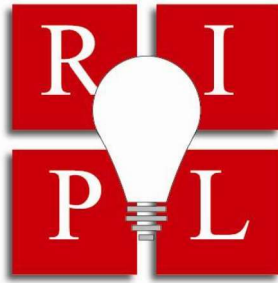


# THE JOHN MARSHALL REVIEW OF INTELLECTUAL PROPERTY LAW



## THE COURTS' INTERPRETATIONS OF 'LEGITIMATE BUSINESS PURPOSES', WITH APPLICATIONS TO LEXMARK

W. LESSER

### ABSTRACT

Courts frequently must assess 'intent'. This article applies to the interpretation of the intent of "legitimate business purposes" as a justification for restrictive use licensing agreements for patented products. Generally, the 'first sale' doctrine terminates the use rights of the patent holder. However, if the sale is conditioned on some use limitations, violators of those terms are liable for infringement. The courts, suggested in *Mitchell v. Hawley* (1872) and formalized in *Mallinckrodt v. Medipart* (1992), have allowed use restrictions based on license terms. Restrictions are disallowed under the affirmative defense of patent invalidity, such as from an antitrust violation.

This article is concerned with use restrictions based on the claimed legitimate business purpose of protecting a product's reputation. Two particular cases are evaluated, the lease-only terms for rotary oil drills and single-use laser toner cartridges under the recent Lexmark cases. In both cases, the lease-based restrictions on repair is justified as needed for protecting and/or enhancing the quality and reputation of the products, justifications accepted by the respective appeals courts. The evaluations presented here argue that, while the stated justifications are legitimate, there are less restrictive approaches to achieving those goals, and further that the courts by unquestionably accepting the plaintiffs' justifications acted naively.

It is further argued that the patents as licensed are invalid, and hence the terms unenforceable, as they violate antitrust law by using the licenses to illegally extend the scope of the patent rights. The statute is Section 5 of the Federal Trade Commission Act (1914), which allows more anticipatory latitude than the monopolization clause (Section II) of the Sherman Act (1890), the only applicable statute.

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Cite as W. Lesser, *The Courts' Interpretations of 'Legitimate Business Purposes', with Applications to Lexmark*, 16 J. MARSHALL REV. INTELL. PROP. L. 411 (2017).

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WITH APPLICATIONS TO LEXMARK

W. LESSER

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THE COURTS' INTERPRETATIONS OF 'LEGITIMATE BUSINESS PURPOSES',  
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W. LESSER\*

I. INTRODUCTION AND OBJECTIVES

The courts are frequently called upon to ascertain intent. Intent is a mental state requiring the courts in their assessments to look for external ramifications of that state, often conduct which can be interpreted as revealing a mental set. Under Section 2 of the Sherman Act<sup>1</sup> for example, the courts seek evidence of a 'positive drive' to monopolize, actions which embody the intent to monopolize, as distinct from achieving a monopoly position due to a superior product or technology.<sup>2</sup> In accordance with interpretations of the infringement clauses of the Patent Act, courts can treble damages if an infringement is judged to be 'willful' rather than unintentional.<sup>3</sup>

This current article is focused on one dimension of deducing intent, that associated with possible extensions of the 'patent monopoly' through restrictive use conditions for patented products. In particular, consider the evaluations of the courts in determining if a questioned business practice is on balance justifiable or not, and hence whether the intent of the behavior is legitimate, and legal, or illegitimate, and illegal. Specifically, the courts all too frequently do not consider whether the motivation for an ostensibly legitimate business practice to, say, protect the reputation of the patent holder is rather predominately a means of limiting competition from repairers of those products.

A case indicative of the considerations of the courts in deciding on the legitimacy of a business practice is *Dehydrating Process Company v. A. O. Smith Corporation*,<sup>4</sup> a private action under section 4 of the Clayton Act.<sup>5</sup> The defendant manufactured and sold storage silos and unloaders, separately patented. Initially, the unloaders were sold independently, but as the result of 50 percent dissatisfaction of customers over a seven year period leading to multiple refunds, Smith adopted the policy of refusing to sell its unloaders except in conjunction with its specialized silos. The reverse policy,

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<sup>1</sup> 15 U.S.C. Section 2.

<sup>2</sup> *Hunter Douglas, Inc. v. Comfortext Corp.*, 44 F. Supp. 2d 145, 151 (N.D.N.Y. 1999) ("The conduct of a single firm, governed by 15 U.S.C. § 2, is unlawful only when it threatens actual monopolization. That is, a monopoly in and of itself is not unlawful. Monopolization requires a showing of (1) the possession of monopoly power in the relevant market and (2) willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident.")

<sup>3</sup> *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 136 S. Ct. 1923, 1932 (2016) ("The sort of conduct warranting enhanced damages has been variously described in cases decided by the United States Supreme Court as willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate.")

<sup>4</sup> *Dehydrating Process Company v. A. O. Smith Corporation*, 292 F.2d 653 (First Circuit Court Appeal, 1961), cert. denied.

<sup>5</sup> § 4 Clayton Act, 15 U.S.C. § 15 (2012) (Suits by persons injured).

that silos could only be purchased in conjunction with its unloaders, was never instituted.<sup>6</sup>

The case hinged in part on whether the silo and unloader were a single or multiple products. Quoting *United States v. Jerrold Electronics Corp.*, the court noted, "[I]t is equally clear that one cannot circumvent the anti-trust laws simply by claiming that he is selling a single product. The facts must be examined to ascertain whether or not there are *legitimate reasons* for selling normally separate items in a combined form to dispel any inferences that it is really a disguised tie-in."<sup>7</sup> "We think the principle recognized by the district court in *Jerrold*, that a proper business reason may justify what might otherwise be an unlawful tie-in, is sound."<sup>8</sup> "We may agree with the plaintiff that the compulsory joining of two 'separate' articles is a per se violation of the [Clayton] act. This statement, however, solves nothing. Articles, though physically distinct, may be related through circumstances. The sound business interests of the seller or, phrasing it another way, a substantial hardship apart from the loss of the tie-in sale may be such a circumstance."<sup>9</sup>

From *A.O. Smith*, "This [case] is not a government suit testing the broad aspects of defendant's conduct, but a private action in which the plaintiff seeks, and must establish, its damages."<sup>10</sup> "Plaintiff's only damage came from having to meet defendant's specifications with respect to its storage containers. Since this requirement has been *demonstrated to be reasonable*, plaintiff has suffered no compensable loss."<sup>11</sup> That is, since the court determined the tying arrangement, while a *per se* violation of section 3 of the Clayton Act<sup>12</sup>, was reasonable, a legitimate act by the silo manufacturer to protect its product reputation and satisfy its customers, there was no loss and no guilt by the defendant. Had the practice been found to be unreasonable then presumably the decision would have gone the other way.

Below, consider two example cases where the restrictive sales arrangements for patented products can be interpreted as principally intended to limit competition and hence are, I argue, illegal, even if there is a component of a legitimate business purpose involved. Generally, I propose in matters of the conditional sale of patented products the courts should be more assiduous in considering the underlying intent of the restrictive sales conditions, and whether the same purpose could be achieved in a less restrictive manner. This in contrast to accepting the sellers' position of business necessity. One of the two case examples is the ongoing *Lexmark Int., Inc. v. Impression Products, Inc.*<sup>13</sup> suit in its most current iteration over refilled printer toner cartridges indicating that the courts' interpretation of intent can have significant economic implications.

The applicable case law extends quite broadly to incorporate aspects of repair vs. reconditioning of patented products as well as patent misuse and antitrust, among

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<sup>6</sup> See *A.O. Smith*, 292 F.2d at 654, 656, n. 1.

<sup>7</sup> *United States v. Jerrold Electronics Corp.*, 187 F. Supp. 545, 559 (D.C.E.D.Pa.1960) (emphasis added).

<sup>8</sup> See *A.O. Smith*, 292 F.2d at 655.

<sup>9</sup> See *id.*

<sup>10</sup> See *id.* at 657.

<sup>11</sup> See *id.* at 657 (emphasis added).

<sup>12</sup> § 3 Clayton Act, 15 U.S.C. § 14 (2012) (Exclusive dealing and tying arrangements).

<sup>13</sup> *Lexmark Int., Inc. v. Impression Products, Inc.*, 816 F.3d 721 (Fed. Cir. 2016 en banc) (hereinafter *Lexmark*).

other topics.<sup>14</sup> To keep the analysis more tractable, only the domestic aspects are considered. That is, no attempt is made to assess the ‘international exhaustion’ dimension of *Lexmark*. The focus on the domestic dimensions also frees the analysis from considering the connectedness between patent and copyright law which has been a controversial component of the *Lexmark* decision.<sup>15</sup>

This paper is organized as follows. Following (Section II) I develop a damage model and then describe in some detail the two case examples, rotary drills and printer cartridges (Section III). Next (Section IV) is the case history review leading to the assessment (Section V) of how the courts are overly solicitous of business justifications for restrictive conditional sales agreements which could be curtailed, particularly under Section 5 of the Federal Trade Commission Act.<sup>16</sup> Section VI draws this conclusion in a broader context.

## II. DAMAGE MODEL

Consumers are hypothesized to be damaged by higher prices attributable to the conditional sale of patented products following a marketing plan which has come to be known as the ‘razors-and-blades’ model (abbreviated here to the ‘razor blade model’). Under that model, a firm sells a product for a low price, possibly below cost, in order to generate sales of an integral complementary product or service at a higher price.<sup>17</sup>

As the name implies, the model follows the alleged marketing plan for safety razors under which the razor was sold at or below cost with profits made from the ongoing sale of blades. Reference is to King Gillette, who patented the ‘safety’ razor in 1904,<sup>18</sup> constituting a reusable specialized handle designed to position disposable thin metal blades, which could be inexpensively stamped from sheet metal. This device replaced primarily the ‘straight’ razor which was both difficult and somewhat dangerous to use while requiring daily sharpening.

There is some debate over whether Gillette truly pioneered this marketing strategy, or whether it was introduced by a competitor.<sup>19</sup> What is significant is that

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<sup>14</sup> See *infra* Section IV.

<sup>15</sup> In *Lexmark International, Inc. v. Ink Technologies Printer Supplies, LLC*, (9 F. Supp. 3d 830 (S. Dist. Ohio, 2014)), the district court decided, referencing the recent *Kirtsaeng v. John Wiley & Sons, Inc.* (133 S. Ct. 1351 (2012)), a copyright case ruling that a first authorized sale anywhere in the world exhausted the copyright, that the Court did not necessarily intend to apply copyright law to patent law. That ruling meant that *Jazz Photo Corp. v. Int. Trade. Comm.*, 264 F.3d 1094, 1105 (Fed. Cir. 2001)), which decided for the first sale doctrine to apply the sale must have occurred under the U.S. patent—i.e., in the United States, remained good law and so denied the dismissal of the case. *Lexmark International, Inc. v. Impression Products, Inc.* (816 F.3d 721, 774 (Fed. Cir. 2016)) affirmed that decision. *Lexmark* had previously been granted an exclusionary order against imports of its toners by the International Trade Commission (U.S. Int. Trade Comm., In the Matter of Certain Toner Cartridges and Components Thereof, Inv. No. 337-TA-740 Sept. 27, 2011).

<sup>16</sup> 15 U.S.C. § 45(a)(1).

<sup>17</sup> *Moneyterms* Razor-blade model, available at <http://moneyterms.co.uk/razor-blade-model/>. Last visited 9/8/16.

<sup>18</sup> U.S. patents Nos. 775, 134 and 775,135, both issued Nov. 15, 1904.

<sup>19</sup> Randall C. Picker, *The Razors-and-Blades Myth(s)*. Law School Univ. Chicago Sept. 2010 at 19 and 23.

Gillette and competitors did engineer their razors so as to prevent the interchangeability of blades, as needed to make the model profitable.

From a more theoretical perspective, the razor blade model depends on the elasticities of demand—consumers' sensitivity to price levels—for the underlying product and its complements. If consumers are price sensitive, then a low underlying price may be required to induce them to try a new product like a safety razor.<sup>20</sup> Indeed that is what Gillette observed in 1921 when a lower price sharply increased sales of the older handle and blade package (see above). Lowering the price of the base product also lessens the risk shoppers take with the purchase of an expensive product which might prove to be unsatisfactory. Users of the razor blade model also benefit from consumers who are motivated by the low entry price but may not consider the (high) ongoing cost of complements.

The model remains widely used today, certainly for razors. In a recent article, Malcolm Harris recounts being sent unsolicited a free Gillette Fusion razor. Once the included five blade cartridges were dulled he was shocked to learn the price of replacement blades, calculating a lifetime cost of \$22,000. Instead he purchased online a Merkur Safety Razor for \$33, which has an estimated lifetime replacement blade cost of \$ 400.<sup>21</sup> The model is applied as well for cell phones (subsidized handsets in exchange for a multi-year service contract), e-readers like the Kindle (subsidized reader limiting e-book purchases to Amazon), Barbie dolls (inexpensive doll for which multiple outfits and accessories are available), and computer printers (low priced printers with high-margin cartridges).<sup>22</sup> Conceptually, the model works only if there is a specific means of binding sales of the base product (the razor) with ongoing sales of the complementary products. Sellers strive to limit competition in the complements market by, for example, restricting cell phones to work only with a single network provider, or disabling a printer when a third-party cartridge is used.

As these examples suggest, generally some means of connecting the base and contingent product purchases is needed. Otherwise competitors can benefit from the installed capacity of more base products sold at low prices and sell their own complementary products. For purposes here, that connecting requirement is identified as restrictive conditions on the post-sale use of a patented product. Those restrictions limit sales by third parties for the complements, reducing competition and raising the potential to elevate price. Two case examples of the alleged use of conditional sales agreements for patented products allowing the razor blade model tie-in sales are summarized in the following Section III and the case histories of the treatment of conditional sales of patented products and ancillary matters are laid out in Section IV.

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<sup>20</sup> Craig Zawada, *Razor-and-Blades Pricing Strategies In the Digital Age*, FORBES, Dec. 19, 2012, available at <http://www.forbes.com/sites/ciocentral/2012/12/19/razor-and-blades-pricing-strategies-in-the-digital-age/#5baf11ed5a42>. Last visited 9/8/16.

<sup>21</sup> Malcolm Harris, *Safety Razors*, NY TIMES, Aug. 28, 2016, at 24, 26.

<sup>22</sup> *Moneyterms*, Razor-blade model, available at <http://moneyterms.co.uk/razor-blade-model/>.

### III. CASE EXAMPLES

#### *A. Rotary Drills*

These cases have to do with patented rotary drill bits for oil exploration, more specifically the roller rock bit industry. By the end of the 1930s the Hughes Tool Company dominated the market with 70+ percent of the sales.<sup>23</sup> By providing a superior, longer-lasting bit, the share was generated by a longer-lasting bit, something of particular relevance in the sector, as replacing the bit requires withdrawing and disconnecting the thousands of feet of pipe constituting the drill shaft. The process can take all day at 10,000 feet.<sup>24</sup> When retrieved, the bits consisting of bearings and cutter teeth are typically completely worn out. The exception is 12 – 15 percent of bits for which the bearings are still functional, making them appropriate for re-tipping,<sup>25</sup> and therein lies the basis of the infringement and contract violation suits.<sup>26</sup>

In 1934, the Hughes Tool Co. formalized the practice of leasing rather than selling its bits, a practice previously employed by competitor firms.<sup>27</sup> The lease contract required that the users return the spent bits to the 'field men' at the time replacement bits were delivered as specified by the following lease provision:

When the original cutter teeth and/or bearings have served their useful life, the user will surrender the bits to Hughes Tool Company upon request. In accepting delivery, the user agrees not to surrender any of the tools as mentioned above to other than a duly authorized representative' of Hughes. Each bit is stamped with the words, 'Property of Hughes Tool co.'<sup>28</sup>

The Hughes field representatives collected the used bits, returning them to the field station where they were analyzed for needed design improvements, or for identifying an enhanced choice of bits for the drilling conditions experienced by a particular customer.<sup>29</sup>

These facts went undisputed between the district and appeals court, but subsequent evidence, interpreted differently, led to completely diverse decisions, with the appeals court finding for infringement by concluding no patent invalidity in the absence of an antitrust violation,<sup>30</sup> while the district court ruled the subject patents unenforceable as a consequence of an antitrust violation and hence no damages owed.<sup>31</sup> In part, the decisions hinged on whether Hughes did indeed collect and examine all

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<sup>23</sup> Hughes Tool Co. v. Ford, 114 F. Supp. 525, 542 (District Ct. Southern Dist. Oklahoma 1953) (hereinafter *Ford*).

<sup>24</sup> D.B. Cole v. Hughes Tool Company, 215 F.2d 924, 927 (Ct. Appeals Tenth Cir. 1954) (hereinafter *Hughes*) (The case is a compilation of three separate cases brought against re-tippers, heard jointly but decided separately. *Id.* at 926).

<sup>25</sup> *See id.* at 928.

<sup>26</sup> *See id.* at 926.

<sup>27</sup> *See id.* at 928.

<sup>28</sup> *See id.*

<sup>29</sup> *See id.*

<sup>30</sup> *See id.* at 942.

<sup>31</sup> *See Ford*, 114 F. Supp. at 556, 558 (concluding that Hughes Tool Co., was in violation of Section 2 of the Sherman Act, monopolization).

the spent bits. The appeals court determined it did so. The field representatives were said to have maintained records of every drill bit by serial number, and on examination if further input was needed the bits were forwarded to field stations or the Houston research lab.<sup>32</sup> "It is only through examinations of the [used] bits in the field, at field division points, and in the research laboratory, in the light of the record of each particular bit, that the manufacturer can eliminate flaws, design improvements in the drilling qualities and increase the life of the bits."<sup>33</sup> From this perspective, the leasing arrangement was essential to the Hughes business model of recovering and examining used bits in a process of constantly-improved product. In short, it served a legitimate business purpose.

The district court interpreted this collection and examination process quite differently, based in part on testimony from plaintiff and defendant executives, as well as customer drillers. Specifically, the court heard testimony that "[A] policy was determined to retain control over the bits for the purpose of preventing rebuilding of the bits, as distinguished from a mere policy to get them back. The reason for this action was to control the drill bits to prevent them from being repaired and entered into competition with new bits, rather than to protect the plaintiff's reputation or to further the plaintiff's engineering research."<sup>34</sup> Hughes chose to sue the re-tippers for infringement rather than the lessees, its customers.<sup>35</sup> The court supported that testimony with the additional information that only the smaller, independent re-tippers were sued by Hughes while the larger firms which re-tipped the bits leased from Hughes were never threatened even though their actions were well known. That the court took as evidence the true intent of the lease agreements was to curtail competition and not the stated one of investigation and research.<sup>36</sup>

From the perspective of this article, it is accepted that research on worn drill bits in itself constitutes a legitimate business purpose. At issue is whether the leasing requirement intended primarily to a legitimate business purpose, and hence itself a legitimate business practice, or whether the underlying purpose of leasing exclusively was to restrict competition from re-tippers. The interpretation of the ancillary information led one court to determine the intended use of the lease arrangements to foster and extend its patent-based monopoly. One such bit of ancillary information was testimony from one lessee that collecting the worn bits did not require a formal lease arrangement—Hughes "could have free access."<sup>37</sup> The superior court took a more business-oriented view of the needs for the lease requirement and exonerated the firm. Both cases illustrate the pivotal interpretation of intent, in the context of the minimal restrictive practices needed to achieve the stated business purpose.

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<sup>32</sup> See *Hughes*, 215 F.2d at 928.

<sup>33</sup> See *id.* at 929.

<sup>34</sup> See *Ford*, 114 F. Supp. at 547 (footnotes omitted) (This testimony came from a former sales executive who was also a lawyer directly involved with drafting the lease agreements. The *Hughes* court at 930 dismissed this testimony as hearsay as well as a violation of the lawyer-client privilege. The *Ford* court (114 F. Supp. at n. 87) discounted the hearsay aspect as the witness was directly involved in the development of the agreement while arguing that its creation was undertaken in his capacity of a marketing specialist and not a lawyer).

<sup>35</sup> See *Hughes*, 215 F.2d at 935.

<sup>36</sup> See *Ford*, 114 F. Supp. at 549-51.

<sup>37</sup> See *id.* at n. 88.



### B. Printer Cartridges

The focus here is on Lexmark International, a producer of computer printers and cartridges.<sup>38</sup> The cases—they went through multiple rounds since 2005<sup>39</sup> along with a writ of certiorari filed March 2016<sup>40</sup>—apply to control over toner cartridges for laser printers. Lexmark followed a two-tiered pricing strategy, the higher priced of which, known as the ‘Regular Cartridge’, was an unconditional sale, which allowed the purchaser to use the spent cartridge as he/she chose, including having it refilled. The second price arrangement, at a 20 percent discount and referred to variously as ‘Return Program’ or ‘Prebate’ cartridges,<sup>41</sup> involved a license agreement whereby the cartridge user agreed to return the empty unit to Lexmark for disposal or refilling.

The Lexmark Collection and Recycling Program<sup>42</sup> involves users returning empty cartridges to Lexmark for reuse and recycling, described as a life cycle system, sustainable and showing environmental stewardship. Genuine Lexmark cartridges are depicted as providing “superior imagery and long life” compared to bargain-brand cartridges. A site is available for checking on the genuineness of a cartridge by entering numbers contained on the box and cartridge. The sale of patent and trademark-infringing products is noted as damaging the Lexmark brand.

For ‘Return Program’ cartridges the license agreement prohibiting reuse, often referred to as box or shrink wrap licenses, is printed on the cartridge box and provided online, reading as follows:<sup>43</sup>

Lexmark Return Program Cartridges are sold at a discount versus the prices of regular cartridges in exchange for the customer's agreement to use the cartridge only once and return it only to Lexmark for remanufacturing or recycling. Regular cartridges without this license/agreement sold at regular prices are also available. Regular cartridges are also recyclable at no cost through Lexmark Cartridge Collection Program.

During the trial the issue of adequately informing buyers and resellers was undisputed.<sup>44</sup> Lexmark further acts to prevent illegal refilling by incorporating a chip in its ‘Return Program’ cartridges which senses the level of remaining ink and, once effectively emptied, disables the cartridge from function if illegally refilled.<sup>45</sup> Chips are copyrighted and the cartridges patented. Cartridges designated for non-domestic

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<sup>38</sup> Only the domestic components of the case are considered here. For an outline of the international dimensions *see supra* note 13.

<sup>39</sup> *Arizona Cartridge Remanufacturers Ass Inc. v. Lexmark Int., Inc.*, 421 F.3d 981 (9th Cir. 2005) (affirming the grant of summary judgment in favor of the manufacturer).

<sup>40</sup> *Impression Products, Inc. v. Lexmark International, Inc.*, Docket No. 15-1189, Mar. 21, 2016. Available at <http://www.scotusblog.com/case-files/cases/impression-products-inc-v-lexmark-international-inc/>. Last visited 8/12/16.

<sup>41</sup> *See Lexmark*, 816 F.3d at 727-28.

<sup>42</sup> Lexmark Collection and Recycling Program. Available at [http://www.lexmark.com/en\\_us/products/supplies-and-accessories/collection-and-recycling-program.html](http://www.lexmark.com/en_us/products/supplies-and-accessories/collection-and-recycling-program.html). Last visited 8/11/16.

<sup>43</sup> Available at <https://www.cdw.com/shop/products/Lexmark-Return-Program-64015HA-Hi-Yield-Black-Toner-Cartridge/808831.aspx>. Last visited 8/12/16.

<sup>44</sup> *See Lexmark*, 816 F.3d at 728.

<sup>45</sup> *See id.*

use do not function on domestic market printers, and vice versa.<sup>46</sup> Lexmark sells cartridges both directly to end users and through re-sellers.<sup>47</sup>

Despite these efforts, some of the Return Program cartridges find their way to third party re-fillers who sell them back to consumers at a considerable discount to the Lexmark-authorized products. At the time of writing, one example firm offered remanufactured black toner cartridges with a 6,000 page yield for \$49 while a Lexmark Return Program cartridge with a 2,500 page capacity was priced at \$ 107.<sup>48</sup> The re-fillers modify the chip to circumvent the disabling of the cartridges.<sup>49</sup>

For the misdirected 'Return Program' cartridges Lexmark, rather than pursue re-fillers for patent infringement, could sue its customers for contract breaches, or seek redress under Trademark law.<sup>50</sup> Lexmark sued for infringement, with Impression Products the remaining dominant defendant.<sup>51</sup> Impression Products is a small, family-owned firm providing "affordable printer toner cartridges, printers and printer maintenance."<sup>52</sup> Impression did not contend that Lexmark's restrictions on the use of its Return Cartridges constituted patent misuse constituted an antitrust violation or exceeded the patents' grant of exclusive rights. Rather, Impression Products' sole defense relied on the interpretation *Mallinckrodt*,<sup>53</sup> which applies to a post-sale use restriction as does *Lexmark*,<sup>54</sup> no longer constituted good law.<sup>55</sup>

For early rounds of this case as applied to patent law (other aspects were adjudicated under California competition and contract law), the district court determined that Lexmark imposed an enforceable condition on the Prebate (later called Return Cartridge) printer cartridges because Lexmark had yet to exhaust their patent rights.<sup>56</sup> The case subsequently proceeded to Kentucky where the district court reversed its earlier decision (*Static Control I*) based on the subsequent Supreme Court

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<sup>46</sup> "A **42 or Cartridge Region Mismatch** error indicates that the installed toner cartridge is manufactured for a different geographic region than the printer. The printers and the toner cartridges each have a certain geographical code tagged to them, much like the coding on DVD players and DVDs. Both **must** be coded to the same geography in order for them to work together. If you install a toner cartridge that does not match the region of the printer, the printer will post a **Cartridge Region Mismatch** error. Regionalization also helps to protect users from counterfeit products, and to protect authorized dealers and distributors of Lexmark products from illegitimate dealers and brokers." *Available at* [http://support.lexmark.com/index?pmv=print&page=content&productCode=LEXMARK\\_T642&segment=SUPPORTproductCode%3D&viewlocale=en\\_US&searchid=1285271200064&actp=search&userlocale=EN\\_ZA&id=SO3581](http://support.lexmark.com/index?pmv=print&page=content&productCode=LEXMARK_T642&segment=SUPPORTproductCode%3D&viewlocale=en_US&searchid=1285271200064&actp=search&userlocale=EN_ZA&id=SO3581). Last visited 8/12/16 (emphasis in original).

<sup>47</sup> See *Lexmark*, 816 F.3d at 728.

<sup>48</sup> *Available at* <http://www.ldproducts.com/Lexmark/Laser-Toner/E-Series/E234n/5171-Printer.html>. Last visited June 28, 2016.

<sup>49</sup> See *Lexmark*, 816 F.3d at 728.

<sup>50</sup> Dennis Crouch, "Of Printer Cartridges and Patent Exhaustion: The En Banc Federal Circuit is Poised to Clarify Quanta." *Patently-O*, Apr. 21, 2015 at 13. *Available at* <http://patentlyo.com/patent/2015/04/cartridges-exhaustion-clarify.html>. Last visited 8/12/16.

<sup>51</sup> See *Lexmark*, 816 F.3d at 729.

<sup>52</sup> Impression Products, *available at* <http://www.impressionproductsinc.com/>. Last visited 8/12/16.

<sup>53</sup> *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992) (overruling or significantly limiting precedent affirming the patent exhaustion doctrine).

<sup>54</sup> See *Lexmark*, 816 F.3d.

<sup>55</sup> See *id.* at 729.

<sup>56</sup> See *Arizona Cartridge Remanufacturers Ass.*, 421 F.3d 981.

ruling in *Quanta*,<sup>57</sup> finding Lexmark's Return Program invalid ('*Static Control II*'). "Patent holders may not invoke patent law to enforce restrictions on the post-sale use of their patented products. After the first authorized sale to a purchaser who buys for use in the ordinary pursuits of life, a patent holder's patent rights have been exhausted."<sup>58</sup> Subsequently, the district court dismissed the infringement claims against Impression Products. "[T]his Court's review of the relevant caselaw does not reflect an endorsement by the Supreme Court of post-sale use restrictions once goods are placed into the ordinary stream of commerce."<sup>59</sup>

These back-and-forth decisions hinge on the interpretation of the *Quanta*<sup>60</sup> decision, which is evaluated *infra*.<sup>61</sup> Indeed, the Federal Circuit held the rehearing en banc specifically to resolve the issue of post-sale use restrictions for patented products. Respondents were requested to file new briefs regarding, "In light of *Quanta*, should this court overrule *Mallinckrodt*, to the extent it ruled that a sale of a patented article, when the sale is made under a restriction that is otherwise lawful and within the scope of the patent grant, does not give rise to patent exhaustion?"<sup>62</sup>

#### IV. PATENT EXHAUSTION AND PATENT MISUSE – CASE LAW REVIEW

The Patent Act specifies that "[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 therefor, infringes the patent."<sup>63</sup> Affirmative defenses include claiming the patent rights have been exhausted through an authorized first sale or the patent is unenforceable due to misuse (see below). In the case of drill bits and ink cartridges and similar rejuvenated products the additional issue arises if the activities constitute (legal) repair or (illegal) reconstruction. Begin first with the repair/reconstruction case law.

##### *A. Repair v. Reconstruction*

In general, the right to use includes the right to repair so as to extend the serviceable life of a product.<sup>64</sup> But the repair must not be so extensive as effectively to recreate the product.<sup>65</sup> The permitted distinction though is a difficult one to specify.

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<sup>57</sup> *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617 (2008) (reaffirming the validity of the patent exhaustion doctrine).

<sup>58</sup> *Static Control Components, Inc. v. Lexmark International, Inc.*, 615 F. Supp. 2d 575, 582 (E.D. Ky. Mar 31, 2009) (reversing Lexmark's Motion for Summary Judgment of Direct Infringement in *Static Control Components, Inc. v. Lexmark Int'l Inc.*, 487 F. Supp. 2d 830, 860 (E.D. Ky., Apr. 24, 2007)).

<sup>59</sup> See *Lexmark Int., Inc. v. Ink Technologies Printer Supplies*, 2014 U.S. Dist. LEXIS 41045, 21 (S.D. Ohio 2014).

<sup>60</sup> See *Quanta*, 553 U.S. 617.

<sup>61</sup> See *infra* Section IV.B.

<sup>62</sup> See *Lexmark Int., Inc. v. Impression Products, Inc.*, 785 F.3d at 566 (citations omitted) (the second request of briefs regarded international exhaustion. *Id.*).

<sup>63</sup> 35 U.S.C. § 271(a).

<sup>64</sup> *Dana Corp. v. American Precision Co.*, 827 F.2d 755, 758-59 (Fed. Cir. 1987).

<sup>65</sup> See *id.* (stating that the right to repair does not allow the creation of a new product).

Early Supreme Court cases include ones where the judgment was of permissible repair and impermissible reconstruction. In *Wilson v. Simpson*, the case dealt with a plaining machine for which the cutter blades needed regular replacement while the remainder of the mechanism was more durable.<sup>66</sup> The Supreme Court decided that “[R]eplacement of temporary parts [the cutting blades] does not alter the identity of the machine, but preserves it . . . .”<sup>67</sup> Conversely, in *Am. Cotton Tie Co. v. Simmons* the Court discovered conditions of reconstruction, not repair, and hence found infringement.<sup>68</sup> The bands at issue were composed of a buckle and metal band which was placed around cotton bales at the farm and cut to release the cotton at the mill.<sup>69</sup> The bands were stamped “Licensed to use once only.”<sup>70</sup> The alleged infringer collected the severed bands as scrap and riveted them together so as to create a serviceable new tie.<sup>71</sup> The buckle was unchanged.<sup>72</sup>

The Court found, “Whatever right the defendants could acquire to the use of the old buckle, they acquired no right to combine it with a substantially new band, to make a cotton-bale tie.”<sup>73</sup>

What the defendants did in piecing together the pieces of the old band was not a repair of the band or the tie, in any proper sense. The band was voluntarily severed by the consumer at the cotton-mill because the tie had performed its function of confining the bale of cotton in its transit from the plantation or the press to the mill. Its capacity for use as a tie was voluntarily destroyed.<sup>74</sup>

There’s no mention in the decision of the licensed limitation stamped on the bands to a single use, although “the fact that the ties were marked ‘Licensed to use once only,’ was deemed of importance by the Court.”<sup>75</sup> The lower courts established what can be called a “proportionality” test.<sup>76</sup>

If new parts so dominate the structural substance of the whole as to justify the conclusion that it has been made anew, there is a rebuilding or

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<sup>66</sup> See *Wilson v. Simpson*, 50 U.S. 109, 115-16 (1850) (discussing the plaining machine and its patent).

<sup>67</sup> See *id.* at 126.

<sup>68</sup> See *Am. Cotton Tie Co. v. Simmons*, 106 U.S. 89, 94-95 (1882) (comparing the case with *Wilson* and finding reconstruction that constituted infringement, rather than repair that did not constitute infringement).

<sup>69</sup> See *id.* at 90-91 (describing the invention discussed in the case).

<sup>70</sup> See *id.* at 91 (describing the details of the bands in question).

<sup>71</sup> See *id.* at 93 (describing defendants’ use of the buckles).

<sup>72</sup> See *id.* at 94 (stating defendants “used the old buckle without repairing [it]”).

<sup>73</sup> See *id.* at 93-94.

<sup>74</sup> See *Am. Cotton Tie Co.*, 106 U.S. at 94.

<sup>75</sup> See *Aro Mfg. Co., Inc. v. Convertible Top Replacement Co.*, 365 U.S. 336, 334 n.9 (noting important factors to the decision).

<sup>76</sup> See, e.g., *Jazz Photo Corp.*, 264 F. 3d at 1102-03 (stating there is continuum between concepts of repair and reconstruction and law has developed in the context of diverse facts); *Aro Mfg. Corp.*, 365 U.S. at 346 (stating test as inquiry whether the parts replaced have made a new whole); *Automotive Parts Co. v. Wisconsin Axel Co.*, 81 F.2d 125, 127 (1935) (comparing repair and reconstruction and stating each case should be decided on its facts based on amount of replacements within machine).

reconstruction; and conversely, where the original parts, after re-placement, are so large a part of the whole structural substance as to preponderate over the new, there has not been a reconstruction but only repair.<sup>77</sup>

As significant, the court established a special burden of proof for the defendant to document the sales were indeed for repair and not re-construction.<sup>78</sup>

Ordinarily the burden rests upon the plaintiff to show patent infringement, but in circumstances where there is an admission of sales without reservation as to the numbers sold or the condition of the original parts, it would seem only fair that the seller should assume the burden of showing that its acts were not infringements.<sup>79</sup>

In *Jazz Photo* (one of several sequels of this case), Fuji Photo Film Co. sold simple cameras covered by nine of its patents and intended for single use.<sup>80</sup> However, once the film was removed and the cameras discarded, several foreign firms known as ‘remanufacturers’ bought the discards and rehabilitated them for a second use.<sup>81</sup> Fuji had not restricted the initial sale of the cameras so as to exhaust its patent rights.<sup>82</sup> “However, the prohibition that the product may not be the vehicle for a ‘second creation of the patented entity’ continues to apply, for such re-creation exceeds the rights that accompanied the initial sale.”<sup>83</sup> It then became the responsibility of the patent holder to convince the court that remanufacturers reconstructed the products, going well beyond a simple repair.<sup>84</sup>

*Aro* had established that “the replacement of unpatented parts, having a shorter life than is available from the combination as a whole, is characteristic of repair, not reconstruction.”<sup>85</sup> In that case, *Aro* manufactured both the convertible top mechanism as well as the fabric cover.<sup>86</sup> Convertible Top supplied only the less durable (and non-patented) top material which was ruled to be a repair and not a refurbishment.<sup>87</sup> In *Jazz Photo*, “the remanufacturing processes simply reuse the original components, such that there is no issue of replacing parts that were separately patented. If the claimed component is not replaced, but simply is reused, this component is neither repaired nor reconstructed.”<sup>88</sup>

With the proportionality test and other considerations the courts have made the delineation between repair and reconstruction relatively straightforward. Consider

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<sup>77</sup> See *Automotive Parts Co.*, 81 F.2d at 127.

<sup>78</sup> See *id.* at 127-28 (establishing burden of proof).

<sup>79</sup> See *id.*

<sup>80</sup> See *Jazz Photo Corp.*, 264 F.3d at 1099-111 (describing camera, its method of use, and the patents involved).

<sup>81</sup> See *id.* at 1101 (describing refurbishing by remanufacturers).

<sup>82</sup> See *id.* (reciting appellants’ argument that patent rights were exhausted).

<sup>83</sup> See *id.* at 1105.

<sup>84</sup> See *id.* at 1102 (stating that complainant must establish cause of action in infringement).

<sup>85</sup> See *Jazz Photo Corp.*, 264 F.3d at 1107.

<sup>86</sup> See *Aro Mfg. Corp.*, 365 U.S. at 337 (listing elements of patent); see also *Jazz Photo Corp.*, 264 F.3d at 1103 (describing patent at issue in *Aro*).

<sup>87</sup> See *Aro Mfg. Corp.*, 365 U.S. at 339 (describing fabric supplied by respondent Convertible Top as one element of entire patent).

<sup>88</sup> See *Jazz Photo Corp.*, 264 F.3d at 1107 (explaining the implications of reusing parts).

next the matter of patent exhaustion, and its component part, implied license. Indeed, the right to repair a patented product is closely associated with patent exhaustion.<sup>89</sup> And with implied license; that is, repair is an affirmative defense of implied license.<sup>90</sup>

### *B. Patent Exhaustion/Implied License*

#### *1. Early Cases*

Critical boundaries to the patent monopoly were established in the 19th century. The Supreme Court in *Bloomer v. McQuewan*<sup>91</sup> decided, "And when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress."<sup>92</sup> And in *Adams* the Supreme Court ruled:

But, 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. The article passes without the limit of the monopoly. That is to say, the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees.<sup>93</sup>

The true ground on which these decisions rest is 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.<sup>94</sup>

The terminology 'sale by a person who has the full right to make, sell, and use' suggests the concept of an 'authorized sale'.<sup>95</sup>

Just the prior year in *Mitchell* the Court held, "[p]atented implements or machines sold to be used in the ordinary pursuits of life become the private individual property of the purchasers, and are no longer specifically protected by the patent laws of the

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<sup>89</sup> See Amber Hatfield Rovner, Practical Guide to Application of (or Defense Against) Product-Based Infringement Immunities Under the Doctrines of Patent Exhaustion and Implied License, 12 TEX. INTEL. PROP. L. J. 227, 271 (2004) (claiming the right to repair is derived from exhaustion of patent rights).

<sup>90</sup> See *Dana Corp.*, 827 F.2d at 758 (confirming that the right to repair is an affirmative defense).

<sup>91</sup> *Bloomer v. McQuewan*, 55 U.S. 539 (1853).

<sup>92</sup> See *id.* at 549 (explaining the implications of selling a patented machine).

<sup>93</sup> See *Adams v. Burke*, 84 U.S. 453, 456 (1873).

<sup>94</sup> See *id.* at 455.

<sup>95</sup> See *id.* (suggesting the concept of authorized sale).

State where the implements or machines are owned and used.”<sup>96</sup> Thus the principal of patent exhaustion with the first sale would seem to have been well established even into the mid-1800s.<sup>97</sup> But as Justice Bradley pointed out in dissent in *Adams*, the matter is not so straightforward.<sup>98</sup>

The facts of *Adams* apply to an improved coffin lid patent which was licensed for the right to make, use, and sell in an area restricted to a ten mile radius centered on the city of Boston.<sup>99</sup> Burke, an undertaker, purchased the lids from the licensee but sold and employed them in burials outside the licensed trade area and was subsequently sued for infringement.<sup>100</sup> The majority decided the initial sale and licensing of the patent rights freed the purchaser from claim of the patentee.<sup>101</sup> Justice Bradley, however, noted from *Washburn v. Gould*:

The eleventh section of the [patent] act [of 1836] expressly authorizes not only the assignment of a whole patent . . . but a ‘grant and conveyance of the exclusive right under any patent, to make and use, and to grant to others to make and use the thing patented within and throughout any specified part or portion of the United States.’<sup>102</sup>

Bradley continued by musing:

If it be contended that the right of vending the lids to others enables them to confer upon their vendees the right to use the lids thus sold outside of the limited district, the question at once arises, how can they confer upon their vendees a right which they cannot exercise themselves?<sup>103</sup>

“If an assignment under this clause does not confer the same rights within the limited district which the patentee himself previously had in the whole United States, and no more, it is difficult to know what meaning to attach to language however plain.”<sup>104</sup>

Indeed, *Mitchell* hinted that the absolute exhaustion of patent rights following first sale applied only to unconditional sales.<sup>105</sup>

Sales of the kind may be made by the patentee with or without conditions, as in other cases, but where the sale is absolute, and without any conditions, the

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<sup>96</sup> See *Mitchell v. Hawley*, 83 U.S. 544, 548 (1872) (limiting the patent monopoly right to the term of the patent).

<sup>97</sup> See *id.* (discussing the idea of patent exhaustion in the mid-1800s).

<sup>98</sup> See *Adams*, 84 U.S. at 459 (discussing the nuances of the issue).

<sup>99</sup> See *id.* at 458 (stating the facts of the case).

<sup>100</sup> See *id.* at 454 (stating the issues surrounding the case).

<sup>101</sup> See *id.* at 457 (holding that that once lawfully sold there is no restriction on their use).

<sup>102</sup> See *id.* at 457-58 (quoting *Blanchard v. Eldridge*, 3 F. Cas. 624, 624 (C.C.E.D. Pa. 1849) (indicating the argument on behalf of defendant). See also *Washburn v. Gould*, 29 F. Cas. 312, 316 (C.C.D. Mass. 1844) (using similar language discussing exclusive right to whole patent).

<sup>103</sup> See *Adams*, 84 U.S. at 458-59.

<sup>104</sup> See *id.* at 458.

<sup>105</sup> See *Mitchell*, 83 U.S. at 546-47 (suggesting that patent exhaustion applied only to unconditional sales).

rule is well settled that the purchaser may continue to use the implement or machine purchased until it is worn out, or he may repair it or improve upon it as he pleases, in same manner as if dealing with property of any other kind.<sup>106</sup>

By the turn of the next century the Supreme Court was showing more flexibility on allowing license limitations to restrict patent exhaustion.<sup>107</sup> And in 1938 it ruled, "Patent owners may grant licenses extending to all uses or limited to use in a defined field . . . [T]he owner of a patent may grant licenses to manufacture, use, or sell upon conditions not inconsistent with the scope of a monopoly."<sup>108</sup> "By knowingly making the sales to [another] outside the scope of its license, [a seller] infring[es] the patents embodied in the [product]. [A buyer], having with knowledge of the facts bought at sales constituting infringement, [does] itself infringe the patents embodied in the [products] when it lease[s] them."<sup>109</sup>

"Any use beyond the valid terms of a license is . . . an infringement of a patent."<sup>110</sup> "The practice of granting licenses for a restricted use is an old one. So far as appears, its legality has never been questioned."<sup>111</sup> The case applied to a restriction to a licensee for manufacturing and selling patented amplifiers.<sup>112</sup> The patents-in-suit had distinct uses for commercial applications (theatres) and private use (radio reception).<sup>113</sup> The petitioner bought from a firm licensed solely for supplying the personal market but also provided equipment to theatres, in violation of its license agreement, and hence was found to be infringing.<sup>114</sup> And, "If a licensee be sued, he can escape liability to the patentee for the use of his invention by showing that the use is within his license; but, if his use be one prohibited by the license, the latter is of no avail as a defense. As a license passes no interest in the monopoly, it has been described as a mere waiver of the right to sue by the patentee."<sup>115</sup>

## 2. Federal Circuit Cases

The Federal Circuit established its basic interpretation of license use restrictions on patented products in *Mallinckrodt*. That case involved a medical apparatus used for inhaling, and subsequently on exhaling traps a radioactive mist for pulmonary

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<sup>106</sup> See *id.* at 548.

<sup>107</sup> *E. Bement & Sons v. Nat'l Harrow Co.*, 186 U.S. 70, 92 (1902) (relaxing the conditions required for patent exhaustion). "The very object of these laws is monopoly, and the rule is, with few exceptions, that 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." *Id.* at 91.

<sup>108</sup> *Gen. Talking Pictures Corp. v. Western Elec. Co.*, 304 U.S. 175, 181 (1938), *aff'd on reh'g*, 305 U.S. 124 (1938).

<sup>109</sup> See *id.* at 181-82.

<sup>110</sup> See *id.* at 124, 126.

<sup>111</sup> See *id.* at 127.

<sup>112</sup> See *id.* at 126 (stating the facts of the case).

<sup>113</sup> See *id.* at 127 (discussing the possible uses of the licensed technology).

<sup>114</sup> See *Gen. Talking Pictures*, 304 U.S. at 180 (noting that the license was confined to supplying the personal market).

<sup>115</sup> *De Forest Tel. & Tel. Co. v. United States*, 273 U.S. 236, 242 (1927).



diagnosis and treatments.<sup>116</sup> The device was clearly marked ‘Single Use Only’ but instead of discarding it after initial use hospitals sold it to Medipart for decontamination and ‘reconditioning’.<sup>117</sup> Because the use limitation revealed the label applied only *following* the sale, this created a post-sale restriction. Mallinckrodt sued Medipart for infringement on the grounds of reconstruction, not repair, and lost in the district court.<sup>118</sup> The district court also decided based primarily on *Bauer I* (one of three related cases known as the ‘*Bauer* trilogy’) and *Motion Picture Patents* that restriction to a single use was unenforceable.<sup>119</sup> The relevant issue for the appeals court involved the permissibility of a license restriction under any circumstances.

The appeals court first determined that the cases on which the district court had ruled were inappropriate as they applied to illegal acts under the antitrust laws.<sup>120</sup> *Bauer*’s license stipulated a fixed retail price and hence involved illegal resale price fixing while *Motion Picture Patents* mandated the equipment be used only with films leased from the patentee, an illegal tying arrangement.<sup>121</sup> The court then dispatched the issue of the relevance of whether the first seller was the patentee, retailer, or a licensee.<sup>122</sup> Referencing *United States v. Arnold, Schwinn & Co.*<sup>123</sup> the court ruled, “[T]hat the legality of attempts by a manufacturer to regulate resale does not turn on whether the reseller had purchased the merchandise or was merely acting as an agent of the manufacturer.”<sup>124</sup>

Reviewing a number of Supreme Court cases the appeals court determined the Court merely applied “the rule of contract law that sale may be conditioned.”<sup>125</sup>

The appropriate criterion [for the legality of the license restrictions] is whether Mallinckrodt’s 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.

Should the restriction be found to be reasonably within the patent grant, *i.e.*, that it relates to subject matter within the scope of the patent claims, that ends the inquiry. However, should such inquiry lead to the conclusion that there are anticompetitive effects extending beyond the patentee’s statutory right to exclude, these effects do not automatically impeach the restriction.<sup>126</sup>

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<sup>116</sup> See *Mallinckrodt*, 976 F.2d at 702 (Fed. Cir. 1992) (describing the patented device at issue in the case).

<sup>117</sup> See *id.* (clarifying the reuse of the device despite a single use marking).

<sup>118</sup> See *id.* (stating the procedural history of the case). The case history of ‘repair v. reconstruction’ is presented in Section IV.A and that dimension of the case is not of further relevance here.

<sup>119</sup> See *Mallinckrodt*, 976 F.2d at 703 (noting precedent relied upon by the lower court).

<sup>120</sup> See *id.* at 704 (emphasizing the differences between the cases).

<sup>121</sup> See *id.* (stating that the product “is licensed by us for sale and use at a price not less than one dollar”).

<sup>122</sup> See *id.* at 703 (recognizing the difference of purchasing from a patentee as opposed to a manufacturing licensee).

<sup>123</sup> *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967).

<sup>124</sup> See *Mallinckrodt*, 976 F.2d at 705.

<sup>125</sup> See *id.* at 708.

<sup>126</sup> See *id.*

That is, a *rule of reason* analysis should be applied, as in all such cases.<sup>127</sup> The repair versus reconstruction issue is bypassed by noting, “even repair of an unlicensed device constitutes infringement.”<sup>128</sup>

Additional Federal Circuit cases of direct relevance here apply specifically to cases of saved Roundup Ready (RR) soybean seeds.<sup>129</sup> In *McFarling* the defendant allegedly saved and reused RR soybean seeds in violation of the Technology Agreement, which he acknowledged having signed.<sup>130</sup> Scruggs for his part planted RR soybeans and cotton, and acknowledged saving seed from both for replanting.<sup>131</sup> As an initial defense it was noted the Technology Agreement was never signed, which itself violated the license agreement Monsanto had with its seed sellers.<sup>132</sup>

*McFarling* challenged the district court's opinion on the grounds of forum selection, antitrust violation (tying new RR seed purchases to old) and, of particular relevance here, patent exhaustion, citing *Univis*.<sup>133</sup> The Federal Circuit first determined the Technology Agreement's restrictions remained within the scope of the patent grant “for the patents cover the seeds as well as the plants.”<sup>134</sup> Then:

[t]he “first sale” doctrine of exhaustion of the patent right is not implicated, as the new seeds grown from the original batch had never been sold. The price paid by the purchaser “reflects only the value of the ‘use’ rights conferred by the patentee.” The original sale of the seeds did not confer a license to construct new seeds, and since the new seeds were not sold by the patentee they entailed no principle of patent exhaustion.<sup>135</sup>

Scruggs sought to have the Monsanto patents-in-suit as well as other patents invalidated, to no avail at the district court level.<sup>136</sup> His affirmative defenses involved: “(1) lack of proper notice of the patents-in-suit; (2) the existence of an implied license to use the Monsanto technology; (3) the doctrine of patent exhaustion; (4) violation of the Plant Variety Protection Act; (5) patent misuse; and (6) patent invalidity.”<sup>137</sup> Of these, numbers (2) and (3) are of particular relevance here. As regards the implied license, the appeals court determined:

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<sup>127</sup> See *id.* (explaining test as one of whether restriction is reasonable).

<sup>128</sup> See *id.* at 709. See *supra* Section IV.A (discussing reconstruction versus repair).

<sup>129</sup> *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1333 (Fed. Cir. 2006) (indicating plaintiff saved RR soybeans). See also *Monsanto Co. v. McFarling*, 302 F.3d 1291, 1293 (Fed. Cir. 2002) (indicating same).

<sup>130</sup> *McFarling*, 302 F.3d at 1293 (stating plaintiff signed agreement and does not dispute he saved seed).

<sup>131</sup> See *Scruggs*, 459 F.3d at 1333 (indicating plaintiff saved RR soybeans and patented cotton seeds for replanting).

<sup>132</sup> See *id.* (stating plaintiff did not sign the licensing agreement).

<sup>133</sup> See *McFarling*, 302 F.3d at 1298 (quoting *Univis*, 316 U.S. at 249) (arguing Monsanto violated doctrines of patent exhaustion and first sale because when purchaser acquires a product he acquires right to use and sell it).

<sup>134</sup> See *id.* at 1299.

<sup>135</sup> See *id.* (internal citation omitted).

<sup>136</sup> See *Scruggs*, 459 F.3d at 1333-34 (summarizing proceedings below and noting permanent injunction was issued against Scruggs); *Monsanto Co. v. Scruggs*, 342 F. Supp. 2d 568, 572 (summarizing plaintiff's defenses).

<sup>137</sup> See *id.* at 1334.

In order to establish an implied license, the “circumstances of the sale must ‘plainly indicate that the grant of a license should be inferred.’” It is undisputed that Monsanto requires all licensees to place a notice on all bags of Roundup Ready seeds stating that the seeds are covered by U.S. Patents, that the purchase of the seeds conveys no license, and that a license from Monsanto must be obtained before using the seeds. Therefore, the circumstances of the sale indicate that Scruggs had no implied license to use Monsanto's patented biotechnology. Furthermore, because the seed distributors had no authority to confer a right to use Monsanto's biotechnology, they could not confer any sort of license to use the seeds.<sup>138</sup>

As regards patent exhaustion, Scruggs argued that he had obtained the seeds in an ‘unrestricted sale’ and hence the doctrine of patent exhaustion permitted him unencumbered use.<sup>139</sup> The appeals court saw matters differently and held that:

The doctrine of patent exhaustion is inapplicable in this case. There was no unrestricted sale because the use of the seeds by seed growers was conditioned on obtaining a license from Monsanto. Furthermore, the “‘first sale’ doctrine of exhaustion of the patent right is not implicated, as the new seeds grown from the original batch had never been sold.” Without the actual sale of the second generation seed to Scruggs, there can be no patent exhaustion. The fact that a patented technology can replicate itself does not give a purchaser the right to use replicated copies of the technology. Applying the first sale doctrine to subsequent generations of self-replicating technology would eviscerate the rights of the patent holder.<sup>140</sup>

The recent Federal Circuit en banc *Lexmark* decision considered patent exhaustion issues in detail.<sup>141</sup> As noted above, given the domestic focus of this article,<sup>142</sup> the international production and trade issues of the case are not considered here. Overall, the court reaffirmed the *Mallinckrodt*<sup>143</sup> decision following the Supreme Court ruling in *Quanta Computer*.<sup>144</sup> Referencing the Patent Act,<sup>145</sup> the court stated,

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<sup>138</sup> See *id.* at 1336 (internal citations omitted). The district court had previously decided Scruggs had “no reasonable expectation that they could use Monsanto's patented biotechnology unless they first obtained a license and, therefore, had no implied license.” See *id.* at 1334.

<sup>139</sup> See *id.* at 1335 (outlining Scruggs' argument that due to patent exhaustion Scruggs had an implied license).

<sup>140</sup> See *id.* at 1336 (citing *McFarling*, 302 F.3d at 1299) (reasoning that the biotechnology, which can replicate itself, does not exhaust the patent holder's interest upon a subsequent unlicensed sale).

<sup>141</sup> See *Lexmark*, 816 F.3d. 721.

<sup>142</sup> See *supra* Section I.

<sup>143</sup> See *Mallinckrodt*, 976 F.2d; *Lexmark* 816 F.3d at 726 (citations omitted) (“We find *Mallinckrodt*'s principle to remain sound after the Supreme Court's decision in *Quanta Computer, Inc. v. LG Electronics, Inc.* in which the Court did not have before it or address a patentee sale at all, let alone one made subject to a restriction, but a sale made by a separate manufacturer under a patentee-granted license conferring unrestricted authority to sell.”).

<sup>144</sup> See *Quanta*, 553 U.S. 617. See *infra* Section IV.B.

<sup>145</sup> 35 U.S.C § 271(a) (Except as otherwise provided in this title, whoever 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 therefor, infringes the patent).

"[35 U.S.C.] § 271(a) by its terms requires that whoever engages in the enumerated acts receive permission from the patentee (directly or indirectly) for the acts being performed, which otherwise are infringing; and nothing in § 271(a) constrains the patentee's choices about whom to grant the required authority, if anyone, or about which acts (of manufacture, use, sale, etc.) to authorize, if any."<sup>146</sup>

Defendant Impression argued that Lexmark exhausted its patent rights despite the clearly-specified licensing restrictions for the 'Return Program' cartridges because Lexmark itself sold the cartridges rather than licensing a third party.<sup>147</sup> That argument lacked persuasiveness under *Mallinckrodt*.<sup>148</sup> "A sale made under a clearly communicated, otherwise-lawful restriction as to post-sale use or resale does not confer on the buyer and a subsequent purchaser the 'authority' to engage in the use or resale that the restriction precludes."<sup>149</sup> "Use in violation of a valid restriction may be remedied under the patent law, provided that no other law prevents enforcement of the patent."<sup>150</sup>

In dissent, Judges Dyk and Hughes argue that permitting post-sale restrictions would be "contrary to general common law." "Allowing the patent holder to impose conditions on the sale of a patented item would indeed largely eviscerate the exhaustion doctrine, by permitting the imposition of all manner of post-sale restrictions except for tie-ins, price-fixing, and other violations of the patent misuse and antitrust law."<sup>151</sup>

### 3. Supreme Court Cases

Two cases dominate the current rulings of the Supreme Court on patent exhaustion, *Univis*<sup>152</sup> and *Quanta Computer*.<sup>153</sup> *Univis*' had patents for lens blanks for use in multifocal eyeglasses.<sup>154</sup> There were sixteen patents in total, three unrelated to the case, five for producing the lenses and eight for finished lenses of different sizes, shapes and refractive powers.<sup>155</sup> The firm manufactured the lens blanks and licensed them in three classes, (1) wholesalers, who ground the lenses to specifications from prescriptions retailers, (2) finishing retailers who had in-house grinding facilities, and (3) the prescriptions retailers who utilized the lens grinding resources of the

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<sup>146</sup> See *Lexmark*, 816 F.3d at 743.

<sup>147</sup> See *id.* at 735 (specifying the contention of Impression and the government).

<sup>148</sup> "Use in violation of a valid restriction may be remedied under the patent law, provided that no other law prevents enforcement of the patent."

<sup>149</sup> See *Lexmark*, 816 F.3d at 743.

<sup>150</sup> See *id.* at 737 (quoting *Mallinckrodt*, 976 F.2d at 701).

<sup>151</sup> See *id.* at 779-80.

<sup>152</sup> See *Univis*, 316 U.S. at 243 (stating the nature of the claims that the eye glass lens company had violated either the resale provision of the Sherman act or was engaging in monopolization of the industry).

<sup>153</sup> See *Quanta*, 553 U.S. at 621 (reciting issue of whether "patent exhaustion applies to the sale of components of a patented system that must be combined with additional components in order to practice the patented methods").

<sup>154</sup> See *Univis*, 316 U.S. at 243 (explaining patent held by Univis).

<sup>155</sup> See *id.* at 246-47 (explaining which patents were at issue in the case in chief and which were not).

wholesalers.<sup>156</sup> The license terms specified a fixed price for wholesalers of the ground lenses, while both classes of retailers agreed to sell only at prices specified by Univis.<sup>157</sup> The grinding process itself proved as non-novel and applicable to any form of multi-focal lenses.<sup>158</sup> Any retailers considered to be ‘price cutters’ were excluded from licensing.<sup>159</sup>

The government presented a price fixing case which raised the ancillary issue of whether the license restrictions were legitimate extensions of the patent monopoly.<sup>160</sup> They were not, ruled the Court, as the sale exhausted the patent rights.<sup>161</sup> The court reasoned that

[t]he first vending of any article manufactured under a patent puts the article beyond the reach of the monopoly which that patent confers. Whether the licensee sells the patented article in its completed form or sells it before completion for the purpose of enabling the buyer to finish and sell it, he has equally parted with the article.<sup>162</sup>

“His monopoly remains so long as he retains the ownership of the patented article. But sale of it exhausts the monopoly in that article and the patentee may not thereafter, by virtue of his patent, control the use or disposition of the article.”<sup>163</sup>

*Quanta Computer* relates to three patents-in-suit purchased by the respondent.<sup>164</sup> The patents apply to methods for controlling the transfer of data between the microprocessor and other devices like the keyboard, etc.<sup>165</sup> Particularly, the patents-in-suit disclose a system for ensuring the most recent data are retrieved, and for updating the memory when older data are sought.<sup>166</sup> Another patent provides for managing data traffic, in part by establishing a rotating priority system.<sup>167</sup>

Respondent LG Electronics (“LGE”) cross-licensed a patent portfolio, including the patents-in-suit, to Intel Corporation authorizing Intel to “make, use, sell (directly or indirectly), offer to sell, import or otherwise dispose of its own products practicing the LGE Patents.”<sup>168</sup> This is referred to as the “License Agreement.”<sup>169</sup> Additional

<sup>156</sup> See *id.* at 243-44 (treating two corporate entities involved with interlocking ownership which the Supreme Court treated as a single corporation and that as single entity, it issued classes of licenses to various retailers).

<sup>157</sup> See *id.* at 244 (describing licensing agreement between corporation and licensees).

<sup>158</sup> See *id.* at 248 (acknowledging government’s argument that grind and polishing procedure was not novel “because it is applied to an article which embodies the only novel features of the alleged invention”).

<sup>159</sup> See *id.* at 245 (acknowledging the Corporation’s practice of instructing its representatives not to license certain prescription retailers as licensees).

<sup>160</sup> See *Univis*, 316 U.S. at 253-54 (discussing the potential extensions of the patent monopoly).

<sup>161</sup> See *id.* (holding that finished lenses had undergone a process that would be free from the price restriction of the corporation and thus fit within patent protection under United States patent law).

<sup>162</sup> See *id.* at 252.

<sup>163</sup> See *id.* at 250.

<sup>164</sup> See *Quanta*, 553 U.S. at 621 (listing the patents at issue).

<sup>165</sup> See *id.* (providing a simple explanation of the patent subject matter).

<sup>166</sup> See *id.* at 621-23 (describing the purpose of the patent portfolio).

<sup>167</sup> See *id.* at 622-23 (noting the thrust of Patent No. 5,077,733).

<sup>168</sup> See *id.* at 623 (describing the facts of the case).

<sup>169</sup> See *id.* (describing the form of the Agreement and its referenced title).

limitations in the License Agreement included no license was “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.”<sup>170</sup> The patent exhaustion issue received special notice, that “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.”<sup>171</sup>

In a separate agreement referred to as the “Master Agreement,” Intel “agreed to give written notice to its own customers informing them that, while it had obtained a broad license ‘ensur[ing] that any Intel product that you purchase is licensed by LGE and thus does not infringe any patent held by LGE,’ the license ‘does not extend, expressly or by implication, to any product that you make by combining an Intel product with any non-Intel product.’”<sup>172</sup> This Agreement also provided that “a breach of this Agreement shall have no effect on and shall not be grounds for termination of the Patent License.”<sup>173</sup>

LGE argued that exhaustion did not apply to its method patents.<sup>174</sup> The Court countered by noting it had frequently held that “method patents were exhausted by the sale of an item that embodied the method.”<sup>175</sup> Moreover, “[e]liminating exhaustion for method patents would seriously undermine the exhaustion doctrine” as applicants could simply add method claims to their filings.<sup>176</sup>

Next, the Court considered “the extent to which a product must embody a patent in order to trigger exhaustion.”<sup>177</sup> The Court would then go on to determine that “*Univis* governs this case.”<sup>178</sup> “Here, as in *Univis*, the incomplete article substantially embodies the patent because the only step necessary to practice the patent is the application of common processes or the addition of standard parts.”<sup>179</sup> The distinction between a case related to removing material (grinding lenses) to practice the patent, and a case where components (buss) were added, was not significant.<sup>180</sup> “In each case, the final step to practice the patent is common and noninventive.”<sup>181</sup> Nor is the exhaustion analysis affected by the fact that more than a single patent is used in the

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<sup>170</sup> See *Quanta*, 553 U.S. at 623.

<sup>171</sup> See *id.*

<sup>172</sup> See *id.* at 623-24.

<sup>173</sup> See *id.* at 624.

<sup>174</sup> See *id.* at 628 (reporting LGE’s basis for arguing that its method claims were not exhausted).

<sup>175</sup> See *id.* at 629 (reiterating the Court’s position on the exhaustion of protection over method claims).

<sup>176</sup> See *id.* at 629 (explaining that by drafting patent claims to de-scribe a method rather than an apparatus, an application could, under LGE’s position, avoid the exhaustion doctrine entirely).

<sup>177</sup> See *id.* at 630 (describing the next step in the Court’s analysis).

<sup>178</sup> See *id.* at 631.

<sup>179</sup> See *id.* at 633.

<sup>180</sup> See *id.* at 634 (reporting that for the purposes of its analysis, it did not matter whether material was removed, as it was in *Univis*, or components added, as they were in *Quanta*).

<sup>181</sup> See *id.*

same product.<sup>182</sup> The relevant consideration is if the final product “exhaust[s] *that* patent.”<sup>183</sup>

Remaining to be decided involved whether the sale to Quanta exhausted the patent rights.<sup>184</sup> LGE argued that its license agreement with Intel required Intel to notify its customers that LGE did not license those customers to practice its patents, but neither party contended that Intel had breached the agreement in that regard.<sup>185</sup> LGE further contended that its license agreement “disclaimed any license to third parties to practice the patents by combining licensed products with other components.”<sup>186</sup> The Court explained, however, that “the question whether third parties received implied licenses is irrelevant because Quanta asserts its right to practice the patents based not on implied license but on exhaustion. And exhaustion turns only on Intel’s own license to sell products practicing the LGE Patents.”<sup>187</sup> “No [license] 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.”<sup>188</sup>

This case is by some considered to end post-sale restrictions permitted in *Malinckrodt*<sup>189</sup> while not expressly overruling it. Certainly that was the interpretation of the district court,<sup>190</sup> but then that decision was reversed by the appeals court.<sup>191</sup> The differences in interpretation hinged to a large degree on whether *Quanta*<sup>192</sup> constituted a general ruling, or limited to the very specific language of the license agreement between LGE and Intel, “[T]hat the Quanta holding is limited to the very specific facts, and the very specific license agreement, that confronted the Court.”<sup>193</sup> For the district court, “The Supreme Court’s broad statement of the law of patent exhaustion simply cannot be squared with the position that the Quanta holding is limited to its specific facts.”<sup>194</sup>

In that interpretation the district court is supported by the Solicitor General’s Office, which considers the *Mallinckrodt* was “wrong when it issued.”<sup>195</sup> The principal basis for that interpretation was the distinction between selling and leasing. Long

<sup>182</sup> See *id.* at 634-35 (explaining that “if the device practices patent A while substantially embodying patent B, its relationship to patent A does not prevent exhaustion of patent B” (internal emphasis omitted)).

<sup>183</sup> See *id.* at 634-35 (emphasis in original) (stressing the proper considerations with respect to exhaustion when more than one patent is at issue).

<sup>184</sup> See *id.* at 635-36 (explaining the remaining step in the Court’s analysis).

<sup>185</sup> See *id.* at 636 (explaining LGE’s position that “Intel could not convey to Quanta what both knew it was not authorized to sell”).

<sup>186</sup> See *id.* at 637.

<sup>187</sup> See *id.*

<sup>188</sup> See *id.* at 637.

<sup>189</sup> See *Malinckrodt*, 976 F.2d. 700.

<sup>190</sup> See *Static Control Components*, 615 F. Supp 2d at 585 (“As Lexmark points out, the Supreme Court did not expressly overrule *Mallinckrodt* in its *Quanta* opinion.”).

<sup>191</sup> See *Lexmark*, 816 F.3d at 726 (“[W]e adhere to the holding of *Mallinckrodt, Inc. v. Medipart, Inc.* (citation omitted)).

<sup>192</sup> See *Quanta*, 553 U.S.

<sup>193</sup> See *Static Control* 615 F. Supp. 2d at 585.

<sup>194</sup> See *id.* at 586.

<sup>195</sup> *Lexmark Int’l, Inc. v. Impression Products, Inc.* Brief for the United States of America as Amicus Curiae, Case 14-1617 at 4, 11 (2015) (herein after ‘U.S. Brief’).

Supreme Court tradition had prohibited post sale conditions following an authorized sale, but, citing *U.S. v. General Elec. Co.*<sup>196</sup> the Court "permitted patentees to place restrictions on the conduct of licensees".<sup>197</sup>

The appeals court in response emphasized that in *Quanta*<sup>198</sup> the "Court was not addressing the patent-sale/license-sale distinction"<sup>199</sup> as the case did not involve an actual sale. *Mallinckrodt* however did, at least as regards license restrictions: "That a restrictive license is legal seems clear."<sup>200</sup> *U.S. v. General Electric Co.*, cited by the Solicitor General, does though draw a clear distinction over post-sale control by sale or license; "The distinction in law and fact between an agency and a sale is clear."<sup>201</sup> The former is restricted, the latter allowed.<sup>202</sup> The appeals court though does identify an anomaly in the Solicitor General's position, namely that the patentee choosing to produce and sell the patented product him/her self would have less post-sale control than if he/she licensed another to do the production and marketing, something the courts have never suggested.<sup>203</sup>

A secondary dimension of the Solicitor General's position is the interpretation of the word 'condition' or 'conditional sale'. Dictionary.com gives as two definitions of 'condition', (1) a restricting, limiting, or modifying circumstance: as in - It can happen only under certain conditions, and (2) a circumstance indispensable to some result; prerequisite; that on which something else is contingent: as in - conditions of acceptance. The use of 'condition' in *Mallinckrodt* follows definition (1), a limiting circumstance for post-sale use. Earlier rulings were in the context of definition (2), a requirement to be completed prior to the transfer of title.<sup>204</sup> However if the practice of using the term 'restricted' or other synonym in place of 'conditional' sale were followed the linguistic issue would evaporate.

A Supreme Court review is widely anticipated, and indeed the Court has invited the Solicitor General to file an amicus curiae brief on the issues.<sup>205</sup>

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<sup>196</sup> See *General Elec.* 272 U.S. at 489-90 ("But the question is a different one which arises when we consider what a patentee who grants a license to one to make and vend the patented article may do in limiting the licensee in the exercise of the right to sell.").

<sup>197</sup> See *U.S. Brief* at 14.

<sup>198</sup> See *Quanta*, 553 U.S. 617.

<sup>199</sup> See *Lexmark*, 816 F.3d at 739.

<sup>200</sup> See *Mallinckrodt*, 976 F.2d. at 704.

<sup>201</sup> See *General Electric Co.*, 272 U.S. at 485.

<sup>202</sup> See *id.* at 494 ("[The Courts] do not consider or condemn a restriction put by a patentee upon his licensee.").

<sup>203</sup> See *Lexmark*, 816 F.3d at 744.

<sup>204</sup> See *e.g.*, *Harkness v. Russell*, 118 U.S. 663, 666 (1886) ("The first question to be considered is, whether the transaction in question was a conditional sale or a mortgage; that is, whether it was a mere agreement to sell upon a condition to be performed, or an absolute sale.").

<sup>205</sup> *Impression Products, Inc. v. Lexmark Int'l, Inc.* 136 S. Ct. 2501(2016) ("The Solicitor General is invited to file briefs in this case expressing the views of the United States.").



#### 4. Implied License

Cases specifically addressing implied license are relatively rare, although an implied license defense is distinct from one based on patent exhaustion.<sup>206</sup> The Federal Circuit has identified that, “[t]here are two requirements for the grant of an implied license by virtue of a sale of non-patented equipment used to practice a patented invention. First, the equipment involved must have no noninfringing uses.”<sup>207</sup> “Second, the circumstances of the sale must plainly indicate that the grant of a license should be inferred.”<sup>208</sup>

As regards the circumstances of sale, in patent law “an implied license merely signifies a patentee’s waiver of the statutory right to exclude others from making, using, or selling the patented invention.”<sup>209</sup>

No formal granting of a license is necessary in order to give it effect. Any language used by the owner of the patent, or any conduct on his part exhibited to another, from which that other may properly infer that the owner consents to his use of the patent in making or using it, or selling it, upon which the other acts, constitutes a license and a defense to an action for a tort.”<sup>210</sup> Implied licenses may arise from several sources, but most commonly from an “entire course of conduct.”<sup>211</sup>

Returning to the reuse of a “one time” camera in *Jazz Photo*, Fuji, the manufacturer, attempted to argue that the camera box label which contained instructions and warnings about damage and an electric shock potential constituted an implied license for a single use, which was violated by the repair.<sup>212</sup> The court cited *Hewlett-Packard v. Repeat-O-Type Stencil Manufacturing Corp.*<sup>213</sup> regarding implied licenses.<sup>214</sup> “A seller’s intent, unless embodied in an enforceable contract, does not create a limitation on the right of a purchaser to use, sell, or modify a patented product as long as a reconstruction of the patented combination is avoided.”<sup>215</sup>

A similar decision in *Kendall Co. v. Progressive Medical Technology, Inc* rejected warning labels on reuse as an implied license,<sup>216</sup> which applied to a medical device for

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<sup>206</sup> See *Quanta*, 553 U.S. at 637 (“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.”).

<sup>207</sup> *Met-Coil Sys. Corp. v. Korner Unlimited, Inc.*, 803 F.2d 684, 686 (Fed. Cir. 1986) [hereinafter *Met-Coil Systems*].

<sup>208</sup> See *id.*

<sup>209</sup> *In re Singer Co. N.V.*, 262 B.R. 257, 264 (S.D.N.Y. 2001).

<sup>210</sup> *De Forest Tel. & Tel.*, 273 U.S. at 241.

<sup>211</sup> See *In re Singer Co. N.V.*, 262 B.R. at 267 (explaining that the extensive period of time during which consent was inferred was important to the court’s decision).

<sup>212</sup> See *Jazz Photo*, 264 F.3d at 1108 (explaining that the instructions and warnings of risk were not mutual promises or conditions placed upon the sale, and that it would be improper to imply a license limitation).

<sup>213</sup> *Hewlett-Packard v. Repeat-O-Type Stencil Manufacturing Corp.*, 123 F.3d 1445 (Fed. Cir. 1997).

<sup>214</sup> See *Jazz Photo*, 264 F.3d at 1108 (indicating that the determination of an express or implied license or contract is a matter of law).

<sup>215</sup> See *id.* at 1108 (quoting *Hewlett-Packard* 123 F.3d at 1453).

<sup>216</sup> *Kendall Co. v. Progressive Medical Technology, Inc.*, 85 F.3d 1570 (Fed. Cir. 1996).

adding healing by applying compressive pressure to limbs.<sup>217</sup> The compression sleeve needed replacing after each use, not because it was worn out but as a precaution against infection.<sup>218</sup> The sleeves contained marks indicating, "FOR SINGLE PATIENT USE ONLY. DO NOT REUSE."<sup>219</sup> Users indeed followed that heading but often did not purchase replacements from Kendall but rather from a third party, who received a lawsuit for infringing the Kendall patent.<sup>220</sup> The court concluded the regular replacements were indeed allowable repair, and that there was no implied license mandating the replacements be purchased from the patentee.<sup>221</sup>

Per *Met-Coil Systems*, "[a] patent owner's unrestricted sale of a machine useful only in performing a claimed process and producing a claimed product 'plainly indicate[s] that a grant of a license should be inferred.'"<sup>222</sup> However, "[n]o implied license arises where an original sale is accompanied by an express notice negating the grant of an implied license."<sup>223</sup>

A second issue under implied license is the availability of non-infringing alternative uses, the idea being that the purchaser of a patented product acquires the right to practice it, and if that right necessitates an otherwise infringing activity then the activity is, under an implied license, non-infringing.<sup>224</sup> From *Univis*, "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."<sup>225</sup> Or earlier from *Adams*:

[b]ut, 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. The article passes without the limit of the monopoly. That is to say, the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction on account of the monopoly of the patentees.<sup>226</sup>

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<sup>217</sup> See *id.* at 1571-72 (explaining the invention protected by U.S. Patent 4,253,449).

<sup>218</sup> See *id.* at 1572 (describing the sleeve as being a one-time-use item, due to contamination risks).

<sup>219</sup> See *id.* (emphasis in original).

<sup>220</sup> See *id.* (reporting the circumstances behind the lawsuit).

<sup>221</sup> See *id.* at 1574-75 (explaining the Court's position that though the sleeves had not physically worn out, it was not feasible to continue using them, and that the re-pair doctrine was therefore applicable).

<sup>222</sup> See *Met-Coil Systems*, 803 F.2d at 687 (quoting *Bandag, Inc. v. Al Bolser's Tire Stores, Inc.*, 750 F.2d 903, 925 (Fed. Cir. 1984)).

<sup>223</sup> See *id.* at 686 (citing *Radio Corp. of Am. v. Andrea*, 90 F.2d 612, 615 (2d Cir. 1937); *General Elec. Co. v. Cont'l Lamp Works, Inc.*, 280 F. 846, 851 (2d Cir. 1922)).

<sup>224</sup> See *Univis*, 316 U.S. at 249 (implying sale passes all rights, including that of practice in a certain manner); *Adams* 84 U.S. at 456 (stating payment of royalty for use of patented item conveys all rights, including right to use in various ways); John W. Schlicher, *The New Patent Exhaustion Doctrine of Quanta v. L.G.: What it Means for Patent Owners, Licensees, and Product Customers*, 90 J. PAT. & TRADEMARK OFF. SOC'Y 758, 770 (2008) (discussing implied license as granting full rights so long as the price covered both the patented item and its patented use).

<sup>225</sup> See *Univis*, 316 U.S. at 249.

<sup>226</sup> See *Adams*, 84 U.S. at 456.

The available non-infringing use, though, need not be the most profitable.<sup>227</sup> “[W]e held that a legally acceptable non-infringing use need not be as profitable as the patented method—it need only be reasonable.”<sup>228</sup>

### C. Antitrust Violations and Patent Misuse

The “otherwise-lawful restriction”<sup>229</sup> component of the conditional sales rulings implies that unlawful restrictions invalidate a patent, rendering it unenforceable, which is to say infringement suits are non-allowable, at least for as long as the restriction remains in force.<sup>230</sup> In this sub-section we explore the case history of when license restrictions are ruled unlawful. They fall into two related categories, antitrust violations and patent misuse; we proceed in the order.

#### 1. Antitrust Violations

The grant of a United States patent allows the patent holder on threat of infringement to prohibit others from making, using, offering to sell, or selling any patented invention, within the United States or imported into the United States, his or her invention.<sup>231</sup> Hence, “A patentee may grant licenses to make, use, or vend his patented invention, restricted in point of space or time, or with any other restriction upon the exercise of the granted privilege, save only that by attaching a condition to his license he may not enlarge his monopoly and thus acquire some other which the statute and the patent together do not give.”<sup>232</sup>

“The extent of that [monopoly] right is limited by the definition of his invention, as its boundaries are marked by the specifications and claims of the patent. He may grant licenses to make, use or vend, restricted in point of space or time, or with any other restriction upon the exercise of the granted privilege, save only that by attaching a condition to his license he may not enlarge his monopoly and thus acquire some other which the statute and the patent together did not give.”<sup>233</sup> That is, there remain:

[E]stablished limits which the patentee must not exceed in employing the leverage of his patent to control or limit the operations of the licensee. Among other restrictions upon him, he may not condition the right to use his patent on the licensee's agreement to purchase, use, or sell, or not to purchase, use,

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<sup>227</sup> *Glass Equip. Dev. Inc. v. Besten, Inc.*, 174 F.3d 1337, 1343 (Fed. Cir. 1999) (indicating that the district court's requirement that an acceptable non-infringing use be the most profitable alternative was not correct).

<sup>228</sup> *See id.*

<sup>229</sup> *See Lexmark*, 816 F.3d at 743 (describing the legality of pre-sale license limitations. *See supra* Section IV.C).

<sup>230</sup> *Morton Salt v. Suppiger Co.*, 314 U.S. 488, 493 (1943) (“Equity may rightly withhold its assistance from such [an abusive] use of the patent by declining to entertain a suit for infringement, and should do so at least until it is made to appear that the improper practice has been abandoned and that the consequences of the misuse of the patent have been dissipated.”).

<sup>231</sup> 35 U.S.C § 271(a) (Infringement of patent).

<sup>232</sup> *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 456 (1940).

<sup>233</sup> *See id.*

or sell, another article of commerce not within the scope of his patent monopoly. His right to set the price for a license does not extend so far, whatever privilege he has to exact royalties as high as he can negotiate. And just as the patent's leverage may not be used to extract from the licensee a commitment to purchase, use, or sell other products according to the desires of the patentee, neither can that leverage be used to garner as royalties a percentage share of the licensee's receipts from sales of other products; in either case, the patentee seeks to extend the monopoly of his patent to derive a benefit not attributable to use of the patent's teachings.<sup>234</sup>

Following the passage of the major antitrust acts in 1890<sup>235</sup> and 1914<sup>236</sup>, those 'limits' have often been construed as the violation of either of those acts,<sup>237</sup> rendering the patent unenforceable. "When those contractual conditions violate public policy, however, as in the case of price-fixing conditions and tying restraints, the underlying patents become unenforceable, and the patentee loses its right to sue for infringement or breach of contract."<sup>238</sup> "In order to guard the rights and welfare of the community, the prerequisites to obtaining a patent are strictly observed, and when the patent has issued the limitations on its exercise are equally strictly enforced."<sup>239</sup>

Specific connection with the Sherman Act was established in *United Shoe Machinery Corporation et al. v. United States*,<sup>240</sup> "The rights secured by a patent do not protect the making of contracts in restraint of trade or those which tend to monopolize trade or commerce in violation of the Sherman Act." Note also, "Rights conferred by patents are indeed very definite and extensive, but they do not give any more than other rights a universal license against positive prohibitions. The Sherman Antitrust Act of July 2, 1890, 26 Stat. 209, ch. 647, is a limitation of rights, rights that may be pushed to evil consequences and therefore restrained."<sup>241</sup> *United Shoe* similarly noted that the Clayton Act applies to patented products as well.<sup>242</sup>

Not mentioned in this case law is Section 5 of the Federal Trade Commission (FTC) Act of 1914 which disallows, "Unfair methods of competition in or affecting commerce, and unfair or deceptive acts or practices in or affecting commerce, are hereby declared unlawful."<sup>243</sup> In general the 'unfair methods of competition' aspects of

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<sup>234</sup> *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 136 (1969).

<sup>235</sup> Sherman Act 15 U.S.C.S. § 1 et seq. (1890).

<sup>236</sup> Clayton Act 38 Stat. 730 (1914).

<sup>237</sup> *United Shoe Machinery Corporation et al. v. United States*, 258 U.S. 451, 463 (1922) ("[T]he patent right confers no privilege to make contracts in themselves illegal, and certainly not to make those directly violative of valid statutes of the United States."). See also *Transparent-Wrap Machine Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 647 (1947) citations omitted ("A patent may be so used as to violate the anti-trust laws. Such violations may arise through conditions in the license whereby the licensor seeks to control the conduct of the licensee by the fixing of prices or by other restrictive practices.")

<sup>238</sup> *Primco Corp. v. U.S. Int'l Trade Comm'n*, 616 F.3d 1318, 1339 (Fed. Cir. 2010) (in a case regarding a licensing prohibition to avoid licensing a potentially competing technology).

<sup>239</sup> *Deepsouth Packing Co., Inc. v. Laitram Corp.*, 406 U.S. 518, 530-31 (1972).

<sup>240</sup> See *United Shoe*, 258 U.S. at 464-65.

<sup>241</sup> *Standard Sanitary Manufacturing Company v. United States of America*, 226 U.S. 20, 49 (1912).

<sup>242</sup> See *United Shoe*, 258 U.S. at 451, 460 ("The Clayton Act, 38 Stat. 730, specifically applies to goods, wares, machinery whether patented or unpatented").

<sup>243</sup> 15 U.S.C. § 45(a)(1).

Section 5 have been interpreted to be coterminous with the Sherman and Clayton Acts<sup>244</sup> such as price fixing.<sup>245</sup> FTC actions do differ in that they are generally civil acts administered through administrative proceedings before the Commission rather than through the courts.<sup>246</sup>

There exists though a component of these FTC powers which exceeds the scope granted by the Sherman and Clayton Acts. That interpretation was made particularly clear in *Chuck's Feed & Seed Co. v. Ralston Purina Co.* “An anticompetitive practice need not violate the Sherman Antitrust Act or the Clayton Act in order to violate the Federal Trade Commission Act.” “The power of the Federal Trade Commission to declare anticompetitive trade practices ‘unfair’ extends primarily to ‘trade practices which conflict with the basic policies of the Sherman and Clayton Acts even though such practices may not actually violate those laws.’” “The Federal Trade Commission itself looks to antitrust principles in deciding whether § 5 of the FTC Act has been violated.”<sup>247</sup>

Moreover the Department of Justice jointly with the FTC issued in 1995 the interpretation that, “Pursuant to its authority over unfair methods of competition, the Commission may take administrative action against conduct that violates the Sherman Act and the Clayton Act, as well as anti-competitive practices that do not fall within the scope of the Sherman Act or Clayton Act.”<sup>248</sup> Indeed, the Court’s interpretation of the powers of the FTC in section 5 go back to *FTC v. Brown Shoe*, “The Federal Trade Commission has power under § 5 of the Federal Trade Commission Act to arrest trade restraints in their incipiency without proof that they amount to an outright violation of § 3 of the Clayton Act or other provisions of the antitrust laws” particularly “with regard to trade practices which conflict with the basic policies of the Sherman and Clayton Acts even though such practices may not actually violate these laws.”<sup>249</sup>

Further, the broader applicability of section 5 had been endorsed back in 1953 by the Supreme Court in *Federal Trade Comm'n v. Motion Picture Advertising Service Co.* “The ‘unfair methods of competition’, which are condemned by § 5(a) of the Federal Trade Commission Act are not confined to those that were illegal at common law or that were condemned by the Sherman Act. Congress advisedly left the concept flexible to be defined with particularity by the myriad of cases from the field of business.”<sup>250</sup>

The courts though have the final word by means of the option for defendants to appeal FTC decisions as protection against the abuse of power by the Commission.<sup>251</sup> Often that authority is used to limit the scope of FTC actions regarding the Commission’s definitions of what constitutes ‘unfair methods’. That role is particularly

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<sup>244</sup> 15 U.S.C. §§ 12–27, 29 U.S.C. §§ 52–53.

<sup>245</sup> *FTC v. Superior Court Trial Lawyers Ass'n*, 493 U.S. 411 (1990).

<sup>246</sup> *FTC v. Invention Submission Corp.*, 965 F. 2d 1086 (D.C. Cir. 1992) (discussing the Commission’s investigatory powers).

<sup>247</sup> *Chuck's Feed & Seed Co. v. Ralston Purina Co.*, 810 F.2d 1289, 1293 (4<sup>th</sup> Cir. 1987) (citations omitted).

<sup>248</sup> Department of Justice and FTC, “Antitrust Enforcement Guidelines for International Operations”, Sec. 2.3 (April 1995).

<sup>249</sup> *FTC v. Brown Shoe Co.*, 384 U.S. 316, 322, 320 (1966).

<sup>250</sup> *Federal Trade Comm'n v. Motion Picture Advertising Service Co.*, 344 U.S. 392, 394 (1953) (citation omitted).

<sup>251</sup> *FTC v. Sperry & Hutchinson*, 405 U.S. 233, 235 (1972).

evident in *E.I. du Pont De Nemours & Co. v. Federal Trade Commission*, a case involving the pricing of a lead-based antiknock agent to gasoline.<sup>252</sup> In its administrative hearing the FTC had found the two largest suppliers of the compound followed business practices that "unfairly facilitated the maintenance of substantial, uniform price levels and the reduction or elimination of price competition in the lead-based antiknock market."<sup>253</sup> despite the fact that the adoption of the practices at issue were non-collusive.<sup>254</sup>

The appeals court faulted the FTC for not recognizing the legitimate business reasons for the impugned actions and more generally for not establishing "standards" for determining when independent and unilateral actions "become unlawful."<sup>255</sup> "Thus, even if the Commission has authority under § 5 to forbid legitimate, non-collusive business practices which substantially lessen competition, there has not been a sufficient showing of lessening of competition in the instant case to permit the exercise of that power."<sup>256</sup> The FTC order was set aside.<sup>257</sup>

The 'unfair or deceptive acts or practices' prohibitions were added in 1938 by the Wheeler-Lea Act<sup>258</sup> and are often referred to as the consumer protection clause. As explained in the House Report on the amendment summarizing congressional thinking, "This amendment makes the consumer, who may be injured by an unfair trade practice, of equal concern, before the law, with the merchant or manufacturer injured by the unfair methods of a dishonest competitor."<sup>259</sup> It was however not until 1964 that the FTC articulated the factors to be considered, which were later referenced by the Supreme Court in *FTC v. Sperry & Hutchinson*<sup>260</sup> as:

- (1) whether the practice, without necessarily having been previously considered unlawful, offends public policy as it has been established by statutes, the common law, or otherwise -- whether, in other words, it is within at least the penumbra of some common-law, statutory, or other established concept of unfairness;
- (2) whether it is immoral, unethical, oppressive, or unscrupulous;
- (3) whether it causes substantial injury to consumers (or competitors or other businessmen).<sup>261</sup>

Because of the cigarette advertising and Sperry & Hutchinson connections, these principals are often referred to as the Cigarette Rule or S&H Rule.

Within a decade, the FTC had established explicit policies on the concepts of 'unfairness' and 'deception' as applied to consumer transactions. The standards as well

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<sup>252</sup> *E.I. du Pont De Nemours & Co. v. Federal Trade Commission*, 729 F.2d 128 (Ct. App. 2<sup>nd</sup> Cir. 1984).

<sup>253</sup> *See id.* at 133.

<sup>254</sup> *See id.* at 130.

<sup>255</sup> *See id.* at 138-140.

<sup>256</sup> *See id.* at 142.

<sup>257</sup> *See id.* at 130.

<sup>258</sup> Ch. 49, § 3, 52 Stat. 111 (1938).

<sup>259</sup> H. R. Rep. No. 1613, 75th Cong., 1st Sess., 3 (1937). See also S. Rep. No. 1705, 74th Cong., 2d Sess., 2-3 (1936).

<sup>260</sup> *See Sperry & Hutchinson*, 405 U.S. at 244.

<sup>261</sup> Statement of Basis and Purpose of Trade Regulation Rule 408, Unfair or Deceptive Advertising and Labeling of Cigarettes in Relation to the Health Hazards of Smoking. 29 Fed. Reg. 8355 (1964).

as the violations are distinct and independent.<sup>262</sup> First released, in 1980, was a “Policy Statement on Unfairness”.<sup>263</sup> Making reference to the S&H Rule, the policy identifies three criterion:

- The injury must be substantial.
- Injury usually involves monetary harm, but can also include the purchase of unwanted goods or services, or defective ones, or unwarranted health or safety risks.
- The injury must not be outweighed by any offsetting consumer or competitive benefits. Included are considerations of the costs a remedy would entail, along with the burdens to society in general of a regulation.
- The injury must be one which consumers could not reasonably have avoided.

While it is generally assumed that consumers are able to make their own private purchase decisions without regulatory intervention, certain types of sales techniques may prevent customers from effectively making their own choices.<sup>264</sup>

Policies regarding deception were released in 1983.<sup>265</sup> Three elements underlying all deception cases were identified as:

- There must be a representation, omission or practice that is likely to mislead the consumer.

Misleading or deceptive practices have been found to include false oral or written representations, misleading price claims, sales of hazardous or systematically defective products or services without adequate disclosures, failure to disclose information regarding pyramid sales, use of bait and switch techniques, failure to perform promised services, and failure to meet warranty obligations.

- The practice is assessed from the perspective of a consumer acting reasonably in the circumstances, or a group perspective if the practice is focused on particular groups.
- The representation, omission, or practice must be a “material” one.

Materiality applies when the act or practice is likely to affect the consumer's conduct or decision with regard to a product or service.<sup>266</sup>

The Congressional response to these policy statements did not come until 1994, with the enactment of 15 U.S.C. § 45(n):

The Commission shall have no authority under this section or section 57a of this title to declare unlawful an act or practice on the grounds that such act or practice is unfair unless the act or practice causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to

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<sup>262</sup> Office of the Comptroller of the Currency, OTS Examination Handbook, “Unfair or Deceptive Acts or Practices. Federal Trade Commission Act, Section 5” at 1354.1 (While the Office of Thrift Supervision is a federal banking agency, it “appl[ies] the same standards as the FTC in determining whether a practice is unfair.”)

<sup>263</sup> FTC Policy Statement on Unfairness, Dec. 17, 1980. Appended to a letter to Senators Ford and Danforth, Consumer Subcommittee.

<sup>264</sup> *See id.* at 3.

<sup>265</sup> FTC Policy Statement on Deception, October 14, 1983. Incorporated in a letter to Representative Dingell, Chair, Committee on Energy and Commerce.

<sup>266</sup> *See id.* at 1-2.

consumers or to competition. In determining whether an act or practice is unfair, the Commission may consider established public policies as evidence to be considered with all other evidence. Such public policy considerations may not serve as a primary basis for such determination.

With this amendment, the Congress removed the option of the Commission using public policy as a primary basis for determining unfairness.

## 2. Patent Misuse

The misuse non-statutory doctrine, which emerged as a positive defense to infringement claims,<sup>267</sup> has a complex and varied relationship with antitrust violations. The courts have defined misuse as, “[i]mpermissibly broaden[ing] the 'physical or temporal scope' of the patent grant with anticompetitive effect.”<sup>268</sup> An antitrust violation constitutes misuse, but misuse does not necessarily imply an antitrust violation.<sup>269</sup>

While the courts have yet to develop an overall theory of misuse, leading at times to contradictory rulings, its application is based broadly on equity. “But the public policy which includes inventions within the granted monopoly excludes from it all that is not embraced in the invention. It equally forbids the use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant.”<sup>270</sup> That is, a patent is intended as a careful balance between the private incentive to invest in inventive activities allowed by a temporary limited monopoly verses the public benefit from access to new products and methods brought forth by that investment.<sup>271</sup> Tipping the balance too far toward private benefit would then be contrary to that carefully construed policy.

The most common forms of misuse are tying agreements<sup>272</sup>, agreements not to deal with competitive products,<sup>273</sup> and (vertical) price fixing post-sale.<sup>274</sup> Conditioning a license on the stipulation of assigning any improvement patents to the licensor has however been allowed.<sup>275</sup> Generally, “A patent operates to create and grant to the

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<sup>267</sup> See *Primco Corp.*, 616 F.3d at 1321.

<sup>268</sup> *Windsurfing Int'l, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986).

<sup>269</sup> See *Hunter Douglas* 44 F. Supp. 2d at 156 (“A patentee who uses a patent to violate the antitrust laws is guilty of patent misuse; if a patentee's action does not qualify as an antitrust violation, however, it may still be subject to the patent misuse defense.”).

<sup>270</sup> See *Morton Salt*, 314 U.S. at 492.

<sup>271</sup> Joan Farre-Mensa, Deepak Hedge and Alexander Ljungqvist, “The Bright Side of Patents”. USPTO Economic Working Paper Series No. 2015-5 (Dec. 2015) (referencing William Nordhaus, “An Economic Theory of Economic Change”. *Am. Econ. Review* 59(1969): 18-28.

<sup>272</sup> *Carbice Corp. of America v. American Patents Dev. Corp.*, 283 U.S. 27, 31 (1931) (regarding a tying requirement for an unpatented component essential for the functioning of the patented product).

<sup>273</sup> See *Primco Corp.*, 616 F.3d at 1321.

<sup>274</sup> *Bauer & Cie v. O'Donnell*, 229 U.S. 1, 12 (1913) (“An attempt to fix the price of an article of general use would be against public policy and void.”).

<sup>275</sup> *Transparent-Wrap Machine Corp. v. Stokes & Smith Co.* 329 U.S. 637 (1947) (allowing license restrictions requiring improvements discovered by the licensee be patented by the licensor).



patentee an exclusive right to make, use and vend the particular device described and claimed in the patent, but affords no immunity for a monopoly not within the grant.”<sup>276</sup>

While those acts are generally coincident with antitrust violations, critically, “One who misuses a patent does not also necessarily violate the antitrust laws.”<sup>277</sup> From *Morton Salt*, the Court noted, “It is unnecessary to decide whether respondent has violated the Clayton Act, for we conclude that in any event the maintenance of the present suit to restrain petitioner's manufacture or sale of the alleged infringing machines is contrary to public policy and that the district court rightly dismissed the complaint for want of equity.”<sup>278</sup>

As regards requirements for proof, “Patent misuse requires a lesser showing than a Sherman Act violation in that a licensee who asserts it need prove neither anticompetitive effects, nor individual harm. Patent misuse may be shown from the totality of licensor's conduct and business practices. Thus, patent misuse may be seen as having a less stringent standing requirement and a lesser burden of proof than an antitrust claim.”<sup>279</sup>

Stated somewhat differently in *Hunter-Douglas*:<sup>280</sup>

In the abstract, the ultimate issue in determining the merit of a patent misuse defense is whether the patentee has sought to wrongfully extend the rights granted under the patent statute; not whether the patentee has violated the antitrust laws per se. Read in that light, it would in all cases make perfect sense as a matter of law to group the patent misuse defense with patent rather than antitrust issues. Practically speaking, however, a party claiming patent misuse predicated on alleged antitrust violations will present its most forceful case which will entail showing the patentee to be a violator of the antitrust laws. Thus, one missing the primary target of establishing antitrust liability may nonetheless meet the lesser burden of showing misuse. Antitrust and patent misuse, therefore, are connected as a matter of fact.

In this regard, patent holders with market power may be held to a higher level of scrutiny than other firms. “It is true that for some purposes the owner of a patent is under disabilities with which owners of other property are not burdened.”<sup>281</sup>

In 1988 with the passage of the Patent Misuse Reform Act<sup>282</sup> Congress added two components to Section 271(d) of the Patent Act:

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<sup>276</sup> See *Morton Salt*, 314 U.S. at 491.

<sup>277</sup> See *Hunter Douglas*, 44 F. Supp. 2d at 156 (addressing plaintiff's patent claims from defendant's antitrust counterclaims).

<sup>278</sup> See *Morton Salt*, 314 U.S. at 494.

<sup>279</sup> *Transitron Electronic Corporation v. Hughes Aircraft Co.*, 487 F. Supp. 885, 891 (D. Mass. 1980) (citations excluded) (suit over a license agreement alleging fraud, antitrust violation and patent misuse).

<sup>280</sup> See *Hunter-Douglas*, 44 F. Supp. 2d at 157.

<sup>281</sup> See *Transparent-Wrap*, 329 U.S. at 645.

<sup>282</sup> Pub. L. No. 100-73, 102 Stat. 4674 (H.R. 4972) (“Codification of the ‘refusal to use or license’ as not constituting patent misuse is consistent with the current caselaw and makes sense as a matter of public policy.”).

(d) No patent owner otherwise entitled to relief for infringement or contributory infringement of a patent shall be denied relief or deemed guilty of misuse or illegal extension of the patent right by reason of his having done one or more of the following: . . . .

(4) refused to license or use any rights to the patent; or (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a separate product, unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the license or sale is conditioned.

Subcomponent (4) was not controversial as it was viewed as stating established law.<sup>283</sup> However it is important to note, "The fact that a patentee has the power to refuse a license does not mean that he has the power to grant a license on such conditions as he may choose."<sup>284</sup>

Subcomponent 5 is more complex. It does reference 'tie-outs' (refusal to deal in competing products) along with 'tie-ins'. Generally, tie-ins refer to unpatented products, staple products used in the operation of the patented product.<sup>285</sup> For those products, no tie-in can exist without a showing of market power in the tying product, doing away with an earlier presumption that the existence of a patent presumed the presence of market power.<sup>286</sup> The component does give the patent holder some authority over the marketing of non-staple goods with no non-infringing uses beyond practicing the patent. "The provisions of 35 U.S.C. § 271(d) effectively confer upon the patentee, as a lawful adjunct of his patent rights, a limited power to exclude others from competition in nonstaple goods. A patentee may sell a nonstaple article himself while enjoining others from marketing that same good without his authorization."<sup>287</sup>

This 'limited power' must be considered in the context of 35 U.S.C. § 271(c).<sup>288</sup> "35 U.S.C.S. § 271(c) identifies the basic dividing line between contributory infringement and patent misuse. It adopts a restrictive definition of contributory infringement that distinguishes between staple and non-staple articles of commerce. It also defines the class of non-staple items narrowly. In essence, this provision places staple materials outside the scope of the contributory infringement doctrine. As a result, it is no longer necessary to resort to the doctrine of patent misuse in order to deny patentees control over staple goods used in their inventions."<sup>289</sup> "This provision clearly signifies that a

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<sup>283</sup> Rep. Kastenmeier quoted in *Cong. Rec.* at H 10648 (Oct. 20, 1988)

<sup>284</sup> See *Transparent-Wrap*, 329 U.S. at 643.

<sup>285</sup> See *supra* Section IV.C.

<sup>286</sup> See U.S. Dept. of Justice and Federal Trade Commission, *Antitrust Guidelines for Licensing of Intellectual Property* at 2 (April 6, 1995) ("the Agencies do not presume that intellectual property creates market power in the antitrust context").

<sup>287</sup> See *Rohm & Haas*, 448 U.S. at 203.

<sup>288</sup> 35 U.S.C. § 271(c) ("Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.").

<sup>289</sup> See *Rohm & Haas*, 448 U.S. at 200.

patentee may make and sell non-staple goods used in conjunction with his invention.”<sup>290</sup>

However, in dissent, Justice White (joined by Brennan, Marshall and Stevens) noted that, “Section 217(d) does not define conduct that constitutes patent misuse; rather it simply outlines certain conduct that is not patent misuse.”<sup>291</sup> More broadly, the Supreme Court has adopted the position that, “a patent does not necessarily confer market power on the patentee.”<sup>292</sup> Determinations of antitrust violations, as well as patent misuse, must then involve *Rule of Reason* analysis.

#### D. Section Conclusions

At the risk of some undue simplification, the following broad conclusions can be drawn from the preceding case law review.

*Repair/Reconstruction:* The case law is clear that repair is allowable, reconstruction, not. The distinction is not always clear, but with the ‘proportionality test’, which specifies that if the original structure predominates over the new or a shorter-lived non-patented component is the relevant one, than that is characteristic of repair, not reconstruction.

*Patent Exhaustion:* Unless and until the Supreme Court decides otherwise, patentees have a wide latitude in specifying post-sale limitations for conditional sales. This restriction must be reasonable within the patent grant; that is, relates to the subject matter of the patent claims. The latitude is exhausted if the restriction is otherwise illegal, such as a *per se* violation of the antitrust laws. But that is only a necessary, not a sufficient condition. Sufficiency requires a showing of market power by the patentee in the relevant market, beyond the mere presence of a patent. That is, patent exhaustion cases are assessed on a *Rule of Reason* basis.

*Implied License:* The presence of an implied license must be plainly indicated, often from an entire course of conduct. For an implied license to exist there must be no non-infringing alternative use.

*Patent Misuse:* Patent exhaustion and patent misuse are separate and distinct. An antitrust violation would typically establish patent misuse, but misuse can exist short, in the sense of the need to prove an antitrust violation and individual harm, of an antitrust violation. The patentee however must be shown to have market power in the relevant market. The extension of limited control to related non-staple goods does not constitute patent misuse.

Critical to the assessment *infra* is the courts’ interpretation of antitrust violations, and particularly antitrust treatment of aspects like substantial harm and the tradeoff for legitimate business practices, considering the ‘razor blade’ damage model.

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<sup>290</sup> See *id.* at 203.

<sup>291</sup> See *Rohm & Haas*, 448 U.S. at 234.

<sup>292</sup> *Illinois Tool Works Inc. v. Independent Ink, Inc.*, 547 U.S. 28, 39 (2006).

## V. ASSESSMENT

This section applies the case law principals to the two test examples, rotary drill bits and toner cartridges, focusing on the courts' balance between patentees' rights and public welfare, particularly as the rulings are affected by interpretations of 'legitimate business purposes'. For each product, case law reviews are examined prior to drawing a judgement about the several courts' judgments.

### A. Rotary Drill Bits<sup>293</sup>

#### 1. Repair v. Reconstruction

Quite clearly the re-facing of the used (but not consumed) bits is repair, not reconstruction. This judgment is based on the relatively small portion of the bit which is affected, the drill face and not the bearings, which constitute the majority of the devices (the 'proportionality test'<sup>294</sup>).

#### 2. Patent Exhaustion/Implied License

Hughes provided no implied license as evidenced by the 'property of . . .' mark stamped on each bit. This determination directly follows the decision from *Met-Cal Systems*.<sup>295</sup>

Following *Mallinckrodt*<sup>296</sup> and *Quanta*<sup>297</sup> and reiterated in *Lexmark*<sup>298</sup> there is no *per se* bar to a conditional restriction of the use of the drill bits through the lease arrangement. Customers presumably payed a lower 'use value' price for the bits under the lease compared to a full price for full ownership (although the typically worn out bits would have limited use value once extracted from the well). Thus, the lease arrangement is legal, unless that is[delete] there is an antitrust violation, which would render the Hughes patents unenforceable. Most common infractions are price fixing – not a matter for Hughes as it leased directly to drillers through its field teams – and tying. Tying is also not an issue because the drill bit licenses were not linked with any other products.

Monopolization (Section 2 of the Sherman Act) is a possible violation. Certainly with an estimated 75 percent market share with no technologically close competitors Hughes had the requisite market power to control the rotary drill market.<sup>299</sup> The market share—and from it the market power—though was based upon product superiority with patented technologies. Finding a Section 2 violation would require a showing that the intent of the leasing program was specifically to limit competition

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<sup>293</sup> See *supra* Section III.A.

<sup>294</sup> See *supra* Section IV.A.

<sup>295</sup> *Met-Cal Systems*, 803 F.2d at 687. See also *supra* Section IV.B.

<sup>296</sup> See *Mallinckrodt*, 976 F.2d. 700.

<sup>297</sup> See *Quanta*, 553 U.S. 617.

<sup>298</sup> See *Lexmark*, 816 F.3d. 721.

<sup>299</sup> See *Hughes*, 114 Supp. at 546.

from re-tippers. From *Hunter-Douglas*, “Attempted monopolization differs from monopolization in that a claimant must show (1) anticompetitive or predatory behavior, (2) a dangerous probability of success, and (3) a specific intent to monopolize. Thus, in order to establish either monopolization or attempted monopolization, the alleged monopolizer must have engaged in some exclusionary or anticompetitive behavior.”<sup>300</sup>

Countervailing evidence was the report that the lease agreements were needed for collecting the used bits for examination as a critical input into product improvement, a legitimate business purpose. Sherman 2 cases present a high bar, particularly when, like here, the market share is largely based on product superiority, there is no indication of conspiracy, and the behavior in question does fulfill a legitimate purpose. Hence, in the absence of additional evidence of an antitrust violation, the Hughes patent rights can be said not to have been exhausted through the leasing process.

### 3. Patent Misuse

A showing of patent misuse requires a determination that the patent scope be impermissibly broadened. Often that broadening involves a mandated connection with a non-patented product, either staple or non-staple. That tying arrangement is not at issue with the drill bits under study here. They are stand-alone.

What a determination of patent misuse does not require is the proving of anticompetitive effects or individual harm, all together a lesser burden of proof than an antitrust claim under the Sherman or Clayton Act. Does the Hughes leasing requirement meet this standard?

For a Sherman Section 2 monopolization charge the significant market share of Hughes Tool Co. does raise the question if Hughes is not using its market power to squelch competition from re-tippers. District court testimony that Hughes focused its enforcement efforts on small re-tippers, who presumably were less able to resist than the larger firms,<sup>301</sup> is consistent with the squelching hypothesis. Similarly, some drillers testimony that the worn bits had little utility and could be collected by the Hughes field men even without a lease agreement<sup>302</sup> is consistent with a coercion hypothesis. Counterbalancing those positions is the clear legitimate business purpose of collecting and examining the worn bits, so again this line of inquiry is indeterminate.

A final avenue of exploration is evaluating how the lease requirement might be assessed under Section 5 of the FTC Act. That Section has two components, the business oriented unfair methods of competition and consumer-oriented unfair or deceptive acts or practices.<sup>303</sup> Of these, the unfair methods of competition better apply to the Hughes drill bit leasing policy. Section 5 cases are Sherman and Clayton-like without the degree of proof required, including acting when a conduct is in its incipency prior to maturing into a full violation. In this instance, a court examining

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<sup>300</sup> See *Hunter-Douglas*, 44 F. Supp. 2d at 151.

<sup>301</sup> See *Ford*, 114 F. Supp. at 550.

<sup>302</sup> See *Hughes*, 114 F. Supp at n. 88 (“All the drillers which testified readily agreed that the plaintiff could have free access to the used bits, regardless of who held technical title.”).

<sup>303</sup> 15 U.S.C. § 45(a)(1).

an infringement suit could determine if Section 5 was violated which, being an antitrust statute, would render the underlying patent(s) unenforceable.<sup>304</sup>

In making such a judgment a court would have significant latitude in interpreting the application of Section 5 to an infringement proceeding. But, on threat of reversal by a higher court, it presumably would be held to similar standards of the FTC. From *Du Pont*<sup>305</sup>:

In our view, before business conduct in an oligopolistic industry may be labelled "unfair" within the meaning of § 5 a minimum standard demands that, absent a tacit agreement, at least some indicia of oppressiveness must exist such as (1) evidence of anticompetitive intent or purpose on the part of the producer charged, or (2) the absence of an independent legitimate business reason for its conduct. If, for instance, a seller's conduct, even absent identical behavior on the part of its competitors, is contrary to its independent self-interest, that circumstance would indicate that the business practice is "unfair" within the meaning of § 5. In short, in the absence of proof of a violation of the antitrust laws or evidence of collusive, coercive, predatory, or exclusionary conduct, business practices are not "unfair" in violation of § 5 unless those practices either have an anticompetitive purpose or cannot be supported by an independent legitimate reason.

As noted, with *Hughes* there is no indication of collusive, exclusionary, etc. conduct in its licensing practices. To be sure, competitors frequently followed *Hughes*' price increases,<sup>306</sup> but that does not necessarily imply collusive behavior. There is a legitimate business reason for the leasing practice by *Hughes*, but the underlying issue is if the real motivation is anticompetitive, in this instance, the exclusion of competition from re-tippers. Whatever the intent, the result of the lease-only policy adopted by competitors had the consequence that "competition from the [re-tipping] repair source was effectively suppressed."<sup>307</sup>

The task required for condemning the lease-only policy though is separating the consequence from the intent. The district court collected considerable testimony from current and past *Hughes* employees to the effect that the intent supported limiting competition, and the marketing staff devised the plan, not the engineering/product development department.<sup>308</sup> Testimony further emphasized that the bits of interest, a small percent of *Hughes* sales,<sup>309</sup> were designed for and used in softer rock formations. Bearings from those bits survived, allowing re-tipping, whereas those used in hard

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<sup>304</sup> See *Morton Salt*, 314 U.S. at 493. See also *supra* Section IV.C.

<sup>305</sup> See *Du Pont*, 729 F.2d at 139-40.

<sup>306</sup> See *Hughes*, 215 F.2d at 939 ("The record discloses that when *Hughes* changes the prices of its bits, its competitors change their prices to correspond to the prices set by *Hughes*.").

<sup>307</sup> See *Hughes*, 114 F. Supp. at n. 78.

<sup>308</sup> See *id.* at n. 89 ("Mr. Meyer corroborated the fact that the sales department originated the lease agreement.").

<sup>309</sup> See *id.* at n. 88 ("only a small percentage of the bits are capable of being retipped.").

rock applications typically were destroyed by use, meaning that re-tipping was not at issue. Hughes had a smaller market share for bits for soft rock formations.<sup>310</sup>

Enforcement of the lease-only policy was far stronger in hard-rock areas (3% re-tipped) than in the soft (up to 35-40% re-tipped). In part the differential is attributable to drilling characteristics as it affects the integrity of dulled bits,<sup>311</sup> as well as greater competition in the soft rock areas where Hughes did not have the superior technology, but if the lease policy predicated on product improvement, one would anticipate similar enforcement levels.<sup>312</sup> This interpretation is strengthened by testimony that Hughes pursued only the small re-tippers, not their large oil company customers,<sup>313</sup> although presumably the engineering information which could be developed from an examination of the used bits would be similar for both groups of users. That is, there is a strong indication that sales and competition considerations in areas dominated by Hughes products prevail over product development and customer service. The cost consequence for drillers was notable. One operator estimated that the use of re-tipped bits saved nearly 15 percent of his 'bit costs'.<sup>314</sup>

If, as appears to be the case, the lease arrangement was intended to suppress competition and Hughes was enjoined from continuing, how then might it proceed, particularly as regards access to worn bits for product improvement purposes? One approach would be to examine the bits once completely worn out and worthless, whether that be following the initial or subsequent use. Likely the technical information would not be as evident for the re-tipped bits, but some information would be available. Alternatively, or additionally, it could purchase the used bits identified by the field men as notable, or simply purchase a random sample for examination. These approaches would be less profitable than the one in suit, but the "primary purpose of our patent laws is not the creation of private fortunes for the owners of patents."<sup>315</sup>

## *B. Toner Cartridges*<sup>316</sup>

### *1. Repair v. Reconstruction*

The toner ink is the less permanent component of an ink cartridge and, following *Arlo Mfg. Co.*,<sup>317</sup> its replacement is a repair, not a reconstruction. Indeed, Lexmark never charged any of its multiple alleged infringers with illegal reconstruction.

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<sup>310</sup> See *Hughes*, 215 F.2d at 938 ("[Competitor firms] afforded effective competition with Hughes' bits, especially those designed for drilling in softer formations.").

<sup>311</sup> See *Hughes*, 114 F. Supp. at 550-51.

<sup>312</sup> See *id.*

<sup>313</sup> See *id.* ("No legal action was brought, or even threatened, against such large oil companies.").

<sup>314</sup> See *id.* at n. 4 (the use of re-tipped bits saved about \$ 30,000 over total annual bit costs of \$ 200,000)

<sup>315</sup> See *Static Control Components*, 615 F.Supp. 2d at 581 (Citing *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, 243 U.S. 502, 511 (1917)).

<sup>316</sup> See *supra* Section III.B.

<sup>317</sup> See *Arlo Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 366 (1961).

## 2. Patent Exhaustion/Implied License

Many of the past patent exhaustion cases apply to extensions of the patent monopoly to unpatented components, be they staples or non-staples. Lexmark's cartridges though are patented in their own right rendering that case law non-applicable.<sup>318</sup> Nonetheless, the case law indicates no *per se* restriction over post-sale use limitations for patented products, as was recently re-iterated in *Lexmark*.<sup>319</sup> There was no testimony to the effect that consumers were from the box label not aware of the use limitations and compensated, in the form of a 20 percent discount from the unrestricted use cartridges.<sup>320</sup> The existence of the box labels similarly does away with the potential for an implied license.<sup>321</sup>

As with the rotary drill bit case,<sup>322</sup> relief for an infringer then requires a showing of an antitrust violation. Specifically, that violation would need to be a Sherman Act Section 2 (monopolization) charge, as there is no suggestion of price fixing or tying. The analysis must begin with an appraisal of Lexmark's market power in the United States, which is typically related to its market share. One measure of market share for printer cartridges is a company's share of the U.S. printer market. For Lexmark in 2010 that was just seven percent<sup>323</sup> in a declining market with HP continuing to hold the dominant position with a share in the low 40s.<sup>324</sup> By this measure, Lexmark is not a dominant player and the printer market appears to be generally competitive.

There is another way to measure printer cartridge market share, and that is the share of replacements sold for a particular brand/model of printer. According to one study:<sup>325</sup>

Survey evidence shows that consumers have little knowledge of replacement ink prices when they purchase printers. As a result, they become locked in to particular aftermarkets. Only competition in those aftermarkets can discipline price—competition in the printer market is not effective to restrain aftermarket ink prices. Consequently, printer makers have unambiguous incentives to exclude rivals from the replacement ink aftermarkets. Methods for exclusion include the assertion of questionable design patents and the modification of products without corresponding consumer benefits. At

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<sup>318</sup> See *supra* Section III.A.

<sup>319</sup> See *Lexmark*, 816 F.3d. 721.

<sup>320</sup> See *supra* Section III.B.

<sup>321</sup> See *supra* Section IV.B.

<sup>322</sup> See *supra* Section V.A.

<sup>323</sup> Larry Dignan, *HP grabs printer market share. Between the Lines*, Sept. 1, 2010, available at <http://www.zdnet.com/article/hp-grabs-printer-market-share/>. Last visited 8/29/16.

<sup>324</sup> Anne Shields, *HP's Revenue Growth Continues to Flag in 3Q15*, MARKET REALIST, Sept. 24, 2015, available at <http://marketrealist.com/2015/09/hps-revenue-growth-continues-flag-3q15/>. Last visited 8/29/16.

<sup>325</sup> Robert E. Hall, *The Inkjet Aftermarket: An Economic Analysis*, NU-KOTE INTERNATIONAL AND STANFORD UNIV. Aug. 8, 1997. Available at <http://web.stanford.edu/~rehall/Inkjet%20Aftermarket%201997.pdf>. Last visited 8/29/16. The study focused specifically on ink jet cartridges while the Lexmark cases are for laser printers, but there is no reason to believe the two cartridge markets perform differently.



present, printer makers enjoy high market shares in their own after-markets and they do not compete in each other's' aftermarkets.

Stated more succinctly, "The industry figured out years ago that once people buy a printer they are committed to it, so you can sell the printer at or below cost knowing they will buy the cartridges."<sup>326</sup> "Everyone complains about the price of ink, but consumers do not do a net-present-value analysis when shopping -- we only do it with higher-ticket items."<sup>327</sup>

This describes the 'Razor Blade' marketing model<sup>328</sup> which of course is not illegal, particularly if there is a legitimate business purpose for the behavior. Recall that Lexmark critiqued poorly performing third-party refilled cartridges as damaging the product reputation and hurting sales.<sup>329</sup> For those wishing to avoid the use restrictions there were undiscounted 'Regular' cartridges available. Therein though seems to lie a contradiction. If (illegally) third-party refilled 'Return' cartridges malfunctioned more frequently, sullyng Lexmark's reputation, why would not the same apply to the 'Regular' cartridges, except that their refilling is non-infringing? Moreover, the geographical targeting of cartridges prevents a cartridge bought in Europe from working in a model made for North America, preventing the use of illegally imported 'grey market' cartridges.<sup>330</sup> Conversely of course, a North American customer who took his/her printer to Europe for use would quickly find the replacement cartridges available there would not function. Would not such malfunctions be blamed on Lexmark as well, as indeed it is a designed-in product 'flaw'?

Viewed from this perspective, the reputation-protection justification for the cartridge use restriction sounds more like an excuse than a legitimate business justification. Still, it would be difficult to present a firm with an underlying single digit market share in printers as a monopolist in the Sherman Act sense.

### 3. Patent Misuse

Consider possible patent misuse, with its lower level of proof required, and within it the potential for an FTC Act Section 5 violation, with emphasis on unfair business practices.<sup>331</sup> According to court interpretations, Section 5 is not violated short of "an anticompetitive purpose or cannot be supported by an independent legitimate reason."<sup>332</sup> There indeed is a legitimate reason for the 'Return Program', the protection of the Lexmark reputation, and subsequent printer sales, in the face of independent, low quality re-fillers. What there is not is a clear legitimate business reason for is the full use 'Regular' cartridges. Measures to prevent the importation of empty cartridges

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<sup>326</sup> Quoted in Lamont Wood, *Printer ink: Tired of feeding the cash cow?*, COMPUTERWORLD, Mar. 28, 2012, available at <http://www.computerworld.com/article/2503134/computer-hardware/printer-ink--tired-of-feeding-the-cash-cow-.html>. Last visited 8/31/16.

<sup>327</sup> *See id.*

<sup>328</sup> *See supra* Section II.

<sup>329</sup> *See supra* Section III.B.

<sup>330</sup> *See id.*

<sup>331</sup> *See supra* Section IV.C.

<sup>332</sup> *See Du Pont*, 729 F.2d at 139-40; *see also supra* Section V.A.

further leads to a suspicion the ban is for suppressing competition.<sup>333</sup> Facilitating the recycling of empty cartridges is another possible legitimate business justification. Hewlett Packard, among other cartridge manufacturers, emphasizes the degree of recycling carried out at its specialized facility made possible by returning cartridges to them. "And if they can't refill it, it's going to a landfill," said Walter [plant manager for the HP recycling operation]. "Versus us, nothing goes into a landfill."<sup>334</sup>

Of course, centralized recycling is typically less efficient than re-use or local community recycling, which is increasingly available, and any recycling less efficient than re-use. Indeed, in 2009 as part of a recycling act the EU banned chips which prevent consumers from refilling cartridges.<sup>335</sup> While the business purposes for the 'Return Program' cartridge system are somewhat dubious, the anticompetitive consequences are all too evident, the suppression of competition.

That is the 'unfair business practices' component of Section 5. There is also the consumer protection-oriented 'unfair or deceptive acts or practices' component of Section 5.<sup>336</sup> It can be argued that consumers are being misled on their printer/cartridge purchases in two regards, one being an overstatement of performance problems with third-party refilled cartridges. An article identifies possible printer damage, cartridge failure, and low quality ink as possible problems with using third party cartridges.<sup>337</sup>

These are difficult charges to refute short of a systematic sampling and testing, not easily done. *PC World* working with the staff from the Rochester Institute of Technology did though undertake one such systematic test. The basic finding concluded "that all of the third-party inks in our test group yielded more prints per cartridge--on top of costing less--but that, with some notable exceptions, the printer manufacturers' ink we evaluated usually produced better-quality prints and proved more resistant to fading."<sup>338</sup> Evidently, the low-cost benefits of discount cartridges are not complete as there are some quality differences, at least for the tested products. But the differences are ones consumers can readily observe and evaluate for themselves. More generally, according to a self-styled 'geek', "I am convinced that many of the rumors about head-clogging attributed to clone ink are planted in the forums to confuse people trying to do research on the Internet. You simply cannot find an honest

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<sup>333</sup> "Name brand printer manufacturers go to great lengths to make doing business difficult for compatible cartridge suppliers. For example, they may design their toner cartridges or printers with patented parts so that a compatible would be difficult to manufacture without violating the patents or copyrights." *Hardboiled*, "Cheap Toner: Compatible versus OEM toner cartridges." Dec. 23, 2014. Available at <https://blog.neweggbusiness.com/buying-guides/cheap-toner-compatible-versus-oem-toner-cartridges/>. Last visited 8/31/16.

<sup>334</sup> Quoted in Matthew Murray, *Should you refill your printer's ink cartridges? HP says no (of course)*, EXTREMETECH, Apr. 24, 2012, available at <http://www.extremetech.com/computing/126821-should-you-refill-your-printers-ink-cartridges-hp-says-no-of-course/2>. Last visited 8/30/16.

<sup>335</sup> Matthew Humphries, *EU bans "clever chips" in printer cartridges*, GEEK, Dec. 23, 2002, available at <http://www.geek.com/chips/eu-bans-clever-chips-in-printer-cartridges-547917/>. Last visited 8/30/16.

<sup>336</sup> Ch. 49, § 3, 52 Stat. 111 (1938).

<sup>337</sup> Ashley Poland, *Disadvantages to Refill Cartridges*, SMALL BUSINESS UNDATED, available at <http://smallbusiness.chron.com/disadvantages-refill-cartridges-64849.html>. Last visited 8/30/16.

<sup>338</sup> *PCWorld* Staff, "Cheap Ink: Will It Cost You?" Jun 23, 2008. Available at <http://www.pcworld.com/article/147267/ThirdPartyInk.html>. Last visited 8/30/16.

forum.”<sup>339</sup> Thus there is reason to believe that printer manufactures overstate the problems with refilled cartridges for their benefit, thereby misleading consumers.

A second form of misleading consumers is the employment of the ‘razor blade’ marketing model. The model is certainly not illegal *per se*, but its success does depend on consumers weighing the (low) initial cost more heavily than the (high) ongoing cost, or ignoring future costs altogether. That is their right, but additional information provided at the time of purchase would help mitigate that short term financial perspective. For example, if the posted printer purchase price includes a per-page ink cost for both manufacturer cartridges and a representative third-party product, consumers could make a more informed decision. As an example of required full cost reporting, legislation now mandates a reporting of all fees for a leased vehicle,<sup>340</sup> although admittedly that is a far larger and more complex financial arrangement than for a computer printer.

Overall as regards the consumer protection aspects of Section 5, the application of the ‘razor blade’ model to printer cartridges has a material effect on consumers. Manufacturer cartridges cost 50 percent and above over those provided by third parties.<sup>341</sup> In a market with North American annual sales of \$ 23.7 billion<sup>342</sup> that is a significant cost. However, while marketers may take advantage of a limitation of many consumers who do not evaluate lifetime costs, there is minimal evidence beyond the possible hyping of benefits of purchasing ‘genuine’ cartridges, of a specific intent to mislead consumers. Sellers more likely exclude useful information rather than provide it in a misleading way. And of course, with a little arithmetic, consumers can avoid being enticed by the razor blade model. Thus, there is little evidence for the violation of the consumer protection component of Section 5 of the FTC Act.

### C. Section Conclusions

From the preceding I conclude that, while the evidence of the Hughes Tool Co. lease-only policy falls short of an apparent antitrust violation, I do conclude it is liable for patent misuse based on the lower evidence standard for a FTC Section 5 violation, as interpretable by an infringement court. The marketing of drill bits being integral products does not involve a razor blade marketing approach, but the consumer loss attributable to the leasing policy nonetheless was potentially significant.

The situation with the Lexmark printer cartridges is different in that the company very much, along with the rest of the industry, gives every evidence of following the

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<sup>339</sup> John C. Dvorak, *The Secret Printer Companies Are Keeping From You*, PC WORLD, Sept. 6, 2012, available at <http://www.pcmag.com/article2/0,2817,2409373,00.asp>. Last visited 8/30/16.

<sup>340</sup> Consumer Leasing Act. 15 USC 1667 et seq. Synopsis available at FTC, “Understanding Vehicle Financing”. Available at <https://www.consumer.ftc.gov/articles/0056-understanding-vehicle-financing#federal>. Last visited 8/30/16.

<sup>341</sup> *Castleink*. “You can in fact opt to buy less expensive compatible ink cartridges or remanufactured cartridges, often realizing a savings of between 50% and 75%.” 2016. Available at <http://www.castleink.com/category/203/Buying-Brand-Name-vs.-Compatible-Ink-Cartridges.html>. Last visited 8/31/16.

<sup>342</sup> *Statista*, “Printer cartridge revenue in North America 2007-2015”, (2016), available at <http://www.statista.com/statistics/204470/printer-cartridge-revenue-in-north-america-since-2007/>. Last visited 8/31/16.

'razor blade' marketing model. There is nothing illegal about that approach, but it does require that firms strive diligently to limit competition from re-fillers. The restricted use Return Program cartridges followed by the ongoing infringement litigation are in line with that effort. Is it though illegal? Arguably it does not rise to the level of a Sherman or Clayton Act violation and hence does not fit patent exhaustion under recent interpretations by the courts. The explicit licensing agreement of those Return Program cartridges certainly voids any implied license. What does appear to be triggered is patent misuse under the weaker standards of Section 5 of the FTC Act, the third major form of antitrust legislation, along with the Sherman and Clayton Acts. Implicated is the unfair methods of competition aspect, not the consumer protection component, even if there is reason to believe manufacturers overstate the perils of using refilled cartridges.

A patent misuse decision by the courts would render the underlying patents unenforceable, terminating the infringement suits. Re-fillers of Lexmark (and other firms') printer cartridges would be free to provide competition, bringing down printing costs for consumers. Lexmark and other printer manufacturing companies could use contract violation to prevent refilling, but not infringement actions. And they could continue to present, with some justification, their genuine products as superior, but consumers would have an option.

## VI. CONCLUSIONS

Specific conclusions regarding the two case studies examined here, for rotary drill bits and computer printer cartridges, are straightforward. Recent decisions on patent exhaustion which allow broad exceptions for conditional sales—restrictive licenses—place those two case examples outside exhaustion save for an antitrust violation. Both of the case examples have the requisite market power to trigger antitrust concerns, Hughes Tool Co. in absolute market share with limited technical competition, and Lexmark because standard restrictive practices such as a patented cartridge design mean that owners of Lexmark printers are limited to Lexmark-styled cartridges. But with no conspiracy or meeting of the minds alleged and no tying, monopolization remains the principal option among the major antitrust acts. Monopolization though presents a high bar.

Where my conclusions differ from those of the courts is in the lack of attention to potential patent misuse. Patent misuse is the unwarranted extension of the patent monopoly, frequently evidenced by a near-antitrust violation. The 'near' distinction is significant for the level of proof required for patent misuse is lower than that for antitrust. And when Section 5 of the Federal Trade Commission Act<sup>343</sup> is included among the forms of antitrust legislation to be considered, something the courts have not done in infringement cases, the bar is further lowered, Section 5 can be applied to behavior in its incipiency without the requirement to show individual harm. Section 5 cases are typically resolved by the FTC with cease-and-desist agreements, but when applied by the courts to patent misuse cases there is no reason other remedies cannot be applied.

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<sup>343</sup> 15 U.S.C. § 45(a)(1).

Here I propose that, under a Section 5 assessment, both Hughes Tool Co. and Lexmark are guilty of patent misuse, which renders their patents unenforceable, terminating the infringement cases. As justification I argue the restrictive sales agreements used by both were done with a primary anticompetitive intent of limiting competition from refurbished products. The term ‘primary’ is used because the stated legitimate business justification for the restrictive sales terms was either inconsistent with the evidence, or stronger than required to achieve the stated objective. In short, the restrictions are anticompetitive, in the case of Lexmark allowing the implementation of the ‘razor blade’ marketing model, leading to long term higher total costs for consumers.

Those are my specific conclusions. More generally I argue that the courts, and the appeals courts in particular in the two model cases examined here, set too low a bar when evaluating a ‘legitimate business purpose’. It is as if the courts’ inquiry ends when a legitimate business purpose is identified, without considering whether that stated purpose reflects the true intent of the sales restrictions.

Consider an example when the courts have been more probing in their appraisal of a series of voter ID laws enacted in six states.<sup>344</sup> State legislators justified the laws by citing the prevention of voter fraud, which would entail misrepresenting identity for those not eligible to vote (such as non-citizens) or possible multiple voting. An example is the North Carolina General Assembly which on July 23, 2013 adopted HB 589 specifying in Part 2(a), “Every qualified voter voting in person in accordance with this Article, G.S. 163-227.2, or G.S. 163-182.1A shall present photo identification.” with Part 2(e) defining ‘photo identification’ in terms of the acceptable forms of ID. The bill does not specify the justification for the requirement beyond what can be inferred from the full title: “An Act to restore confidence in government by establishing the voter information verification act to promote the electoral process through education and increased registration of voters and by requiring voters to provide photo identification before voting to *protect the right of each registered voter to cast a secure vote with reasonable security measures that confirm voter identity* as accurately as possible without restriction, and to further reform the election laws.”<sup>345</sup> As a further connection, the 2016 Republican Party platform – the North Carolina law was passed 73 to 41 exclusively by Republican lawmakers<sup>346</sup> - supports voter ID requirements based on possible ‘abuse’. “We are concerned, however, that some voting procedures may be open to abuse. For this reason, we support legislation to require proof of citizenship when registering to vote and secure photo ID when voting.”<sup>347</sup>

During a preliminary case challenging the North Carolina legislation Judge Schroeder noted, regarding the pre-HB 589 procedures in place, “[P]oll workers did not

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<sup>344</sup> List available at ACLU, “Voter Suppression Laws: What’s New Since the 2012 Presidential Election”. Available at <https://www.aclu.org/map/voter-suppression-laws-whats-new-2012-presidential-election>. Last visited 9/6/16 (an additional 11 having legislation limiting voting access by establishing additional registration mandates and/or curtailing polling place availability).

<sup>345</sup> North Carolina General Assembly HB 589 Part 2(e) (emphasis added).

<sup>346</sup> William Wan, “Inside the Republican creation of the North Carolina voting bill dubbed the ‘monster’ law”. *Washington Post* Sept. 2, 2016 at 6. Available at [https://www.washingtonpost.com/politics/courts\\_law/inside-the-republican-creation-of-the-north-carolina-voting-bill-dubbed-the-monster-law/2016/09/01/79162398-6adf-11e6-8225-fbb8a6fc65bc\\_story.html](https://www.washingtonpost.com/politics/courts_law/inside-the-republican-creation-of-the-north-carolina-voting-bill-dubbed-the-monster-law/2016/09/01/79162398-6adf-11e6-8225-fbb8a6fc65bc_story.html). Last visited 9/8/16.

<sup>347</sup> See “Republican Platform 2016” at 16.

have access to the signatures [of registrants], either during early voting or on Election Day. Accordingly, signatures were not verified at the polling place and, unless the poll worker knew the voter, the poll worker had very limited means of determining whether the voter was the same person as the registrant."<sup>348</sup> This seemingly lax approach suggests the potential for fraud. And indeed Judge Schroeder, following a detailed investigation of the actual effects of the legislation, concluded, "North Carolina's voter-ID requirement, now with a reasonable impediment exception, serves legitimate State interests."<sup>349</sup>

The appeals court reached a sharply different conclusion by examining the likely motivations for the law, using data and logic to reject the justification for photo ID as a fraud-prevention measure.

"The photo ID requirement here is both too restrictive and not restrictive enough to effectively prevent voter fraud; "[i]t is at once too narrow and too broad.' First, the photo ID requirement, which applies only to in-person voting and not to absentee voting, is too narrow to combat fraud. On the one hand, the State has failed to identify even a single individual who has ever been charged with committing in-person voter fraud in North Carolina. On the other, the General Assembly did have evidence of alleged cases of mail-in absentee voter fraud.<sup>350</sup>

The photo ID requirement is also too broad, enacting seemingly irrational restrictions unrelated to the goal of combating fraud. This overbreadth is most stark in the General Assembly's decision to exclude as acceptable identification all forms of state-issued ID disproportionately held by African Americans. The State has offered little evidence justifying these exclusions. Review of the record further undermines the contention that the exclusions are tied to concerns of voter fraud. This is so because voters who lack qualifying ID under SL 2013-381 may apply for a free voter card using two of the very same forms of ID excluded by the law. Thus, forms of state-issued IDs the General Assembly deemed insufficient to prove a voter's identity on Election Day are sufficient if shown during a separate process to a separate state official.<sup>351</sup>

It can be noted that independent evaluations of the prevalence of in-person voter fraud found it to be infinitesimally small. *News21* in an analysis of over 2,000 alleged voter fraud cases nation-wide for example found only 10 involving impersonation.<sup>352</sup>

Having rejected the proffered justification for the stricter ID standards the appeals court sought other reasons, and located them in the form of racial

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<sup>348</sup> N.C. State Conf. of the NAACP v. McCrory, 2016 U.S. Dist. LEXIS 55712 (M.D.N.C., Apr. 25, 2016) at 18019.

<sup>349</sup> *Id.* at 605 (citation omitted).

<sup>350</sup> N.C. State Conf. of the NAACP, 2016 U.S. App. LEXIS 13797, at \*62, 63 (citing *Romer v. Evans*, 517 U.S. 620, 633 (1996)).

<sup>351</sup> *See id.* at 63-64 (citations omitted).

<sup>352</sup> *News21*, "Comprehensive Database of U.S. Voter Fraud Uncovers No Evidence That Photo ID Is Needed." Aug. 12, 2012. Available at <http://votingrights.news21.com/article/election-fraud/>. Last visited 9/15/16.

discrimination. “The only clear factor linking these various ‘reforms’ [in the legislation] is their impact on African American voters. The record thus makes obvious that the ‘problem’ the majority in the General Assembly sought to remedy was emerging support for the minority party. Identifying and restricting the ways African Americans vote was an easy and effective way to do so. We therefore must conclude that race constituted a but-for cause.”<sup>353</sup>

Following a similar logical process, the appeals court in *Lexmark*<sup>354</sup> might have questioned why Lexmark sold non-restricted cartridges which would allow refilling when the stated justification of the Return Program use limitations included the protection of the company reputation from improper re-fillers. If the proposed justification, while seemingly a legitimate business purpose, is inconsistent with the stated goal then a secondary explanation is needed. From *Du Pont*, “If, for instance, a seller's conduct, even absent identical behavior on the part of its competitors, is contrary to its independent self-interest, that circumstance would indicate that the business practice is “unfair” within the meaning of § 5 [of the FTC Act].”<sup>355</sup>

In *Lexmark*<sup>356</sup> that explanation is the anti-competitive intent, as with *N.C. State Conf. of the NAACP v. McCrory* it was voter suppression which in a discriminatory way equilibrated Democratic voters with African Americans. “But intentionally targeting a particular race’s access to the franchise because its members vote for a particular party, in a predictable manner, constitutes discriminatory purpose.”<sup>357</sup> Generally, “[C]ourts must scrutinize the legislature’s actual non-racial motivations to determine whether they alone can justify the legislature’s choices.”<sup>358</sup>

What is proposed here then is the courts need to be more probing when evaluating restrictive use requirements for patented products. Very likely some legitimate business purpose is served, but is it the principal purpose? Recalling that the patent monopoly concept is constructed on the basis of a carefully crafted balance between public and private benefit, does the restriction balance public and private benefit, or is the benefit greatly skewed to the patent owner and costs to consumers?

These are non-trivial economic decisions for the courts to make, although they can be proxied by examining intent, not the economic consequences. In aggregate the consequences extend beyond the particulars of an individual case to the continued existence of patent exhaustion: if all that is required to avoid patent exhaustion is the addition of a use condition on sale or lease, then that is what will happen. As stated in dissent in *Lexmark* by judges Dyk and Hughes, “Allowing the patent holder to impose conditions on the sale of a patented item would indeed largely eviscerate the exhaustion doctrine.”<sup>359</sup> And a patent system absent patent exhaustion provides a skewed public/private benefit division.

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<sup>353</sup> See *id* at 70-71.

<sup>354</sup> See *Lexmark*, 816 F.3d. 721.

<sup>355</sup> See *Du Pont*, 729 F.2d at 139-40. See also *supra* Section V.A.

<sup>356</sup> See *Lexmark*, 816 F.3d. 721.

<sup>357</sup> *N.C. State Conf. of the NAACP*, 2016 U.S. App. LEXIS 13797, at \*29.

<sup>358</sup> See *id.* at 25.

<sup>359</sup> See *Lexmark*, 816 F.3d at 780.