COMMENTS

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Quanta Computer Inc v LGE Electronics Inc—Comments on the Reaffirmance of the Exhaustion Doctrine in the United States

Exhaustion of rights; Licensing agreements; Microchips; Patents; United States

In Quanta Computer Inc v LG Electronics Inc,¹ after a lapse of nearly 70 years, the US Supreme Court again addressed the patent exhaustion doctrine, but opined so narrowly as to say little more than "nothing has changed in the last 70 years", at least insofar as the fact pattern of this case is concerned. Contrary to the cries of doom emanating from the patent bar,² in actuality the Court's unanimous decision did no more than restate the black-letter core of the exhaustion doctrine without any significant elaboration. At worst, the Quanta opinion is a damp squib tossed over the fence at the patent bar. It does leave several important questions unanswered, however, thanks to the Court's narrow interpretation of

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1 Quanta Computer Inc v LG Electronics Inc., 128 S. Ct. 2109 (2008) (opinion by Thomas J.).

2 The Bureau of National Affairs newsletter Daily Report for Executives A-32 (June 10, 2008) quotes one patent practitioner as calling the Quanta decision "yet another Supreme Court case reflecting the Court's anti-patent stance over the past two years," and predicting that the Court's ruling will be "very damaging both to the ability of patent holders to license their patents and to further commercial enterprise in general." Another patent lawyer faulted the Court for using the term "monopoly" six times in referring to the right granted by a patent. "This is troubling," he said, "because the use of 'monopoly' implies the Court does not understand that a patent is a grant of a right to exclude (e.g., a negative right) and not a right to practice the invention (e.g., a positive right-a monopoly)." Quaere: Is the Statute of Monopolies ignorantly misnamed? In a similar vein, still another patent pundit "found the very words 'patent exhaustion' terribly repugnant." He argued, "Since the patent right doesn't give the patent owner the right to sell a patented product in the first place, how can a sale 'exhaust' any such right?'

the language of the licence, and it therefore leaves open to doubt several points outside the narrow central core of the exhaustion doctrine.

History and policy of the exhaustion doctrine

The patent exhaustion doctrine owes its origin to the common-law doctrine against restraints on alienation of chattels (post-sale restraints), which dates back at least to the 15th century.³ The US Supreme Court first applied the doctrine to patents in 1853 when it held that an extension of the term of a patent could not divest the rights of those who purchased the patented machines during the original patent term to continue using them during the subsequent term without liability for patent infringement. The Court explained that "when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly".⁴

The Court reaffirmed this rule 20 years later in Adams v Burke,⁵ a more typical exhaustion case. In Adams, the assignee of a coffin-lid patent in the entire United States except for Boston and a 10-mile radius around it, sued Burke, an undertaker, for patent infringement because he bought one of the patented lids from the owner of the patent rights within 10 miles of Boston, transported the lid to his undertaking establishment 17 miles from Boston, and then used it there in burying a client. The Court said that the case was one of first impression, although the applicable principle had been stated in the 1853 case. That principle was that:

". . . in the essential nature of things, when 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".6

The Court acknowledged that the seller owned only the right to make, use, and sell the patented lids within the 10-mile radius of Boston, but that did not mean that patent law limited the seller's customer Burke in his use of the lid:

"It would be to engraft a limitation upon the right of use not contemplated by the statute nor within the reason of the contract to say that it could only be used within the ten-miles circle. Whatever, therefore, may be the rule when patentees subdivide territorially their patents as to the exclusive right to make or to sell within a limited territory, we hold that in the class of machines or implements we have described, when they are once

- 3 See Dr Miles Medical Co v John D Parke & Sons Co 220 U.S. 373 (1911) ("The right of alienation is one of the essential incidents of a right of general property in movables, and restraints upon alienation have been generally regarded as obnoxious to public policy, which is best subserved by great freedom of traffic in such things as pass from hand to hand. General restraints in the alienation of articles, things, chattels. . .have been generally held void. 'If a man,' says Lord Coke, in Coke on Littleton, section 360, 'be possessed. . . of a horse or of any other chattel, real or personal, and give or sell his whole interest or property therein, upon condition that the donee or vendee shall not alien the same, the same is void, because the whole interest and property is out of him. . . . ").
- 4 Bloomer v McQuewan 55 U.S. (14 How.) 539, 549 (1853).
- 5 Adams v Burke 84 U.S. (17 Wall.) 453 (1873).
- 6 Adams v Burke 84 U.S. (17 Wall.) 453 (1873) at 456.

lawfully made and sold, there is no restriction on their use to be implied for the benefit of the patentee or his assignees or licensees."⁷

These decisions did not indicate what policy was advanced by the rule, which in the words of the *Adams* Court simply appeared to follow from "the essential nature of things." That is to say, it followed from the concept of ownership of property.

In the next major patent exhaustion decision, however, Motion Picture Patents Co v Universal Film Mfg. Co_{\bullet}^{9} the Court compared with one another the respective consequences of legal regimes permitting or prohibiting post-sale restraints. The Court saw an "increasing frequency" with which avaricious patentees were using post-sale restraints to secure market control of related. unpatented items, although the proper purpose of the patent laws was to promote progress of useful arts. In the Motion Picture Patents case, the patentee restricted users of its patented film projector to screening only those (unpatented) films that it authorised. Another case had involved a mimeograph-machine patent, which was used to control ink, paper, and other supplies used with the machine.10 Not only were these restrictions "wholly without the scope and purpose of our patent laws," but if sustained they, "would be gravely injurious to th[e] public interest." The Court therefore held that violation of the restriction did not make for patent infringement liability.

Subsequent commentary has pointed to additional policy reasons for having an exhaustion doctrine. The existence of equitable servitudes on chattels interferes with free trade and the efficiency of commerce. While deed registers exist for real estate covenants that run with the land, so that it is feasible for would-be buvers to consult them, no comparable registers exist or would be practical for goods. Buyers would therefore have no feasible means for determining whether particular goods were subject to such a servitude, and transaction costs would increase with little or no compensating benefit for the public. Given the exhaustion doctrine, however, manufacturers at various stages of a production chain can negotiate and operate without fear of interference from owners of patents on components. It is also said that the exhaustion doctrine fosters competition by permitting the creation of rental markets and markets for second-hand products.12 Another policy concern is that "businessmen should have the freedom to dispose

7 Adams v Burke 84 U.S. (17 Wall.) 453 (1873) at 456-57.

of the goods they own as they see fit." That concern actually reflects two policies: one is a bias in favour of maximising exercise of individual volition, and the other is that letting the free market determine what buyers do with goods they purchase leads to more satisfactory results for the public than acceding to sellers' judgments of what the buyers should do. 14

Factual background

LG Electronics (LGE) owned several patents on methods and systems for processing information. It entered into two contracts with Intel. In the License Agreement, LGE authorised Intel to make and sell microprocessor products using the patented inventions. Moreover, the License Agreement expressly stated that no licence was granted to any third party for combining licenced products with other products (for example, for combining Intel microprocessor products with other parts of a computer). The License Agreement also provided, however:

"Notwithstanding 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."

In the Master Agreement, LGE required Intel to give its customers notice that the patent licence does not extend to any product made by combining a licenced Intel microprocessor product with any other product (for example, a computer containing the Intel microprocessor products). The Master Agreement also provided that its breach would have no effect on the License Agreement and would not be grounds for its termination. Apparently, LGE was willing to allow Intel's customers to combine the microprocessor products with products not licenced by LGE, but only upon payment of a further royalty to LGE for the right to do so. This point is not discussed in the Court's opinion, which recites the facts only in very limited terms because the record was under seal to protect trade secrets. ¹⁵

Quanta purchased licenced Intel microprocessor products and proceeded to manufacture computers containing them. In doing so, Quanta followed Intel's specifications, which in turn led to practice of the patented methods and making the patented systems that LGE licenced to Intel—since that was the way Intel had designed its microprocessor products. (The trial court found that the Intel microprocessor products were without any reasonable non-infringing use.) LGE then sued Quanta for patent infringement. On appeal, the Federal Circuit held that the exhaustion doctrine did not apply, because of the statement in the Master Agreement concerning the non-licensure of combination products,

⁸ Except for Lord Coke's remark that "public policy... is best subserved by great freedom of traffic in such things as pass from hand to hand."

⁹ Motion Picture Patents Co v Universal Film Mfg. Co 243 U.S. 502 (1917).

¹⁰ Henry v A.B. Dick Co 224 U.S. 1 (1912), which the Motion Picture Patents 243 U.S. 502 (1917) case overruled.

¹¹ Motion Picture Patents 243 U.S. 502 (1917) at 519.

¹² See, e.g. Mark R. Patterson, "Contractual Expansion of the Scope of Patent Infringement Through Field-of-Use Licensing" (2007) 49 Wm. & Mary L. Rev. 157, 209-11 (criticising enforcement of field-of-use restrictions against downstream purchasers); R. Anthony Reese, "The First Sale Doctrine in the Era of Digital Networks" (2003) 44 B.C.L. Rev. 577 (asserting that first sale doctrine promotes dissemination of works in the marketplace). I am indebted to discussion with Professor Shubha Ghosh for some of the foregoing points.

¹³ Continental TV Inc v GTE Sylvania Inc 433 U.S.36 (1977) (White J. concurring).

¹⁴ Copyright law has a "first sale" doctrine, which is the equivalent of the exhaustion doctrine. See *Quality King Distribs.*, *Inc. v L'anza Research Int'l, Inc.* 523 U.S. 135, 152 (a copyright holder who chooses to sell a copy of the work "exhaust[s] his exclusive statutory right to control its distribution"); *Bobbs-Merrill Co v Straus*, 210 U.S. 339 (1908).

¹⁵ See Quanta 76 USLW 4375 (2008) at 4376 fn1.

apply to method patents.16

Supreme Court opinion

Method claim non-issue

The Supreme Court unanimously reversed. First, the distinction between method and product claims is insupportable. In United States v Univis Lens Co, 17 the most recent decision of the Court on exhaustion, some of the patents held exhausted were method patents. Earlier, in Ethyl Gasoline Corp v United States, 18 some patents covered a method of combusting gasoline in an automobile engine-and the exhaustion doctrine was held applicable. 19 Furthermore, because it is easy to write patent claims in either method format or apparatus format for the same invention, the exhaustion doctrine could easily be evaded if reliance on method claims was sufficient to avoid exhaustion. The Court explained that

". . . 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".20

Exhaustion of related patents

The Court then turned to the extent, if any, to which exhaustion of the patent rights on the microprocessor products exhausted patent rights relating to the combination products on which LGE had patents. In the *Univis* case, the sale that exhausted patent rights was a sale of an unpatented semi-finished lens blank, which subsequent processing turned into a patented finished lens. The Intel microprocessor products were finished commercial articles of commerce, but in this case the trial Court had found as a fact that the microprocessor products had no non-infringing use, just as in the Univis case the semi-finished lens blanks had no use but to be finished into the patented finished lens blanks. Therefore, the Court found Univis dispositive. In the Quanta Court's language, in Univis:

"... 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".21

LGE did not challenge the claim that the intended and reasonable use of the microprocessor products was to incorporate them into computers, but it claimed that some non-infringing uses existed: they could be sold overseas, as repair parts, or by disabling the features that made them patented. The Court dismissed these arguments. As for disablement, the Court asserted that

16 LG Electronics Inc v Bizcom Electronics Inc (Fed Cir), unreported, July 7, 2006. Quanta 128 S. Ct. 2109 (2008).

and additionally that the exhaustion doctrine did not the disabled device aspects ("features") rather than the device that remained must have a non-infringing use, so that disabling them would cause them to have "no real use." As for foreign or replacement use, the legal test to be looked to was whether the product would perform the patented method or embody the patented product, not whether the use gave rise to infringement liability.21

> A further reason why sales of the microprocessor products exhausted LGE's patent rights was that 'everything inventive about each patent is embodied in" the licensed Intel products, which:

"... embody the essential features of the [licensed] patents because they carry out all the inventive processes when combined, according to their design, with standard components".23

Any point of novelty, i.e. respect in which the claimed invention departs from the prior art—is found in the licenced microprocessor products rather than in the combination product of which they are components.

LGE argued that "exhaustion does not apply acrosspatents." The Court agreed, in principle, but found that an incomplete statement of the rule:

"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."24

Apparently, LGE is saying something along these lines:

"Suppose I (LGE) have a patent A on purple microprocessors and a second patent B on computers containing purple microprocessors; my sale of a purple microprocessor (or my licensee's such sale) does not exhaust my rights under patent B."

However, the Court went on to respond that when the point of novelty of patent B (on computers containing purple microprocessors) is only that it contains a component covered by patent A (on purple microprocessors), the authorised sale of a purple microprocessor exhausts both patents. You may be asking yourself whether it is possible to get a patent on computers containing purple microprocessors simply because you invented a purple microprocessor. The answer is yes-at least according to the Federal Circuit, but that calls for an excursion reviewing a little history, not explained in the Quanta opinion.

The doctrine of exhausted combinations

It used to be established US law that it is impermissible to have a patent following the paradigm of the computer with a purple microprocessor in it, unless the purple microprocessor co-operated or interacted in a truly novel way with the conventional elements of the computer. The combination of a purple microprocessor with the conventional components of a computer, interacting in a conventional manner, was what was called an

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

Ethyl Gasoline Corp v United States 309 U. S. 436 (1940).

Other patents covered a motor fuel additive (tetraethyl lead) and a motor fuel product (a mixture of ordinary gasoline and tetraethyl lead).

²⁰ Quanta 76 USLW 4375 (2008) at 4378.

²¹ Quanta 76 USLW 4375 (2008) at 4378.

Quanta 76 USLW 4375 (2008) at 4379 and fn.6.

Quanta 76 USLW 4375 (2008) at 4379.

Quanta 76 USLW 4375 (2008) at 4379.

"exhausted combination".25 The Federal Circuit held in 1984 that this doctrine is outdated and no longer reflects the law.26 In effect, the Federal Circuit overruled the Supreme Court on this point—or claimed that the passage of the 1952 patent recodification law had done so. Until the Quanta decision, the Supreme Court has not considered the question, and in Quanta it seems to have assumed without any discussion that its old precedents (uncited in the Quanta opinion) are still in force. Nonetheless, under Federal Circuit precedent, it has been possible to obtain patents on, for example a new motor, and also an otherwise conventional disc drive containing the new motor. It has also been held that the sale of the motor, in such a case, does not exhaust the patent on the disc drive containing the new motor.²⁷ Accordingly, LGE sought to argue that its patents on systems (e.g., computers) made by combining the licenced Intel microprocessor products with other components were not exhausted by the mere sale of the Intel microprocessor products.

Licencing a limited field

LGE's argument for non-exhaustion sought to invoke the doctrine of *General Talking Pictures Corp v Western Electric Co.*²⁸ In that case, the patentee had granted no licence for "commercial" amplifiers. Therefore, when a manufacturer licenced only in the "non-commercial" field sold an amplifier to an accused infringer, who resold it in the commercial market, the manufacturer "could not convey to [the accused infringer] what both knew it was not authorized to sell." By parity of reasoning, LGE said, it had licenced Intel only in the field of manufacturing microprocessor products for combination with specified products and not with other products. But the Court said that was *not* how LGE had drafted its licence to Intel:

"LGE overlooks important aspects of the structure of the. transaction. Nothing in the License Agreement restricts Intel's right to sell its microprocessors. . to purchasers who intend to combine them with non-Intel parts. It broadly permits Intel to make, use, or sell products free of the 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 . . . patents."29

What that means may not be readily discerned from the opinion. Such a nice point surely deserved more explanation. The Court appears to be saying that LGE simply licenced Intel to make, use, and sell microprocessor products; LGE expressly stated that no licence was granted to any third party for combining licenced products with other products; and LGE made Intel tell its customers about the absence of a licence. But LGE did not say to Intel that LGE licenced Intel to make, use, and sell microprocessor products only in the field of microprocessor products combined with other LGE-licenced products (so-called Intel products). There was no explicit field-of-use limitation on Intel's manufacturing, using, and selling rights-no "magic words". LGE wrote all around that limitation-it said it was not licencing third parties to combine licenced product with other products; it required Intel to notify customers of that-but LGE failed to go right through the centre and deny Intel any licence to make microprocessor products that would be combined with other products. Furthermore, for some inexplicable reason, the parties red-flagged the fact that there still was an exhaustion doctrine:

"Notwithstanding 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."

This is confirmed by the Court's final statements:

"The License Agreement authorized Intel to sell products that practiced the patents. No conditions limited Intel's authority to sell products substantially embodying the 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."

Thus, the exhaustion doctrine governed what Quanta could lawfully do with what it bought from Intel. The failure to give third parties a licence to combine Intel microprocessor products with other products had no legal significance, because the exhaustion doctrine obviated any need for such a licence. To paraphrase the words of the bandit chief in *The Treasure of Sierra Madre*, "We are the exhaustion Federales—we don't need no stinkin' licenses."

Just before closing, the Court added a final enigmatic note. It pointed out that the case did not raise, and the Court did not rule, whether LGE could have enforced a contractual restriction. In footnote 7, the Court commented:

²⁵ See, e.g. Lincoln Engineering Co v Stewart Warner Corp 303 U.S. 545 (1938), 549-50 ("the improvement of one part of an old combination gives no right to claim that improvement in combination with other old parts which perform no new function in the combination"). This rule has also been called the doctrine of the Lincoln Engineering case.

²⁶ See Radio Steel & Mfg Co v MTD Products Inc 731 F.2d 840, 845 (Fed. Cir. 1984). The Federal Circuit's predecessor court, the Court of Customs and Patent Appeals, had made similar suggestions. See, e.g. In re Bernhardt 417 F.2d 1395 (Ct. Cus. & Pat. App. 1969).

²⁷ See Mineba v Papst, 444 F. Supp. 2d 68 (D.D.C. 2006). 28 General Talking Pictures Corp v Western Electric Co 304 U.S. 175, 182 (1938) (upholding as legitimate field-of-use limitations on scope of patent licenses to make and sell amplifiers only in "non-commercial" field), aff'd on reh'g, 305 U.S. 124 (1938).

²⁹ Quanta 76 USLW 4375 (2008) at 4380.

³⁰ For the fussy, the exact words were: "We are the Federales. You know. ... Badges? We ain't got no badges. We don't need no badges! I don't have to show you any stinkin' badges!" See http://en,wikipedia.org/wiki/The_Treasure_of_the_Sierra_Madre_Accessed October 1, 2008].

"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." 31

By the same token, the Court said nothing as to specific performance or whether contract rights, if any, could be enforced against Quanta.

Issues that the Court did not consider

Mallinckrodt

The huge omission in Quanta is the Court's failure to say anything about the other possible forms of this transaction—a sale by a manufacturing licencee with a limitation on its grant, or explicit restrictions imposed on a sale by the patentee. In the early 1990s, the Federal Circuit undertook a vast retrenchment of the exhaustion doctrine, in Mallinckrodt Inc v Medipart Inc,32 Intel was LGE's manufacturing licencee, not its customer, but the more typical exhaustion case occurs when a patentee-manufacturer sells a patented product with a use restriction or other restriction on what the buyer may do with the product. The exhaustion doctrine makes such post-sale restrictions unenforceable-at least under patent infringement law.33 The product is said to have passed outside the monopoly or the patent monopoly is said to be exhausted by the sale.34 Hence, violation of a post-sale restraint is not patent infringement.35 Whether contract law may be used to enforce post-sale restrictions is often a matter of antitrust law. 36 When not antitrust violations, post-sale restraints are typically enforceable by way of contract remedies.³⁷

Mallinckrodt presented such a fact pattern. Mallinckrodt, the patentee, sold patented devices to customers with a restriction that the device must be used only once and not then refurbished for further use. The Federal Circuit held that the restriction made the sale "conditional", 38 rather than "outright" or "unconditional", and therefore the sale did not exhaust the

31 Quanta 76 USLW 4375 (2008) at 4380 fn7. These remarks are, of course, pure obiter dicta.

32 Mallinckrodt Inc v Medipart Inc (1992) 976 F. 2d 700. See Richard H. Stern, "The Unobserved Demise of the Exhaustion Doctrine in US Patent Law" [1993] E.I.P.R. 460.

33 Under the exhaustion doctrine, it is not patent infringement to violate a post-sale restriction in the wake of a sale that exhausts the patent right.

34 See, e.g. Motion Picture Patents Co v Universal Film Mfg Co 243 U.S. 502, 516 (1917) ("the right to vend is exhausted by a single, unconditional sale, the article sold being thereby carried outside the monopoly of the patent law and rendered free of every restriction which the vendor may attempt to put upon it"); Bloomer v McQuewan 55 U.S. (14 How.) 539, 549 (1853) ("when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly").

35 See, e.g. Motion Picture Patents 243 U.S. 502, 516 (1917). 36 See, e.g. United States v Glaxo Group Ltd 410 U.S. 52 (1973). But see Continental TV 433 U.S.36 (1977) (unpatented goods).

37 Restrictions are enforceable under contract law when they are ancillary to the lawful main purpose of a contract and reasonably necessary to the accomplishment of the purpose. See Mitchel v Reynolds (Ch D) 24 E.R. 347.

38 The Federal Circuit used the term "conditional sale" to mean a sale in which title passed, but was subject to a

patentee-seller's patent rights. When customers sold used devices to a refurbisher, who refurbished them and caused them to be reused, the patentee sued the refurbisher for infringement and prevailed in the Federal Circuit.

Under this precedent, it has become feasible for patentees to impose all kinds of distribution restrictions on customers—such as field-of-use, anti-repair, anti-enhancement, anti-modification, preventing arbitrage, and limiting channels of distribution³⁹—so long as the patentee-seller is careful to make the sale "conditional" rather than "outright". The Mallinckrodt doctrine limited the effect of the exhaustion doctrine essentially to a prohibition against resale price-fixing and tie-ins. In effect, it expanded the doctrine of the General Talking Pictures case into almost all of the exhaustion doctrine—leaving subject to the exhaustion doctrine only cases involving price-fixing or tie-ins and cases in which the patentee failed to use proper language of restriction in connection with the sale.⁴⁰

Is Intel's licence instinct with obligation to sell only for combination with licensed goods?

The Court did not need to reach the validity of *Mallinckrodt* because it interpreted the language of LGE's licence to Intel as not imposing any limitation on Intel to a defined field, despite the presence of provisions such as Intel's obligation to tell its customers (as it told Quanta) that they enjoyed no licence to combine the licenced Intel products with other products. Surely, if the Court had wanted to, it could have found the licence agreement "instinct with obligation" on Intel's part not to make or sell goods to Quanta, a known combiner of Intel microprocessors with other components to make computers. ⁴¹ The insistence on magic words is a triumph of formalism over intent. ⁴²

condition—a restraint on alienation or post-sale restraint. The more conventional sense of the term "conditional sale" is an installment sale transaction in which title does not pass; the buyer gets possession of the goods but the seller retains title, because the buyer has not yet made full payment, and the seller conveys title only when the buyer pays the last installment on price that is due.

39 See Richard H. Stern, "Post-Sale Patent Restrictions After Mallinckrodt—An Idea in Search of Definition" (1994) 5 Albany L.J. Sci. & Tech. 1 (1994).

40 The exhaustion doctrine remained the default rule where the seller failed to use adequate restrictive language. See Jazz Photo Corp v International Trade Commission 264 F.3d 1094 (Fed. Cir. 2001); Intel Corp v ULSI Sys. Tech, Inc 995 F.2d 1566, 1568 (Fed. Cir. 1993); Intel Corp v ITC 946 F.2d 821, 826 (Fed. Cir. 1991); Cyrix v Intel Corp 846 F. Supp. 522, 538 (E.D. Tex. 1994), aff'd, 42 F.3d 1411 (Fed. Cir. 1994) (unpublished).

41 See Wood v Lucy, Lady Duff-Gordon 222 N.Y. 88 (1917). In this case, New York's highest court, per Judge Cardozo, found a promise to use best efforts in promoting a line of fashion goods implied by the rest of the relevant instrument, saying "A promise may be lacking, and yet the whole writing may be instinct with an obligation,' imperfectly expressed." Wood v Lucy, Lady Duff-Gordon 222 N.Y. 88 (1917) at 91.

42 The Federal Circuit had found that "Intel's sales of its licenced products to defendants do not warrant the inference of a licence with respect to the asserted patents." (453 F.3d at 1369). It considered that the disclaimer of any license was dispositive: "Intel expressly informed them that Intel's license agreement with LGE did not extend to any of defendants' products made by combining an Intel product with non-Intel products. In light

One may well conclude that the opinion was unanimous because its rationale embodies a least common denominator. Moreover, the assignment of the opinion to Thomas J., on the Court's far right wing, reflects the importance of the power of the Chief Justice, under Supreme Court custom, to assign the authorship of an opinion whenever he is in the majority. By assigning the opinion to Thomas J., rather than, say, to Stevens or Breyer JJ, the Chief Justice made sure that the opportunity to obliterate Mallinckrodt would be passed by. By the same token, the Armageddon of Univis and Ethyl Gasoline on the one side versus General Talking Pictures on the other side was averted or at least postponed. Interestingly, no concurring opinion disturbed the Court's unanimity by saying that the judgment should be reversed on the alternative ground that the licence did purport to limit Intel from selling microprocessor products to customers who would combine them with other products, but that purported limitation was ineffective and unenforceable in the wake of the Univis and Ethyl Gasoline decisions. 43

Rewriting the license per General Talking Pictures case

The Court, in indicating what LGE had neglected to put into its License Agreement, did not opine on what would have happened if LGE had written its licence differently. Suppose, for example, that the red flag for the bull about the exhaustion doctrine had not been waved and that LGE had read the *General Talking Pictures* case more diligently. Suppose we rewrite the licence as follows:

"Definitions. Defined Field means microprocessor products combined with other products that have been licensed by LGE, and does not include microprocessor products combined with products not licensed by LGE.

Grant. LGE licenses Intel to make, use, and sell microprocessor products in the Defined Field only.

Intel acknowledges that it is not licensed outside the Defined Field, and it undertakes and covenants not to sell Licensed Products knowingly to any person that will use or is likely to use the products outside the Defined Field."

Although the Court did not consider this kind of language, at least arguably—assuming the continuing vitality of the *General Talking Pictures* case, upholding the validity of field-of-use licences—it would be willful patent infringement for any Intel customer with notice to combine Intel microprocessor products with other products, as Quanta did. By the same token, Intel would be liable as an infringer if it sold to such a customer—certainly if the sale were made knowingly and in that case there would be a breach of contract as well.⁴⁴

of this express disclaimer, no license can be implied." (453 F.3d at 1369). The Federal Circuit found that the *Mallinckrodt* doctrine made Intel's sales to Quanta "conditional," and the exhaustion doctrine "does not apply to an expressly conditional sale or license." (453 F.3d at 1370).

43 This would not be obiter dicta because if the contract is interpreted, say, because it is instinct with obligation, to contain a limitation on the scope of Intel's license grant, then it would be necessary to the result (reversal of judgment) that the limitation be legally ineffective

44 A question might arise if Intel's sale were unknowing. Patent infringement is supposed to be a strict-liability offence, so that

The General Talking Pictures-Univis anomaly

The Quanta case could have provided an opportunity to explore the curious anomaly between the competing regimes of Univis and General Talking Pictures—Univis prohibits post-sale restraints on a patentee's (or its licencee's) sale of goods, under the exhaustion doctrine, while General Talking Pictures permits a patentee to place post-sale limitations on its manufacturing licencee's sale of goods if the licence to manufacture uses the right, magic words. This point is reflected in the two different briefs that the US Solicitor General filed in Quanta, first in support of the petition for certiorari and later on the merits. In the first brief, the Solicitor General stated:

"More recently, in General Talking Pictures, the Court held that when a licensee makes and sells a patented article in violation of the field-of-use terms of its license, 'the effect is precisely the same as if no license whatsoever had been granted', and the patentee could sue both the licensee and the purchaser (who was on notice of the restriction) for infringement of the patent. In Univis Lens, by contrast, where the sale of the lens blanks was authorized (albeit expressly subject to limitations on resale), the patentexhaustion doctrine applied, because '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.' Although there is a seeming anomaly in allowing a patentee to achieve indirectly-through an enforceable condition on the 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 the Court's decision in General Talking Pictures."45

In the Government's merits brief, the emphasised language is stricken. ⁴⁶ For some reason, the Administration decided not to point out to the Court in the merits brief that the 1938 *General Talking Pictures* decision and its progeny mandate a result seemingly diametrically different to that which the 1942 *Univis* decision and its

in principle Intel's bona fide ignorance and even diligent effort to avoid subsequent infringement should be no defence. BMC Resources Inc v Paymentech LP 498 F.3d 1373, 1381 (Fed. Cir. 2007); Hilton Davis Chemical Co v Warner Jenkinson Co (1995) 62 F. 3d 1512 (en banc) ("[I]ntent is not an element of direct infringement, whether literal or by equivalents. . .. Infringement is, and should remain, a strict liability offense."). But what is Intel's act of infringement? Infringement, if any, occurs only after Intel has parted with the goods and lost control over them. That might leave vicarious infringement open. But if Intel acted unknowingly, it could not be vicariously liable for patent infringement: it could not commit contributory infringement or induced infringement. BMC 498 F.3d 1373 at 1381 ("[I]ndirect liability requires evidence of 'specific intent' to induce infringement. Another form of indirect infringement, contributory infringement under §271(c), also requires a mens rea (knowledge) and is limited to sales of components or materials without substantial noninfringing uses."); DSU Med. Corp v JMS Co 471 F.3d 1293, 1306 (Fed. Cir. 2006) (en banc) ("[T]he inducer must have an affirmative intent to cause direct infringement."); Golden Blount Inc v Robert H. Peterson Co 365 F.3d 1054, 1061 (Fed. Cir. 2004) (patentee must show that alleged contributory infringer "knew that the combination for which its components were especially made was both patented and infringing").

45 Brief of Solicitor General in support of certiorari in *Quanta* 76 USLW 4375 (2008) at 13-14 (emphasis added), 2007 WL 2425785.

46 See Brief of Solicitor General on merits in *Quanta* 76 USLW 4375 (2008) at 17–18, 2007 WL 3353102.

progeny require in regard to limitations placed on what a customer may do with a patented product, and of course it decided not to suggest to the Court that it try to conflate the two regimes.

Are there limits to the extent to which one can contract around the exhaustion doctrine, footnote 7 of *Quanta* notwithstanding?⁴⁷ Recall the provision in the LGE-Intel License Agreement stating:

"Notwithstanding 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."

Suppose that instead the parties wrote:

"Being firm believers in freedom of contract, the contracting parties hereby agree that the so-called exhaustion doctrine shall be null, void, and entirely without effect when a party hereto sells any of its Licensed Products."

Suppose, further, that the agreement required Intel to mark its goods and invoices (and it did so) with a notice saying that "the exhaustion doctrine does not apply to these goods", or perhaps "buyer agrees and acknowledges by not returning these goods that the exhaustion doctrine does not apply to these goods". What would courts say to this?

Two-tier licencing

A final point not clarified in the opinion is whether LGE's business model of two-tier licencing has any remaining vitality. The Court did not address this business model, as noted earlier. The two-tier licencing model is found, typically, when a patented machine and what is manufactured with it occur in greatly variable or disparate proportions. For example, the same yarn spinning machine might be used to make, say, 1,000 or 100,000 yards of yarn per week. A steel rolling mill might make 1000 tons or 100,000 tons of steel plate per week. The value of the invention to the operator of the equipment is very different in the different cases. In the past, this has led to patentees' use of two-tier licencing programmes: royalty A for the machine and royalty B for the product. For example, this might be US \$10,000 lump-sum royalty for the machinery, paid by its manufacturer, and 10 cents per yard running-royalty for the yarn manufactured by the machine, paid by the yarn manufacturer. US courts have upheld such arrangements, despite the exhaustion doctrine, in cases where the rationale for the licencing arrangement was clear. 48

While these cases generally involve machines and the end products that the machines produce, while

47 See Ethyl Gasoline Corp v United States 309 U. S. 436 (1940).
48 See, e.g. In re Yarn Processing Patent Litigation 541 F.2d 1127 (5th Cir. 1976), cert. denied, 443 U.S. 910 (1977); Armstrong v Motorola Inc 374 F.2d 764, 774-75 (7th Cir. 1967); Duplan Corp v Deering Milliken Inc 444 F. Supp. 648 (D.S.C. 1977), aff'd, 594 F.2d 979 (4th Cir. 1979), cert. denied, 444 U.S. 1015 (1980); Armstrong v Emerson Radio and Phonograph Corp 179 F. Supp. 95, 128 (S.D.N.Y. 1959); Cold Metal Process Co v McLouth Steel Corp 41 F. Supp. 487 (E.D. Mich. 1941), aff'd on other grounds, 126 F.2d 185 (6th Cir. 1942).

Quanta involves components and the machines into which they are placed, the two-tier principle seems to apply equivalently in the two situations.

There is another context in which what may be less benign two-tier licencing has occurred. Recall the ability, under Federal Circuit precedent, to obtain patents on both a novel device and an exhausted combination containing the device. Suppose that such a patentee gets into a controversy with a manufacturer of the component. They decide to settle the controversy by having the manufacturer buy (and pay only for) a licence that does not extend to customers, whom the manufacturer considers can buy (and pay for) their own licences if they want them.49 The component manufacturer may (as Intel did) warn the customers or may not.50 If there is no warning, the downstream manufacturers might cry foul, and accuse the patentee of entrapment or "sandbagging". Other epithets in such cases might be "gouging" and "double dipping". Charges of this kind were made, although perhaps unjustifiably, in the Quanta case.⁵¹

Effect of implied use rights on two-tier licencing

Two competing rules have long applied to whether the sale of a machine or other product automatically confers an unlimited right to use it as the buyer sees fit. One rule is like that contemplated by *General Talking Pictures*. Under this regime, as the Court has repeatedly said, in licencing or assigning patent rights:

"[t]he right to manufacture, the right to sell, and the right to use are each substantive rights, and may be granted or conferred separately by the patentee".⁵²

This would make legitimate a licencing programme in which the patentee licenced a machine manufacturer to make and sell the machine (for example, a yarn spinner), but not to use it except in testing it to make sure that it works. At the same time, the patentee would licence manufacturers of the end product to use the machine (for example, to make yarn). This rule, if it continues in effect, upholds two-tier licencing programmes. (It should be recognised that LGE did not word its licence to Intel in those terms.)

- 49 See Mineba v Papst, 44 F. Supp. 2d 68 (D.D.C. 2006).
- 50 The component manufacturer would not be liable for breach of the warranty of good title (which includes non-infringement under US law), because such a warranty does not apply to products that are a combination of the seller's product with another product where the asserted patent is on the combination. See *Chemtron Inc v Aqua Products Inc* 830 F. Supp. 314 (E.D. Va. 1993).
- 51 The Supreme Court's emphasis on where the "embodiment of the essential features" of the invention is located—the point of novelty—may reflect this view. Such charges were made also in the *Mineba v Papst*, 44 F. Supp. 2d 68 (D.D.C. 2006).
- 52 Adams v Burke, 84 U.S. (17 Wall.) 453, 456 (1873); accord Brulotte v Thys Co 379 U.S. 29 (1964); Heaton-Peninsular Button-Fastener Co v Eureka Specialty Co 77 F. 288, 291 (6th Cir. 1896) ("The right to make and use, or sell, are completely severable rights . . . "); Dorsey Revolving Harvester Rake Co v Bradley Mfg. Co 7 Fed. Cas. (Fed. Cas. No. 4,015) 946, 947 (C.C.N.D.N.Y. 1874) ("The right to make and vend, and the right to use, are completely severable . . . ").

On the other hand, in *Univis*, the Court broadly declared:

"An incident to the purchase of any article, whether patented or unpatented, is the right to use and sell it, and upon familiar principles 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." ⁵³

Similarly in Aro Mfg. Co v Convertible Top Replacement Co.⁵⁴ the Court said that:

". . . it is fundamental that sale of a patented article by the patentee or under his authority carries with it an implied license to use."

There can be tension between the two rules, depending on how broadly they are read. Indeed, in *Adams v Burke*, the Supreme Court stated both of these rules in adjacent paragraphs.⁵⁵

Is there an authorisation loophole?

In Adams, the basis of the distinction between operation of the two regimes, although not well articulated, apparently depends on the postulated sale of the second rule being made without conditions or reservations while the contemplated licence or assignment of the first rule is one with explicit reservations on use—apparently the kind of arrangement later approved in General Talking Pictures. Potential "wriggle room" in Univis is supplied by the Court's use of the weasel word "authorised". Authorisation of a sale need not be explicit, as apparently it must be for operation of General Talking Pictures: silence about restriction or limitation constitutes "authorisation", for—as Quanta makes clear—the default rule is that of Univis. Silence about restrictions is constructive authorisation.

In the wake of this history, can Quanta be read to abolish the wriggle room when the product has no reasonable use but in practicing the invention and the patented products used in the different markets are physically indistinguishable? Assume, for example, that Intel's microprocessors used for FM radio receivers and FM broadcast transmitters are identical, but let us assume that LGE wants to charge a higher royalty in the broadcast market and therefore provides in its agreement with Intel that it must sell only to licenced broadcasters or licenced transmitter manufacturers, whom LGE will have charged an appropriate royalty. This is essentially the pattern of the two-tier system that characterised General Talking Pictures and the FM broadcasting patent infringement litigation cases.56

Some commentators have expressed fears that *Quanta* left no room for such licencing anymore. The reason is that Part III-B of the *Quanta* opinion emphasises the fact that the sold microprocessor products "embodie[d]

53 Univis 316 U. S. 241 (1942) at 249.

essential features of [the] patented invention".57 It explains that "everything inventive about each patent is embodied in" the microprocessors, and "the inventive part of the patent is not the fact that [other items] are combined with a microprocessor" but the other parts are just background to support the operation of the microprocessors—perhaps analogous to the electric plug and the wall socket, relative to the computer to which they supply power.58 The concerns over the opinion's emphasis on the point of novelty being located in the microprocessor products, and the Court's refusal to bow to the mysticism of "the invention considered as a whole", plus its seemingly unreasonable refusal to find an implied field limitation in the licence, all heighten fears that this is the edge of the slippery slope which Mallinckrodt and then General Talking Pictures are teetering on the edge of.

These fears (or hopes) may not be well supported. The Court did make a major point of LGE's failure to use the right "magic words" to create a *General Talking Pictures* licence, even though it did not expressly say that they would have worked their magic if properly incanted. That counts for something. The opaqueness of the Court's opinion, however, makes it impossible to conclude with certitude whether the magic words would or would not make any difference in a future case. We simply do not know whether there are at least five votes to demolish or uphold *Mallinckrodt*, although it does seem shaky at the moment, and by the same token we do not know whether *General Talking Pictures* may soon be limited by a resurgent *Univis*.

One factor in the crystal ball gazing deserves mention. The Quanta case had an unattractive or unfortunate fact pattern for the patentee. The fact pattern was coloured (and pushed toward Univis) by several equitable factors. One was the trial Court's finding that the only reasonable use of the microprocessor products is that to which Quanta put them. A related fact is that Intel designed its microprocessors so that infringement was inevitable. In addition, it is not clear that the value of the end product (computer) on which LGE wanted to charge a separate royalty was so completely attributable to the value of the licenced invention that it was legitimate for LGE to charge a royalty based on the price (value) of the computer; it may have seemed like gouging.

In the yarn and steel mill cases, in contrast, it seemed quite apparent that the value of the product of the machine was attributable to the invention in a way such that the use of the invention in a machine that made 100,000 units of end product was 100 times the value of the use of the invention in a machine that made 1,000 units of end product. Such facts could be decisive in a future case.⁵⁹

⁵⁴ Aro Mfg. Co v Convertible Top Replacement Co 377 U.S. 476, 484 (1964) (citing Adams v Burke, 84 U.S. (17 Wall.) 453, 456 (1873)) (internal quotation marks omitted).

⁵⁵ Adams, 84 U.S. (17 Wall.) (1873) at 456.

⁵⁶ See, the Armstrong cases, supra note 47.

^{57~} Quanta 76 USLW 4375 (2008) at 4378 (quoting Univis 316 U. S. 241 (1942) at 250–51).

⁵⁸ Quanta 76 USLW 4375 (2008) at 4379-80.

⁵⁹ The uncertainty about two-tier licensing places a premium on exploring the implications of *Quanta*'s fn.7 on contractual alternatives and breach-of-contract remedies in place of patent infringement remedies. If nothing else, in the present state of uncertainty, drafting licences with a view to having both a belt and suspenders (braces, to you) is a prudent way to provide clients with greater certainty of expectation. A further refinement is to license the upstream company only to make and sell, but not use, the device of the invention; and to license

Those facts could be disregarded, however, if the exhaustion doctrine is deemed so absolute that pricing on the basis of the value of the benefit conferred is just not permissible, because the machine and its product both embody the same essential elements of the invention. Which course of events is more likely is speculative, given the opaqueness of the *Quanta* opinion.

Sigrid Sterckx*

The WARF/Stem Cells Case before the EPO Enlarged Board of Appeal

Ethics; European patents; Patentability; Stem cell research

Introduction

Several years ago, the Wisconsin Alumni Research Foundation (WARF—the technology transfer office for the University of Wisconsin in Madison) filed a European patent application (Thomson 1996) for an invention by James Thomson. The claims encompass cultures of human embryonic stem cells (hES cells). The described method to obtain these cells necessarily involves the destruction of the human embryos from which the cells are derived.

The WARF patent application was refused by the examiners of the European Patent Office (EPO) for claiming subject matter excluded from patentability by Rule 28(c) of the European Patents Convention (EPC), which prohibits the patenting of biotechnological inventions which "concern . . . uses of human embryos for industrial or commercial purposes". WARF appealed the rejection of its application and the EPO Technical Board of Appeal (TBA) that heard the appeal referred the question of the patentability of hES cell cultures to the EPO's highest arbiter, the Enlarged Board of Appeal (EBA).

only the downstream company to use the device. Since the upstream company presumably cannot grant, exhaust, or engage in derogation of its grant of title regarding that which it does not possess, this expedient would help insulate the patentee from being thrust into LGE's position.

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- 1 J. Thomson (1996) *Primate embryonic stem cells*, International patent application publication number WO96/22362, WIPO, Geneva.
- 2 One of the relevant claims of Wisconsin Alumni Research Foundation's (WARF) European patent application, application number 96903521, reads as follows: "A cell culture comprising primate embryonic stem cells which (i) are capable of proliferation in vitro culture for over one year, (ii) maintain a karyotype in which all chromosomes normally characteristic of the primate species are present and are not noticeably altered through culture for over one year, (iii) maintain the potential to differentiate to derivatives of endoderm, mesoderm, and ectoderm tissues throughout the culture, and (iv) are prevented from differentiating when cultured on a fibroblast feeder layer."
- 3 European Patent Office (EPO), Convention on the Grant of European Patents (European Patent Convention), 13th edn (Munich: EPO, 2007), pp.256-258.
- 4 Documents on the EPO file for the WARF case can be accessed at http://www.epoline.org/portal/public/registerplus/

More specifically, the Technical Board of Appeal referred four questions to the EBA (the numbering of the Rules was changed in 2007 and the new numbering is inserted below):

- "1. Does Rule 28(c) of the EPC apply to an application filed before the entry into force of the rule?
- 2. If the answer to question 1 is yes, does Rule 28(c) of the EPC forbid the patenting of claims directed to products (here: human embryonic stem cell cultures) which—as described in the application—at the filing date could be prepared exclusively by a method which necessarily involved the destruction of the human embryos from which the said products are derived, if the said method is not part of the claims?
- 3. If the answer to question 1 or 2 is no, does Art.53(a) of the EPC forbid patenting such claims?
- 4. In the context of questions 2 and 3, is it of relevance that after the filing date the same products could be obtained without having to recur to a method necessarily involving the destruction of human embryos (here: e.g. derivation from available human embryonic cell lines)?"⁵

Put simply, the questions are: (1) Does Rule 28(c) of the EPC have to be applied to the WARF application?; (2) If applied, does it exclude Thomson's invention from being patented?; (3) If not, then is the invention excluded by Art.53(a) of the EPC?; and (4) Would matters change with scientific developments?

The EBA invited submissions, amicus curiae briefs, from interested parties and, after having received hundreds of such briefs, in March 2008 issued a summons to WARF to attend a hearing at the EPO in June 2008 to present its arguments.⁶

Oral proceedings in this case (G2/06) took place on June 24, 2008. Besides WARF, the President of the EPO was also represented at this hearing, by three members of the EPO's legal department.

As to the first question—the applicability of the Rule—controversy has arisen because the Rule was brought into force by the EPO without it having been ratified by all the EPC Member States. It reflects the terms of an EU Directive and not all EPC Member States are part of the European Union. After the adoption of Directive 98/44 on the legal protection of biotechnological inventions by the European Union, in 1999 the EPO introduced rules which reflected the prohibitions on patenting set out in this EU Directive. Of the new rules that were introduced into the EPC,

[Accessed September 30, 2008] by entering the "publication number" as EP0770125. EPO decisions by a Board of Appeal may also be accessed at http://www.epo.org/patents/appeals/search-decisions.html [Accessed September 30, 2008] by entering the case number in the format x_yyyy/zz where x is G or T for decisions of the Enlarged or Technical Boards of Appeal respectively, yyyy is a four digit number corresponding to the first part of the case number (i.e. 11 becomes 0011), and zz are the last two digits in the year component of the case number.

- 5 Interlocutory Decision of the Technical Board of Appeal 3.3.08 of 18 November 2005 (Case T1374/04), (Munich: EPO, 2006), pp.34–35.
- 6 EPO, Summons to Oral Proceedings pursuant to Rule 115(1) EPC—Case G02/06, (March 20, 2008), available at http://www.epoline.org/portal/public/registerplus/ [Accessed September 30, 2008].
- 7 Directive 98/44 of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions [1998] OJ L213/13.