

TOTAL PATENT EXHAUSTION!

SAMUEL F. ERNST¹

ABSTRACT

*The exhaustion doctrine generally provides that when a patent holder sells or authorizes another party to sell a patented item, the patent rights in that item are exhausted, and the patent holder cannot pursue that product down the stream of commerce to demand royalties from each party that subsequently acquires the item. Patent holders have often sought to evade patent exhaustion by drafting licensing agreements attending or authorizing the sale of their patented products that place restrictions on the use of the patented item or otherwise provide that no patent exhaustion has occurred. In *Impression Products v. Lexmark*, the Supreme Court held that such post-sale restrictions are ineffective to prevent patent exhaustion.² This overruled Federal Circuit precedent holding that contractual restrictions to evade exhaustion were effective so long as they did not run afoul of antitrust laws or constitute patent misuse. This author has long argued that the Federal Circuit's interpretation of Supreme Court precedent was incorrect—that post-sale restrictions could not prevent patent exhaustion, as set forth in cases dating from the 1917 case *Motion Picture Patents v. Universal Film* to the 2008 case *Quanta Computer v. LG Electronics*.³*

¹ Associate Professor of Law, Golden Gate University.

² *Impression Prods., Inc. v. Lexmark Int'l, Inc.*, 137 S. Ct. 1523, 1535 (2017).

³ See Samuel F. Ernst, *Patent Exhaustion for the Exhausted Defendant: Should Parties be able to Contract Around Exhaustion in Settling Patent Litigation?*, U. ILL. J.L. TECH. & POL'Y 445 (2014) [hereinafter Ernst, *Exhausted Defendant*]; Samuel F. Ernst, *Why Patent Exhaustion Should*

A per se prohibition on contracting around exhaustion is justified by multiple policy principles, including (1) the policy against restraints on alienation of personal property; (2) the policy against compensation for patent holders above what is necessary to promote invention (commonly known as “double-recovery”); (3) the need to protect the boundary between federal patent law and the common law of contracts and property; and (4) all of these policies in addition to judicial efficiency when parties attempt to evade exhaustion in drafting a patent license agreement to settle litigation.

Some scholars argue that contracting around exhaustion allows for welfare gains such as increased output and vertical price discrimination. These scholars contend that the policy against restraints on alienation is a misunderstood and outdated relic of the common law; and that the policy against double-recovery has no empirical justification. To the contrary, total exhaustion protects modern consumers by preserving the used resale market, reducing the cost of goods, and protecting consumers from being locked into particular brands and secondary products. Arguments against total exhaustion for consumer goods fail to account for the inefficiencies of personal property servitudes, such as the uncertainty and research costs resulting from post-sale restrictions, hidden costs of products through tied secondary products, notice costs for licensed manufacturers, and the need for costly litigation to test the validity of contractual restrictions under rule of reason economic analysis—litigation that will rarely occur because it is beyond the reach of the great majority of consumers.

In short, the Supreme Court was correct as a matter of its own precedent and of sound policy that contractual

Liberate Products (And Not Just People), 93 DENV. L. REV. 897 (2016). [hereinafter Ernst, *Liberate Products*].

post-sale restrictions are wholly ineffective to prevent exhaustion, regardless of whether they run afoul of antitrust law or constitute patent misuse. Patent law is not the poor stepchild of antitrust law. It pursues separate policies. Moreover, to the extent contracting around exhaustion is economically desirable for high-end, non-consumer goods, the Court's opinion does not result in absolute exhaustion in all circumstances. Pre-sale restrictions and leases may remain viable options for patent holders to evade exhaustion. For high-end, non-consumer products where there are lower transaction and notice costs relative to the price of the product, these avenues are practicable, and the concerns with servitudes and double recovery adhering in the consumer goods context are ameliorated.

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I. INTRODUCTION

The classic articulation of the patent exhaustion doctrine is that when a patent holder sells its patented product (or licenses a manufacturer to do the same), all of the patent holder's patent rights in that product are

exhausted.⁴ The patent holder may not thereafter use patent law to chase the patented product down the stream of commerce and sue subsequent purchasers for patent infringement, place restrictions on how the article might be used, place restrictions on which secondary products may be used with the product, or place any other restrictions on the use or disposal of the patented product: “[T]he right to vend is exhausted by a single, unconditional sale, the article sold being thereby carried outside the monopoly of the patent law and rendered free of every restriction which the vendor may attempt to put upon it.”⁵

As so articulated, patent exhaustion serves as a consumer protection doctrine. In the context of patented consumer products, total patent exhaustion provides multiple benefits to consumers. Patent exhaustion reduces the cost of goods by preserving a used resale market; allows for competition in the market for secondary goods to be used with patented products; prevents consumer lock-in to particular brands of products; prevents hidden costs to consumers; and reduces costs associated with researching

⁴ *Quanta Comput., Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625 (2008) (“The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item.”); *Adams v. Burke*, 84 U.S. 453, 455 (1873) (“We have repeatedly held that where a person had purchased a patented machine of the patentee or his assignee, this purchase carried with it the right to the use of that machine so long as it was capable of use, and that the expiration and renewal of the patent, whether in favor of the original patentee or of his assignee, did not affect this right.”); *Bloomer v. McQuewan*, 55 U.S. 539, 549 (1852) (“[W]hen the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.”); *see also* Timothy B. Dyk & Samuel F. Ernst, *Patents, in BUSINESS AND COMMERCIAL LITIGATION IN FEDERAL COURTS* § 98:58, at 895–96 (Robert L. Haig, ed., West 4th ed. 2016) (explaining the elements of patent exhaustion).

⁵ *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 517 (1917).

the restrictions that would otherwise encumber patented products.⁶

One need not reach far for examples of these consumer benefits. A new automobile likely practices the claims of hundreds or even thousands of patents.⁷ If those patent rights were not exhausted on the first sale of the car, the patent holders could use their patent rights to place restrictions on the resale of the car, the type of parts used to repair the car, or even the brand of gasoline to be used in the car.⁸ Were it not for exhaustion, the John Deere Company,

⁶ Cf. Aaron Perzanowski & Jason Schultz, *Copyright Exhaustion and the Personal Use Dilemma*, 96 MINN. L. REV. 2067, 2116–20 (2012) [hereinafter Perzanowski & Schultz, *Copyright Exhaustion*] (describing how copyright exhaustion protects consumers’ personal use of copies of works they own); Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 894–901 (2011) [hereinafter Perzanowski & Schultz, *Digital Exhaustion*] (detailing consumer protection benefits of copyright exhaustion); Molly Shaffer Van Houweling, *The New Servitudes*, 96 Geo. L. REV. 885, 932–950 (2008) (describing the harms associated with servitudes running with personal property). The reader should note that this article does not discuss the welfare costs and benefits resulting from the Supreme Court’s other holding in *Impression Products* – that the authorized sale of a patented product abroad triggers exhaustion of U.S. patent rights. See *Impression Prods., Inc.*, 137 S. Ct. at 1535. For an excellent discussion of these complicated issues see Daniel J. Hemel & Lisa Larrimore Ouellette, *Trade and Tradeoffs: The Case of International Patent Exhaustion*, 116 COLUM L. REV. SIDEBAR 17, 20–31 (2016).

⁷ See Ernst, *Liberate Products*, *supra* note 3, at 901; Dan L. Burk & Mark A. Lemley, THE PATENT CRISIS AND HOW THE COURTS CAN SOLVE IT 53–54 (2009) (discussing the fact that “new products are so complex that they can incorporate hundreds and even thousands of different inventions – inventions frequently patented by different companies.”).

⁸ *Impression Prods., Inc.*, 137 S. Ct. at 1532 (“Take a shop that restores and sells used cars. The business works because the shop can rest assured that, so long as those bringing in the cars own them, the shop is free to repair and resell those vehicles. That smooth flow of commerce would sputter if companies that make the thousands of parts that go into a vehicle could keep their patent rights after the first sale. Those

which is already attempting to use contract law to restrict how tractor owners may repair their tractors, could use the more powerful remedies of patent law to achieve such purposes.⁹ And as we saw in the recent Supreme Court case of *Impression Products v. Lexmark*, manufacturers of printer cartridges would like to use patent law to shut down the used resale market for toner cartridges, which would drive up the price for those products.¹⁰ Lexmark can no longer do so, because the Supreme Court held that “Lexmark exhausted its patent rights in these cartridges the moment it sold them.”¹¹

This overruled longstanding Federal Circuit precedent holding that patent holders could freely contract around exhaustion, so long as those contracts were not otherwise illegal. In 1992, a panel of the Federal Circuit held in *Mallinckrodt v. Medipart* that the manufacturer of patented aerosol mist delivery systems avoided patent exhaustion when selling their products to hospitals by stamping them with the legend, “Single Use Only.”¹² This allowed the patent holder to sue Medipart for infringement when it refurbished the spent devices and returned them to hospitals for additional use, thereby shutting down the used resale market.¹³ The Federal Circuit distinguished Supreme Court precedent finding such contractual devices ineffective to evade exhaustion by cabining it to situations where the contractual restrictions constituted patent misuse or *per se*

companies might, for instance, restrict resale rights and sue the shop owner for patent infringement.”).

⁹ See Kit Walsh, *John Deere Really Doesn't Want You to Own That Tractor*, ELECTRONIC FRONTIER FOUNDATION (Dec. 20, 2016), <https://www.eff.org/deeplinks/2016/12/john-deere-really-doesnt-want-you-own-tractor>.

¹⁰ *Impression Prods., Inc.*, 137 S. Ct. at 1529–30.

¹¹ *Id.* at 1531.

¹² *Mallinckrodt v. Medipart*, 976 F.2d 700, 702 (Fed. Cir. 1992).

¹³ *Id.* at 703.

antitrust violations.¹⁴ “Unless the [contractual restriction on patent exhaustion] violates some other law or policy (in the patent field, notably the misuse or antitrust law), private parties retain the freedom to contract concerning conditions of sale.”¹⁵

This holding was called into question in 2008 by the Supreme Court’s ruling in *Quanta Computer v. LG Electronics*.¹⁶ In that case, the Court held that when LG granted Intel the unconditional right to manufacture and sell its patented microprocessors, LG’s patent rights in the microprocessors were exhausted.¹⁷ Patent exhaustion prevented LG from suing Intel’s customer Quanta for patent infringement when Quanta purchased the microprocessors and resold them in its computer products.¹⁸ The Court held that LG’s rights were exhausted despite language in the contracts between LG and Intel disclaiming a patent license to third parties and requiring Intel to notify its customers that they could not combine the chips with non-Intel parts.¹⁹ The Court held:

Nothing in the License Agreement restricts Intel’s right to sell its microprocessors and chip sets to purchasers who intend to combine them with non-Intel parts. . . . [T]he 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 LGE patents.²⁰

¹⁴ *Id.* at 705.

¹⁵ *Id.* at 708.

¹⁶ *Quanta Comput., Inc.*, 553 U.S. at 638.

¹⁷ *Id.* at 636–37.

¹⁸ *Id.*

¹⁹ *Id.* at 635–37.

²⁰ *Id.* at 636–37.

For years after, *Quanta* commentators and courts debated the scope of its holding. Perhaps the holding was very narrow, such that the particular contract language at issue was insufficient to evade exhaustion, but if properly drafted, a patent-holder could avoid patent exhaustion with a post-sale restriction.²¹ Or perhaps the ruling was a broad decree that post-sale restrictions are ineffective to prevent patent exhaustion.²²

This author has long argued that *Quanta* overruled *Mallinckrodt* and that “[t]he Supreme Court’s opinion in *Quanta* likely abrogated the viability of post-sale restrictions to avoid patent exhaustion.”²³ In the Supreme Court’s 2017 decision in *Impression Products*, this view of *Quanta* was confirmed. The Court held that its precedent invalidating post-sale restrictions was not limited to restrictions that violated the antitrust laws.²⁴ In those cases “it was the sale of the items, rather than the illegality of the restrictions, that prevented the patentees from enforcing those resale price

²¹ See, e.g., Ann Layne-Farrar, *An Economic Defense of Flexibility in IPR Licensing: Contracting Around ‘First Sale’ in Multilevel Production Settings*, 51 SANTA CLARA L. REV. 1149, 1150 (2011) (“My decidedly non-legal reading of the Supreme Court’s decision in *Quanta* asserts that the Court did not rule out such contractual flexibility for patents.”); William LaFuze et al., *The Conditional Sale Doctrine in a Post-Quanta World and its Implications on Modern Licensing Agreements*, 11 J. MARSHALL REV. INTEL. PROP. L. 295, 315-16 (2011) (“[T]he proper interpretation is the one that leaves the scope of the conditional sale doctrine intact . . . [C]onditional sales and restricted licenses were not outlawed by *Quanta*. Both are still viable options . . .”).

²² See, e.g., *Static Control Components, Inc. v. Lexmark Int’l, Inc.*, 615 F. Supp. 2d 575, 585 (E.D. Ky. 2009) (deciding that “*Quanta* overruled *Mallinckrodt sub silentio*. 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.”).

²³ Ernst, *Exhausted Defendant*, *supra* note 3, at 455.

²⁴ *Impression Prods., Inc.*, 137 S. Ct. at 1533.

agreements through patent infringement suits.”²⁵ The Court continued that “if there were any lingering doubt that patent exhaustion applies even when a sale is subject to an express, otherwise lawful restriction, our recent decision in *Quanta*[] settled the matter.”²⁶

And so now we have total patent exhaustion. If a patent holder sells or authorizes another to sell its patented product, all patent rights in that product are exhausted, and the patent-holder cannot thereafter use patent law to restrict the use or resale of that item.²⁷

This article argues that the Court’s decision in *Impression Products* was correct as a matter of precedent and policy.

Part II argues that Supreme Court precedent as properly interpreted established a total bar on contracting around patent exhaustion in the sale of patented products since at least 1917, when the Court decided *Motion Picture Patents Company v. Universal Film Manufacturing Company*.²⁸ Contractual post-sale restrictions are ineffective to prevent patent exhaustion regardless of whether they violate the antitrust laws or constitute patent misuse.

Part III of this article argues that total patent exhaustion attending the sale of consumer products is grounded in sound policies. Patent exhaustion is necessary to effectuate the policy against restraints on alienation of personal property, as the Supreme Court observed in *Impression Products*.²⁹ Some scholars argue that this policy

²⁵ *Id.* (discussing *Boston Store of Chicago v. American Graphophone*, 246 U.S. 8 (1918) and *United States v. Univis Lens Co.*, 316 U.S. 241 (1942)).

²⁶ *Id.*

²⁷ *Id.* at 1538.

²⁸ *Motion Pictures Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917).

²⁹ *Impression Prods, Inc.*, 137 S. Ct. at 1532.

is a misunderstood and outdated notion of the common law that has no true welfare benefits.³⁰ These arguments disregard consumer welfare benefits of lower prices and information costs associated with patent exhaustion.³¹ Scholars further argue that vertical price discrimination provides welfare benefits and efficiencies that total patent exhaustion prevents.³² Part III contends that these arguments ignore frictions in the context of consumer goods that prevent these welfare gains and allow for harmful double recovery in the absence of total exhaustion.

Many of these arguments apply specifically to patent exhaustion for the sale of goods to consumers. Some argue that the ability to contract around patent exhaustion provides welfare benefits in the context of high-end products with many intermediaries.³³ Part IV argues that to the extent this is true, even under a total ban on post-sale restrictions to prevent patent exhaustion, there remain ways to contract around exhaustion. Companies can still employ pre-sale restrictions or lease agreements to evade patent exhaustion, and these devices are practicable in the context of high-end products, where there are less transaction and information costs relative to the high price of the products.³⁴

II. PRECEDENT: POST-SALE RESTRICTIONS HAVE BEEN INEFFECTIVE TO PREVENT EXHAUSTION SINCE AT LEAST 1917

The Federal Circuit's treatment of Supreme Court precedent in *Mallinckrodt* was less an inadvertent

³⁰ See Herbert Hovenkamp, *Reasonable Patent Exhaustion*, 35 Yale J. on Reg. 513 (2018).

³¹ See *infra* Part III.

³² See Hovenkamp, *supra* note 30.

³³ Olena Ivus et al., *An Economic Model of Patent Exhaustion* (San Diego Legal Studies Paper No. 17-265, CESifo Working Paper Series No. 6638, 2017).

³⁴ See *infra* Part IV.

misreading than it was an intentional overruling. The panel in that case held that merely by stamping the legend “single use only” on its patented aerosol medical devices, the patent holder evaded patent exhaustion in those devices.³⁵ The patent holder was thereby able to sue for patent infringement when the defendant refilled and resold the spent devices.³⁶ The Federal Circuit distinguished Supreme Court precedent finding such post-sale restrictions ineffective to prevent patent exhaustion on the basis that “[t]he restriction here at issue does not *per se* violate the doctrine of patent misuse or the antitrust law.”³⁷ In particular, the panel mischaracterized the Supreme Court’s 1917 case *Motion Picture Patents* as finding the contractual restriction at issue in that case ineffective to prevent exhaustion because it violated antitrust law:

In *Motion Picture Patents* a license notice was attached to patented movie projectors, stating that the purchaser had the right to use the machine only with motion picture films that were leased from the patentee. The defendant used a patented projector with films leased from other sources. The Court condemned the patentee’s tie-in as illegal, since it extended the ‘scope of its monopoly’ to materials which were not part of the patented invention.³⁸

The Federal Circuit thereby announced a new rule (to be found nowhere in *Motion Picture Patents*) that post-sale contractual limitations were effective to evade exhaustion so long as they were not otherwise illegal under antitrust or patent misuse doctrine.³⁹ The court cabined Supreme Court

³⁵ *Mallinckrodt*, 976 F.2d at 701.

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* at 704 (citing *Motion Picture Patents Co.*, 243 U.S. at 516).

³⁹ *Id.* at 701 (“Use in violation of a valid restriction may be remedied under the patent law, provided that no other law prevents enforcement of the patent.”).

cases with contrary holdings by stating that “[t]hese cases established that price-fixing and tying restrictions accompanying the sale of patented goods were *per se* illegal. These cases did not hold, and it did not follow, that all restrictions accompanying the sale of patented goods were deemed illegal.”⁴⁰

This constituted a misreading of *Motion Picture Patents* because in that case, the Supreme Court took great pains to make clear that it was not making a holding that the post-sale restriction at issue violated the antitrust laws. The plaintiff in that case, Motion Picture Patents, held a patent on methods of using film projectors and granted a license to a third party authorizing the manufacture and sale of projectors that practiced this method.⁴¹ Under facts nearly identical to *Mallinckrodt*, the licensee was required to affix a plate to the projectors it sold purporting to impose a post-sale restriction on the use of the projectors that they be used only with a particular type of film reel made by the patent holder.⁴² Then the patent holder sued Universal Film Manufacturing Company for patent infringement when that company supplied unauthorized film reels to end users of the projectors.⁴³

The Supreme Court held that the patent infringement claims had to be dismissed, not because the post-sale restriction violated the antitrust laws, but because the right to exclude is “exhausted by a single, unconditional sale, the article sold being thereby carried outside the monopoly of the patent law and rendered free of *every* restriction which the vendor may attempt to put upon it.”⁴⁴ The Court based its ruling on “the plain meaning of the statute,”—the *patent* statute—and observed that “[f]or more than a century this

⁴⁰ *Id.* at 704.

⁴¹ *Motion Picture Patents Co.*, 243 U.S. at 506.

⁴² *Id.* at 506–07.

⁴³ *Id.* at 508.

⁴⁴ *Id.* at 516 (emphasis added).

plain meaning of the statute was accepted as its technical meaning, and that it afforded ample incentive to exertion by inventive genius is proved by the fact that, under it, the greatest inventions of our time, teeming with inventions, were made.”⁴⁵ The Court did state that it is “confirmed in the conclusion which we are announcing” by the fact that Congress “has enacted a law making it unlawful for any person engaged in interstate commerce ‘to lease or make a sale or contract for sale of goods . . . on the condition, agreement or understanding that the lessee or purchaser thereof shall not use . . . the goods . . . of a competitor’”⁴⁶ But the Court explicitly states that “[o]ur conclusion renders it unnecessary to make the application of this statute to the case at bar.”⁴⁷ The Court found the post-sale restriction ineffective to evade exhaustion as a matter of patent law, not antitrust law, as it made clear again in *Impression Products*, when it stated, “it was the sale of the items, rather than the illegality of the restrictions, that prevented the patentees from enforcing those resale price agreements through patent infringement suits.”⁴⁸ The Federal Circuit’s statements in *Mallinckrodt* that the Supreme Court was applying antitrust law to invalidate post-sale restrictions therefore constituted an almost willful misreading of that precedent.

Any doubt that post-sale restrictions are ineffective to evade patent exhaustion should have been finally put to rest by the Supreme Court’s 2008 opinion in *Quanta*. In that case, LG authorized Intel to make and sell its patented microprocessors.⁴⁹ The Supreme Court held that LG thereby exhausted its patent rights in the microprocessors and could

⁴⁵ *Motion Picture Patents Co.*, 243 U.S. at 513.

⁴⁶ *Id.* at 517 (quoting Clayton Act, ch. 323, 38 Stat. 730 (1914) (current version at 15 U.S.C. § 14 (2012)) (ellipses added).

⁴⁷ *Id.* at 517 (emphasis added).

⁴⁸ *Impression Prods., Inc.*, 137 S.Ct. at 1533.

⁴⁹ *Quanta Comput., Inc.*, 553 U.S. at 636.

not sue Quanta for patent infringement when it purchased the devices from Intel and resold them in Quanta computers.⁵⁰ The Court held that LG’s statement in its license with Intel that it “disclaimed” any license to third party purchasers to practice its patents was ineffective to evade patent exhaustion.⁵¹ “[T]he 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.”⁵² There was no argument in *Quanta* that the post-sale restriction at issue in that case violated antitrust policy or constituted patent misuse, and the Supreme Court cites to no law other than the patent law in holding that the post-sale restriction was ineffective to evade exhaustion. Hence, the *Mallinckrodt* rule that post-sale restrictions are effective so long as they are not otherwise illegal was plainly abrogated by *Quanta*.

Nonetheless, the Federal Circuit persisted in the *Lexmark v. Impression Products* en banc opinion in holding that post-sale restrictions are effective to evade patent exhaustion so long as they are “otherwise lawful.”⁵³ In response, the Supreme Court made plain that this notion had long been contrary to Supreme Court precedent: “This Court accordingly has long held that, even when a patentee sells an item under an express restriction, the patentee does not retain patent rights in that product.”⁵⁴

⁵⁰ *Id.* at 635–37.

⁵¹ *Id.* at 637.

⁵² *Id.*

⁵³ *Lexmark Int’l v. Impression Prods., Inc.*, 816 F.3d 721, 742 (Fed. Cir. 2016) *rev’d en banc sub nom.*, *Impression Prods., Inc.*, 137 S. Ct. 1523 (2017).

⁵⁴ *Impression Prods., Inc.*, 137 S.Ct. at 1532-33 (citing *Quanta Comput., Inc.*, 553 U.S. 617 (2008); *Univis Lens Co.*, 316 U.S. 241 (1942); *Boston Store of Chicago*, 246 U.S. 8 (1918)).

III. POLICY IN FAVOR OF TOTAL PATENT EXHAUSTION

If patent exhaustion is not the poor stepchild of antitrust law, then what independent policies support the doctrine? One principle justification against allowing patent holders to contract around patent exhaustion is that it safeguards the policy against servitudes running with personal property. The Supreme Court has long relied on this policy in crafting a strong exhaustion doctrine. In 1917, in *Straus v. Victor Talking Machine Company*, the Court wrote:

Courts would be perversely blind if they failed to look through such an attempt as this ‘License Notice’ thus plainly is to sell property for a full price, and yet to place restraints upon its further alienation, such as have been hateful to the law from Lord Coke’s day to ours, because obnoxious to the public interest.⁵⁵

That same year in *Motion Picture Patents*, the Court held that the patent holder could not contract around exhaustion because “[t]he patent law furnishes no warrant for such a practice, and the cost, inconvenience, and annoyance to the public which the opposite conclusion would occasion forbid it.”⁵⁶ And one hundred years later, in *Impression Products*, the Court wrote that “exhaustion has ‘an impeccable historic pedigree,’ tracing its lineage back to the ‘common law’s refusal to permit restraints on the alienation of chattels.”⁵⁷ The Court quoted Lord Coke’s seventeenth century treatise to explain that “if an owner restricts the resale or use of an item after selling it, that restriction ‘is voide, because... it is against Trade and

⁵⁵ *Straus v. Victor Talking Mach. Co.*, 243 U.S. 490, 500–01 (1917).

⁵⁶ *Motion Picture Patents Co.*, 243 U.S. at 516.

⁵⁷ *Impression Prods., Inc.*, 137 S.Ct. at 1532 (quoting *Kirtseng v. John Wiley & Sons, Inc.*, 568 U.S. 519, 538 (2013)).

Traffique, and bargaining and contracting between man and man.”⁵⁸

Some scholars have argued that the Supreme Court’s understanding of the policy against servitudes is overly simplistic. Herbert Hovenkamp writes that in Lord Coke’s time, “[i]n fact, there was no simple rule that all restraints on alienation, even on personal property, were unenforceable.”⁵⁹ Sean M. O’Connor agrees that “the Coke quote itself may not support [the Court’s] argument,” and further points out that in any event, the policy and the law evolved in many different ways since 1628.⁶⁰ Professor O’Connor further argues that the policy against servitudes was not the original justification for exhaustion in early Supreme Court cases, even if it was cited by the Court in defense of the doctrine in later cases.⁶¹

One can accept these corrections to the historical record as entirely accurate and nonetheless conclude that a policy against servitudes as the Supreme Court understands it is a good idea. Preventing servitudes from attaching to patented goods is good consumer protection policy in today’s economy regardless of whether we can properly call that policy the policy against restraints on alienation of chattels and trace it back to Lord Coke’s seventeenth century treatise.

Preventing patent holders from contracting around exhaustion provides multiple benefits to consumers. First, it preserves a used resale market and other secondary markets for patented goods, which lowers prices.⁶² This was

⁵⁸ *Id.* (quoting 1 E. COKE, INSTITUTES OF THE LAWS OF ENGLAND § 360 (1628)).

⁵⁹ Hovenkamp, *supra* note 30, at 26.

⁶⁰ Sean M. O’Connor, *Origins of Patent Exhaustion: Jacksonian Politics, ‘Patent Farming,’ and the Basis of the Bargain* 59 (U. of Wash. Sch. of L. Res. Paper No. 2017-05, 2017).

⁶¹ *Id.*

⁶² See Perzanowski & Schultz, *Digital Exhaustion*, *supra* note 6, at 894. *But cf.* Hemel & Ouellette, *supra* note 6, at 25 (noting in the different

demonstrated in the *Impression Products* case itself, where the ruling allowed Impression Products to continue providing used printer cartridges at a lower price to consumers. Second, a total patent exhaustion regime prevents patent holders from locking consumers into particular brands of secondary products (for example printer cartridges) that may be used with goods they own, which allows for price competition for these products as well. Third, servitudes on personal property impose notice and information costs on consumers.⁶³ Consumers must either invest time into researching the restrictions on goods they have purchased or, as is more likely with less expensive goods, fail to discover the hidden costs in goods they purchase. For example, a consumer may not discover at the time of purchase that the low-cost printer he or she purchased contains the hidden cost of a restriction that it be used only with expensive, patented printer cartridges. Fourth, personal property servitudes may result in “underuse or inefficient use of resources subject to the restriction.”⁶⁴ For example, many consumers will simply throw away a spent printer cartridge if there is a restriction on refilling and recycling it.

Some scholars argue that there are theoretical welfare benefits to allowing patent holders to contract around exhaustion. Ann Layne-Farrar argues that allowing patent holders to charge licensing fees at multiple levels of production allows for better monitoring of licensees and “reduces licensees’ incentives to underreport their relevant

context of mandatory international exhaustion, “[t]he fact that mandatory exhaustion will benefit U.S. consumers does not mean that mandatory exhaustion will increase U.S. citizens’ welfare overall.... From a perspective of pure national interest . . . the desirability of an exhaustion regime depends on whether the gains to U.S. consumers outweigh the losses to U.S. patent holders – an empirical question that no study has successfully answered.”).

⁶³ Van Houweling, *supra* note 6, at 932–39.

⁶⁴ *Id.* at 939.

sales.”⁶⁵ It is unclear that this underreporting of sales is a pervasive problem, and to the extent it represents a social welfare harm, it is unclear that it is a sufficiently critical harm to compel eliminating a fundamental rule of our patent system. Moreover, patent holders could take advantage of multiple royalty charges to increase the total royalty charged for the patent beyond what the market should bear.⁶⁶ Market frictions, such as the notice and information costs discussed above could well prevent the free market from checking such behavior.⁶⁷

Another alleged benefit of allowing patent holders to evade exhaustion is that it allows them to engage in useful price discrimination.⁶⁸ In other words, by evading exhaustion, patent holders can charge different prices for goods and services depending on whether the patent rights are exhausted, as Lexmark did with its printer cartridges.⁶⁹ Those consumers who agree to use the product only once (or with some other contractual restraints) get to pay less money for the product. Here again, however, notice and information costs threaten to deceive the consumer into paying more for the product than the ownership rights given up would justify and allow the patent holder to hide these costs. And whatever price savings the opt-out exhaustion regime gives to consumers with one hand it takes away with the other by eliminating the used resale market. Under a total exhaustion regime, the patent holder can charge its full patent monopoly price up front, but consumers are free to reuse and recycle the products as they see fit, and those consumers who wish to pay less can go to the used resale market.

⁶⁵ Layne-Farrar, *supra* note 21, at 1185.

⁶⁶ Ernst, *Exhausted Defendant*, *supra* note 3, at 466–67.

⁶⁷ *Id.*

⁶⁸ Hovenkamp, *supra* note 30, at 5; O’Connor, *supra* note 60, at 63.

⁶⁹ *Impression Prods., Inc.*, 137 S.Ct. at 1529–30.

Professor Hovenkamp argues that evading exhaustion allows for “variable proportion tying arrangements.”⁷⁰ This is a device whereby companies charge less for a principle “tying” products (such as a printer), so that they may charge more for the secondary “tied” product (the cartridges), and thereby provide the social welfare benefit of allowing customers who use less ink to pay less money. But why do companies need to be able to evade patent exhaustion to affect such a scheme? The answer must be that otherwise the used resale market will lower the price of the tied products. Hence, the argument appears to be that patent holders must have a way to keep the price of the tied products artificially high by evading patent exhaustion in order to be able to sell the tying products at such a low price. But these pricing arrangements are apparently utilized and largely blessed by the antitrust laws,⁷¹ and there is no evidence that the existence of used resale markets makes them impracticable. Moreover, how can we be certain that the sacrifice of a used resale market and its certain benefit to consumers is justified by the alleged benefits of a variable pricing scheme supported by artificially high priced secondary products?

More broadly, to the extent these differential pricing schemes provide economic benefits and have therefore been blessed by antitrust law, then they may be enforced as contracts, or, with respect to third parties, by resort to the tort of tortious interference with contract (so long as they do not run afoul of common law defenses, such as unconscionability). If these contracts are otherwise legal, why must they be enforced through patent infringement suits?

Professor Hovenkamp argues that the Supreme Court’s rule that patent holders cannot contract around

⁷⁰ Hovenkamp, *supra* note 30, at 6.

⁷¹ *Id.*

exhaustion is insufficiently nuanced because “[n]o further inquiry is made into the patentee’s market power, anticompetitive effects, or other types of harms, whether enforcement of the condition is socially costly or valuable, or has positive or negative impact on innovation.”⁷² It is true that total patent exhaustion is not required in every case to prevent market harm; that is what antitrust law is for. But harm to markets is not the only type of harm in this world and rule of reason antitrust analysis is therefore not the only method for determining harm. Patent law has a role to play in protecting against harm to innovation and harm to consumers; harm that might slip through the porous web of rule of reason analysis. Accordingly, patent exhaustion properly does not turn on such analysis; otherwise it would be wholly duplicative of the antitrust laws and nugatory. Patent exhaustion addresses other types of harm not addressed by the antitrust laws.

Among the policies that patent law pursues beyond antitrust policy is innovation policy. Patent law must strike a delicate balance between encouraging invention by granting an exclusive right that is inconsistent with our free competition system and allowing for the flowering of innovation free from such restraints. Accordingly, the patent right must be carefully calibrated such that it grants no more than is necessary to encourage innovation. Patent exhaustion has long been justified by the Supreme Court as a necessary tool in this calibration by preventing patent holders from achieving multiple recovery of the patent rent at multiple stages of the distribution cycle. Without patent exhaustion, patent holders could take advantage of transaction frictions to obtain more profit than the market would otherwise bear. In *Motion Picture Patents* the Court wrote that “the primary purpose of our patent laws is not the creation of private fortunes for the owners of patents, but is

⁷² *Id.* at 3.

‘to promote the progress of science and the useful arts.’”⁷³ Accordingly, patent exhaustion ensures that the inventor receives a royalty for his invention that is no more than what is determined as the value of the invention on the free market:

If his discovery is an important one, his reward under such a construction of the law will be large, as experience has abundantly proved; and if it be unimportant, he should not be permitted by legal devices to impose an unjust charge upon the public in return for the use of it.⁷⁴

Scholars criticize this policy against double recovery on the grounds that a single patent rent on the first sale might not be sufficient to encourage invention.⁷⁵ According to this argument, proponents of patent exhaustion must empirically prove that one single payment is sufficient to encourage invention, and have failed to do so. This puts the burden of proof on the wrong side. We have had had substantial innovation during the first period of total exhaustion from 1917 (when the Supreme Court issued *Motion Picture Patents*) to 1992 (when the Federal Circuit issued *Mallinckrodt*), a period that saw the development of revolutionary innovations, from the airplane to the Internet.⁷⁶ What evidence is there that the free market determined value of an invention at first sale is insufficient to induce the making of that invention? All of the evidence

⁷³ *Motion Picture Patents Co.*, 243 U.S. at 511 (quoting U.S. CONST. art. I, § 8, cl. 8).

⁷⁴ *Id.* at 513.

⁷⁵ See, e.g., Ivus et al., *supra* note 33, at 4 (“[E]xactly how much surplus is necessary to induce the optimal level of innovation is itself a hotly contested matter, and there is no *a priori* reason to assume a single license to an intermediate manufacturer, reseller, or purchaser is sufficient to induce optimal investment.”).

⁷⁶ Samuel F. Ernst, *The Lost Precedent of the Reverse Doctrine of Equivalents*, 18 VAND. J. ENT. & TECH. L. 467, 496 (2016).

rather points to the conclusion that a total exhaustion patent regime does not discourage or encourage invention at all, because the number of patent applications steadily rose during the period of total patent exhaustion, during the *Mallinckrodt* period, and up to the present time.⁷⁷ There is no evidence of inventors out in the world who would like to file for a patent, but decide it is not worth it because they cannot split their royalty charges along multiple levels of distribution.

IV. REASSURANCE: THERE IS NO TOTAL PATENT EXHAUSTION

Important new research by Olena Ivus, Edwin L.-C. Lai, and Ted Sichelman provides the first “formal economic model of domestic patent exhaustion that explicitly incorporates transaction costs.”⁷⁸ The study concludes that “absolute patent exhaustion may generate welfare gains when transaction costs are high. Conversely, when transaction costs are low, presumptive exhaustion – which allows for contractual opt-out – is most likely superior.”⁷⁹ This suggests that for lower priced consumer goods, where information costs are high and notice ineffective, “opt-out exhaustion” does not generate the price discrimination benefits proponents of such a regime postulate.⁸⁰ But for

⁷⁷ See United States Patent and Trademark Office, *U.S. Patent Statistics Chart*, UNITED STATES PATENT AND TRADEMARK OFFICE (2016), https://www.uspto.gov/web/offices/ac/ido/oeip/taf/us_stat.htm.

⁷⁸ Ivus et al., *supra* note 33, at 5.

⁷⁹ *Id.*

⁸⁰ The authors of the study articulate this as a difference between exhaustion in the copyright context and the patent context, but because there are patented consumer goods as well as copyrighted consumer goods, the relevant distinction would appear to be between low priced consumer goods and high-end non-consumer goods. See *id.* at 5–6 (“In the copyright industries, where there are few intermediaries, large numbers of downstream customers, and low prices for each copyrighted

high-end non-consumer products and services, contracting around exhaustion may have welfare benefits.⁸¹

If this be the case, then the Supreme Court's *Impression Products* ruling is pitch perfect policy, because there remain ways to contract around patent exhaustion that are practicable only for expensive products and services. For example, the Supreme Court made clear in dicta in *Impression Products* that pre-sale restrictions on whom a licensee may sell a product to remain effective to evade exhaustion, because if the licensee sells outside of the license, there is no authorized sale.⁸²

Alternatively, a patent holder may decide to *lease* a patented product, rather than *sell* it. Patent exhaustion is not triggered by the lease of a product because the patent holder retains title to the product and is free to dictate how it is thereafter used or further distributed.⁸³ For high-end products where there are less notice and transaction costs relative to the price of a product, these avenues are practicable, and the issue with hidden costs is ameliorated. For example, if a consumer leases something as expensive as an automobile, she is more likely to be on notice of contractual restrictions in the lease such as mileage limitations, and will not be deceived into overpaying for such restrictions. On the other hand, if an inexpensive product such as a printer cartridge is at issue, it will be inefficient for the patent holder to structure the transaction as a true lease, with title remaining with the patent holder and the need for monitoring and enforcing return of the

work, one would expect high transaction cost inefficiencies which would tend to dominate price discrimination benefits.”).

⁸¹ *Id.* at 3.

⁸² *Impression Prods., Inc.*, 137 S.Ct. at 1534-35. See generally Ernst, *Exhausted Defendant*, *supra* note 3, at 460.

⁸³ *Impression Prods., Inc.*, 137 S.Ct. at 1529 (“When a patentee sells one of its products, however, the patentee can no longer control that item through the patent laws – its patent rights are said to ‘exhaust.’”).

product at the expiration of the lease. If the customer pays a single, up-front price, retains permanent possession of the product, and bears the cost of loss or destruction of the product, the law should treat that as a sale even if the patent holder attempts to name it a “lease” in order to evade patent exhaustion.⁸⁴ Under such circumstances, under the *Impression Products* rule, patent exhaustion will adhere and the patent holder will not be able to use the patent law to impose servitudes on the product to the annoyance and inconvenience of the public.

V. CONCLUSION

The Supreme Court’s ruling in *Impression Products v. Lexmark*, that patent holders may not use post-sale contractual restrictions to evade patent exhaustion, is correct as a matter of precedent and policy. The evasion of patent exhaustion in consumer goods contracts would threaten the used resale market, impose hidden costs on consumers, and exact inefficient notice and information costs. For high-end non-consumer products, patent holders can still avoid patent exhaustion through a true lease of patented products, which will allow for the welfare benefits of price discrimination without imposing the costs on consumers that such schemes impose for low-end consumer products.

⁸⁴ See, e.g., *Fisher Trucking, Inc. v. Fleet Lease, Inc.*, 803 S.W.2d 888, 889 (Ark. 1991) (applying an “economic realities” test to determine if a particular transaction was a lease or a sale).