

**[EITHER REPLACE MONSANTO WITH QUANTA OR COVER QUANTA AFTER
MONSANTO]**

QUANTA COMPUTER, INC. v. LG ELECTRONICS, INC.

129 S.Ct. 2109 (2008)

Justice THOMAS delivered the opinion of the Court.

For over 150 years this Court has applied the doctrine of patent exhaustion to limit the patent rights that survive the initial authorized sale of a patented item. In this case, we decide whether patent exhaustion applies to the sale of components of a patented system that must be combined with additional components in order to practice the patented methods. The Court of Appeals for the Federal Circuit held that the doctrine does not apply to method patents at all and, in the alternative, that it does not apply here because the sales were not authorized by the license agreement. We disagree on both scores. Because the exhaustion doctrine applies to method patents, and because the license authorizes the sale of components that substantially embody the patents in suit, the sale exhausted the patents.

I

Respondent LG Electronics, Inc. (LGE), purchased a portfolio of computer technology patents in 1999, including the three patents at issue here: U.S. Patent Nos. 4,939,641 ('641); 5,379,379 ('379); and 5,077,733 ('733) (collectively LGE Patents)....

LGE licensed a patent portfolio, including the LGE Patents, to Intel Corporation (Intel). The cross-licensing agreement (License Agreement) permits Intel to manufacture and sell microprocessors and chipsets that use the LGE Patents (the Intel Products). The License Agreement authorizes Intel to “make, use, sell (directly or indirectly), offer to sell, import or otherwise dispose of” its own products practicing the LGE Patents. Notwithstanding this broad language, the License Agreement contains some limitations. Relevant here, it stipulates that no license

is granted by either party hereto ... to any third party for the combination by a third party of Licensed Products of either party with items, components, or the like acquired ... from sources other than a party hereto, or for the use, import, offer for sale or sale of such combination. Brief for Petitioners 8.

The License Agreement purports not to alter the usual rules of patent exhaustion, however, providing that, “[n]otwithstanding anything to the contrary contained in this Agreement, the parties agree that nothing herein shall in any way limit or alter the effect of

patent exhaustion that would otherwise apply when a party hereto sells any of its Licensed Products.” Brief for Petitioners 8.

In a separate agreement (Master Agreement), Intel agreed to give written notice to its own customers informing them that, while it had obtained a broad license “ensur[ing] that any Intel product that you purchase is licensed by LGE and thus does not infringe any patent held by LGE,” the license “does not extend, expressly or by implication, to any product that you make by combining an Intel product with any non-Intel product.” Brief for Respondent 9. The Master Agreement also provides that “a breach of this Agreement shall have no effect on and shall not be grounds for termination of the Patent License.” Brief for Petitioners 9.

Petitioners, including Quanta Computer (collectively Quanta), are a group of computer manufacturers. Quanta purchased microprocessors and chipsets from Intel and received the notice required by the Master Agreement. Nonetheless, Quanta manufactured computers using Intel parts in combination with non-Intel memory and buses in ways that practice the LGE Patents. Quanta does not modify the Intel components and follows Intel's specifications to incorporate the parts into its own systems.

LGE filed a complaint against Quanta, asserting that the combination of the Intel Products with non-Intel memory and buses infringed the LGE Patents. The District Court granted summary judgment to Quanta, holding that, for purposes of the patent exhaustion doctrine, the license LGE granted to Intel resulted in forfeiture of any potential infringement actions against legitimate purchasers of the Intel Products. The court found that, although the Intel Products do not fully practice any of the patents at issue, they have no reasonable noninfringing use and therefore their authorized sale exhausted patent rights in the completed computers under *United States v. Unis Lens Co.*, 316 U.S. 241 (1942). In a subsequent order limiting its summary judgment ruling, the court held that patent exhaustion applies only to apparatus or composition-of-matter claims that describe a physical object, and does not apply to process, or method, claims that describe operations to make or use a product. Because each of the LGE Patents includes method claims, exhaustion did not apply.

The Court of Appeals for the Federal Circuit affirmed in part and reversed in part. It agreed that the doctrine of patent exhaustion does not apply to method claims. In the alternative, it concluded that exhaustion did not apply because LGE did not license Intel to sell the Intel Products to Quanta for use in combination with non-Intel products.

We granted certiorari.

II

The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item. This Court first applied the doctrine in 19th-century cases addressing patent extensions on the Woodworth planing machine. Purchasers of licenses to sell and use the machine for the duration of the original patent term sought to continue using the licenses through the extended term. The Court held that the extension of the patent term did not affect the rights already secured by purchasers who bought the item for use “in the ordinary pursuits of life.” *Bloomer v. McQuewan*, 14 How. 539, 549 (1853). In *Adams v. Burke*, 17 Wall. 453 (1873), the Court affirmed the dismissal of a patent holder's suit alleging

that a licensee had violated postsale restrictions on where patented coffin-lids could be used. “[W]here a person ha[s] purchased a patented machine of the patentee or his assignee,” the Court held, “this purchase carrie[s] with it the right to the use of that machine so long as it [is] capable of use.” *Id.*, at 455....

This Court most recently discussed patent exhaustion in *Univis*, 316 U.S. 241, on which the District Court relied. Univis Lens Company, the holder of patents on eyeglass lenses, licensed a purchaser to manufacture lens blanks by fusing together different lens segments to create bi- and tri-focal lenses and to sell them to other Univis licensees at agreed-upon rates. Wholesalers were licensed to grind the blanks into the patented finished lenses, which they would then sell to Univis-licensed prescription retailers for resale at a fixed rate. Finishing retailers, after grinding the blanks into patented lenses, would sell the finished lenses to consumers at the same fixed rate. The United States sued Univis under the Sherman Act, 15 U.S.C. §§ 1, 3, 15, alleging unlawful restraints on trade. Univis asserted its patent monopoly rights as a defense to the antitrust suit. The Court granted certiorari to determine whether Univis' patent monopoly survived the sale of the lens blanks by the licensed manufacturer and therefore shielded Univis' pricing scheme from the Sherman Act.

The Court assumed that the Univis patents containing claims for finished lenses were practiced in part by the wholesalers and finishing retailers who ground the blanks into lenses, and held that the sale of the lens blanks exhausted the patents on the finished lenses. *Univis*, 316 U.S., at 248-249. The Court explained that the lens blanks “embodi[ed] essential features of the patented device and [were] without utility until ... ground and polished as the finished lens of the patent.” *Id.*, at 249. The Court noted that:

where one has sold an uncompleted article which, because it embodies essential features of his patented invention, is within the protection of his patent, and has destined the article to be finished by the purchaser in conformity to the patent, he has sold his invention so far as it is or may be embodied in that particular article.” *Id.*, at 250-251.

In sum, the Court concluded that the traditional bar on patent restrictions following the sale of an item applies when the item sufficiently embodies the patent—even if it does not completely practice the patent—such that its only and intended use is to be finished under the terms of the patent.

With this history of the patent exhaustion doctrine in mind, we turn to the parties' arguments.

III

A

LGE argues that the exhaustion doctrine is inapplicable here because it does not apply to method claims, which are contained in each of the LGE Patents. LGE reasons that, because method patents are linked not to a tangible article but to a process, they can never be exhausted through a sale. Rather, practicing the patent—which occurs upon each use of an article

embodying a method patent—is permissible only to the extent rights are transferred in an assignment contract. Quanta, in turn, argues that there is no reason to preclude exhaustion of method claims, and points out that both this Court and the Federal Circuit have applied exhaustion to method claims. It argues that any other rule would allow patent holders to avoid exhaustion entirely by inserting method claims in their patent specifications.

Quanta has the better of this argument. Nothing in this Court's approach to patent exhaustion supports LGE's argument that method patents cannot be exhausted. It is true that a patented method may not be sold in the same way as an article or device, but methods nonetheless may be “embodied” in a product, the sale of which exhausts patent rights. Our precedents do not differentiate transactions involving embodiments of patented methods or processes from those involving patented apparatuses or materials. To the contrary, this Court has repeatedly held that method patents were exhausted by the sale of an item that embodied the method....

Eliminating exhaustion for method patents would seriously undermine the exhaustion doctrine. Patentees seeking to avoid patent exhaustion could simply draft their patent claims to describe a method rather than an apparatus. Apparatus and method claims “may approach each other so nearly that it will be difficult to distinguish the process from the function of the apparatus.” *United States ex rel. Steinmetz v. Allen*, 192 U.S. 543, 559 (1904). By characterizing their claims as method instead of apparatus claims, or including a method claim for the machine's patented method of performing its task, a patent drafter could shield practically any patented item from exhaustion.

This case illustrates the danger of allowing such an end-run around exhaustion. On LGE's theory, although Intel is authorized to sell a completed computer system that practices the LGE Patents, any downstream purchasers of the system could nonetheless be liable for patent infringement. Such a result would violate the longstanding principle that, when a patented item is “once lawfully made and sold, there is no restriction on [its] use to be implied for the benefit of the patentee.” *Adams*, 17 Wall., at 457. We therefore reject LGE's argument that method claims, as a category, are never exhaustible.

B

We next consider the extent to which a product must embody a patent in order to trigger exhaustion. Quanta argues that, although sales of an incomplete article do not necessarily exhaust the patent in that article, the sale of the microprocessors and chipsets exhausted LGE's patents in the same way the sale of the lens blanks exhausted the patents in *Univis*. Just as the lens blanks in *Univis* did not fully practice the patents at issue because they had not been ground into finished lenses, Quanta observes, the Intel Products cannot practice the LGE Patents—or indeed, function at all—until they are combined with memory and buses in a computer system. If, as in *Univis*, patent rights are exhausted by the sale of the incomplete item, then LGE has no postsale right to require that the patents be practiced using only Intel parts. Quanta also argues that exhaustion doctrine will be a dead letter unless it is triggered by the sale of components that essentially, even if not completely, embody an invention. Otherwise, patent holders could authorize the sale of computers that are complete with the exception of one minor step—say,

inserting the microprocessor into a socket-and extend their rights through each downstream purchaser all the way to the end user.

LGE, for its part, argues that *Univis* is inapplicable here for three reasons. First, it maintains that *Univis* should be limited to products that contain all the physical aspects needed to practice the patent. On that theory, the Intel Products cannot embody the patents because additional physical components are required before the patents can be practiced. Second, LGE asserts that in *Univis* there was no “patentable distinction” between the lens blanks and the patented finished lenses since they were both subject to the same patent. In contrast, it describes the Intel Products as “independent and distinct products” from the systems using the LGE Patents and subject to “independent patents.” Finally, LGE argues that *Univis* does not apply because the Intel Products are analogous to individual elements of a combination patent, and allowing sale of those components to exhaust the patent would impermissibly “ascrib[e] to one element of the patented combination the status of the patented invention in itself.” *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 344-345 (1961).

We agree with Quanta that *Univis* governs this case. As the Court there explained, exhaustion was triggered by the sale of the lens blanks because their only reasonable and intended use was to practice the patent and because they “embodie[d] essential features of [the] patented invention.” 316 U.S., at 249-251. Each of those attributes is shared by the microprocessors and chipsets Intel sold to Quanta under the License Agreement.

First, *Univis* held that “the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold.” *Id.*, at 249. The lens blanks in *Univis* met this standard because they were “without utility until [they were] ground and polished as the finished lens of the patent.” *Ibid.* Accordingly, “the only object of the sale [was] to enable the [finishing retailer] to grind and polish it for use as a lens by the prospective wearer.” *Ibid.* Here, LGE has suggested no reasonable use for the Intel Products other than incorporating them into computer systems that practice the LGE Patents. Nor can we discern one: A microprocessor or chipset cannot function until it is connected to buses and memory. And here, as in *Univis*, the only apparent object of Intel's sales to Quanta was to permit Quanta to incorporate the Intel Products into computers that would practice the patents.

Second, the lens blanks in *Univis* “embodie[d] essential features of [the] patented invention.” *Id.*, at 250-251. The essential, or inventive, feature of the *Univis* lens patents was the fusing together of different lens segments to create bi- and tri-focal lenses. The finishing process performed by the finishing and prescription retailers after the fusing was not unique. As the United States explained:

The finishing licensees finish *Univis* lens blanks in precisely the same manner as they finish all other bifocal lens blanks. Indeed, appellees have never contended that their licensing system is supported by patents covering methods or processes relating to the finishing of lens blanks. Consequently, it appears that appellees perform all of the operations which contribute any claimed element of novelty to *Univis* lenses. Brief for United States in *United States v. Univis Lens Co.*, O.T.1941, No. 855 et al., p. 10.

While the Court assumed that the finishing process was covered by the patents, and the District Court found that it was necessary to make a working lens, the grinding process was not

central to the patents. That standard process was not included in detail in any of the patents and was not referred to at all in two of the patents. Those that did mention the finishing process treated it as incidental to the invention, noting, for example, that “[t]he blank is then ground in the usual manner,” or simply that the blank is “then ground and polished.” Tr. of Record in *United States v. Univis Lens Co.*, O.T.1941, No. 855 et al., pp. 516, 498.

Like the Univis lens blanks, the Intel Products constitute a material part of the patented invention and all but completely practice the patent. Here, as in *Univis*, the incomplete article substantially embodies the patent because the only step necessary to practice the patent is the application of common processes or the addition of standard parts. Everything inventive about each patent is embodied in the Intel Products. They control access to main and cache memory, practicing the '641 and '379 patents by checking cache memory against main memory and comparing read and write requests. They also control priority of bus access by various other computer components under the '733 patent. Naturally, the Intel Products cannot carry out these functions unless they are attached to memory and buses, but those additions are standard components in the system, providing the material that enables the microprocessors and chipsets to function. The Intel Products were specifically designed to function only when memory or buses are attached; Quanta was not required to make any creative or inventive decision when it added those parts. Indeed, Quanta had no alternative but to follow Intel's specifications in incorporating the Intel Products into its computers because it did not know their internal structure, which Intel guards as a trade secret. Intel all but practiced the patent itself by designing its products to practice the patents, lacking only the addition of standard parts.

We are unpersuaded by LGE's attempts to distinguish *Univis*. First, there is no reason to distinguish the two cases on the ground that the articles in *Univis* required the *removal* of material to practice the patent while the Intel Products require the *addition* of components to practice the patent. LGE characterizes the lens blanks and lenses as sharing a “basic nature” by virtue of their physical similarity, while the Intel Products embody only some of the “patentably distinct elements and steps” involved in the LGE Patents. But we think that the nature of the final step, rather than whether it consists of adding or deleting material, is the relevant characteristic. In each case, the final step to practice the patent is common and noninventive: grinding a lens to the customer's prescription, or connecting a microprocessor or chipset to buses or memory. The Intel Products embody the essential features of the LGE Patents because they carry out all the inventive processes when combined, according to their design, with standard components.

With regard to LGE's argument that exhaustion does not apply across patents, we agree on the general principle: The sale of a device that practices patent A does not, by virtue of practicing patent A, exhaust patent B. But if the device practices patent A *while substantially embodying* patent B, its relationship to patent A does not prevent exhaustion of patent B. For example, if the Univis lens blanks had been composed of shatter-resistant glass under patent A, the blanks would nonetheless have substantially embodied, and therefore exhausted, patent B for the finished lenses. This case is no different. While each Intel microprocessor and chipset practices thousands of individual patents, including some LGE patents not at issue in this case, the exhaustion analysis is not altered by the fact that more than one patent is practiced by the same product. The relevant consideration is whether the Intel Products that partially practice a patent—by, for example, embodying its essential features—exhaust *that* patent.

Finally, LGE's reliance on *Aro* is misplaced because that case dealt only with the question whether replacement of one part of a patented combination infringes the patent. First, the replacement question is not at issue here. Second, and more importantly, *Aro* is not squarely applicable to the exhaustion of patents like the LGE Patents that do not disclose a new combination of existing parts. *Aro* described combination patents as “cover [ing] only the totality of the elements in the claim [so] that no element, separately viewed, is within the grant.” 365 U.S., at 344. *Aro*'s warning that no element can be viewed as central to or equivalent to the invention is specific to the context in which the combination itself is the only inventive aspect of the patent. In this case, the inventive part of the patent is not the fact that memory and buses are combined with a microprocessor or chipset; rather, it is included in the design of the Intel Products themselves and the way these products access the memory or bus.

C

Having concluded that the Intel Products embodied the patents, we next consider whether their sale to Quanta exhausted LGE's patent rights. Exhaustion is triggered only by a sale authorized by the patent holder.

LGE argues that there was no authorized sale here because the License Agreement does not permit Intel to sell its products for use in combination with non-Intel products to practice the LGE Patents. It cites *General Talking Pictures Corp. v. Western Elec. Co.*, 304 U.S. 175 (1938), and *General Talking Pictures Corp. v. Western Elec. Co.*, 305 U.S. 124 (1938), in which the manufacturer sold patented amplifiers for commercial use, thereby breaching a license that limited the buyer to selling the amplifiers for private and home use. The Court held that exhaustion did not apply because the manufacturer had no authority to sell the amplifiers for commercial use, and the manufacturer “could not convey to petitioner what both knew it was not authorized to sell.” *General Talking Pictures, supra*, at 181. LGE argues that the same principle applies here: Intel could not convey to Quanta what both knew it was not authorized to sell, *i.e.*, the right to practice the patents with non-Intel parts.

LGE overlooks important aspects of the structure of the Intel-LGE transaction. 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. It broadly permits Intel to “make, use, [or] sell” products free of LGE's patent claims. To be sure, LGE did require Intel to give notice to its customers, including Quanta, that LGE had not licensed those customers to practice its patents. But neither party contends that Intel breached the agreement in that respect. In any event, the provision requiring notice to Quanta appeared only in the Master Agreement, and LGE does not suggest that a breach of that agreement would constitute a breach of the License Agreement. Hence, Intel's authority to sell its products embodying the LGE Patents was not conditioned on the notice or on Quanta's decision to abide by LGE's directions in that notice.

LGE points out that the License Agreement specifically disclaimed any license to third parties to practice the patents by combining licensed products with other components. But the question whether third parties received implied licenses is irrelevant because Quanta asserts its right to practice the patents based not on implied license but on exhaustion. And exhaustion turns only on Intel's own license to sell products practicing the LGE Patents.

Alternatively, LGE invokes the principle that patent exhaustion does not apply to postsale restrictions on “making” an article. But this is simply a rephrasing of its argument that combining the Intel Products with other components adds more than standard finishing to complete a patented article. As explained above, making a product that substantially embodies a patent is, for exhaustion purposes, no different from making the patented article itself. In other words, no further “making” results from the addition of standard parts—here, the buses and memory—to a product that already substantially embodies the patent.

The License Agreement authorized Intel to sell products that practiced the LGE Patents. No conditions limited Intel's authority to sell products substantially embodying the patents. Because 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 the patents substantially embodied by those products.⁷

IV

The authorized sale of an article that substantially embodies a patent exhausts the patent holder's rights and prevents the patent holder from invoking patent law to control postsale use of the article. Here, LGE licensed Intel to practice any of its patents and to sell products practicing those patents. Intel's microprocessors and chipsets substantially embodied the LGE Patents because they had no reasonable noninfringing use and included all the inventive aspects of the patented methods. Nothing in the License Agreement limited Intel's ability to sell its products practicing the LGE Patents. Intel's authorized sale to Quanta thus took its products outside the scope of the patent monopoly, and as a result, LGE can no longer assert its patent rights against Quanta. Accordingly, the judgment of the Court of Appeals is reversed.

**[INSERT THE FOLLOWING AS NEW COMMENT 3 ON PAGE 631 & DISREGARD COMMENT
4]**

3. *Is Mallinckrodt Still Viable?* The Supreme Court, at the very least, qualified *Mallinckrodt's* reach and raised concerns for licensors who participate in markets with a significant number of downstream players. In *Quanta*, the license agreement neither expressly precluded Intel from selling its products for combination with non-Intel products, nor expressly authorized customers of Intel to combine Intel's products with non-Intel products. Under the terms of a separate Master Agreement, Intel was required to provide notice to its customers that its license from LG

⁷ We note that the authorized nature of the sale to Quanta does not necessarily limit LGE's other contract rights. LGE's complaint does not include a breach-of-contract claim, and we express no opinion on whether contract damages might be available even though exhaustion operates to eliminate patent damages. See *Keeler v. Standard Folding Bed Co.*, 157 U.S. 659, 666 (1895) (“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.”).

covered articles containing only Intel products, and that combination of Intel products with non-Intel products was not permitted.

Quanta purchased products from Intel (chipsets and microprocessors) that were covered by the license, and combined these products with non-Intel products to make computers. As a result, LG sued Quanta.

The Supreme Court held that LG's patent rights were exhausted, noting that the license agreement between LG and Intel was unconditional, and therefore, Intel's sell of chip sets and micro processors to Quanta was authorized. According to the Court:

LGE overlooks important aspects of the structure of the Intel-LGE transaction. 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. It broadly permits Intel to "make, use, [or] sell" products free of LGE's patent claims. To be sure, LGE did require Intel to give notice to its customers, including Quanta, that LGE had not licensed those customers to practice its patents. But neither party contends that Intel breached the agreement in that respect.... LGE points out that the License Agreement specifically disclaimed any license to third parties to practice the patents by combining licensed products with other components. But the question whether third parties received implied licenses is irrelevant because Quanta asserts its right to practice the patents based not on implied license but on exhaustion. And exhaustion turns only on Intel's own license to sell products practicing the LGE Patents.... Because 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 the patents *substantially embodied* by those products.

Id. at 2121-22 (emphasis added).

There are several open questions that flow from *Quanta*. In the context of patent infringement, are downstream players now outside the legal reach of patentees? Is the term "substantially embodied" likely to result in higher transaction costs and greater uncertainty for licensing parties? How much of the patented invention has to be embodied in downstream products before exhaustion kicks in? Will licensors demand higher fees from first licensees, knowing that extracting royalties from downstream purchasers is an uncertain proposition? Several of these questions will have to be addressed by the Federal Circuit through its common law powers, as well as by the response of private actors who participate in industries that have robust licensing arrangements.

The obvious question is what is *Quanta's* affect on *Mallinckrodt*? While this question plays out in the courts, a plausible argument can be made for a narrow reading of *Quanta*. Clause 3.8 of the license agreement between LG and Intel provided:

Notwithstanding anything to the contrary in this agreement, the parties agree that nothing herein shall in any way limit or alter the effect of patent exhaustion that would otherwise apply when a party hereto sells any of its licensed products.

The license agreement between LG and Intel did not set conditions (in contrast to the contract in *Mallinckrodt*), or expressly preclude Intel from selling products that can be combined with non-Intel products. And the Court did not directly address contractual reach-through conditions that were at play in *Mallinckrodt*. Thus, a license that expressly provides for a conditional sale may be enforceable. Indeed, the Court seemed to implicitly allow for some conditions, expressly stating “No conditions limited Intel's authority to sell products substantially embodying the patents,” *Id.* at 2122, which leads to the final point.

Another important issue relates to available remedies for breach of the condition of sale. While conditional sales may be permitted, the remedy may most likely be based on contract law, not patent law. Recall the district court in *Mallinckrodt* held that “no restriction whatsoever could be imposed under the patent law, whether or not the restriction was enforceable under some other law.” The Federal Circuit reversed this holding, noting that under *General Talking Pictures*, *Mallinckrodt*'s field-of-use restriction was a “valid condition of the sale” that “was not excluded from enforcement under the patent law.” In other words, a breach of the condition would result in patent infringement. Germane to this point, the Supreme Court in *Quanta* wrote in footnote 7, “We note that the authorized nature of the sale to Quanta does not necessarily limit LGE's other contract rights. LGE's complaint does not include a breach-of-contract claim, and we express no opinion on whether contract damages might be available even though exhaustion operates to eliminate patent damages.” *Id.* Thus, it appears that the Supreme Court may agree that the patentee's remedy is for breach of contract, not patent infringement. How the Federal Circuit interprets *Quanta* (and this footnote in particular) is an open question, but one concern patentees may have with contract law as an enforcement mechanism is that the patent owner/licensor will have to show privity with downstream purchasers, a showing that can be quite challenging. In *Quanta*, for instance, it is uncertain that LG would be able to successfully sue Quanta for breach of contract because Intel complied with the license it had with LG. In other words, LG would have difficulty proving privity with Quanta. While *Mallinckrodt* maybe able to establish privity with the hospitals that purchased the “Ultravent,” it is doubtful *Mallinckrodt* could show the same type of relationship with Medipart.