensee nonetheless knowingly sold the amplifiers to a commercial user.⁴⁵ The Supreme Court explained that patentees may restrict their licensees to certain uses of licensed technology as long as the restrictions do not “extend the scope of the monopoly.”⁴⁶ Because the licensee violated a field-of-use restriction that was properly within the patent grant, the Court held it liable for patent infringement.⁴⁷

3. *Restrictions on Purchasers*

In contrast to licensing situations, patentees’ attempts to impose restrictions on *purchasers* historically faced judicial hostility under the exhaustion doctrine. Nevertheless, the Supreme Court’s approach has not been entirely consistent,⁴⁸ facilitating recent Federal Circuit decisions that have substantially eroded the exhaustion doctrine.

a) Resale Restrictions

The exhaustion doctrine prevents patent owners from restraining the resale of legitimately purchased patented goods. In *Keeler v. Standard Folding-Bed Co.*, the defendants purchased patented bed frames from a licensed seller and later resold the beds.⁴⁹ The plaintiff sought to enjoin the defendants’ sales through an infringement action,⁵⁰ but the Supreme Court held that legitimately purchased patented goods become “the absolute, unrestricted property of the purchaser, with the right to sell as an essential

44. *See* *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175, 180 (1938) (“The license . . . was expressly confined to . . . radio amateur reception, radio experimental reception, and home broadcast reception. It [conferred] no right to sell the amplifiers for use in theaters . . .”), *aff’d on reh’g*, 305 U.S. 124 (1939).

45. *Id.*

46. *Id.* at 181.

47. *Id.* at 181-82.

48. *See* 5 DONALD S. CHISUM, CHISUM ON PATENTS § 16.03[2][a][iii] (2008) (“Supreme Court decisions give apparently conflicting signals on whether a patent owner may limit exhaustion and restrict resales by imposing conditions on its sales of product or on sales by its licensees.”).

49. 157 U.S. 659, 659 (1895).

50. *Id.*

incident of such ownership.”⁵¹ The Court’s subsequent opinions have consistently reinforced this conclusion.⁵²

b) Geographic Restrictions

In addition, exhaustion precludes patent holders from enforcing geographic restrictions on purchasers. In *Adams v. Burke*, the plaintiff had received an exclusive license to manufacture and sell patented coffin lids within a defined geographic area.⁵³ The defendant, an undertaker, purchased identical lids elsewhere from another licensed distributor but used them within the plaintiff’s territory. The Supreme Court affirmed dismissal of the plaintiff’s infringement claim on exhaustion grounds.⁵⁴

c) Use Restrictions Imposed Through a Licensee—*General Talking Pictures*

Despite the exhaustion doctrine’s general prohibition against post-sale restrictions on purchasers, one Supreme Court decision held a purchaser liable for patent infringement. In *General Talking Pictures*, the Court held that a licensed seller *and its customer* had infringed by violating a field-of-use restriction specified in the seller’s license from the plaintiff.⁵⁵

The infringing licensee in *General Talking Pictures* was licensed to sell patented amplifier tubes solely for private audio applications and attached notice of this restriction to each tube it sold.⁵⁶ The licensee sold tubes to General Talking Pictures—a commercial user—and included the customary sales notice,⁵⁷ yet both parties knew their transaction would violate the restriction.⁵⁸ The patentee subsequently accused the licensee and

51. *Id.* at 664.

52. *See, e.g.,* *United States v. Univis Lens Co.*, 316 U.S. 241, 250 (1942) (“[T]he patentee cannot control the resale price of patented articles which he has sold . . . by stipulating for price maintenance by his vendees.”); *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 457 (1940) (“[B]y the authorized sales of the fuel . . . the patent monopoly over it is exhausted, and . . . neither appellant nor the [licensees] may longer rely on the patents to exercise any control over the price at which the fuel may be resold.”); *Bauer & Cie v. O’Donnell*, 229 U.S. 1 (1913) (rejecting minimum resale prices imposed on retailers of a patented pharmaceutical).

53. *Adams v. Burke*, 84 U.S. 453, 456 (1873).

54. *Id.* at 456-57 (“[W]hen [patented goods] are once lawfully made and sold, there is no restriction on their use to be implied for benefit of the patentee or his assignees or licensees.”).

55. *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175, 181-82 (1938), *aff’d on reh’g*, 305 U.S. 124 (1939).

56. *Id.* at 180.

57. *Id.*

58. *Id.*

General Talking Pictures of patent infringement.⁵⁹ In defense, General Talking Pictures argued that its purchases, made through a licensed seller, compensated the patentee and thus exhausted the patents.⁶⁰

The Supreme Court held that patentees are entitled to grant licenses “upon conditions not inconsistent with the scope of the monopoly,” the asserted field-of-use restriction did not stretch the patent beyond its intended scope, and therefore any sales contravening the restriction were not legally authorized and thus did not exhaust the patentee’s rights.⁶¹ Absent exhaustion, the restriction in the license not only bound the *licensee*, but also survived its illegitimate sales to bind *purchasers*—rendering General Talking Pictures liable for patent infringement.⁶²

In the wake of *General Talking Pictures*, the scale of its effect on the exhaustion doctrine was unclear in several respects: (1) the Supreme Court emphasized the purchaser’s knowing violation of the field-of-use restriction but failed to state whether such knowledge was required to defeat exhaustion;⁶³ (2) the purchaser received and disregarded notice of the license restriction, but the Court expressly reserved comment on the legal effect of such notice;⁶⁴ (3) the case concerned restrictions imposed on the purchaser through a licensed intermediary, but the Court did not indicate whether the same result should follow similarly restricted sales made directly by a patentee; and (4) the Court did not discuss whether it would enforce field-of-use restrictions only or allow patentees to bind purchasers generally.⁶⁵

d) Use Restrictions Imposed Directly—*Mallinckrodt*

In 1992 the Federal Circuit expanded on *General Talking Pictures*, broadly empowering patentees to impose binding sales conditions on purchasers with its decision in *Mallinckrodt, Inc. v. Medipart, Inc.*⁶⁶ The plaintiff patent owner, Mallinckrodt, manufactured patented medical devices for controlled delivery of hazardous aerosolized therapeutics and sold them directly to hospitals.⁶⁷ In addition, Mallinckrodt affixed “single

59. *Id.* at 179.

60. *Id.* at 180.

61. *Id.* at 181.

62. *Id.* at 182.

63. *See id.* at 180, 182.

64. *Id.* at 182.

65. Later Supreme Court exhaustion cases continued to block resale price restrictions imposed on purchasers. *E.g.*, *United States v. Univis Lens Co.*, 316 U.S. 241 (1942).

66. 976 F.2d 700 (Fed. Cir. 1992).

67. *Id.* at 701-02.

use only” labels to the devices and their packaging.⁶⁸ Many hospitals, however, ignored this restriction—instead shipping used devices to Medipart for reconditioning.⁶⁹ Medipart sterilized, repackaged, and returned the devices for reuse.⁷⁰

Mallinckrodt filed suit against Medipart, claiming that Medipart’s activities violated its single-use restriction and thus constituted patent infringement.⁷¹ By analogy to *General Talking Pictures*, Mallinckrodt characterized its restrictive labeling as a patent license that bound purchasers to a defined field-of-use—single use.⁷² At summary judgment, the district court held that Mallinckrodt’s sales exhausted its patent rights, rendering the single-use restriction unenforceable through patent remedies.⁷³ Furthermore, the district court noted the apparent discrepancy between *General Talking Pictures* and the Supreme Court’s earlier exhaustion cases⁷⁴ and read *General Talking Pictures* as precluding exhaustion only as to sales made by a licensed distributor in violation of express license terms.⁷⁵ In contrast, Mallinckrodt sold its devices to hospitals directly—distinguishing *General Talking Pictures* and exhausting its patent rights in the district court’s view.⁷⁶

On appeal, the Federal Circuit reversed.⁷⁷ The Federal Circuit refused to limit *General Talking Pictures* to sales made through licensed intermediaries: “We decline to make a distinction for which there appears to be no foundation.”⁷⁸ Rejecting such “formalistic line drawing,” the Federal Circuit held that use restrictions may survive sales regardless of the form of the transaction, and courts should evaluate all such restrictions consistently.⁷⁹ Next, the opinion surveyed Supreme Court precedent on exhaustion, concluding that exhaustion applies only where (1) the sale carries no explicit conditions, or (2) the asserted condition independently “violates

68. *Id.* at 702.

69. *Id.*

70. *Id.*

71. *Id.*

72. *Id.* at 703.

73. *Mallinckrodt, Inc. v. Medipart, Inc.*, No. 89 C 4524, 1990 U.S. Dist. LEXIS 1974, at *28-29 (N.D. Ill. Feb. 15, 1990), *rev’d*, 976 F.2d 700 (Fed. Cir. 1992).

74. *Id.* at *17 (“There clearly is some tension between *General Talking Pictures* and the earlier cases: *General Talking Pictures* might be read to say that post-sale restrictions can be enforced against purchasers . . . while the earlier exhaustion on sale cases would otherwise seem to say that that was not possible . . .”).

75. *Id.* at *19-20.

76. *Id.* at *19.

77. *Mallinckrodt, Inc.*, 976 F.2d at 709.

78. *Id.* at 705.

79. *Id.*

some other law or policy,” most commonly antitrust policy.⁸⁰ The Federal Circuit thus reversed the district court’s holding that exhaustion nullified Mallinckrodt’s sales conditions as a matter of law.⁸¹ The opinion remanded with instructions that Mallinckrodt’s explicit sales conditions should be enforced under the patent laws unless they had “an anticompetitive effect not justifiable under the rule of reason.”⁸²

In effect, the Federal Circuit framed patent exhaustion as a mere default rule, one that patentees can contract around, at their discretion, to retain specified rights over their products beyond the first sale. *Mallinckrodt* created a presumption that such arrangements would be binding and enforceable through infringement actions so long as they remained “within the scope of the patent grant.”⁸³

Numerous cases upholding post-sale patent restrictions followed *Mallinckrodt*. For example, the Federal Circuit has upheld conditions restricting the use of genetically modified agricultural seeds to one growing season.⁸⁴ Such restrictions were held valid and enforceable in view of *Mallinckrodt*, even where the farmer received notice only through product labeling.⁸⁵ In another example, the Ninth Circuit relied on *Mallinckrodt* to enforce restrictions prohibiting purchasers from refilling patented printer cartridges.⁸⁶ In short, *Mallinckrodt* significantly expanded the realm of post-sale restrictions on purchasers of patented products enforced under the patent laws.

II. FACTS AND HISTORY OF THE *QUANTA* LITIGATION

Quanta arose as an infringement action over several computer technology patents that LGE had licensed to Intel Corporation.⁸⁷ Under the license, Intel made computer components reading on LGE’s patents and sold them to various computer manufacturers, including Quanta.⁸⁸ Subsequently, LGE brought suit against Quanta, claiming that Quanta used the

80. *Id.* at 706-08.

81. *Id.* at 709.

82. *Id.* at 708-09.

83. *Id.* at 709.

84. *E.g.*, *Monsanto Co. v. Scruggs*, 459 F.3d 1328 (Fed. Cir. 2006); *Monsanto Co. v. McFarling*, 302 F.3d 1291 (Fed. Cir. 2002).

85. *Scruggs*, 459 F.3d at 1336.

86. *Ariz. Cartridge Remfrs. Ass’n v. Lexmark Int’l Inc.*, 421 F.3d 981, 986-88 (9th Cir. 2005).

87. *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109, 2114 (2008).

88. *Id.*

parts in a manner not authorized by LGE's agreement with Intel.⁸⁹ In defense, Quanta argued that Intel's licensed sales exhausted LGE's patent rights.⁹⁰ The case thus turned on patent exhaustion issues as it wound its way to the Supreme Court.

A. Factual Background

In 1999, LGE acquired a computer technology patent portfolio that contained, among others, three patents claiming systems and methods for managing and synchronizing data transfers between computer components.⁹¹ In September 2000, LGE signed a licensing agreement with Intel,⁹² a major producer of computer microprocessors and chipsets.⁹³ The main License Agreement permitted Intel to "make, use, sell (directly or indirectly), offer to sell, import, or otherwise dispose of" products reading on LGE's computer patents.⁹⁴ The License Agreement also explicitly withheld any right for Intel's customers to combine licensed products with components from sources other than Intel or LGE.⁹⁵ In addition to the License Agreement, a separate Master Agreement required Intel to notify its customers that the License Agreement did not authorize combinations between licensed Intel products and other non-Intel components.⁹⁶ Accordingly, Intel provided written notice to its customers, including Quanta, as required by the Master Agreement.⁹⁷

Under its license, Intel made and sold parts that could neither perform the patented methods nor participate in the patented systems until incorpo-

89. *Id.*

90. *LG Elecs., Inc. v. Asustek Computer, Inc.*, No. C 01-00326 CW, 2002 U.S. Dist. LEXIS 25956, at *8 (N.D. Cal. Aug. 20, 2002).

91. *Quanta Computer, Inc.*, 128 S.Ct. at 2113. LGE asserted system claims 1, 5-9, and 14 of U.S. patent 4,939,641, Brief for Respondent at 5 n.4, *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109 (2008) (No. 06-937), 2007 WL 4244683; system and method claims 1, 7, 22, and 23 of U.S. Patent 5,379,379, *id.*; and method claims 15-19 of U.S. Patent 5,077,733, *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364, 1375 (Fed. Cir. 2006).

92. *LG Elecs., Inc. v. Asustek Computer, Inc.*, 248 F. Supp. 2d 912, 914 (N.D. Cal. 2003).

93. Intel is the world's largest semiconductor chipmaker, averaging \$35 billion in yearly revenue from 2003 to 2007. *See* INTEL CORP., 2007 ANNUAL REPORT 1, 22 (2007), http://media.corporate-ir.net/media_files/irol/10/101302/2007annualReport/common/pdfs/intel_2007ar.pdf.

94. *Quanta Computer, Inc.*, 128 S.Ct. at 2114 (quoting language provided by the parties from the sealed License Agreement).

95. *Id.*

96. *Id.*

97. *Id.*

rated into a functioning computer.⁹⁸ Quanta did just that, combining the Intel parts with components not authorized under Intel's License Agreement with LGE.⁹⁹ In response, LGE brought an infringement suit against Quanta.¹⁰⁰ LGE asserted that Quanta's finished computers practiced its patented methods and systems without authorization.^{101,102}

B. The District Court

On motion for summary judgment, the district court held LGE's patents exhausted as to the parts sold by Intel.¹⁰³ The court interpreted the License Agreement as "equivalent to a 'sale' for purposes of the patent exhaustion doctrine" due to the sweeping rights it granted Intel.¹⁰⁴ LGE argued that since Intel's products could not infringe until placed in a completed computer, their sale as isolated parts could not exhaust the method or system claims.¹⁰⁵ The court disagreed, holding that exhaustion applies to even unfinished products if they have "no substantial use" except as the eventual finished, patented article.¹⁰⁶ Rejecting LGE's proposed alternative non-infringing uses,¹⁰⁷ the court found that Quanta purchased the parts for their "intended and sole purpose," therefore exhausting LGE's patent rights.¹⁰⁸

98. *See* LG Elecs., Inc. v. Asustek Computer, Inc., No. C 01-00326 CW, 2002 U.S. Dist. LEXIS 25956, at *7 (N.D. Cal. Aug. 20, 2002) ("LGE's claim charts reveal that the licensed Intel products meet many of the limitations of the patents and, when combined with other components in the accused devices, infringe five of its patents.").

99. *Quanta Computer, Inc.*, 128 S.Ct. at 2114.

100. LGE originally sued more than ten computer manufacturers, *Asustek Computer, Inc.*, 2002 U.S. Dist. LEXIS 25956, at *1. All but Quanta and two of its subsidiaries settled with LGE before the case reached the Supreme Court (hence the evolving caption as the case progressed through appeals), Brief for Petitioners at iii, 9-10, *Quanta Computer, Inc. v. LG Elecs. Inc.*, 128 S.Ct. 2109 (2008) (No. 06-937), 2007 WL 3276505.

101. *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364, 1368 (Fed. Cir. 2006).

102. The licensed components likely also read on related apparatus claims, but "LGE did not assert patent rights in the microprocessors or chipsets themselves," *id.*, effectively conceding exhaustion of claims to the parts themselves "because LGE had expressly authorized Intel to sell the microprocessors to its customers," Brief for Respondent at 5 n.4, *Quanta Computer, Inc. v. LG Elecs. Inc.*, 128 S.Ct. 2109 (2008) (No. 06-937), 2007 WL 4244683.

103. *Asustek Computer, Inc.*, 2002 U.S. Dist. LEXIS 25956, at *41-42.

104. *Id.* at *12.

105. *Id.* at *13.

106. *Id.* at *21 (quoting *Cyrix Corp. v. Intel Corp.*, 846 F. Supp. 522, 540 (E.D. Tex. 1994)).

107. LGE suggested the components could, without infringing, be used outside of the United States, as replacement parts, or after expiration of the patents. *See id.* at *35-39.

108. *Id.* at *41.

On reconsideration,¹⁰⁹ the district court reaffirmed its prior ruling except as to LGE's method claims.¹¹⁰ The court emphasized that *Mallinckrodt* allowed patentees to impose binding sales conditions but maintained that LGE failed to actually do so.¹¹¹ Quanta's purchases were "in no way conditioned on their agreement not to combine the [components] with other non-Intel parts" and therefore generally exhausted LGE's patents.¹¹² However, LGE argued for the first time that a preexisting Federal Circuit rule precluded exhaustion of *method* claims.¹¹³ Accordingly, the district court held LGE's method claims exempt from exhaustion and granted summary judgment to LGE regarding infringement of its methods.¹¹⁴

C. The Federal Circuit

On appeal, the Federal Circuit reversed-in-part, holding that Intel's sales were conditional and thus did not exhaust LGE's system claims,¹¹⁵ and affirmed-in-part, agreeing that LGE's method claims were not exhausted.¹¹⁶

First, the court held that the LGE-Intel licensing arrangement prevented exhaustion of LGE's system claims, relying on its *Mallinckrodt* line of cases for the premise that exhaustion "does not apply to an expressly conditional sale or license."¹¹⁷ As conditions on Intel's sales, the court highlighted not only the License Agreement's prohibition on third parties combining licensed products with non-Intel components, but also the Master Agreement's corresponding notice requirement.¹¹⁸ Furthermore, the court read the Master Agreement into the License Agreement, citing § 2-202 of the New York Uniform Commercial Code as "allowing contracts to be supplemented by consistent additional terms unless the writing is in-

109. Originally, only three defendants requested and received summary judgment. *Id.* at *2 n.1. The remaining defendants immediately followed suit, asking the court to extend its summary judgment order to include them as well. LGE opposed, raising new arguments that warranted reconsideration of the earlier decision. *LG Elecs., Inc. v. Asustek Computer, Inc.*, 248 F. Supp. 2d 912, 913-14 (N.D. Cal. 2003).

110. *LG Elecs., Inc. v. Asustek Computer, Inc.*, 248 F. Supp. 2d 912, 918 (N.D. Cal. 2003).

111. *Id.* at 916-17.

112. *Id.* at 917-18.

113. *Id.* at 918.

114. *Id.*

115. *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364, 1369-70 (Fed. Cir. 2006).

116. *Id.* at 1370.

117. *Id.* at 1369 (quoting *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1426 (Fed. Cir. 1997)).

118. *Id.* at 1370.

tended to be complete and exclusive.”¹¹⁹ Second, the Federal Circuit noted that Intel’s sales “involved a component of the asserted patented invention, not the entire patented system,” implicitly rejecting the district court’s application of exhaustion to incomplete products.¹²⁰ Finally, the Federal Circuit affirmed the lower holding that LGE’s method claims were categorically inexhaustible.¹²¹

D. The Supreme Court

The Supreme Court granted certiorari¹²² and reversed the Federal Circuit, holding that Intel’s licensed sales exhausted LGE’s patents.¹²³

The Court identified three errors in the Federal Circuit’s decision. First, the Federal Circuit erred by declaring method claims categorically exempt from exhaustion.¹²⁴ Second, the Federal Circuit viewed Intel’s licensed products too narrowly. Although Intel’s components did not literally practice LGE’s patented systems and methods until incorporated into a computer, the parts nonetheless “substantially embodie[d]” LGE’s claims at the time of sale—thus triggering exhaustion.¹²⁵ Finally, the Federal Circuit misinterpreted the licensing arrangement between LGE and Intel. The Court viewed the License Agreement alone as controlling and held that it placed “[n]o conditions” on Intel’s sales of licensed products.¹²⁶ On these grounds, the Court held that Intel’s authorized sales exhausted LGE’s patents.¹²⁷

III. DISCUSSION

In general terms, *Quanta* adheres to several trends evident in the Supreme Court’s recent patent decisions. For one, the opinion should revitalize exhaustion as a shield against infringement claims—representing another move by the Court to reign in patentee rights.¹²⁸ Second, *Quanta*

119. *Id.*

120. *Id.*

121. “[T]he sale of a device does not exhaust a patentee’s rights in its method claims.” *Id.*

122. *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364 (Fed. Cir. 2006), *cert. granted*, *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 28 (2007).

123. *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109, 2122 (2008).

124. *Id.* at 2117-18.

125. *Id.* at 2118-21.

126. *Id.* at 2121-22.

127. *Id.* at 2122.

128. *See* *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437 (2007) (restricting infringement claims under 35 U.S.C. § 271(f)); *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007) (making patents easier to invalidate for obviousness); *MedImmune, Inc. v. Genen-*

fits the Court's continuing focus on restoring the primacy of its own jurisprudence in patent law.¹²⁹ From the question posed on certiorari¹³⁰ to the published opinion,¹³¹ the Court approached *Quanta* entirely in terms of its own precedent. Accordingly, the opinion restores the exhaustion doctrine—long marginalized by the Federal Circuit—to greater, more traditional practical relevance. Finally, the Court once again emphasized equity over predictability,¹³² rejecting the Federal Circuit's categorical approach to exhaustion of method claims.¹³³

Also noteworthy are the different approaches the Court applied to different issues in the case. On one hand, the Court delivered unmistakably broad holdings on exhaustion of method claims and exhaustion by incomplete articles.¹³⁴ In contrast, *Quanta* reveals a distinctly minimalist approach¹³⁵ to the enforceability of post-sale restrictions—on this issue, the Court narrowly tied its holding to particularities of the LGE-Intel licensing

tech, Inc., 549 U.S. 118 (2007) (easing restrictions on licensees seeking to obtain declaratory judgments of non-infringement, invalidity, or unenforceability); *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006) (tightening standards for injunctive relief in patent infringement cases); *Merck KGaA v. Integra Lifesciences*, 545 U.S. 193 (2005) (expanding the 35 U.S.C. § 271(e)(1) safe harbor for use of patented materials in biomedical research and development). *But see Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002) (removing the Federal Circuit's rigid application of prosecution history estoppel in doctrine of equivalents cases).

129. *See KSR Int'l Co.*, 550 U.S. 398 (rejecting the Federal Circuit's rigid TSM test in favor of renewed flexibility in obviousness determinations based on *Graham v. John Deere Co.*, 383 U.S. 1 (1966)); *eBay, Inc.*, 547 U.S. 388 (rejecting the Federal Circuit's presumption favoring injunctive relief in patent infringement cases as inconsistent with established equitable principles governing injunctions); *Festo Corp.*, 535 U.S. 722 (correcting the Federal Circuit's departure from *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997)).

130. *See* Petition for Writ of Certiorari at I, *Quanta Computer, Inc., v. LG Elecs., Inc.*, 128 S.Ct. 2109 (2008) (No. 06-937), 2006 WL 3877339 (“Whether the Federal Circuit erred by holding, *in conflict with decisions of this Court* and other courts of appeals, that respondent's patent rights were not exhausted . . .”) (emphasis added).

131. Apart from recounting the direct history, *Quanta* does not cite a single lower court decision, *see Quanta Computer, Inc.*, 128 S.Ct. 2109, even where obviously and directly overruling specific Federal Circuit caselaw, *see* discussion *infra* Section III.A.

132. *See* Rochelle Cooper Dreyfuss, *In Search of Institutional Identity: The Federal Circuit Comes of Age*, 23 BERKELEY TECH. L.J. 787, 796-800 (2008).

133. *Quanta Computer, Inc.*, 128 S.Ct. at 2117-18.

134. *See id.* at 2117-21.

135. *See generally* Cass R. Sunstein, *Leaving Things Undecided*, 110 HARV. L. REV. 4 (1996).

agreement¹³⁶ and thus relegated several much-anticipated questions to future litigation.¹³⁷

A. Exhaustion Applies to Method Claims

Quanta invalidated a Federal Circuit rule that had categorically immunized method claims from exhaustion.¹³⁸ Because the rule lacked doctrinal support, conflicted with Supreme Court precedent, and crippled patent exhaustion in practical terms, this outcome was both reasonable and predictable.

The rule against exhaustion of method claims, followed by the trial court¹³⁹ and the Federal Circuit,¹⁴⁰ arose from *Bandag, Inc. v. Al Bolser's Tire Stores, Inc.*, an early Federal Circuit case.¹⁴¹ In *Bandag*, the Federal Circuit considered infringement claims over a patented tire treading method. Although the defendant carried out the patented method using equipment specially made for that purpose by the plaintiff patentee,¹⁴² the Federal Circuit ruled out exhaustion of the method claims: “[Exhaustion] is inapplicable here, because the claims . . . are directed to a ‘method of retreading’ and cannot read on the equipment”¹⁴³ The court offered no support for this sweeping conclusion,¹⁴⁴ yet thereafter adopted it as controlling precedent.¹⁴⁵ In effect, the Federal Circuit built a one-sentence

136. See *Quanta Computer, Inc.*, 128 S.Ct. at 2121-22.

137. See, e.g., Mark R. Patterson, *Reestablishing the Doctrine of Patent Exhaustion*, 2007 PATENTLY-O PATENT L.J. 38, 38-40, <http://www.patentlyo.com/lawjournal/quanta.patterson.pdf> (speculating whether *Quanta* would delineate permissible restrictions imposed through sales versus licenses); *Court Hears Challenge on Patent Exhaustion*, 75 PAT. TRADEMARK, & COPYRIGHT J. 330 (Feb. 1, 2008) (suggesting *Quanta* might clarify whether patentees can structure licenses to compel royalties at multiple points in the supply chain).

138. See *Quanta Computer, Inc.*, 128 S.Ct. at 2117-18 (“We therefore reject LGE’s argument that method claims, as a category, are never exhaustible.”).

139. *LG Elecs., Inc. v. Asustek Computer, Inc.*, 248 F. Supp. 2d 912, 918 (N.D. Cal. 2003).

140. *LG Elecs., Inc. v. Bizcom Elecs., Inc.*, 453 F.3d 1364, 1370 (Fed. Cir. 2006).

141. 750 F.2d 903 (Fed. Cir. 1984).

142. See *id.* at 923-24.

143. *Id.* at 924.

144. Though juxtaposed with citations to *Masonite* and *Univis Lens*, the conclusion that exhaustion was “inapplicable” to method claims lay unsubstantiated because these references applied only to an earlier prosaic description of first sale principles. See *id.*

145. See *Bizcom Elecs., Inc.*, 453 F.3d at 1370 (“[T]he sale of a device does not exhaust a patentee’s rights in its method claims.”) (citing *Glass Equip. Dev., Inc. v. Besten, Inc.*, 174 F.3d 1337, 1342 n.1); *Glass Equip. Dev., Inc.*, 174 F.3d at 1342 n.1 (Fed. Cir. 1999) (“[Where the] issue concerns GED’s right to exclude concerning the *method* pa-

presumption into a *per se* rule exempting an entire class of patent claims from exhaustion.

Furthermore, the Federal Circuit's position conflicted with established Supreme Court precedent.¹⁴⁶ The Court had found method claims exhausted by the sale of related products in numerous earlier cases. For example, *Masonite* held that the sale of a patented lumber product exhausted the patentee's rights under claims covering "both hardboard and the processes for making it."¹⁴⁷ In *Ethyl Gasoline Co. v. United States*, the Court held that sales of a patented fuel additive exhausted all related patents,¹⁴⁸ including one that claimed methods for using treated fuel in combustion motors.¹⁴⁹ Similarly, the Court applied exhaustion to method claims in *United States v. Univis Lens Co.*¹⁵⁰ In short, the Supreme Court had "repeatedly held" method claims exhausted long before *Quanta*.¹⁵¹

Finally, a rule exempting method claims from exhaustion would, in practice, marginalize the entire doctrine by allowing patent applicants to easily preclude future adverse exhaustion defenses¹⁵² because virtually any invention can be cast as a method using simple claim drafting techniques.¹⁵³ Thus, although method claims carry some drawbacks,¹⁵⁴ their

tent, not the *apparatus* patent, the first sale doctrine is inapplicable . . .") (citing *Bandag, Inc.*, 750 F.2d at 924).

146. See John W. Osborne, *A Coherent View of Patent Exhaustion: A Standard Based on Patentable Distinctiveness*, 20 SANTA CLARA COMPUTER & HIGH TECH. L.J. 643, 681 (2004); William P. Skladony, *Commentary on Select Patent Exhaustion Principles in Light of the LG Electronics Cases*, 47 IDEA 235, 296-98 (2007).

147. *United States v. Masonite Corp.*, 316 U.S. 265, 268, 278-79 (1942) (emphasis added).

148. *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 457 (1940).

149. *Id.* at 446.

150. See *United States v. Univis Lens Co.*, 316 U.S. 241, 249-50 (1942); Osborne, *supra* note 146, at 681 ("One of the patents held exhausted, U.S. Patent No. 1,879,769 to Silverman, was directed to a method for eliminating prismatic imbalance and contained no apparatus claims.").

151. *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109, 2117 (2008).

152. See Amber Hatfield Rovner, *Practical Guide to Application of (or Defense Against) Product-Based Infringement Immunities Under the Doctrines of Patent Exhaustion and Implied License*, 12 TEX. INTELL. PROP. L.J. 227, 237 (2004) ("[I]f it is possible to draft method claims covering the invention, this is one way to 'plan ahead' against exhaustion.").

153. Even the *Bandag* opinion acknowledged this reality: "It is commonplace that the claims defining some inventions can by competent draftsmanship be directed to either a method or an apparatus." *Bandag, Inc. v. Al Bolser's Tire Stores, Inc.*, 750 F.2d 903, 922 (Fed. Cir. 1984); see also John R. Thomas, *Of Text, Technique, and the Tangible: Drafting Patent Claims Around Patent Rules*, 17 J. MARSHALL J. COMPUTER & INFO. L. 219,

categorical exclusion from exhaustion would reduce the doctrine to a matter of preference and, as the Court recognized, “seriously undermine” it.¹⁵⁵

Not surprisingly, *Quanta* unequivocally abolished the Federal Circuit’s bar on method claim exhaustion.¹⁵⁶ Thus, even though “a patented method may not be sold in the same way as an article or device,” exhaustion still applies after “the sale of an item that embodied the method.”¹⁵⁷ Of course, this holding raises the critical issue of whether a given product legally “embodies” a claimed method—a question the Court addressed in the next section of the opinion.¹⁵⁸

B. Exhaustion by Incomplete Products: Polishing *Univis Lens*

Although Intel’s products could not literally read on LGE’s claims as sold, the Supreme Court determined that they sufficiently embodied the patents to trigger exhaustion. The Court again invoked its own precedent, clarifying and extending the two-pronged test from *Univis Lens*¹⁵⁹ for patent exhaustion by the sale of incomplete products.¹⁶⁰

In *Univis Lens*, the Supreme Court considered resale price restrictions imposed by a patentee selling unfinished “lens blanks” that, when ground and polished, would yield patented multifocal lenses for prescription eyeglasses.¹⁶¹ The patentee manufactured and sold the blanks to wholesalers and retailers, which would in turn grind and polish the blanks to create the finished lenses claimed in the patents.¹⁶² Assuming the lens blanks did not practice the patents as sold, the Supreme Court nonetheless held that their

252 (1998) (“Even the most novice claims drafter would encounter scant difficulty in converting a patent claim from artifact to technique and back again.”).

154. For example, method patents are infringed only by performing the protected process—not by making or selling a device used to carry it out. In contrast, apparatus claims would enable a direct infringement action against a competitor making or selling the same device. Thus, an inventor choosing method over apparatus claims to avoid exhaustion might compromise enforceability—with future options limited to an indirect infringement suit against the competitor (requiring proof of knowledge or intent, *see* 35 U.S.C. § 271(b),(c) (2006)) and/or potentially unattractive direct infringement suits against end users.

155. *Quanta Computer, Inc.*, 128 S.Ct. at 2117.

156. *See id.* at 2118 (“We therefore reject LGE’s argument that method claims, as a category, are never exhaustible.”).

157. *Id.* at 2117.

158. *See id.* at 2118-21.

159. *United States v. Univis Lens Co.*, 316 U.S. 241 (1942).

160. *Quanta Computer, Inc.*, 128 S.Ct. at 2118-21.

161. *Univis Lens Co.*, 316 U.S. at 243-44.

162. *Id.* at 244.

sale exhausted all patent rights in the finished lenses.¹⁶³ *Univis Lens* held that the sales occurred under the patents because each lens blank both (1) lacked “utility until . . . ground and polished as the finished lens” and (2) “embodie[d] essential features” of the patents.¹⁶⁴ In *Quanta*, the Supreme Court returned to this two-part framework for evaluating patent exhaustion by incomplete products.¹⁶⁵

First, *Quanta* held that Intel’s products had “no reasonable use” other than practicing LGE’s patents in the combinations with non-Intel parts that LGE sought to prohibit.¹⁶⁶ In addressing this prong of the test, *Quanta* clarifies inconsistent language in *Univis Lens*. In *Univis Lens*, the Supreme Court described the “reasonable noninfringing use” inquiry using at least four related but distinct formulations—subtle differences that could affect the outcome of a close case.¹⁶⁷ In contrast, *Quanta* establishes a consistent expression of the standard, holding that incomplete products can trigger exhaustion where their only reasonable use is in practicing the patent at issue.¹⁶⁸ Applying this standard, the Court rejected LGE’s two suggested alternatives: (1) disabling patented features of Intel’s chips before use failed because it was unreasonable, and (2) using the chips outside the United States failed because such use “would still be *practicing* the patent, even if not infringing it.”¹⁶⁹

Second, *Quanta* held that, like the lens blanks in *Univis Lens*, “[e]verything inventive about each [LGE] patent is embodied in the Intel products.”¹⁷⁰ This holding formally extends *Univis Lens* from unfinished products to encompass combination products.¹⁷¹ LGE had attempted to

163. *Id.* at 249-52.

164. *Id.* at 249.

165. *See Quanta Computer, Inc.*, 128 S.Ct. at 2119 (stating that incomplete products triggered exhaustion “because their only reasonable and intended use was to practice the patent and because they ‘embodie[d] essential features of [the] patented invention.’” (quoting *Univis Lens Co.*, 316 U.S. at 249-51)).

166. *Id.*

167. *Univis Lens* used the terms “the only use,” “without utility,” “capable of use only in practicing the patent,” and “destined . . . to be finished by the purchaser in conformity with the patent” to describe the same inquiry. *Univis Lens Co.*, 316 U.S. at 249, 251-52; *see also* Skladony, *supra* note 146, at 275-76.

168. The Court first recapitulated the standard from *Univis Lens*, and then applied it to the facts in *Quanta*: “LGE has suggested *no reasonable use* for the Intel products *other than* incorporating them into computer systems that *practice the LGE Patents.*” *Quanta Computer, Inc.*, 128 S.Ct. at 2119 (emphasis added).

169. *Id.* at 2119 n.6 (emphasis in original).

170. *Id.* at 2120.

171. *Quanta* thus essentially affirms the application of *Univis Lens* to combination products in *Cyrix Corp. v. Intel Corp.*, 846 F. Supp. 522 (E.D. Tex. 1994). In *Cyrix*, the

distinguish *Univis Lens*, arguing that the Intel chips required addition of extraneous parts to practice their claims—unlike lens blanks needing only independent refinement.¹⁷² But the Court viewed the form of the finishing step as irrelevant; incomplete lens blanks and detached computer chips can both trigger exhaustion because “[i]n each case, the final step to practice the patent is common and noninventive.”¹⁷³ Thus, the Supreme Court held that incomplete articles can exhaust closely related patents “where the only step necessary to practice the patent is the application of common processes or the addition of standard parts.”¹⁷⁴

Thus, *Quanta* reaffirmed and fine-tuned the two-part *Univis Lens* test, holding that the authorized sale of an incomplete product triggers patent exhaustion when (1) the product’s only reasonable use lies in practicing the patent, and (2) the product embodies everything inventive about the patent, requiring only familiar steps to formally practice the claims. By reasserting the two-pronged *Univis Lens* framework, *Quanta* may affect business planning and litigation related to incomplete articles produced under patents. In particular, pre-*Quanta* district court decisions had tended to focus their exhaustion analyses on possible non-infringing uses, while glossing over or ignoring the second element of the test.¹⁷⁵ *Quanta* will likely refocus attention on the novelty of the remaining required steps and may prompt patentees to try to reserve inventive finishing processes until after the first sale as a way to perpetuate control over incomplete products.

C. Authorized Sales Exhaust Patent Rights

Finally, the Court considered the effect of license conditions on exhaustion of LGE’s patents. Given the restrictions in LGE’s license to Intel, significant questions regarding the legitimacy of both *General Talking Pictures* and *Mallinckrodt* and the effect of notice on exhaustion were potentially before the Supreme Court in *Quanta*. LGE had prevailed before the Federal Circuit by arguing that Intel’s sales were expressly conditional, such that LGE’s conditions survived exhaustion and remained enforce-

district court applied *Univis Lens* to hold computer technology patents exhausted by the sale of products that embodied but could not practice the claims until combined with ancillary components: “Cyrix’s microprocessors, although complete in and of themselves, are unfinished in the sense that they need to be combined with external memory to be used. Cyrix’s microprocessors thus are like the lens blanks in [*Univis Lens*].” *Id.* at 540.

172. *Quanta Computer, Inc.*, 128 S.Ct. at 2120.

173. *Id.*

174. *Id.*

175. See, e.g., *LG Elecs., Inc. v. Asustek Computer, Inc.*, No. C 01-00326 CW, 2002 U.S. Dist. LEXIS 25956, at *33-39 (N.D. Cal. Aug. 20, 2002); *Cyrix Corp.*, 846 F. Supp. at 537-41.

able through post-sale infringement remedies.¹⁷⁶ Therefore, many expected the *Quanta* opinion to directly endorse or prohibit post-sale controls established through sales conditions.¹⁷⁷ In fact, the Supreme Court never reached this question, instead reversing on a relatively narrow issue of contract interpretation.¹⁷⁸

LGE argued that *General Talking Pictures* should preclude exhaustion of its patents.¹⁷⁹ In *General Talking Pictures*, the licensee sold to a customer that knowingly used patented products in violation of a license restriction. The Court held that the sale was not authorized, so exhaustion did not apply—rendering the purchaser liable for infringement.¹⁸⁰ By analogy, LGE argued that exhaustion did not insulate *Quanta* from infringement because Intel was licensed to sell only for use with other Intel parts, and *Quanta* used the parts in prohibited combinations despite notice of the restriction.¹⁸¹ In short, LGE’s arguments relied heavily on *General Talking Pictures* and essentially mirrored the Federal Circuit’s opinion,¹⁸² except that the Federal Circuit cited its own *Mallinckrodt* line of cases (instead of *General Talking Pictures*) for the crucial proposition that expressly conditional sales preclude exhaustion.¹⁸³ Thus, both LGE and the Federal Circuit reasoned that (1) the agreement between LGE and Intel imposed express conditions on the licensed products, and (2) *Quanta* had express notice that Intel’s sales were conditional, so (3) the conditions survived exhaustion under *General Talking Pictures* and *Mallinckrodt*.

Quanta stopped short of the second and third issues, however, by seizing on the first. The Court held that details of the License and Master

176. LG Elecs., Inc. v. Bizcom Elecs., Inc., 453 F.3d 1364, 1369-70 (Fed. Cir. 2006).

177. See John C. Paul et al., *US Patent Exhaustion: Yesterday, Today, and Maybe Tomorrow*, 3 J. INTEL. PROP. L. & PRAC. 461, 468-69 (2008).

178. *Quanta Computer, Inc.*, 128 S.Ct. at 2121-22.

179. *Id.* at 2121.

180. *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175, 180-82 (1938), *aff’d on reh’g*, 305 U.S. 124 (1939).

181. Brief for Respondent at 39, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937), 2007 WL 4244683.

182. See LG Elecs., Inc. v. Bizcom Elecs., Inc., 453 F.3d 1364, 1370 (Fed. Cir. 2006) (“Although Intel was free to sell its microprocessors and chipsets, those sales were conditional and Intel’s customers were expressly prohibited from infringing LGE’s combination patents.”).

183. *Mallinckrodt* built on *General Talking Pictures* but expanded its application to all sales, not just those made through licensed vendors. “Medipart offers neither law, public policy, nor logic, for the proposition that the enforceability of a restriction to a particular use is determined by whether the purchaser acquired the device from a manufacturing licensee or from a manufacturing patentee.” *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 705 (Fed. Cir. 1992).

Agreements between LGE and Intel were determinative.¹⁸⁴ In contrast to the Federal Circuit, which read the Master Agreement's terms into the License Agreement,¹⁸⁵ the Supreme Court interpreted the contracts as distinct, independent instruments. Thus, although LGE required that Intel notify its customers of use restrictions, this provision "appeared only in the Master agreement"¹⁸⁶ and did not affect Intel's rights under the governing License Agreement.¹⁸⁷ Furthermore, the License Agreement itself imposed no conditions on Intel's sales.¹⁸⁸ In short, the Court found that these documents, as drafted, broadly authorized Intel to sell licensed products free of restrictions. Therefore, "[b]ecause Intel was authorized to sell its products to Quanta, the doctrine of patent exhaustion prevents LGE from further asserting its patent rights with respect to . . . those products."¹⁸⁹

In summary, the Court never examined how exhaustion would have affected LGE's intended license restrictions because its decision turned on preliminary, perfunctory contract interpretation.¹⁹⁰ Instead of deciding whether and to what extent patentees can restrict purchasers, *Quanta* concluded that LGE's peculiarly structured licensing arrangements simply failed to impose any restrictions. As a result, the ostensibly narrow holding rests heavily on the facts of the particular transactions among LGE, Intel, and Quanta. Even so, *Quanta* may have broader practical implications.

IV. MIGHT *QUANTA* HAVE BROADER REACH BY IMPLICATION?

How will *Quanta* influence patentees' future sales and licensing practices? The opinion will almost certainly promote more clarity and preci-

184. See *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109, 2121 (2008) ("LGE overlooks important aspects of the structure of the Intel-LGE transaction.").

185. *Bizcom Elecs., Inc.*, 453 F.3d at 1370.

186. *Quanta Computer, Inc.*, 128 S.Ct. at 2122.

187. See *id.* ("LGE does not suggest that a breach of [the Master Agreement] would constitute a breach of the License Agreement. Hence, Intel's authority to sell its products . . . was not conditioned on the notice to Quanta or Quanta's decision to abide by LGE's directions in that notice.").

188. "Nothing in the License Agreement restricts Intel's right to sell its microprocessors and chipsets to purchasers who intend to combine them with non-Intel parts." *Id.* at 2121.

189. *Id.* at 2122.

190. In fact, the Court's straightforward analysis lacked even a single reference to precedent. See *id.* at 2121-22.

sion in license instruments.¹⁹¹ But larger questions remain unanswered. What post-sale restraints still escape patent exhaustion, if any? Can patentees still establish restrictions on purchasers through carefully crafted license agreements? Are such restrictions enforceable if the patentee manufactures and sells its products directly? Is there a distinction between conditions in sales and license agreements?¹⁹² How do customer notice and acquiescence impact enforceability of such restrictions? These questions formally await further litigation after *Quanta*.

Despite its narrow holding in *Quanta*, the Supreme Court hinted at a broader agenda regarding post-sale restrictions on patented products.¹⁹³ The Court suggested that LGE, its patent rights exhausted, might instead seek *contract* damages:

Whether a patentee may protect himself and his assignees by special contracts brought 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.¹⁹⁴

This somewhat enigmatic footnote suggests skepticism toward enforcing post-sale restrictions on customers through patent remedies. *Quanta* could thus shift licensing practice toward contract enforcement models

191. This conclusion has been universal among patent licensing practitioners consulted by the author. See also *Patent Practitioners Diverge Sharply on Impact, Merit of Exhaustion Opinion*, 76 PAT., TRADEMARK, & COPYRIGHT J. 207 (Jun. 13, 2008); cf. Transcript of Oral Argument at 8, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937) (comment by Roberts, J., describing the license between Intel and LGE) (“[T]here’s a lot of uncertainty, uncertainty that could have been cured by how the contract was drafted, and people prefer to live with that uncertainty and litigate rather than clear it up in the contract.”).

192. See generally Elizabeth I. Winston, *Why Sell What You Can License? Contracting Around Statutory Protection of Intellectual Property*, 14 GEO. MASON L. REV. 93 (2006) (discussing the practical implications of the often purely formalistic choice to characterize a transaction as a license rather than a sale).

193. It is interesting to speculate on the Court’s motivation for granting certiorari in *Quanta*. The first two holdings broadly correct Federal Circuit digressions from Supreme Court precedent. Perhaps the Court viewed the case as an appropriate vehicle for directly correcting these issues only, see Rebecca S. Eisenberg, *The Supreme Court and the Federal Circuit: Visitation and Custody of Patent Law*, 106 MICH. L. REV. FIRST IMPRESSIONS 28, 29 (2007), with the last holding necessarily limited as a means to that end because LGE’s convoluted licensing scheme did not lend itself to clean, general statements on the boundaries of post-sale restrictions.

194. *Quanta Computer, Inc.*, 128 S.Ct. at 2122, n.7 (quoting *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 666 (1895)).

depending on how lower courts and private actors interpret this message. *Quanta* should, at a minimum, prompt questions about the long-term viability of patent-based enforcement of restrictive sales conditions, particularly in view of the Supreme Court's recent willingness to review patent decisions. This Note will examine *Quanta*'s potential impact on sales and licensing conditions in several important contexts and argue that post-sale restrictions might best be regulated and enforced using contract, not patent, principles.

A. Restrictions on Licensees

As discussed, longstanding Supreme Court precedent upholds restrictions imposed on licensed sellers of patented goods.¹⁹⁵ As the Court has recognized, patentees may choose to commercialize their innovations themselves or license other parties to do so, but this decision should not impinge on their exclusive rights to control the invention.¹⁹⁶ Therefore, the Court has generally allowed patentees to enforce conditions on licensed sellers through infringement actions, and these rights will likely remain undisturbed after *Quanta*.

The *Quanta* opinion did not question the propriety of LGE's license conditions on Intel. LGE brought suit against Intel's customers, not Intel itself, so the enforceability of license terms against Intel was not at issue. However, the opinion suggests that LGE could properly impose binding conditions on Intel as its licensee.¹⁹⁷ In short, *Quanta* does not affect patentees' established rights to restrict their licensed vendors.

B. Qualcomm-Style Vertical Licensing

According to *Quanta*, LGE's licensing structure did not "limit[] Intel's authority to sell products substantially embodying the patents."¹⁹⁸ Consequently, Intel's authorized sales exhausted LGE's patent rights, precluding LGE's efforts to collect royalties from customers like *Quanta*. But, as

195. See, e.g., *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175 (1938), *aff'd on reh'g*, 305 U.S. 124 (1939) (patentee could enforce a field-of-use license restricting licensee's sales to a single segment of the commercial market); *United States v. Gen. Elec. Co.*, 272 U.S. 476 (1926) (patentee could dictate licensed distributors' pricing of patented light bulbs); *Adams v. Burke*, 84 U.S. 453 (1873) (patentee could license sellers to operate in a limited geographic territory).

196. See *Bement v. Nat'l Harrow Co.*, 186 U.S. 70, 93 (1902) ("The owner of a patented article can, of course, charge such price as he may choose, and the owner of a patent may assign it or sell the right to manufacture and sell the article patented upon the condition that the assignee shall charge a certain amount for such article.").

197. See *Quanta Computer, Inc.*, 128 S.Ct. at 2121 ("To be sure, LGE did require Intel to give notice to its customers . . .").

198. *Id.* at 2122.

LGE argued,¹⁹⁹ patent licensors may have reasonable motivations for splitting their compensation between licensed manufacturers and purchasers—for example, to allow price discrimination across distinct markets or to offset bargaining power disparities with large manufacturing licensees like Intel. After this decision, by what means, if any, can patentees partition their compensation between licensees and end users?

Though *Quanta* rejected LGE's license restrictions, the opinion seems to leave closely related licensing strategies unscathed—such as that of Qualcomm, Inc. Qualcomm is a successful innovator in wireless communications technologies²⁰⁰ that both manufactures and licenses others to manufacture chips incorporating its patented technologies.²⁰¹ Qualcomm uses a two-tiered licensing format in which licensed chipmakers receive rights to make and sell chips using licensed technology but may only sell such chips to buyers separately licensed by Qualcomm.²⁰² In turn, authorized buyers—generally telephone handset manufacturers—may broadly use and sell Qualcomm technology in completed handsets such that their eventual sales to consumers exhaust Qualcomm's patents.²⁰³

Thus, the relative positions of Qualcomm, its chipmaker-licensees, and its authorized buyers mirror those of LGE, Intel, and Quanta, respectively.²⁰⁴ But Qualcomm uses licensing practices crucially absent from LGE's agreements with Intel. First, Qualcomm executes licensing agreements indentifying authorized buyers for its licensed chipmakers *in advance*.²⁰⁵ Second, Qualcomm's license agreements unequivocally limit manufacturers' sales rights to include only authorized purchasers, providing “that if the chipmaker-licensee sells [chips] to entities that are not Authorized Purchasers, the licensee has materially breached” its license.²⁰⁶ Third, Qualcomm separates the right to make patented chips from the right to use

199. Brief for Respondent at 31-35, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937), 2007 WL 4244683.

200. Qualcomm pioneered code division multiple access (“CDMA”) technology widely used in commercial cellular telephones. See Brief for Qualcomm, Inc. as Amicus Curiae in Support of Respondent at 2-6, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937), 2007 WL 4340879.

201. *Id.* at 5-7.

202. *Id.* at 7-9.

203. *Id.* at 8-9.

204. Compare *id.* at 7-9 (Qualcomm licenses chipmaker-licensees both to make products reading on Qualcomm's patents and to sell such products to authorized buyers), with *Quanta Computer, Inc.*, 128 S.Ct. at 2114 (LGE licensed Intel both to make products reading on LGE's patents and to sell such products to customers like Quanta).

205. Brief for Qualcomm, Inc. as Amicus Curiae in Support of Respondent at 8-9, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937), 2007 WL 4340879.

206. *Id.* at 8.

them in finished products between its licensee-manufacturers and authorized purchasers, respectively.²⁰⁷

As a result, Qualcomm-style licensing arrangements lack the problems that the Supreme Court found dispositive in holding LGE's patents exhausted. Where LGE's license "broadly permits Intel to 'make, use, [or] sell' products free of LGE's patent claims,"²⁰⁸ Qualcomm explicitly reserves use rights from licensed manufacturers. Where LGE only required notice and presumed customers like Quanta would take independent steps—outside of Intel's control—to seek accommodation from LGE, Qualcomm limits licensee sales based on objective, pre-defined lists of approved customers with license agreements already in place. And where LGE placed its notice provision in a peripheral agreement with no effect on Intel's license even if breached, Qualcomm's comprehensive chipmaker license clearly defines any sale to unauthorized customers as a material breach. Collectively, these differences should insulate Qualcomm-style licensing arrangements from *Quanta*-based exhaustion defenses.

Allowing Qualcomm-style arrangements makes sense, because they allow patentees without manufacturing capacity to achieve through licensing what patentee-manufacturers can do directly—control the initial sale of their patented technology.²⁰⁹ Furthermore, these agreements facilitate price discrimination and efficient allocation of risks among the parties. On the other hand, negotiating separate license agreements for manufacturers and purchasers increases total transaction costs, and such arrangements create a risk of "double dipping," where patentees—especially those, like Qualcomm, with considerable bargaining power—might extract unwarranted compensation in the aggregate.²¹⁰ Market forces should generally minim-

207. *Id.*

208. *Quanta Computer, Inc.*, 128 S.Ct. at 2121 (modification in original).

209. *See* *United States v. Gen. Elec. Co.*, 272 U.S. 476, 489-90 (1926). The Court reasoned:

[W]here a patentee makes the patented article and sells it, he can exercise no future control over what the purchaser may wish to do with the article after his purchase. . . . But the question is a different one which arises when we consider what a patentee who grants a license to one to make and vend the patented article may do [M]ay he limit the selling by limiting the method of sale and the price? We think he may do so, provided the conditions of sale are normally and reasonably adapted to secure pecuniary reward for the patentee's monopoly.

Id.

210. In general, licensee-manufacturers will pay less for a license to make and sell only to certain customers than for an unrestricted sales right license. But this may not always hold true. "[T]he total license fees paid in such arrangements logically would be, and in practice *commonly* are, lower than the total license fees that would be paid if the

ize double recovery, but failing that, patent misuse and the antitrust laws also serve to check abuses.²¹¹

Interestingly, Qualcomm's licensing strategy may soon be tested against *Quanta*. Broadcom Corporation filed suit against Qualcomm in October 2008, alleging double recovery and seeking a declaratory judgment that Qualcomm's licensing structure is illegal on grounds of patent exhaustion and misuse.²¹² Broadcom's arguments rely heavily on *Quanta*,²¹³ so this litigation could indicate how broadly the lower courts will read *Quanta* in licensing situations.

C. *General Talking Pictures*-Type Restrictions on Purchases Made Through Licensees

Quanta could affect the practice of passing license restrictions through licensed sellers and onto customers. LGE attempted to restrict a downstream purchaser, Quanta, through its sales license with Intel, relying heavily on *General Talking Pictures*.²¹⁴ The patentee in *General Talking Pictures* imposed a field-of-use restriction prohibiting its licensee from selling patented sound amplification tubes to commercial users. The licensee nonetheless sold to a commercial customer, and the Court affirmed findings of infringement against the licensed seller *and* the purchaser, emphasizing that both parties disregarded actual knowledge that their transaction would violate terms of the license.²¹⁵ LGE argued that Quanta's use similarly fell outside of Intel's authority to sell, rendering its purchase unauthorized and thus infringing. As discussed, the Court avoided judging the merits of this argument,²¹⁶ so *General Talking Pictures* formally remains good law after *Quanta*. Even so, there are reasons to question its

component manufacturer were forced to obtain an unrestricted and unconditional license" See Brief for Qualcomm, Inc. as Amicus Curiae in Support of Respondent at 24, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937), 2007 WL 4340879 (emphasis added).

211. See Harry First, *Controlling the Intellectual Property Grab: Protect Innovation, not Innovators*, 38 RUTGERS L. J. 365, 390 (2007) ("[A]ntitrust enforcement is necessary to curb the excessive claims of intellectual property rights holders. It is an antidote to the intellectual property grab.").

212. Complaint at 8-12, *Broadcom Corp. v. Qualcomm Inc.*, No. 3:08cv1829 (S.D. Cal. Oct. 7, 2008).

213. See *id.*

214. *Gen. Talking Pictures Corp. v. W. Elec. Co.* (*Gen. Talking Pictures I*), 304 U.S. 175 (1938), *aff'd on reh'g*, 305 U.S. 124 (1939).

215. See *id.* at 181-82 (holding that the licensee infringed by "knowingly making the sales . . . outside the scope of its license," and that the purchaser infringed by having acted "with knowledge of the facts [of the license].").

216. See *supra* Section III.C.

long-term viability as far as it allows restrictions on licensees to reach purchasers: (1) the case is, at best, in tension with other Supreme Court decisions, (2) it creates practical difficulties for courts and inefficiencies for private parties, and (3) the current Supreme Court may harbor doubts about whether it was correctly decided.

As Justice Black noted in dissent, *General Talking Pictures* created tension with the Supreme Court's precedent on exhaustion.²¹⁷ Until then, the Court had consistently held that restrictions on licensed sellers did not pass to purchasers of patented goods. For example, conditions confining licensees to defined sales prices or geographic territories could not similarly restrict their customers' freedom to resell²¹⁸ or move²¹⁹ purchased goods. In addition, *General Talking Pictures* stretched *Mitchell v. Hawley* to derive the critical proposition that the private-field licensee "could not convey to [its purchaser] what both knew it was not authorized to sell."²²⁰ But *Mitchell* involved materially different facts. There, the Court held that exhaustion did not apply because the licensed products were not to be sold,²²¹ unlike the amplifier tubes licensed specifically for sale in *General Talking Pictures*. Finally, the Court repeatedly emphasized that the purchaser in *General Talking Pictures* knowingly violated the license restriction, suggesting that this knowledge was significant to its decision. But the Supreme Court had already found customer knowledge of license restrictions irrelevant to patent exhaustion in an earlier decision.²²²

Second, *General Talking Pictures* creates practical difficulties and inefficiencies by enforcing restrictions against purchasers not represented in

217. *Gen. Talking Pictures Corp. v. W. Elec. Co. (Gen. Talking Pictures II)*, 305 U.S. 124, 128-33 (1939), *aff'd* 304 U.S. 175 (Black, J., dissenting) ("[T]his Court again reasserted that commodities—once sold—were not thereafter 'subject to conditions as to use' imposed by patent owners. In result, the judgment here is a . . . departure from the traditional judicial interpretation of the patent laws.").

218. *Bauer & Cie v. O'Donnell*, 229 U.S. 1 (1913); *United States v. Univis Lens Co.*, 316 U.S. 241 (1942).

219. *Adams v. Burke*, 84 U.S. 453 (1873); *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659 (1895).

220. *Gen. Talking Pictures I*, 304 U.S. at 181 (citing *Mitchell v. Hawley*, 83 U.S. 544 (1873)).

221. In *Mitchell*, the infringing purchaser bought a patented machine from a party licensed only to make a patented machine and license others to use it. But the license specified that the licensee "shall not in any way or form dispose of [or] sell" the machine. *Mitchell v. Hawley*, 83 U.S. 544, 548-49 (1873).

222. In *Hobbie v. Jennison*, 149 U.S. 355 (1893), a distributor of patented pipes, licensed only in Michigan, knowingly sold to a buyer that knew of the territorial restriction yet used the pipes elsewhere. The Court found the patents exhausted and thus unenforceable against the purchaser.

the license negotiations. Allowing infringement actions against *purchasers* over sales that violate the *seller's* contractual obligations creates potentially unforeseeable liability risks for purchasers,²²³ confuses courts' legal analyses under patent and contract law,²²⁴ and presents a seemingly paradoxical opportunity for patentees to attach—through licensed intermediaries—post-sale restrictions on purchasers that exhaustion would prevent in analogous direct sales.²²⁵

Finally and despite the foregoing criticisms, *General Talking Pictures* has stood since 1939, and *Quanta* did not directly challenge its reasoning. Thus, *General Talking Pictures* probably still stands. *Quanta* does suggest, however, that *General Talking Pictures* may be less secure going forward. Though explicitly reserving the issue, the Court suggested that it might look critically at future attempts to enforce restrictions on purchasers through patent remedies.²²⁶

D. *Mallinckrodt*-Type Restrictions On Direct Sales

The Federal Circuit's controversial *Mallinckrodt* decision also likely survives after *Quanta*. First, the Supreme Court's holding that LGE's license failed to restrict Intel's sales²²⁷ leaves open the possibility that clearer, more carefully drafted conditions—like those in *Mallinckrodt*—would prevent exhaustion.²²⁸ Second, *Mallinckrodt* dealt with restrictions on direct sales, which can be distinguished from LGE's attempt to reach pur-

223. See Patterson, *supra* note 33, at 209.

224. See *id.* at 185-91.

225. In *Mallinckrodt*, both the District Court and the Federal Circuit acknowledged this apparent consequence of *General Talking Pictures*. The District Court concluded: "There is clearly some tension between *General Talking Pictures* and the earlier cases." *Mallinckrodt, Inc. v. Medipart, Inc.*, No. 89 C 4524, 1990 U.S. Dist. LEXIS 1974, at *17 (N.D. Ill., Feb. 15, 1990). In contrast, the Federal Circuit explicitly rejected any distinction between manufacturing licensees and manufacturing patentees as baseless, "[W]e discern no reason to preserve formalistic distinction of no economic consequence." *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 703 (1992); see also Brief for the United States as Amicus Curiae at 12-14, *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109 (2008) (No. 06-937), 2007 WL 2425785 ("Although there is a seeming anomaly in allowing a patentee to achieve indirectly—through an enforceable condition on a licensee—a limitation on use or resale that the patentee could not itself impose on a direct purchaser, the distinction is a necessary and explicable result of . . . *General Talking Pictures*.").

226. See *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109, 2122, n.7 (quoting *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 666 (1895)).

227. See *id.* at 2121-22 ("No conditions limited Intel's authority to sell products substantially embodying the patents.").

228. In *Mallinckrodt*, each product was clearly marked "Single Use Only," *Mallinckrodt, Inc.*, 976 F.2d at 702.

chasers through its licensees. Third, LGE's requirement that purchasers use only Intel secondary components—standard items otherwise cheaply available from a variety of sources—muddies any discord between *Quanta* and *Mallinckrodt* because it borders on the type of anticompetitive restriction²²⁹ that *Mallinckrodt* might condemn as reaching “beyond the patent grant.”²³⁰ Finally, even considering its recent habits, the Supreme Court so rarely takes patent cases that another decision on the exhaustion doctrine anytime soon would be remarkable.²³¹ Thus, the Federal Circuit can probably “design around” *Quanta* to uphold *Mallinckrodt*.

Though *Quanta* may not affect *Mallinckrodt* directly, the opinion should nevertheless sound alarms for patent owners relying on *Mallinckrodt*-type sales restrictions. As noted, the near-term odds of another Supreme Court patent exhaustion case are low.²³² But several observations suggest the Supreme Court may disfavor using patent law to enforce post-sale restraints on purchasers.

First, one interpretation of *Quanta*'s comment on possible contract remedies against purchasers²³³ would suggest general Supreme Court skepticism about policing post-sale restrictions on purchasers via patent remedies. Next, the Solicitor General's Office—increasingly influential²³⁴ on Supreme Court patent decisions—submitted a brief expressly rebuking *Mallinckrodt*.²³⁵ Moreover, the Justices' questions at oral argument evinced concerns about the implications of allowing servitudes to run with

229. See, e.g., *Motion Picture Patents v. Universal Film Mfg. Co.*, 243 U.S. 502, 516 (1917).

230. *Mallinckrodt, Inc.*, 976 F.2d at 708.

231. Cf. Eisenberg, *supra* note 193, at 32 (“In theory, all of these [Federal Circuit] decisions are subject to review by the Supreme Court, but it is hard to imagine that the Supreme Court plans to review nonobviousness decisions more than sporadically.”).

232. But successive cases in the same area of patent doctrine would not be unprecedented. For example, the Supreme Court recently examined the doctrine of equivalents twice in five years, see *Festo Corp. v. Shoketsu Kinzoku Kogyokabushiki Co.*, 535 U.S. 722 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997).

233. *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109, 2122 n.7 (2008).

234. See Eisenberg, *supra* note 193, at 29 (“[W]henever in recent years the Solicitor General has urged the Supreme Court to grant certiorari in a patent case, it has done so, and the Court has ultimately resolved the case in accordance with the Solicitor General's advice.”).

235. Brief for the United States as Amicus Curiae at 14-15, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937), 2007 WL 2425785 (“In the decades since this Court last interpreted the first-sale doctrine, the doctrine has evolved in the Federal Circuit in a manner that appears to depart from this Court's cases.”).

chattels,²³⁶ and counsel for LGE pointedly declined to endorse *Mallinckrodt*.²³⁷ Finally, and most fundamentally, the *Mallinckrodt* line of cases vitiates patent exhaustion in practical terms by allowing patentees to avoid its effects as a matter of preference.²³⁸ The Federal Circuit's indifference to the exhaustion doctrine stands in stark contrast to the meticulous attention the Supreme Court paid to first sale principles in *Quanta*—a potentially significant schism that that could require additional harmonization. And even absent direct Supreme Court review, the Federal Circuit may perceive vulnerability in *Mallinckrodt* and temper its treatment of sales restrictions accordingly, attempting to head off another reversal.²³⁹ In short, *Quanta* could marginalize *Mallinckrodt* simply by implication.

In summary, *Mallinckrodt* seems formally untouched by *Quanta*'s narrow approach to LGE's post-sale restriction. Although the Federal Circuit probably will not drastically change its established approach in the near future, *Quanta* at least clouds *Mallinckrodt*'s long-term viability.

E. Seed Cases and Other Replicable Technologies

Patented, genetically modified agricultural crops have spawned a significant line of legal disputes over post-sale use restrictions on transgenic seeds.²⁴⁰ These cases share a distinctive central question: How should patent exhaustion apply to self-perpetuating technologies? *Quanta*'s narrow holding—concerning use restrictions on non-reproducible technology—presumably has no immediate impact on this issue. Looking ahead after *Quanta*, Federal Circuit precedent in this specialized arena appears more secure than *Mallinckrodt*.

First, these “seed cases” present a difficult factual scenario neither anticipated nor easily resolved by the Supreme Court's decades-old exhaustion precedent. Cases like *Adams v. Burke*, *Univis Lens*, and *Keeler* dealt

236. Transcript of Oral Argument at 21-22, 29, *Quanta Computer, Inc.*, 128 S.Ct. 2109 (No. 06-937).

237. *Id.* at 34.

238. See, e.g., James B. Kobak, Jr., *Contracting Around Exhaustion: Some Thoughts About the CAFC's Mallinckrodt Decision*, 75 J. PAT. & TRADEMARK OFF. SOC'Y 550, 559-62 (1993); Richard H. Stern, *The Unobserved Demise of the Exhaustion Doctrine in US Patent Law*, 15 EUR. INTELL. PROP. REV. 460, 465 (1993).

239. The Federal Circuit sought to temper its approach to nonobviousness issues between the Supreme Court's grant of certiorari and opinion in *KSR*. See, e.g., *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1365-67 (Fed. Cir. 2007); *Dippin' Dots, Inc. v. Mosey*, 476 F.3d 1337, 1343-44 (Fed. Cir. 2007); *Dystar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361, 1367 (Fed. Cir. 2006).

240. See, e.g., *Monsanto Co. v. Scruggs*, 459 F.3d 1328 (Fed. Cir. 2006); *Monsanto Co. v. McFarling (McFarling I)*, 302 F.3d 1291 (Fed. Cir. 2002).

with static, discrete goods conceptually interchangeable with today's medical device or semiconductor chip but very different from a patented soybean that, once sold, can yield essentially unlimited copies of itself over successive generations.²⁴¹ Second, the unusual features of self-replicating technologies shift the equities underlying traditional exhaustion policy. Without any post-sale control over straightforward second-generation production, competition from derivative producers would rapidly render such technologies unprofitable for inventors. Owners of such technologies would face a near-impossible balancing act, needing to set prices high enough to appropriate their entire return in the first few sales but not so high as to exclude their entire market. And if such innovators could no longer afford to innovate, the public would lose out entirely on the benefits of their work.

These unique circumstances warrant a limited exception to the exhaustion doctrine, and the Federal Circuit has taken a two-pronged approach to seed cases. First, it has relied on *Mallinckrodt* to bind purchasers to post-sale restrictions on replanting second-generation seeds.²⁴² Second, it has reasoned that patentees' original sales should not exhaust their rights over user-derived seeds, which "have never been sold."²⁴³ Therefore, even if *Quanta* undermines *Mallinckrodt* as a foundation for the Federal Circuit's holdings, its "never sold" line of reasoning vitiates exhaustion independently of *Mallinckrodt*.²⁴⁴ Furthermore, growing crops from the second-generation seeds could arguably also be cast as an unauthorized "making" of the invention²⁴⁵ or as impermissible reconstruction.²⁴⁶

Thus far, the Supreme Court seems satisfied with the Federal Circuit's approach to seed cases. It has repeatedly denied review in the past,²⁴⁷ and

241. See *Monsanto Co. v. McFarling (McFarling II)*, 363 F.3d 1336, 1347 (Fed. Cir. 2004) ("[A] farmer planting one bag of soybeans in year one would reap . . . 46,656 bags to replant in year four.").

242. *McFarling I*, 302 F.3d at 1298.

243. *Id.* at 1299.

244. See *Scruggs*, 459 F.3d at 1336.

245. Cf. 35 U.S.C. § 271(a) (2006) (imposing liability on "whoever without authority makes . . . any patented invention"); *Amgen, Inc. v. Elanex Pharms., Inc.*, No. C93-1483D, 1996 U.S. Dist. LEXIS 22015, at *8-9 (W.D. Wash. Feb. 6, 1996) ("According to Amgen, 'make' should be interpreted in its ordinary sense; thus, when Elanex 'grew up' its cells it made more cells, thereby infringing the [patent].").

246. See Brief for the American Seed Trade Association as Amicus Curiae in Support of Neither Party at 18, *Quanta Computer, Inc. v. LG Elecs., Inc.*, 128 S.Ct. 2109 (2008) (No. 06-937), 2007 WL 3353100.

247. E.g., *Scruggs*, 459 F.3d 1328 (Fed. Cir. 2006), *cert. denied*, 127 S.Ct. 2062 (2007); *McFarling I*, 302 F.3d 1291 (Fed. Cir. 2002), *cert. denied*, 537 U.S. 1232 (2003).

this pattern seems unlikely to change post-*Quanta*.²⁴⁸ Moreover, the Solicitor General's Office has supported the Federal Circuit's holdings in the context of self-replicating technologies.²⁴⁹ In short, Supreme Court review after *Quanta* appears unlikely, and post-sale restrictions on self-replicating patented products appear secure.

F. Contract-Based Enforcement of Restrictions on Patented Goods

Finally, this Note argues that societal 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*.²⁵⁰ 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.²⁵¹

Typical patent infringement wholly appropriates a patentee's intellectual property "without authority,"²⁵² providing no compensation for the patentee's efforts. Infringement may occur without notice, at any time, anywhere in the country and immediately begin degrading an inventor's anticipated returns. As such, outside infringement is inherently difficult to control, posing a genuine danger to innovation itself. The consequent societal risks warrant the patent laws' powerful devices—such as strict liability and treble damages—both to deter infringement and reassure prospective inventors.²⁵³ In contrast, policing conditions on legitimate sales takes the patent laws, and their harsh enforcement mechanisms, outside of their appropriate and intended context. First, patentees voluntarily authorize legitimate transactions and know or can presumably learn of each purchaser. Thus, authorized purchasers pose little risk of undetected misappropriation. Second, in the case of an authorized sale, the patentee has, by definition, negotiated and received compensation for the articles sold.

248. Since *Quanta*, the Supreme Court has denied certiorari in another seed case. *Monsanto Co. v. David*, 516 F.3d 1009 (Fed. Cir. 2008), *cert. denied*, 129 S.Ct. 309 (2008).

249. Brief for the United States as Amicus Curiae, *McFarling II*, 363 F.3d 1336 (Fed. Cir. 2004), *cert. denied*, 545 U.S. 1139 (2005) (No. 04-31), 2005 WL 1277857.

250. See *Quanta Computer, Inc.*, 128 S.Ct. at 2122 n.7 (2008).

251. See generally First, *supra* note 211.

252. 35 U.S.C. § 271(a) (2006).

253. See 35 U.S.C. § 284 (2006) (stating that "the court may increase the damages up to three times the amount found or assessed"); *In re Seagate Tech., L.L.C.*, 497 F.3d 1360, 1368 (Fed. Cir. 2007) (noting that "patent infringement is a strict liability offense").

Rational patentees, with leverage provided by their exclusive rights, will ordinarily negotiate sales to obtain the maximum reward available—thus satisfying the *Masonite* Test and triggering exhaustion. Some patentees may seek purely financial compensation in return for their intellectual property; others may negotiate a reduced price in exchange for a purchaser's promise of certain post-sale behavior.²⁵⁴ By accepting such conditions in lieu of additional payment, these patentees plainly acknowledge the value inherent in the purchaser's promise to comply.²⁵⁵ In short, full compensation—regardless of its elected composition—renders continuing patent rights inappropriate, for it fulfills the inventor's reward, and in so doing, fulfills the goals of the patent system. Patent exhaustion is, therefore, the logical result of conditioned sales.

Of course, only enforceable sales conditions have value. Fundamentally, conditional sales of goods (patented or not) represent *bargains*, the traditional purview of contract law.²⁵⁶ Both buyer and seller furnish consideration for the agreement—most commonly a promise to use the goods only as specified in return for a proportionally reduced sale price. Once executed, such agreements leave the parties with obligations and expectations related to the sale. The result, in short, is a contract. And under basic contract principles, breach results in liability up to the other party's reasonably expected benefit from full performance. Therefore, where a customer breaches a contractual promise as part of a purchase exhausting the seller's patent rights, contract remedies are well suited to restore the expected reward—and thus preserve the innovation incentives underlying the patent system. In contrast, *Mallinckrodt* and progeny decisions overcompensate patentees by supplementing market-defined rewards with valuable, ongoing patent rights.²⁵⁷ The added benefits are substantial: automatic entry into the federal courts, potential for duplicative recovery against the buyer *and* all secondary purchasers due to strict liability, the possibility of treble damages for willful violation of the condition, and added negotiat-

254. See *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1426 (Fed. Cir. 1997) (“In a [conditional sale], it is more reasonable to infer that the parties negotiated a price that reflects only the value of the ‘use’ rights conferred by the patentee.”).

255. For example, a patentee might reasonably expect a single-use restriction to augment repeat sales and thus offset reductions in price per unit.

256. See 1 ARTHUR LINTON CORBIN ET AL., CORBIN ON CONTRACTS § 1.1 (Joseph M. Perillo ed., 2008) (“[T]he law of contracts attempts realization of reasonable expectations that have been induced by the making of a promise.”).

257. See First, *supra* note 211, at 387-88 (“The only plausible explanation for [*Mallinckrodt* is] the view that the best approach to patent licensing is to allow the patentee to impose whatever restrictions will maximize its returns, without regard to whether those excess returns are necessary to incentivize innovation . . .”).

ing leverage from the plausible threat of infringement liability. Thus, enforcing sales conditions through patent infringement actions can yield patentee windfalls that reach beyond social justifications for patent rights.²⁵⁸ In contrast, contract law remedies would protect full, negotiated compensation but nothing more.

This is not to say that patentees lack any good reasons for seeking post-sale conditions on patented goods. Sales restrictions give sophisticated parties freedom and flexibility to craft arrangements suited to their specific needs. For example, such conditions may address valid health or safety concerns,²⁵⁹ facilitate sustainable pricing,²⁶⁰ or permit price discrimination between distinct market segments.²⁶¹ But these same ends may be readily achieved through contract enforcement—with its built-in safeguards concerning notice, acquiescence, privity, and reasonable terms.

Finally, exhaustion applies only to sales of patented goods, not licenses to make, use, or sell them. “Treating sales and licences to manufacture as legally equivalent is contrary to a vast body of case law Licences create relational interests; sales create property rights. The legal consequences are very different.”²⁶² Of course, courts must have effective mechanisms to make this distinction for it to hold meaning. Patentees must not be allowed to evade exhaustion simply by designating as a license what is functionally a sale,²⁶³ and courts have begun developing standards to distinguish between the two.²⁶⁴

258. This is to say nothing of the attendant societal burden of uncertainty created by restrictions that could run indefinitely with patented products under exhaustion-defeating post-sale agreements. “The inconvenience and annoyance to the public . . . are too obvious to require illustration,” *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 667 (1895); *see generally* Chafee, *supra* note 19, at 953, 999-10,005.

259. *See* *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 703 (Fed. Cir. 1992).

260. *See* *Monsanto Co. v. Scruggs*, 249 F. Supp. 2d 746, 753-54 n.4 (N.D. Miss. 2001).

261. *See* *Gen. Talking Pictures Corp. v. W. Elec. Co.*, 304 U.S. 175, 179 (1938), *aff’d on reh’g*, 305 U.S. 124 (1939) (“Amplifiers having these inventions are used in different fields. . . . a number of manufacturers [held] non-exclusive licenses limited to the manufacture and sale of the amplifiers for private use, as distinguished from commercial use.”).

262. Stern, *supra* note 238, at 465.

263. *See generally* Winston, *supra* note 192.

264. *See, e.g.*, *Vernor v. Autodesk, Inc.*, 555 F. Supp. 2d 1164 (W.D. Wash. 2008) (holding that copyrighted computer software had been sold, not licensed, because the buyer was not required to return the physical copies).

V. CONCLUSION

In conclusion, *Quanta* broadly reestablished the exhaustion doctrine's application to method claims and clarified its application to incomplete products while reserving direct comment on the permissible scope of post-sale restrictions on purchasers under the patent laws. Nevertheless, the Supreme Court's allusion to alternative contract remedies suggests that existing frameworks for enforcing post-sale restrictions on purchasers, based on *General Talking Pictures* and *Mallinckrodt*, may need to be rethought. These issues remain for further litigation, but *Quanta* should signal patentees to take greater care in licensing and to be wary of relying on patent remedies to reach downstream customers.