The exclusive rights of a patent owner to exclude others from making, using, or selling patented inventions are limited by the doctrine of patent exhaustion. This doctrine, also known as the first sale doctrine, states that upon the first authorized sale of a patented article in the United States, the article is removed from the patent monopoly, thus losing its patent protection. As a result of this first sale, any subsequent use or sale of the patented article is not an infringement of its corresponding patent. The Federal Circuit further established the conditional sale doctrine in Mallinckrodt, Inc. v. Medipart, Inc., stating that patent owners could impose conditions in a patent license and enforce such provisions with patent infringement claims. The Supreme Court however, held in Quanta Computer, Inc. v. LG Elecs., Inc., that LG Electronics’ patent rights were exhausted due to an unconditional license. The Court’s opinion left the conditional sale doctrine unaddressed. In failing to mention the Mallinckrodt case in its Quanta opinion, the Supreme Court left the status of the conditional sale doctrine unclear. The most efficient legal framework for reconciling the Quanta ruling with the conditional sale doctrine, leaves the scope of the conditional sale doctrine intact and serves the core purposes of patent law, while helping to “promote the Progress of Science and the useful Arts.”
THE CONDITIONAL SALE DOCTRINE IN A POST-QUANTA WORLD AND ITS IMPLICATIONS ON MODERN LICENSING AGREEMENTS

WILLIAM LAFUZE, JUSTIN CHEN AND LAVONNE BURKE

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INTRODUCTION

Under federal law of the United States of America, a patent owner is granted rights to exclude others from making, using, or selling patented inventions within the geographical reaches of the United States.1 This exclusive right, however, is limited by the doctrine of patent exhaustion, which states that upon the first authorized sale in the United States of a patented article, the article is removed from the patent monopoly and thus loses its patent protection.2 As a result of this first sale, any subsequent use or sale is not an infringement of the patent.3 The theory of patent exhaustion, its history, and its application to modern licensing and sales following the Supreme Court case of Quanta Computer, Inc. v. LG Elecs., Inc.4 will be examined in this article.

Historically, in patent law jurisprudence, a “conditional sale” is a sale in which the patentee restricts the post-sale rights of a purchaser to use the patent article through an enforceable contract.5 Prior to Quanta, the Court of Appeals for the Federal Circuit (“Federal Circuit”) precedent stated that a conditional sale could prevent patent exhaustion and preserve the patentee’s right to sue for infringement if the conditions of the sale were not met or violated.6 The Court’s decision in Quanta failed to address conditional sales, and therefore, seemed to go directly against Mallinckrodt, Inc. v. Medipart, Inc.,7 a landmark case where the Federal Circuit held that patent owners could impose conditions in a patent license and enforce them

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1 See 35 U.S.C. § 271(a) (2006) ("[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent.").
2 See Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 625 (2008) (stating “the initial authorized sale of a patented item terminates all patent rights to that item”).
3 See id.
4 Id. at 617. The Supreme Court issued its opinion in Quanta on June 9, 2008. Id. In the case, LG Electronics (“LGE”) licensed its patent portfolio to Intel but placed several restrictions on the use of the patents. Id. at 623. These restrictions were intended to be effective against computer manufacturers who purchased Intel computer chips which incorporated LGE’s patents. Id. at 636. Subsequently, LGE sued several manufacturers (including Quanta) for violating these license restrictions after purchasing the computer chips from Intel. Id. at 624. The Supreme Court ultimately held that LGE’s patent rights had been exhausted in the sale of Intel computer chips, citing the patent exhaustion doctrine. Id. at 638.
6 See B. Braun Med. Inc. v. Abbott Labs., 124 F.3d 1419, 1426 (Fed. Cir. 1997); see also Mallinckrodt, 976 F.2d at 707, 709 (noting that when a patentee sells a machine without any conditions, consideration has been paid and he no longer has his exclusive right).
7 Mallinckrodt, 976 F.2d at 700.
through a patent infringement claim (the conditional sale doctrine).\textsuperscript{8} The Supreme Court however, made no mention of Mallinckrodt in its opinion and left the conditional sale doctrine primarily unaddressed.\textsuperscript{9} As a result of the Court's narrow ruling in Quanta, the status of the Federal Circuit's judicially-created conditional sale doctrine will be evaluated as described below.

Part I of this article will discuss the history behind the patent exhaustion and conditional sale doctrines, as well as the current formulations of both. Part II will give a detailed background of the Quanta case and describe the legal reasoning used to support various interpretations of Quanta. Part III will examine different methods of interpreting the Court's opinion in light of previous conditional sale doctrine jurisprudence and evaluates varied arguments in support of keeping the conditional sale doctrine intact. Finally, Part IV of this article will analyze the Court's methods of interpretation and propose strategies for incorporating post-sale restrictions in modern licensing and sales agreements in an attempt to prevent exhaustion and preserve the right to sue.

I. BACKGROUND & HISTORY

A. Patent Exhaustion Doctrine

The patent exhaustion doctrine, also known as the first sale doctrine,\textsuperscript{10} was first articulated by the Supreme Court in 1852 in Bloomer v. McQuewan.\textsuperscript{11} The doctrine of patent exhaustion provides that any authorized sale of a patented item terminates all patent rights to that item.\textsuperscript{12} The Court, in support of its finding that patent term extensions did not affect the rights of purchasers of patent licenses\textsuperscript{13}, stated that "when [a] machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly."\textsuperscript{14} Twenty years later, the Supreme Court clarified the exhaustion doctrine in Adams v. Burke,\textsuperscript{15} finding that "the sale by a person who has the full right to make, sell, and use such a machine carries with it the right to the use of that machine to the full extent to which it can be used . . . ."\textsuperscript{16}

For more than 150 years, the Court has applied the doctrine of patent exhaustion to limit the rights of patent holders following the first authorized sale of a patented item. With the exception of a brief five year period following Henry v. A.B. Dick Co.,\textsuperscript{17} in which post-sale restrictions on the use of patented articles were

\textsuperscript{8} Id. at 709.
\textsuperscript{11} Bloomer v. McQuewan, 55 U.S. 539 (1852); Gilly & Walker, supra note 10, at 1.
\textsuperscript{12} Id. at 549–50.
\textsuperscript{13} Id. at 552–53.
\textsuperscript{14} Id. at 549.
\textsuperscript{15} Adams v. Burke, 84 U.S. 453 (1873).
\textsuperscript{16} Id. at 455.
\textsuperscript{17} Henry v. A.B. Dick Co., 224 U.S. 1 (1912).
permitted, the Court has remained resolute in affirming the fundamental principles of the exhaustion doctrine and has repeatedly found that “a single, unconditional sale” renders a patented article “free of every restriction which the vendor may attempt to put upon it.”\textsuperscript{19}\n\nPrior to \textit{Quanta} in 2008, the most recent Supreme Court patent exhaustion jurisprudence could be found in \textit{United States v. Univis Lens Co.},\textsuperscript{20} which was decided by the Court in 1942.\textsuperscript{21}\n\nA brief summary of the seminal cases establishing the doctrine of patent exhaustion is presented below.

\textbf{I. Bloomer v. McQuewan}

In \textit{Bloomer}, a patent concerning planing machines was originally set to expire in 1842, but the Patent Act of 1836 extended the patent term by seven years.\textsuperscript{22} Subsequently, in 1845, another federal act was passed which extended the expiration date by another seven years.\textsuperscript{23} The defendants in \textit{Bloomer} had purchased the right to manufacture and use these machines before the patent term extensions were granted.\textsuperscript{24} It was not until after these extensions were granted and well after the patents were licensed, that the plaintiffs acquired the exclusive patent rights to manufacture and use the planing machine, as well as to assign to others the right to manufacture and use the machines.\textsuperscript{25} In 1850, after obtaining these patent rights, plaintiffs filed an infringement suit seeking an injunction to restrain the defendants from using two planing machines.\textsuperscript{26}

The outcome of the case hinged on the question of whether the defendants’ right to use the machines terminated with the first extension or still continued under the second term extension.\textsuperscript{27} In reaching a decision in favor of the defendants, the Court outlined the important distinction between “the grant of the right to make and vend the machine, and the grant of the right to use it.”\textsuperscript{28} While addressing the latter situation, the Court detailed the first formulation of the patent exhaustion doctrine. The Court averred that “when the machine passes to the hands of the purchaser, it is

\textsuperscript{18} Id. at 47.\n\textsuperscript{19} Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 516 (1917). Previously in \textit{Bloomer}, the Court was also credited with stating that the sale by a person who has the full right to make, sell, and use such a machine carries with it the right to use that machine to the full extent to which it can be used. \textit{See Bloomer}, 55 U.S. at 549.\n\textsuperscript{20} United States v. Univis Lens Co., 316 U.S. 241 (1942).\n\textsuperscript{21} Id. at 241.\n\textsuperscript{22} \textit{Bloomer}, 55 U.S. at 547. The Patent Act of 1836 allowed a patentee to obtain a seven-year extension of the original fourteen-year patent term upon showing that such an extension was necessary for the patentee to obtain reasonable remuneration for his investment in the invention. Patent Act of 1836, ch. 359, § 18, 5 Stat. 117, 124–25 (1836) (codified as amended at 35 U.S.C. §§ 1–376).\n\textsuperscript{23} \textit{Bloomer}, 55 U.S. at 547–48.\n\textsuperscript{24} Id. at 548.\n\textsuperscript{25} Id.\n\textsuperscript{26} Id. at 547. The plaintiff claimed that the defendants were infringing his patent rights by using the two previously purchased machines during the extended patent term. \textit{Id}. at 547–48.\n\textsuperscript{27} Id. at 548.\n\textsuperscript{28} Id. at 549.
no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the [A]ct of Congress.\footnote{29}

2. Adams v. Burke

Twenty-one years after \textit{Bloomer} in 1973, the patent exhaustion doctrine was again upheld in \textit{Adams v. Burke}.\footnote{30} In this case, the plaintiff Adams had been granted the “exclusive right of making, using, and vending to others to be used” a patented improvement in coffin lids within a ten-mile radius of Boston.\footnote{31} Burke, the defendant in this infringement suit, was an undertaker who purchased and subsequently used the patented coffin lids outside of the ten-mile radius specified in the sales agreement.\footnote{32} The Court cited \textit{Bloomer} in its opinion\footnote{33} and in finding for the defendant explained that “the sale by a person who has the full right to make, sell, and use such a machine carries with it the right to the use of that machine to the full extent to which it can be used in point of time.”\footnote{34} The Court held that the patent exhaustion applied because Burke’s purchase from the authorized sellers in Boston exhausted all patent rights with respect to the coffin lids in any territory.\footnote{35}


In 1912, in contrast to prior precedent, the Court diverged from its earlier rulings and significantly changed the patent exhaustion doctrine.\footnote{36} In \textit{Henry v. A.B. Dick Co.},\footnote{37} the plaintiff A.B. Dick Co. owned the patent rights to a stencil-duplicating machine named the “Rotary Mimeograph.”\footnote{38} A.B. Dick Co. sold one of these rotary mimeographs to Christina B. Skou with a license restriction requiring the machine to only be used with supplies produced by A.B. Dick Co.\footnote{39} Henry, the defendant, sold a can of ink that could be used with the machine to Skou.\footnote{40} At the time of the sale,
Henry was aware of the license restriction and expected that the can of ink would be used with the rotary mimeograph machine.\textsuperscript{41}

The Court ultimately reasoned that Henry was liable for contributory infringement, but it significantly reduced the power of the patent exhaustion doctrine in the process.\textsuperscript{42} In its opinion, the Court stated that "with few exceptions any conditions which are not in their very nature illegal with regard to this kind of property, imposed by the patentee and agreed to by the licensee, for the right to manufacture, or use, or sell the article, will be upheld by the courts."\textsuperscript{43} The ruling essentially stated that post-sale restrictions on the use of patented inventions were now allowed, provided that the restrictions themselves did not violate any other laws.\textsuperscript{44}

4. Motion Picture Patents Co. v. Universal Film Mfg. Co.

The change in patent exhaustion jurisprudence created by the\textsuperscript{1} Henry opinion was short-lived. Just five years later, the Court reversed its ruling in the patent exhaustion case\textsuperscript{45} Motion Picture Patents Co. v. Universal Film Mfg. Co.\textsuperscript{46} In\textsuperscript{47} Motion Picture, the patent in question covered "a part of the mechanism used in motion picture exhibiting machines for feeding a film through the machine with a regular, uniform and accurate movement and so as not to expose the film to excessive strain or wear."\textsuperscript{48} The plaintiff, who owned the title to this patent, had granted to the Precision Machine Company a right to manufacture and sell machines that incorporated the patented claims.\textsuperscript{49}

The agreement between the plaintiff and the Precision Machine Company also included a restrictive covenant, which mandated that every machine sold by the defendant be used "solely for exhibiting or projecting motion pictures containing the inventions of reissued Letters Patent No. 12,192 ..."\textsuperscript{50} The patent mentioned in this covenant, Letters Patent No. 12,192, was not the same as the patent-in-suit.\textsuperscript{51} In its opinion, the Court was forced to consider the question of whether this restriction, which limited the use of the machine to films which were neither a part of the patented machine nor patented themselves, was valid.\textsuperscript{52} Relying on the principle that the primary purpose of patent law is "to promote the [p]rogress of [s]cience and the useful [a]rts,"\textsuperscript{53} the Court found the restriction invalid because it would lead to

\begin{itemize}
  \item \textsuperscript{41} Id. at 11–12.
  \item \textsuperscript{42} Id. at 49.
  \item \textsuperscript{43} Id. at 47 (quoting Bement v. Nat'l Harrow Co., 186 U.S. 70, 91 (1902)).
  \item \textsuperscript{44} Id. at 49.
  \item \textsuperscript{45} Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502 (1917).
  \item \textsuperscript{46} Id. at 505.
  \item \textsuperscript{47} Id. at 506.
  \item \textsuperscript{48} Id.
  \item \textsuperscript{49} Id. at 505 (noting that the patent-in-suit is U.S. Patent No. 707,934).
  \item \textsuperscript{50} Id. at 508.
  \item \textsuperscript{51} U.S. CONST. art. I, § 8, cl. 8. "While one great object [of our patent laws] was, by holding out a reasonable reward to inventors and giving them an exclusive right to their inventions for a limited period, to stimulate the efforts of genius, the main object was 'to promote the progress of science and useful arts.'" Motion Picture, 243 U.S. at 511 (quoting Pennock v. Dialogue, 27 U.S. 1, 19 (1829) (alteration in original)) "It is undeniably true, that the limited and temporary monopoly granted to
the creation of a monopoly outside of the patent-in-suit. In doing this, the Court overruled Henry, but it explained that this was justified under the Clayton Antitrust Act passed by Congress, which ran counter to the principle espoused in Henry.

5. United States v. Univis Lens Co.

Although decided in 1942, United States v. Univis Lens Co. was the most recent Supreme Court decision regarding the patent exhaustion doctrine prior to Quanta. In Univis, the defendant Univis Corporation was the owner of several patents related to multifocal lenses. The Univis Corporation’s business practices included using separate licensing arrangements for wholesalers, lens finishing retailers, and prescription retailers. For wholesalers, as licensees, they were authorized to purchase lens blanks from Univis’ manufacturer; to finish the lens blanks through a grinding and polishing process; and to sell the finished lenses to prescription retail licensees. The prices, however, for which the lenses were sold

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52 Motion Picture, 243 U.S. at 518. Specifically, the Court noted:

  Such a restriction is invalid because such a film is obviously not any part of the invention of the patent-in-suit; because it is an attempt, without statutory warrant, to continue the patent monopoly in this particular character of film after it has expired, and because to enforce it would be to create a monopoly in the manufacture and use of moving picture films, wholly outside of the patent-in-suit and of the patent law as we have interpreted it.

Id.

53 Id. ("It is obvious that the conclusions arrived at in this opinion are such that the decision in Henry v. A.B. Dick Co. . . . must be regarded as overruled.").


55 Id. at 517. The Court supported this conclusion by noting:

  We are confirmed in the conclusion which we are announcing by the fact that since the decision of Henry v. A.B. Dick Co. . . . the Congress of the United States, the source of all rights under patents, as if in response to this decision, has enacted [the Clayton Antitrust Act] making it unlawful for any person engaged in interstate commerce 'to lease or make a sale or contract for sale of goods, . . . machinery, supplies or other commodities, whether patented or unpatented, for use, consumption or resale . . . or fix a price charged therefor . . . on the condition, agreement or understanding that the lessee or purchaser thereof shall not use . . . the goods . . . machinery, supplies or other commodities of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract for sale, or such condition, agreement or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.'

Id.


57 Id. at 243.

58 Id. at 244.

59 Id.
were fixed by Univis. The second type of licensing arrangement was used for finishing retailers. In a similar manner to the wholesaler license agreements, the agreements of finishing retailers, permitted the licensees to purchase lens blanks from Univis' manufacturers and granted them the authority to sell said lenses to customers at a Univis-fixed price. Finally, the licensing arrangement for prescription retailers allowed the retailers to prescribe and fit Univis lenses to customers, but also required the retailers to sell the finished lenses to consumers at prices fixed by Univis.

In its opinion, the Court looked to previous patent exhaustion cases such as Bloomer and Adams to support its ruling that a "patentee cannot control the resale price of patented articles which he has sold ... by resort to an infringement suit ...." As shown below, the Court further addressed the fact that the lens blanks, when initially sold, were not completed articles:

We think that all the considerations which support these results lead to the conclusion 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 .... He has thus parted with his right to assert the patent monopoly with respect to it and is no longer free to control the price at which it may be sold either in its unfinished or finished form.

The Court found that even though the lens blanks were not completed articles and needed to be finished after the initial sale by Univis, they embodied enough of the patented invention to invoke the patent exhaustion doctrine. Specifically, the Court’s decision expanded the scope of the exhaustion doctrine by holding that the authorized sale of unfinished or unpatented articles could potentially ignite patent exhaustion if (1) the articles sold "embodied essential features" of the patented invention, and (2) had no non-infringing use. As a result, price fixing was not found to be under the protection of patent law nor was it determined to be a valid post-sale restriction.

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60 Id.
61 Id. (explaining that finishing retailers “purchase the blanks ... grind and polish them and adjust the lenses, in frames or supports, to the eyes of the consumers”).
62 Id.
63 Id. at 245.
64 Id. at 250.
65 Id. at 250-51.
66 See id.
67 Id. at 249-50. In this ruling, the Court laid the foundation to the “substantially embodies” test, later articulated in Quanta.
68 Id. at 252.
6. Pre-Quanta Interpretation

Although *Unisys* was the latest pre-Quanta Supreme Court case regarding the patent exhaustion doctrine, it was decided over sixty years ago. It will be helpful to look at a more modern interpretation of the patent exhaustion doctrine. The Chisum treatise on patents offers a clear and current definition currently utilized by most courts:

An authorized sale of a patented product exhausts the patent monopoly as to that product. Thus, a purchaser of such a product from the patent owner or one licensed by the patent owner may use or resell the product free of control or conditions imposed by the patent owner.⁶⁹

**B. Conditional Sale Doctrine**

While an authorized first-sale exhausts the patent holder’s rights, an unauthorized or conditional sale does not bar the patentee from asserting infringement. The conditional sale doctrine has a much shorter history than the patent exhaustion doctrine and developed with no explicit jurisprudence from the Supreme Court. It was first articulated by the Federal Circuit in the landmark case of *Mallinckrodt, Inc. v. Medipart, Inc.*⁷⁰ in 1992. The doctrine was later extended in *B. Braun Med. Inc. v. Abbott Labs.*⁷¹ Both *Mallinckrodt* and *B. Braun* will be discussed below.

I. Mallinckrodt, Inc. v. Medipart, Inc.

The patent-in-suit in *Mallinckrodt* related to “an apparatus for delivery of radioactive or therapeutic material in aerosol mist form to the lungs of a patient, for diagnosis and treatment of pulmonary disease.”⁷² Mallinckrodt owned the patents to the nebulizers and was in the business of selling them to hospitals.⁷³ Each device sold to a hospital was marked as “Single Use Only,” and the package insert contained in each unit included the language “For Single Patient Use Only.”⁷⁴ The package insert also “instructs that the entire contaminated apparatus be disposed of in accordance with procedures for the disposal of biohazardous waste.”⁷⁵

Some hospitals, however, did not dispose of the apparatus or limit the device to a single use.⁷⁶ These hospitals instead shipped the used parts of the device to the

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⁶⁹ See Spray Refrigeration Co. v. Sea Spray Fishing, Inc., 322 F.2d 34, 36 138 U.S.P.Q (BNA) 470, 472 (9th Cir. 1963); see also 1 DONALD S. CHISUM, CHISUM ON PATENTS § 16.03(2)(a) (2008).
⁷² Mallinckrodt, 976 F.2d at 701.
⁷³ Id. at 702, 702 n.2.
⁷⁴ Id. at 702.
⁷⁵ Id.
⁷⁶ Id.
defendant, Medipart. Medipart would then take steps to recondition the used elements of the device and ship the units back to the hospitals. These events led Mallinckrodt to file suit against Medipart, alleging both patent infringement and inducement to infringe.

In its opinion, the court looked to earlier Supreme Court decisions regarding the conditional sale of patented devices and stated the first formulation of the conditional sale doctrine, noting that “[u]nless the condition violates some other law or policy (in the patent field, notably the misuse or antitrust law . . . ), private parties retain the freedom to contract concerning conditions of sale.” In evaluating whether the condition violates law or policy, the Federal Circuit stated that “[t]he appropriate criterion is whether . . . [the] restriction is reasonably within the patent grant, or whether the patentee has ventured beyond the patent grant and into behavior having an anticompetitive effect not justifiable under the rule of reason.”

The court held that if the single-use restriction was a valid condition under state sales law and within the scope of the patent grant, that Mallinckrodt could bring a claim of patent infringement against parties that violated such restrictions. Furthermore, the court stated that the “right to exclude may be waived in whole or in part[,]” therefore, giving the patentee the right to waive only a portion of that exclusive right. Thus, the patent exhaustion doctrine did not apply to conditional sales that met the stated requirements.

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77 Id.
78 Id. The reconditioning process begins when Medipart:
packages the assemblies and sends them to Radiation Sterilizers Inc., who exposes the packages to at least 2.5 megarads of gamma radiation, and returns them to Medipart. Medipart personnel then check each assembly for damage and leaks, and place the assembly in a plastic bag together with a new filter, tubing, mouthpiece, and nose clip. The ‘reconditioned’ units, as Medipart calls them, are shipped back to the hospitals from whence they came. Neither Radiation Sterilizers nor Medipart tests the reconditioned units for any residual biological activity or for radioactivity. The assemblies still bear the inscription ‘Single Use Only . . . .’

Id.
79 Id.
80 Id. at 707–08. “Sales of the kind may be made by the patentee with or without conditions, as in other cases (quoting Mitchell v. Hawley, 83 U.S. 544, 548 (1873)).” Id. at 707. The Court also noted:
[When a patentee] has himself constructed a machine and sold it without any conditions, or authorized another to construct, sell, and deliver it, or to construct, use, and operate it, without any conditions, and the consideration has been paid to him for the thing patented, the rule is well established that the patentee must be understood to have parted to that extent with all his exclusive right, and that he ceases to have any interest whatever in the patented machine so sold and delivered or authorized to be constructed and operated.

Id. at 707 (quoting Keeler v. Standard Folding Bed Co., 157 U.S. 659, 663 (1895)) (alterations in original).

81 Id. at 708.
82 Id.
83 Id. at 709.
84 Id. at 703.
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2. B. Braun Med. Inc. v. Abbott Labs

The patent in question in *B. Braun Med. Inc. v. Abbott Labs.* was “generally directed to a reflux valve that attach[e]d to an intravenous (IV) line and permit[t]ed injection or aspiration of fluids by means of a needleless syringe.” Braun had been in discussions with Abbott regarding a potential purchase of the patented valves by Abbott. At the end of the discussions, Braun offered to sell the patented valves to Abbott but conditioned the sale on Abbott using the valves on its primary line and piggyback sets which did not compete with Braun’s own product lines. Braun refused to sell the valves if they were instead to be used on an extension set or on competing products. Abbott agreed to the restrictions and purchased a large volume of the patented valves.

Because Braun continued to refuse to sell valves to Abbott for use in its extension sets, Abbott sought out another company, NP Medical, to produce a substitute valve. NP Medical was able to develop a suitable valve, but as a result, Braun sued both Abbott and NP Medical for patent infringement. The defendants raised several equitable defenses in response, including patent misuse. This led the court to find the lower court’s patent misuse jury instructions erroneous because they failed to utilize the *Mallinckrodt* framework:

The resolution of this issue is governed by our precedent in *Mallinckrodt, Inc. v. Medipart, Inc.* In that case, we canvassed precedent concerning the legality of restrictions placed upon the post-sale use of patented goods. As a general matter, we explained that an unconditional sale of a patented

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86 Id. at 1421 (”This type of valve provides safety benefits to health care professionals by reducing the risk of needlestick injuries, which might transmit blood-borne pathogens.”).
87 Id. at 1422.
88 Id. Describing the equipment, the court noted: The primary line and piggyback sets allow a needleless syringe to be attached directly to an IV. An extension set incorporating the SafSite valve consists of a tube with a SafSite valve on one end, and one or more connectors on the other end. These extension sets permit the delivery of additional fluids and drugs.
89 Id. at 1422 n.1.
90 Id.
91 Id. (explaining that the substitute valves that Abbott sought to purchase from NP Medical and incorporate into its products allegedly infringed Braun’s patents and were prohibited under the Braun-Abbott sales agreement).
92 Id.
93 Id. Specifically, Abbott argued that placing post-sale field-of-use restrictions on patented articles constituted patent misuse. Id. at 1426.
94 Id. at 1426. The jury instruction stated: [A] patent holder is not allowed to place restrictions on customers which prohibit resale of the patented product, or allow the customer to resell the patented product only in connection with certain products . . . . If you find, by a preponderance of the evidence, that Braun placed such restrictions on its customers, including Abbott, you must find that Braun is guilty of patent misuse.
95 Id. (”Braun contends that this jury instruction is legally erroneous because it essentially creates *per se* liability for any conditions that Braun placed on its sales. We agree.”).
device exhausts the patentee's right to control the purchaser's use of the device thereafter. The theory behind this rule is that in such a transaction, the patentee has bargained for, and received, an amount equal to the full value of the goods. This exhaustion doctrine, however, does not apply to an expressly conditional sale or license. In such a transaction, 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. As a result, express conditions accompanying the sale or license of a patented product are generally upheld. Such express conditions, however, are contractual in nature and are subject to antitrust, patent, contract, and any other applicable law, as well as equitable considerations such as patent misuse. Accordingly, conditions that violate some law or equitable consideration are unenforceable. On the other hand, violation of valid conditions entitles the patentee to a remedy for either patent infringement or breach of contract. This, then, is the general framework.96

In addition, B. Braun "established a principle that contractual restrictions could vitiate an implication that a purchaser from a patentee had an implied license to use patented goods, thereby trumping patent exhaustion."97 Specifically, the Federal Circuit explained that exhaustion was not applicable to an expressly conditional sale or license because it is reasonable to infer that the parties negotiated a price that only reflecting only the value limited use rights conferred by the patentee.98

II. QUANTA COMPUTER, INC. V. LG ELECS, INC.

A. Facts

In 1999, plaintiffs L.G. Electronics ("LGE") acquired a portfolio of patents related to computer components.99 The patents-in-suit were: U.S. Patent Nos. 4,939,641 ("the '641 patent"); 5,379,379 ("the '379 patent"); and 5,077,733 ("the '733 patent").100 The '641 patent disclosed "a system for ensuring that the most current data are retrieved from main memory by monitoring data requests and updating main memory from the cache when stale data are requested."101 The '379 patent

96 Id. (citations omitted).
98 See B. Braun, 124 F.3d at 1426.
100 Id.
101 Id. at 622. The Court described the system, where:

The data processed by the computer are stored principally in random access memory, also called main memory. Frequently accessed data are generally stored in cache memory, which permits faster access than main memory and is often located on the microprocessor itself. When copies of data are stored in both the cache and main memory, problems may arise when one copy is changed but the other still contains the original 'stale' version of the data.

Id. at 621–22 (citations omitted).
The Conditional Sale Doctrine in a Post-Quanta World and Its Implications on Modern Licensing Agreements

dealt with “the coordination of requests to read from, and write to, main memory.”  

Specifically, the ’379 patent disclosed a “method of organizing read and write requests” to effectively balance speed and accuracy.  

Finally, the ’733 patent described a method that helped to prevent any single computer device from monopolizing the computer’s bus.  

A system incorporating the patented method would establish “a rotating priority system under which each device alternately has priority access to the bus for a preset number of cycles and heavier users can maintain priority for more cycles without ‘hogging’ the device indefinitely.”  

LGE entered into a broad cross-licensing agreement with Intel for these patents, which allowed Intel to produce and sell microprocessors and chipsets incorporating the ’641, ’379, and ’733 patents.  

This agreement also contained restrictions, to include a statement 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.”  

The LGE-Intel licensing agreement even addressed the patent exhaustion doctrine, stating 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.”  

The defendants in this case, including Quanta Computer, were a group of computer manufacturers who purchased microprocessors and chipsets from Intel that were designed to practice the LGE patents.  

Pursuant to a separate master agreement between LGE and Intel, the manufacturers were notified that the license that they had received would not extend to any products that included combinations of Intel products and non-Intel products.  

Despite this warning, the defendant

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102 Id. at 622. The Court further described that: Processing these requests in chronological order can slow down a system because read requests are faster to execute than write requests. Processing all read requests first ensures speedy access, but may result in the retrieval of outdated data if a read request for a certain piece of data is processed before an outstanding write request for the same data. Id.  
103 Id. (explaining that the method disclosed in the ’379 patent allows “the computer to execute only read requests until it needs data for which there is an outstanding write request”).  
104 Id. at 622–23. Providing background into the system layout, the Court noted: The main functions of a computer system are carried out on a microprocessor, or central processing unit, which interprets program instructions, processes data, and controls other devices in the system. A set of wires, or bus, connects the microprocessor to a chipset, which transfers data between the microprocessor and other devices, including the keyboard, mouse, monitor, hard drive, memory, and disk drives. Id. at 621.  
105 Id. at 622–23.  
106 Id. at 623 (“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.’”).  
107 Id.  
108 Id.  
109 Id. at 624.  
110 Id. at 623–24. The Court noted:
manufacturers produced computers “using Intel parts in combination with non-Intel memory and buses in ways that practice[d] the LGE Patents.”\textsuperscript{111} LGE filed suit against the manufacturers, alleging patent infringement based on the manufacturers’ alleged unauthorized combination of Intel products with non-Intel products.\textsuperscript{112}

\textbf{B. The Court’s Analysis}

The Court began its analysis by detailing the history of the patent exhaustion doctrine, citing many of the cases that were outlined earlier in this article.\textsuperscript{113} The Court then rejected LGE’s argument that the patent exhaustion doctrine did not apply to method patents and overturned Federal Circuit precedent,\textsuperscript{114} citing cases such as \textit{Univis} and \textit{Ethyl Gasoline Corp. v. United States}.\textsuperscript{115} The Court cautioned that allowing method patents to circumvent the patent exhaustion doctrine 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.’”\textsuperscript{116}

Having determined that method patents may be exhausted, the Court next considered the question of whether the Intel microprocessors and chipsets embodied the technology covered in the patents in question to the extent required to trigger the patent exhaustion doctrine.\textsuperscript{117} Analogizing to \textit{Univis}, the Court found that the Intel products substantially embodied the essential features in the patented invention “because the only step necessary to practice the patent[s] is the application of common processes or the addition of standard parts.”\textsuperscript{118} The Court found that the components sold by Intel essentially embodied the inventive aspects of the LGE patents,\textsuperscript{119} and had no reasonable use other than to practice the LGE patents.\textsuperscript{120}

\textsuperscript{111} \textit{Id.} (citations omitted).
\textsuperscript{112} \textit{Id.} at 624.
\textsuperscript{113} \textit{Id.}
\textsuperscript{114} \textit{Id.} at 625-28 (discussing the history of the patent exhaustion doctrine, from \textit{Bloomer} in the nineteenth century through \textit{Univis}).
\textsuperscript{115} \textit{Id.} at 630.
\textsuperscript{116} \textit{Id.} at 627-29; \textit{Ethyl Gasoline Corp. v. United States}, 309 U.S. 436, 446 (1940).
\textsuperscript{117} \textit{Quanta}, 553 U.S at 630 (quoting \textit{Adams v. Burke}, 84 U.S. 453, 457 (1885)).
\textsuperscript{118} \textit{Id.} at 633 (“Like the Univis lens blanks, the Intel Products constitute a material part of the patented invention and all but completely practice the patent . . . . Everything inventive about each patent is embodied in the Intel Products.”).
\textsuperscript{119} \textit{Id.} at 633-34.
Finally, the Court addressed the question of whether Intel’s sale to Quanta and the other computer manufacturers exhausted LGE’s rights to the patents. The Court rejected LGE’s argument that there was an absence of an authorized sale because the license agreement it signed with Intel did not allow Intel to “sell its products for use in combination with non-Intel products to practice the LGE Patents.” Instead, the Court found that the license agreement did not actually restrict the ability of Intel to vend its products to manufacturers who intended to combine them with non-Intel products. In reaching the conclusion that Intel’s sale to the computer manufacturers did in fact exhaust LGE’s rights to the patents, the Court made no mention of the Mallinckrodt case or the conditional sale doctrine. It did, however, make reference to potential contract remedies in footnote number seven of the opinion:

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.

III. CURRENT STATUS OF THE CONDITIONAL SALE DOCTRINE

A. Quanta Did Not Explicitly Overrule the Conditional Sale Doctrine

At the time that Quanta was decided, the Supreme Court was certainly aware of the conditional sale doctrine and the Mallinckrodt case. However, since the Court based its ruling on the conclusion that the license agreement between LGE and Intel was unconditional with regard to sales of Intel products, there was no need for the

120 Id. at 632 (“A microprocessor or chipset cannot function until it is connected to buses and memory. And here, as in Unicis, 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.”).
121 Id. at 635.
122 Id. at 636.
123 Id. (explaining that the license agreement “broadly permits Intel to ‘make, use, [or] sell’ products free of LGE’s patent claims”).
124 Id. at 637–38. The Court noted:

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.

Id at 637. “Intel’s authorized sale to Quanta thus took [Intel’s] products outside the scope of the patent monopoly, and as a result, LGE can no longer assert its patent rights against Quanta.” Id. at 638.
125 Id. at 637 n.7.
Court to address the conditional sale doctrine.\textsuperscript{127} The Court could have taken an alternative route, and found for LGE by recognizing a condition in the LGE-Intel license agreement.\textsuperscript{128} This path would have likely required the Court to explicitly address the conditional sale doctrine. The Court did not address the proposition supported by Federal Circuit jurisprudence that a properly conditioned sale may preclude exhaustion. Because this option was available, the Court’s decision not to discuss the conditional sale doctrine possibly suggests that the Court did not feel the doctrine needed to explicitly be overruled, but rather that is should remain intact per current Federal Circuit jurisprudence.

\textbf{B. Methods of Interpreting Quanta}

Unfortunately, the question still remains of whether the conditional sale doctrine was implicitly overruled by the Quanta opinion. Several interpretations of the law can be used, and some allow the Quanta decision and the conditional sale doctrine to coexist. A first possible interpretation is the conditional sale doctrine only applies to direct purchasers of patented inventions. A second interpretation, applies Quanta only to “complex inventions” where patented inventions are combined with other components. A third interpretation would plainly overrule the conditional sale doctrine while a fourth interpretation would maintain the current scope of the doctrine. Each of these interpretations will be discussed in turn.

\textit{1. Conditional Sale Doctrine Only Affects Direct Purchasers}

Professor Shubha Ghosh suggests that the conditional sale doctrine now applies only to “use restrictions placed on the direct purchaser of a patented invention.”\textsuperscript{129} Under this interpretation, the Quanta decision would only apply to “attempts by a patent owner to use licensing restrictions to reach through and enjoin subsequent purchasers and users of the patented invention.”\textsuperscript{130} Under this reasoning, for the first sale or license (and only the first) of an item, a patent owner would be able to add restrictions in accordance with the conditional sale doctrine and obtain the most precise, utility-maximizing bargain possible.\textsuperscript{131}

According to Professor Ghosh’s theory, this rule would minimize transaction costs because the patent owner would obtain the full value of the licensed patent

\begin{footnotesize}
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\item \textsuperscript{127} \textit{Quanta}, 553 U.S. at 637–38.
\item \textsuperscript{128} \textit{Id.} at 623. The Court, recalling that the license agreement stipulated 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.
\item \textsuperscript{129} Shubha Ghosh, \textit{The Quandary of Quanta: Thoughts on the Supreme Court Decision One Week Later}, \textsc{antitrust} \& \textsc{competition policy blog} (June 17, 2008), http://lawprofessors.typepad.com/antitrustprof_blog/2008/06/the-quandry-of.html.
\item \textsuperscript{130} \textit{Id.}
\item \textsuperscript{131} \textit{Id.}
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rights in a single negotiation with the direct purchaser.\textsuperscript{132} In industries with sizable chains of production, this would lead to the direct purchaser paying a higher licensing fee than it would under the traditional conditional sale doctrine.\textsuperscript{133} Although the direct purchaser would have to pay the fees that were previously charged to entities further down the chain of production, it would be able to share the burden of such higher licensing fees with the rest of the production chain by charging a higher price to subsequent downstream purchasers.\textsuperscript{134} As will be discussed later, this “direct purchaser” formulation of the conditional sale doctrine runs into problems in practice that lead to inefficiencies.

2. Quanta Applies to “Complex Inventions”

Professor Ghosh also suggests that Quanta only applies to “situations where patented inventions are integrated with other components in complex inventions.”\textsuperscript{135} This interpretation is appealing because it would be “consistent with the concern that the Supreme Court has expressed for the integration of patented and unpatented components in cases like eBay and KSR.”\textsuperscript{136} Specifically, in eBay Justice Kennedy opposed granting injunctive relief when a patented invention is only one part of a larger, unpatented product.\textsuperscript{137} Moreover in KSR, the Court expressed concern over the use of combinations of patented items with unpatented items to satisfy the non-obviousness requirement.\textsuperscript{138} Due to the ever-increasing complexity of modern technology, this interpretation would be far more difficult to apply than the “direct purchaser” interpretation of Quanta since no meaningful guidance is provided on what should be considered a “complex invention.”\textsuperscript{139}

3. Footnote Seven Controls

The existence of footnote seven to the Quanta opinion could be interpreted as implicitly overruling the conditional sale doctrine because it suggests that contract remedies, as opposed to infringement remedies, could have been available in the case.\textsuperscript{140} Under this interpretation, a patent owner would only be able to enforce licensing restrictions through state contract law. Without federal patent infringement remedies, the potential recovery of enhanced damages and attorneys

\textsuperscript{134} Id. at 1159–60.
\textsuperscript{135} Ghosh, supra note 129.
\textsuperscript{136} Id.
\textsuperscript{139} Ghosh, supra note 129.
\textsuperscript{140} Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 637 (2008).
fees would be greatly impaired, and as a result licensees would experience less deterrence with regard to breaching licenses.\textsuperscript{141}

4. The Court’s Concluding Paragraph

Professor Christopher Holman states that the conditional sale doctrine was most likely implicitly overruled by \textit{Quanta} due to the Court’s conclusion that “[t]he authorized sale of an article exhausts the patent holder’s rights and prevents the patent holder from invoking patent law to control post-sale use of the article.”\textsuperscript{142} This statement however, must be viewed in context. The full paragraph states:

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 post-sale 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 non-infringing 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 \textit{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.\textsuperscript{143}

Viewing the paragraph in its entirety reveals that the Court’s conclusion, that LGE could no longer assert its patent rights against Quanta, depended on the absence of a condition in the license agreement limiting Intel’s ability to sell its products.\textsuperscript{144} Thus the possibility exists that the presence of such a condition would have allowed LGE to assert its patent rights against Quanta. The better view is, therefore, that \textit{Quanta} does not implicitly overrule the conditional sale doctrine. Furthermore, under this interpretation, the scope of the conditional sale doctrine would not be narrowed.

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{143}] \textit{Quanta}, 553 U.S. at 638.
\item[\textsuperscript{144}] \textit{Id}.
\end{enumerate}
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IV. THE PROPER INTERPRETATION

A. The Utilitarian Focus of the Court’s Jurisprudence

To determine what interpretation should be used by courts in the future, it will be helpful to revisit the history of both the patent exhaustion and conditional sale doctrines. In early patent exhaustion cases, it appeared that the guiding principle behind the Court’s decisions was the inherent unfairness that resulted when a consumer fairly bargained for and purchased a patented machine, only to be denied the ability to use it later. For example, in Bloomer, the goal of promoting the “the progress of science and useful arts” was cast aside in favor of the individual consumer’s interest in the use of his property. Further, in Adams, the Court stated that it was the “essential nature of things” that “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.” In later cases the Court showed a shift towards more utilitarian justifications for the patent exhaustion doctrine. In Motion Picture, the goal of promoting the “the progress of science and useful arts” was the “primary purpose” of the patent laws and what ultimately drove such decisions. The same constitutional provision was cited in the Court’s reasoning in Unvis. This trend suggests that the current patent exhaustion jurisprudence is geared more towards broad, utilitarian goals such as promoting innovation rather than allowing licensees the free use of their purchased property.

On the other hand, the conditional sale doctrine has always been guided by utilitarian aims. In Mallinckrodt, the Federal Circuit reviewed earlier case law and found that the main guiding principle was the simple contract law rule that a “sale may be conditioned,” which led to the expansion of the freedom to contract in patent licenses. In addition, the court in B. Braun stressed the efficiency benefits of the conditional sale doctrine, stating that with conditional sales 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.” Giving the option of conditional sales arguably allows for more precise and efficient transactions.

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145 Bloomer v. McQuewan, 55 U.S. 539, 553–54 (1852). The Court stated:
Congress undoubtedly ha[s] power to promote the [p]rogress of [s]cience and useful [a]rts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries. But it does not follow that Congress may, from time to time, as often as they think proper, authorize an inventor to recall rights which he had granted to others; or reinvest in him rights of property which he had before conveyed for a valuable and fair consideration.

146 Id.


151 See id. There are several notable differences between a “conditional sale” and a “conditional license.” In short, a “conditional license” is a license of less than full patent rights. For example, a patent owner might provide a manufacturer with a restricted license, under which the user
B. The Conditional Sale Doctrine Leads to Greater Efficiency in High Technology Industries

Replacing the traditional conditional sale doctrine with a “direct purchaser” theory would cause several problems in high technology industries. In the wireless communications industry, for example, some low-end cellular phone handsets that cost less than $100 may use the same chip used by higher-end handsets that can cost up to $400.\textsuperscript{152} The low-end handsets use only the most basic capabilities offered by the chip, such as voice functionality, while high-end handsets also implement advanced features on the chip such as Internet browsing.\textsuperscript{153} Under a “direct purchaser” regime, royalties in connection with patents that affect handsets could only be collected from chipmakers at the first step in the chain of production.\textsuperscript{154} As a result these royalties collected by the patent owner would be a function of the price of the chip rather than the handsets.\textsuperscript{155} Thus, “the royalty charged would either overburden the low-end handsets (and the consumers who purchase them) or would insufficiently compensate the patent owner for the actual benefits conferred by the patented technologies in the high-end handsets.”\textsuperscript{156} If the low-end handsets are overburdened and royalties are charged for “chip functionality [that is] not actually used by [these] handsets,” the low-end handsets will be “less profitable or even unprofitable,” and their presence in the market will either be reduced or eliminated altogether.\textsuperscript{157}

As is evident from this scenario, such problems could hurt the mass adoption of new technology since the affordability of even the most basic units would be lessened. If instead, the patent owner is insufficiently compensated for the research and development that is required to create new technology, the producers of the high-end handsets will receive a windfall.\textsuperscript{158} Furthermore, the patent owner will respond to this market condition by cutting back on research and development, thus slowing the introduction of new technology into the industry.\textsuperscript{159} It is clear that either of these outcomes will result in a failure “to promote the [p]rogress of [s]cience and the useful [a]rts.”\textsuperscript{160}

\textsuperscript{152} Amicus Brief of Qualcomm, Inc. in Support of Respondent at 22, Quanta Computer, Inc. v. LG Elecs, Inc., 553 U.S. 617 (2008) (No. 06-937).
\textsuperscript{153} Id.
\textsuperscript{154} Id. at 22.
\textsuperscript{155} Id. at 22–23.
\textsuperscript{156} Id. at 23.
\textsuperscript{157} Id.
\textsuperscript{158} Id.
\textsuperscript{159} Id.
\textsuperscript{160} U.S. CONST. art. I, § 8, cl. 8.
Additionally, a “direct purchaser” version of the conditional sale doctrine would also have adverse effects on innovative start-up companies. Many inventors must face the challenge of persuading other companies to invest in their technology before it has been accepted by, or even introduced to, consumers. Under the traditional conditional sale doctrine, a start-up company would be able to distribute royalty costs throughout the production chain. This would essentially have a risk-spreading effect making it more likely for a company to invest in new technology. However, under a “direct purchaser” rule a single entity in the production chain would be forced to carry the burden of a higher royalty cost that would make it much riskier to invest.

Moreover, gamesmanship would also be encouraged by a “direct purchaser” rule. Faced with new limitations on licensing, inventors may try to split up their inventions into as many patent applications as possible in order to maintain their freedom to contract. Essentially, the rule “would encourage patentees to atomize their inventions into separate applications in order to do what can be done today much more simply and rationally by making a sale subject to clearly stated lawful conditions on the licensed use.” Such practices would also lead to an unnecessary increase in patent applications to the already overburdened United States Patent and Trademark Office.

C. The Conditional Sale Doctrine Should Not Be Affected by Quanta

With regard to the proper interpretation of Quanta, the interpretation based on footnote seven should not be used, as it presents too extreme a departure over past precedent. Nor should the “direct purchaser” interpretation be used because it would too greatly limit a patent owner’s ability to license downstream. Moreover, the “complex invention” interpretation should not be used because of the substantial difficulty and subjectivity in determining what should be considered a “complex invention.”

In contrast, the “direct purchaser” approach seems practical, but as explained above, it is less efficient for high technology industries than the traditional approach that would result from the interpretation based on the Court’s concluding paragraph in Quanta. It is these high technology industries that must be protected in order to best “promote the [p]rogress of [s]cience and the useful [a]rts.” Further, because the Federal Circuit’s guiding principles in this area of the law have been drifting towards more utilitarian aims, choosing an interpretation based on efficiency would

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162 Id. at 16–17.
163 See Amicus Brief for Ibiquity, supra note 161, at 17 (“Chip makers might well have viewed a license with a substantial up-front royalty as too expensive and risky. They may have decided not to take a license or produce any chips at all.”).
165 Id.
166 U.S. CONST. art. I, § 8, cl. 8.
be in line with the Court’s jurisprudence. Thus, the proper interpretation is the one that leaves the scope of the conditional sale doctrine intact.

D. Modern Licensing Suggestions Post-Quanta

The Court, in its analysis of the LGE-Intel licensing agreement and its findings that LGE’s patent rights were exhausted, suggests that future licenses can be drafted in ways that avoid patent exhaustion and preserve the licensor’s right to sue. The Quanta opinion makes clear that conditions drafted to avoid patent exhaustion must be explicitly described in the body of the licensing agreement and follow classic principles of contract law,\(^\text{167}\) and not simply be an implied covenant between parties.\(^\text{168}\)

Simply put, conditional sales and restricted licenses were not outlawed by Quanta. Both are still viable options; however, the Court was explicit in its guidance that in order to preserve patent rights against subsequent purchasers, any conditions or restrictions should be expressly stated and/or memorialized in the licensing agreement/sales contract.\(^\text{169}\) Furthermore, the Court implied that in order to impose restrictions on downstream purchasers, patentees should ensure that conditions in their license agreements bind both the initial licensees as well as downstream purchasers.\(^\text{170}\)

It has also been suggested that, to avoid exhaustion, patentees might wish to describe in their licensing agreements alternative non-infringing uses of the patented articles sold by licensees.\(^\text{171}\) Because the doctrine of patent exhaustion following Univis and Quanta appears to require that the article sold substantially embody the patented invention (meaning that it has no substantial non-infringing uses), a recitation of non-infringing uses may defeat the argument that the only possible purpose of the license was to authorize exhausting sales.\(^\text{172}\)

\(^{167}\) Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617, 636 (2008). The court stated: 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 . . . . In any event, the provision requiring notice to Quanta appear only in the Master Agreement, and LG does not suggest that a breach of that agreement would constitute a breach of the License Agreement . . . . And exhaustion turns only on Intel’s own license to sell products practicing the LG Patents.

\(^{168}\) See Arthur Linton Corbin, Corbin on Contracts § 30.12 (2008) (“The word ‘covenant’ has come to be not much more than a synonym of ‘promise’ . . . . It is not itself a ‘condition’ of the duty of the covenantee to keep his return promise or ‘covenant.’ . . . . [A covenant] creates a legal duty in the promisor; [a condition] limits and postpones a promisor’s duty.”).

\(^{169}\) Quanta, 553 U.S. at 637–38.

\(^{170}\) See id.

\(^{171}\) Gilly & Walker, supra note 10, at 5.

\(^{172}\) Id. (“Although these other uses may be restricted by the licensor, the language describing other uses [could] possibly defeat patent exhaustion and reduce the likelihood of costly litigation by removing the exhaustion doctrine to infringement.”).
V. CONCLUSION

In failing to mention the *Mallinckrodt* case and the conditional sale doctrine in the *Quanta* opinion, the Supreme Court left the status of the conditional sale doctrine unclear. Several ways of reconciling the opinion with the doctrine exist, but the one that provides the most efficient legal framework for high technology industries is based on the Court’s concluding paragraph. Ultimately, leaving the scope of the conditional sale doctrine intact is the best way for courts to “promote the [p]rogress of [s]cience and the useful [a]rts.”

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173 U.S. Const. art. I, § 8, cl. 8.