

Exhausting Patents

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Abstract

A bedrock principle of patent law—patent exhaustion—proclaims that an authorized sale of a patented article exhausts the patentee's rights with respect to the article that has been sold. Over one hundred and fifty years of case law, however, has produced two conflicting notions of patent exhaustion, one considering exhaustion to be mandatory regardless of whether the patentee subjects the sale to express patent restrictions, and one treating exhaustion as a default rule that applies only in unconditional sales. The uncertainty as to the proper contour of patent exhaustion casts a legal cloud over patent licensing practices in the modern economy and has emerged as a central subject in scholarly debates on the nature and scope of intellectual property rights.

This Article takes a normative approach to patent exhaustion and argues that the correct rule on exhaustion should be a “default-plus” rule, a rule that combines a default-rule component with a patent misuse test that is independent of the exhaustion analysis. The default-rule component allows patentees to avoid exhaustion through express patent restrictions, while the patent misuse test ensures that such restrictions do not violate public policy. This Article contends that this default-plus rule is superior to the mandatory rule in terms of theoretical foundation, malleability, and circumvention. In terms of theoretical foundation, this Article rejects the prevailing justifications for patent exhaustion and argues that the purpose of patent exhaustion is to require patentees to exercise their patent rights at the time of the sale of a patented article so as to protect and enable fair bargaining over the value of the patented article. This purpose is served by a default rule and does not require a mandatory rule. In terms of malleability, the mandatory rule is not flexible enough and can only give legal effects to socially beneficial patent restrictions in a haphazard way. In terms of circumvention, the formalistic nature of the

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mandatory rule creates more incentives for patentees to circumvent patent exhaustion by adopting socially inefficient transaction forms or product designs. The default-plus rule, by contrast, minimizes the legal impediments to socially beneficial patent restrictions while preserving the maximum amount of flexibility in accommodating new technologies and licensing practices yet to come.

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INTRODUCTION

Pursuant to an express authorization under the U.S. Constitution,¹ U.S. patent law grants a patentee exclusive rights to make, use, offer to sell, sell, or import a patented invention.² The courts, however, have long recognized an important limitation on patent rights: When a patentee authorizes a sale of a patented article, its patent rights are “exhausted” with respect to the article that has been sold.³ First developed by the U.S. Supreme Court in the mid-nineteenth century, this exhaustion doctrine has been reiterated and reinforced in a long line of canonical cases stretching to the present day.⁴

¹ U.S. CONST. art. I, § 8, cl. 8 (“To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”).

² 35 U.S.C. § 271(a) (2013) (“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.”).

³ See DONALD S. CHISUM, *PRINCIPLES OF PATENT LAW: CASES AND MATERIALS* 1136-38 (3d ed. 2004).

⁴ See *Bloomer v. McQuewan*, 55 U.S. (14 How.) 539, 539 (1852) (“[W]hen the machine passes to the hands of the purchaser, it is no longer within the limits of the [patent] monopoly.”); *Adams v. Burke*, 84 U.S. 453, 456 (1873) (“[W]hen 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.”); *Keeler v. Standard Folding-Bed Co.*, 157 U.S. 659, 666 (1895) (“[O]ne who buys patented articles of manufacture from one authorized to sell them becomes possessed of an absolute property in such articles, unrestricted in time or place.”); *Bauer & Cie v. O’Donnell*, 229 U.S. 1, 17 (1913) (“[A] patentee who has parted with a patented machine by passing title to a purchaser has placed the article beyond the limits of the monopoly secured by the patent act.”); *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, 243 U.S. 502, 516 (1917) (“[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.”); *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436, 457 (1940) (“[B]y the authorized sales of the fuel by refiners to jobbers the patent monopoly over it is exhausted, and after the sale neither appellant nor the refiners may longer rely on the patents to exercise any control over the price at which the fuel may be resold.”); *United States v. Univis Lens Co.*, 316 U.S. 241, 250 (1942) (“[S]ale of [a patented article] 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.”); *Quanta* 553 U.S. 617, 630 (2008) (“[W]hen a patented item is once lawfully made and sold, there is no restriction on its use to be implied for the benefit of the patentee.”); *Bowman v. Monsanto*, 133 S.Ct. 1761, 1766 (2013) (“[B]y exhausting the patentee’s monopoly’ in that item, the sale confers on the purchaser, or any subsequent owner, the right to use or sell’ the thing as he sees fit.”).

Yet underneath the seemingly unequivocal mandate of patent exhaustion is a doctrine fraught with contradictions. Despite having habitually described patent exhaustion as a mandatory rule that automatically cuts off a patentee's rights with respect to a sold article,⁵ the Supreme Court has nonetheless upheld certain patent restrictions on purchasers as enforceable under patent law.⁶ Adding to the confusion, since the 1990s, the Federal Circuit—the nation's "patent court"⁷—has developed an alternative interpretation of patent exhaustion that treated the doctrine as a default rule, a rule that applies only in unconditional sales.⁸ Under this default rule, patentees could still enforce a patent restriction against a purchaser as long as the restriction is made an express condition of the sale.⁹

The uncertain meaning of patent exhaustion casts a significant legal cloud over patent licensing in the modern economy. Unable to map out the exact contour of the exhaustion doctrine, the Federal Circuit once described the doctrine as a proposition that "absent *unusual* circumstances, courts infer that a patent owner has given up the right to exclude concerning a patented article that the owner sells."¹⁰ The use of the word "unusual" in this description

⁵ See cases cited in *supra* note 4. One particular example of the Court's use of absolute-sounding language in discussing patent exhaustion can be found in *Keeler v. Standard Folding Bed Co.*, where the Court spoke of an "absolute property" acquired by purchasers of a patented article without qualifying it based on whether the sale is subject to conditions. See *Keeler*, 157 U.S. at 666.

⁶ In 1873, the Court allowed a patentee to enforce its patent rights against a purchaser of patented machines for using the machines during the extended term of the patent when the licensing agreement under which the machines were manufactured by a licensee explicitly provided no licenses beyond the original term of the patent. See *Mitchell v. Hawley*, 83 U.S. 544 (1873). In 1912, the Court allowed a patentee to enforce a patent restriction that explicitly required the patented machines to be used only with supplies made by the patentee. See *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912). In 1938, the Court allowed patent rights to be enforced against a commercial user of patented amplifiers when the amplifiers were sold under a license expressly limiting the use of the machines to private use only. See *General Talking Pictures Corp. v. Western Electric Co.*, 304 U.S. 175 (1938).

⁷ The Federal Circuit has nearly exclusive jurisdiction over appeals in patent-related cases. See 28 U.S.C. § 1295(a)(1) (2013).

⁸ See, e.g., *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992) (holding that a patentee could enforce, through infringement actions, a "single use only" restriction on the use of patented articles against parties that reconditioned and reused the articles); *B. Braun Medical, Inc. v. Abbott Laboratories*, 124 F.3d 1419 (Fed. Cir. 1997) (holding that a patentee could enforce an express restriction imposed in a conditional sale through infringement actions).

⁹ See *infra* Part I.B.

¹⁰ *Glass Equip. Dev. v. Besten, Inc.*, 174 F.3d 1337, 1341 (Fed. Cir. 1999)

provides no guidance to patentees and licensees, who have to constantly grapple with patent exhaustion in a world bubbling with new technologies and new patent licensing practices.¹¹

Along with its counterpart in copyright law—the first sale doctrine,¹² patent exhaustion has also emerged as a pivotal concept stirring debates on the nature and scope of intellectual property rights.¹³ For proponents of patent exhaustion such as Mark Lemley and Mark McKenna, the doctrine is a “powerful tool for reducing the market power of an IP owner”;¹⁴ for critics of the doctrine such as Richard Epstein, it is an “attack on the alienability of intellectual property licenses.”¹⁵ Much of the focus of these debates, however, is on the historical foundation of the doctrine.

(emphasis added).

¹¹ One example of the interaction of patent exhaustion with new technologies and new patent licensing practices can be found in *Bowman v. Monsanto*, a 2013 Supreme Court case dealing with patent exhaustion in the genetically modified seeds industry. See *infra* notes 184-194 and accompanying text.

¹² See 17 U.S.C. § 109(a) (2013) (“[T]he owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.”).

¹³ For recent scholarly discussions of the patent exhaustion and first sale doctrines and their significance for intellectual property law and beyond, see Julie E. Cohen & Mark A. Lemley, *Patent Scope and Innovation in the Software Industry*, 89 CAL. L. REV. 1, 30-35 (2001) (discussing the patent exhaustion doctrine in the context of software patents); Richard A. Epstein, *The Disintegration of Intellectual Property?: A Classical Liberal Response to a Premature Obituary*, 62 STAN. L. REV. 455, 507-11 (2010) (criticizing the patent exhaustion doctrine as an attack on the alienation of intellectual property licenses and the classical liberal conception of property); Herbert Hovenkamp, *Response: Markets in IP and Antitrust*, 100 GEO. L.J. 2133, 2155 (2012) (arguing that the constraints imposed under the patent exhaustion doctrine and the first sale doctrine are better evaluated under the law of antitrust or misuse); Mark A. Lemley & Mark P. McKenna, *Is Pepsi Really a Substitute for Coke? Market Definition in Antitrust and IP*, 100 GEO. L.J. 2055, 2115-17 (2012) (arguing that the patent exhaustion doctrine and the first sale doctrine are needed limitations on the market power conferred by intellectual property rights); Adam Mossoff, *A Simple Conveyance Rule for Complex Innovation*, 44 TULSA L. REV. 707 (2009); Aaron Perzanowski & Jason Schultz, *Digital Exhaustion*, 58 UCLA L. REV. 889, 932-35 (2011) (discussing the common law path of the patent exhaustion doctrine and its implications for copyright exhaustion in the digital marketplace); Glen O. Robinson, *Personal Property Servitudes*, 71 UNI. CHI. L. REV. 1449, 1464-69 (2004) (discussing the patent exhaustion doctrine as an example of intellectual property law’s inhospitality to chattel servitudes); Molly Shaffer Van Houweling, *The New Servitudes*, 96 GEO. L.J. 885, 917-21 (2008) (arguing that the patent exhaustion and first sale doctrines can be understood as an attempt to reduce the info the distinction between restrictions on manufacturing licensees and restrictions on purchasers of patented chattels in patent exhaustion cases).

¹⁴ Lemley & McKenna, *supra* note 13, at 2115.

¹⁵ Epstein, *supra* note 13, at 503.

Adam Mossoff, for example, argued that patent exhaustion is historically analogous to the rule American courts adopted in the nineteenth century for conveyance of real property, not to the rule for conveyance of personal property.¹⁶ Similarly, John Osborne observed that “[e]xpress restrictions in patent licenses are analogous to restrictive covenants in real property law—which are enforceable against a subsequent purchaser of restricted property if the purchaser had constructive notice of the restriction.”¹⁷

This Article contributes to the debates on patent exhaustion by focusing on the normative aspects of the doctrine. Instead of dwelling on what courts may have intended patent exhaustion to mean in the past, this Article probes what patent exhaustion should mean in the future. And instead of focusing on historical parallels, this Article investigates the theoretical and policy justifications for the doctrine. This Article argues that the correct rule on patent exhaustion should be a “default-plus” rule, a rule that combines a default rule component with a patent misuse test that is independent of the exhaustion analysis. The default-rule component allows patentees to avoid exhaustion through express patent restrictions, while the patent misuse test ensures that such restrictions do not violate public policy.

This Article contends that this default-plus rule is superior to the mandatory rule in terms of theoretical foundation, malleability, and circumvention. In terms of theoretical foundation, this Article rejects the prevailing justifications for patent exhaustion and argues that the purpose of patent exhaustion is to require patentees to exercise their patent rights at the time of the sale of a patented article so as to protect and enable fair bargaining over the value of the patented article. This purpose is served by a default rule and does not require a mandatory rule. In terms of malleability, the mandatory rule of exhaustion is not flexible enough and can only give legal effects to socially beneficial patent restrictions in a

¹⁶ See Massoff, *supra* note 13, at 712-17. Massoff cited nineteenth-century cases in which patentees were allowed to impose a variety of restrictions on the use of the property interest they conveyed to licensees. *Id.* at 714. Massoff argued that by the end of the nineteenth century, it was well-settled that patentees could convey lesser interests in their patents to licensees, who would take title to the underlying patents “subject to a reverter in case of violation of the conditions of the sale.” *Id.* at 715.

¹⁷ John W. Osborne, *Justice Breyer’s Bicycle and the Ignored Elephant of Patent Exhaustion: An Avoidable Collision in Quanta v. LGE*, 7 J. MARSHALL REV. INTELL. PROP. L. 245, 259 n.84 (2008).

haphazard way. In terms of circumvention, the formalistic nature of the mandatory rule of exhaustion creates more incentives for patentees to circumvent patent exhaustion by adopting socially inefficient transaction forms or product designs.

The Article will proceed as follows. In Part I, the Article combs through the foundational cases of patent exhaustion and summarizes the mandatory rule and the default rule as formulated by courts. In Part II, the Article lays out the default-plus rule and explains its differences from the mandatory rule and the default rule. The normative arguments for the default-plus rule are presented in Part III. Part IV concludes.

I. CONFLICTING NOTIONS OF PATENT EXHAUSTION

The doctrine of patent exhaustion has had a long, tortuous history. During the one and a half centuries of its existence, patent exhaustion has been formulated by courts as a mandatory rule and a default rule, with starkly different implications for patentees' rights under the two rules.

A. *The Mandatory Rule*

The Supreme Court has routinely described patent exhaustion as a mandatory rule. In the foundational case of *Bloomer v. McQuewan*, the Supreme Court rejected a patent assignee's efforts to prevent users of patented wood-planing machines constructed during the patent's original term from continuing using the machines during the patent's extended term.¹⁸ Chief Justice Taney famously pronounced that "when the machine passes to the hands

¹⁸ 55 U.S. (14 How.) 539 (1852). *Bloomer* involved rather complicated facts that were all but lost in subsequent discussions of the case by courts and commentators. The underlying patent in *Bloomer* was originally granted for a fourteen-year term expiring in 1842. *Id.* at 547. The patent was subsequently extended twice, first by a general act of Congress enacted in 1836 extending the patent from 1842 to 1849, then by a private act of Congress enacted in 1845 extending the patent from 1849 to 1856. *Id.* During the patent's original term, the defendants were assigned the right to construct and use a certain number of the patented machines during the remainder of the original term in a territory that included Pittsburg. *Id.* at 555 (McLean, J., dissenting). During the patent's first extended term, and after the passage of the 1845 act authorizing the second extension, the plaintiff was assigned the right to construct and use the patented machines during the remainder of the first extended term and the entirety of the second extended term in a territory that also included Pittsburg. *Id.* at 554-55. After the second extension of the patent took effect in 1849, the plaintiff brought a patent infringement suit against the defendants, who were continuing using two machines constructed during the patent's original term. *Id.* at 555.

of the purchaser, it is no longer within the limits of the [patent] monopoly.”¹⁹ This broad, unqualified language—despite the fact that *Bloomer* involved no sales²⁰—is generally credited with giving birth to the exhaustion doctrine.^{21 22}

In 1873, in *Adams v. Burke*,²³ the Supreme Court reaffirmed the principle it laid out in *Bloomer*. *Adams* involved a patentee who assigned to a licensee the patent rights for an improvement in

¹⁹ *Id.* at 549 (majority opinion).

²⁰ See Yina Dong, *A Patent Exhaustion Exposition: Situating Quanta v. LGE in the Context of Supreme Court Jurisprudence*, 2010 STAN. TECH. L. REV. N2, at paras. 28, 29; Alfred C. Server & William J. Casey, *Contract-Based Post-Sale Restrictions on Patented Products Following Quanta*, 64 HASTINGS L.J. 561, 564 n.7 (2013).

²¹ In *Quanta*, for example, the Supreme Court cited *Bloomer* as the first case in which it applied the patent exhaustion doctrine. See 553 U.S. 617, 625 (2008). This view is generally shared by patent law scholars and practitioners. See, e.g., Erin Julia Daida Austin, *Reconciling the Patent Exhaustion and Conditional Sale Doctrines in Light of Quanta Computer v. LG Electronics*, 30 CARDOZO L. REV. 2947, 2954-55 (2009); Andrew T. Dufresne, *The Exhaustion Doctrine Revived – Assessing the Scope and Possible Effects of the Supreme Court’s Quanta Decision*, 24 BERKELEY TECH. L.J. 11, 12 (2009); Server & Casey, *supra* note 20, at 564-65; Tyler Thorp, *Testing the Limits of Patent Exhaustion’s Authorized Sale Requirement Using Current High Tech Licensing Practices*, 50 SANTA CLARA L. REV. 1017, 1022 (2010).

²² It is not clear, however, whether *Bloomer* was truly decided on the basis of patent exhaustion. The Court’s holding in *Bloomer* was predicated upon a special provision in the congressional act of 1836 authorizing the first extension of the patent in question. That provision provided that the benefits of the extension of the patent “shall extend to assignees and grantees of the right to use the thing patented, to the extent of their respective interests therein.” *Bloomer*, 55 U.S. at 541 (emphasis added). In an earlier case filed in the first extended term challenging the right of similarly-situated defendants to continue using the patented machines beyond the expiration of the original term, the Supreme Court interpreted that special provision to “restore or save” to licensees who were using the patented machines at the time of the first extension the right to continued use of the machines, a right that, “without the clause, would have been vested again exclusively in the patentee.” *Wilson v. Rousseau*, 45 U.S. 646, 682 (1846). According to the Court in *Rousseau*, but for this special provision, the new grant of exclusive rights under the 1836 act would have encompassed “patented articles or machines throughout the country, purchased for practical use in the business affairs of life.” *Id.* The Court in *Bloomer* held that the scope of a purchaser’s rights during the second extended term should be determined in reference to not only the 1845 act authorizing the second extension, but also the “general laws” in force when the 1845 act was passed, which included the 1836 act. *Bloomer*, 55 U.S. at 545-46. The Court further held that because the 1836 act granted purchasers a continued use right, and because the 1845 act merely extended the term of the patent without altering the substantive rights conferred on purchasers by the 1836 act, purchasers should be allowed to continue using previously-constructed machines during the second extended term. *Id.* at 551. According to the Court in *Bloomer*, therefore, it was a special congressional statute—not the inherent power of a sale—that exhausted the patentee’s right to control the continued use of previously constructed machines.

²³ 84 U.S. (17 Wall.) 453 (1873).

coffin lids “for, to, and in” a geographical area encircling Boston.²⁴ The plaintiff was an assignee of the patentee’s remainder interest in the patent and brought an infringement suit against the defendant, who purchased coffin lids from the licensee and used them in a town outside of the area reserved for the licensee.²⁵ Ruling in favor of the defendant, the Court stated that “when the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use.”²⁶ Then, citing *Bloomer*, the Court held that “[t]he article, in the language of the court, passes without the limit of the monopoly.”²⁷

In 1895, in *Keeler v. Standard Folding Bed Co.*,²⁸ the Supreme Court again used broad, unqualified language in describing the rights of the purchaser vis-à-vis the patentee. In that case, a patentee assigned patent rights for an improvement in folding beds to different persons in the states of Massachusetts and Michigan.²⁹ The assignee for Massachusetts brought a patent infringement suit against the defendant who purchased patented folding beds from the assignee for Michigan and resold them in Massachusetts.³⁰ Upholding the defendant’s right to resell in Massachusetts, the Court stated that “one who buys patented articles of manufacture from one authorized to sell them becomes possessed of an absolute property in such articles, unrestricted in time or place.”³¹ The patentee may be able to protect itself through an express contract with the purchaser, but that, according to the Court, is a question

²⁴ *Id.* at 454.

²⁵ *Id.* It was not clear from the facts of the case where the sale of the coffin lids from the licensee to the defendant took place. But given that there were no allegations that the licensee violated its license terms, a reasonable assumption is that the sale took place within the area reserved for the licensee.

²⁶ *Id.* at 456.

²⁷ *Id.* at 456 & n2. The Court, however, went on and stated that “[w]hatever . . . may be the rule when patentees subdivide territorially their patents, . . . , we hold that . . . when [the patented machines] are once lawfully made and sold, there is no restriction on their use to be *implied* for the benefit of the patentee or his assignees or licensees.” *Id.* at 456-57 (emphasis added). This language indicates that the Court in *Adams* may have attached legal significance to the fact that no *express* restrictions were imposed on the purchaser’s use of the coffin lids.

²⁸ 157 U.S. 659 (1895).

²⁹ *Id.* at 659.

³⁰ *Id.*

³¹ *Id.* at 666.

under contract law, not a question under patent law.³²

In 1912, the Supreme Court took patent exhaustion in a different direction in *Henry v. A.B. Dick*, where it upheld a patentee's rights, under patent law, to enforce a patent restriction requiring the patented machines to be used only with supplies made by the patentee.³³ The Court in *A.B. Dick* interpreted *Bloomer* to only stand for the proposition that "a sale without reservations, of a machine whose value consists in its use, for a consideration, carries with it the presumption that the right to use the particular machine is to pass with it."³⁴ The Court made clear that the patentee could nonetheless avoid exhaustion by making the sale subject to express restrictions, which will operate to reserve the uses not permitted under the restrictions to the patentee.³⁵ According to the Court, for a limitation on the purchaser's right of use to be lawful, "the purchaser must have notice that he buys with only a qualified right of use."³⁶ As long as this requirement is met, the patentee would be accorded broad leeway in imposing "any conditions which are not in their very nature illegal with regard to this kind of property."³⁷ The reason for this broad leeway, according to the Court, was the "absolute freedom in the use or sale of rights under the patent laws of the United States."³⁸

The Supreme Court's approach to patent exhaustion in *A.B. Dick* turned out to be short-lived, however. In 1913, in *Bauer & Che v. O'Donnell*, the Court refused to apply the logic of *A.B. Dick* to a patent restriction attempting to fix the resale price of the patented articles.³⁹ The Court held that *A.B. Dick* involved the right to use the patented invention,⁴⁰ while *Bauer* involved the right to vend

³² *Id.* ("It is, however, obvious that such a question would arise as a question of contract, and not as one under the inherent meaning and effect of the patent laws.").

³³ 224 U.S. 1 (1912).

³⁴ *Id.* at 23.

³⁵ *Id.* at 24-25 ("But if the right of use be confined by specific restriction, the use not permitted is necessarily reserved to the patentee.").

³⁶ *Id.* at 26.

³⁷ *Id.* at 30.

³⁸ *Id.* at 29-30. Additionally, the Court stated that "[t]he fact that the conditions in the contracts keep up the monopoly or fix prices does not render them illegal." *Id.* at 30. This made clear that the Court in *A.B. Dick* considered the specific license restriction in question—the tying of patented machines to supplies necessary for their operation—to be within the broad leeway granted by the patent laws.

³⁹ 229 U.S. 1 (1913).

⁴⁰ *Id.* at 15 ("It was under the right to use that the license notice in question [in

the patented invention.⁴¹ In a stark contrast to its holding in *A.B. Dick*, the Court in *Bauer* held that the patentee's attempt must fail because the right to vend as conferred by the patent statute did not include a "grant of privilege to keep up prices and prevent competition by notices restricting the price at which the article may be resold."^{42 43}

Four years later, the Supreme Court explicitly overruled *A.B. Dick* in *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*⁴⁴ In that case, the owner of certain patents for a motion picture projector attempted to enforce a patent restriction requiring the patented projectors to be used solely for projecting a specific kind of films manufactured by the patentee.⁴⁵ The Supreme Court ruled for the defendants on the ground that the restriction sought by the patentee was outside the scope of its patent grant, which, according to the Court, was limited to "the mechanism described in the patent as necessary to produce the described results" and "[was] not concerned with and [had] nothing to do with the materials with which or on which the machine operate[d]." ⁴⁶ Rejecting the patentee's bid to tie the use of the patented projectors to the use of the unpatented films, the Court stated that "[i]t is obvious that the conclusions arrived at in this opinion are such that the decision in *Henry v. A.B. Dick Co.* . . . must be regarded as overruled."^{47 48}

A.B. Dick] was sustained, and it is obvious that the notice in that case dealt with the use of the machine, and limited it to use only with the paper, ink, and supplies of the manufacture of the patentee.").

⁴¹ *Id.* at 16 ("The real question is whether, in the exclusive right secured by statute to 'vend' a patented article, there is included the right, by notice, to dictate the price at which subsequent sales of the article may be made."). The Court considered it to be "a perversion of terms" to call the transaction in *Bauer* a license to use the invention. *Id.*

⁴² *Id.* at 17.

⁴³ The Court's stance in *Bauer & Cie.* was consistent with its skepticism toward resale-price-maintenance practices in general and reflected the prevailing view at the time that such practices violated antitrust law and public policy. In a landmark case decided two years earlier than *Bauer*, the Supreme Court affirmed a lower court's holding that a minimum resale-price-maintenance scheme instituted by a manufacturer violated Section 1 of the Sherman Act. See *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911).

⁴⁴ 243 U.S. 502 (1917).

⁴⁵ *Id.* at 506. The patentee brought an infringement action against a third-party manufacturer who sold non-compliant films to a user of the patented projector and against the user for using the non-compliant films. *Id.* at 508.

⁴⁶ *Id.* at 512.

⁴⁷ *Id.* at 518.

In 1940, in *Ethyl Gasoline Corp. v. United States*, the Supreme Court used patent exhaustion to strike down a patentee's licensing scheme aimed at controlling the resale prices of the patented articles.⁴⁹ *Ethyl Gasoline* involved a patentee who held a patent for a fluid that could increase fuel efficiency, a patent for a motor fuel produced by mixing gasoline with the patented fluid, and a patent for a method of using fuel containing the patented fluid in combustion motors.⁵⁰ The patentee sold only the patented fluid, but required refiners who purchased the fluid to sell finished gasoline products containing the fluid only to jobbers licensed by the patentee.⁵¹ In deciding who were to be granted licenses, the patentee had a long-standing practice of excluding jobbers who cut prices or refused to conform to the marking policies or posted prices of the major refineries.⁵² The United States government challenged the patentee's licensing scheme as an unlawful restraint of interstate commerce.⁵³ The Supreme Court agreed with the U.S. government and held that the patentee may not, by virtue of its patent, condition its license "so as to control conduct by the licensee not embraced in the patent monopoly, . . . or upon the maintenance of resale prices by the purchaser of the patented article."⁵⁴ The authorized sale of the fuel by refiners to jobbers, said the Court, exhausted the patent monopoly over the fuel and the patentee may not rely on its patent to control the price at which the fuel may be resold.⁵⁵

In 1942, in *United States v. Univis Lens Co.*, the Supreme Court once again used patent exhaustion to block a patentee's efforts to enforce a patent restriction on the resale prices of the patented articles.⁵⁶ In that case, the holder of certain patents for multifocal

⁴⁸ It is not clear, however, whether the Court in *Motion Picture Patents* considered all restrictions to be per se unlawful, or only meant to say that the specific restriction at dispute (tying) was unlawful. All of the Court's analysis was specific to tying, and the Court cited *Bauer* for the proposition that "the right to vend is exhausted by a single, *unconditional* sale," *id.* at 516 (emphasis added), suggesting that the patentee may impose otherwise lawful restrictions through a conditional sale.

⁴⁹ 309 U.S. 436 (1940).

⁵⁰ *Id.* at 446.

⁵¹ *Id.* at 459.

⁵² *Id.* at 450.

⁵³ *Id.*

⁵⁴ *Id.* at 456-57.

⁵⁵ *Id.* at 457. The Court also held that the sale of the fluid additive to the refiners exhausted the patentee's exclusive right to use the patented fluid. *Id.*

⁵⁶ 316 U.S. 241 (1942).

lenses licensed a manufacturing licensee to manufacture and sell lens blanks to designated wholesalers and retailers for finishing and resale, at prices specified by the patentee, for use in eyeglasses.⁵⁷ The United States government sued the patentee for unlawful restraints of trade under the Sherman Act.⁵⁸ The Supreme Court held that although the lens blanks sold to the wholesalers and retailers were not themselves patented, the sale nonetheless exhausted the patentee's patents on the finished lenses because the lens blanks "embodi[ed] essential features of the patented device and [were] without utility until . . . ground and polished as the finished lens of the patent."⁵⁹ Because the price-fixing features of the patentee's licensing system were not protected by the patent law, the Court held, they violated the Sherman Act by eliminating competition in interstate commerce.⁶⁰

In 2008, the Supreme Court reaffirmed the principle of patent exhaustion in *Quanta Computer Inc. v. LG Electronics*.⁶¹ In *Quanta*, LG Electronics ("LGE") licensed Intel to make, use, and sell microprocessors and chipsets designed to practice several of LGE's method patents relating to computer memory processing.⁶² The microprocessors and chipsets, however, have to be combined with additional components to fully practice LGE's patents.⁶³ In its license agreement with Intel, LGE made clear that its license did not grant the right for third parties to combine the microprocessors and chipsets with non-Intel products.⁶⁴ Despite this restriction, Quanta purchased the microprocessors and chipsets from Intel and assembled them into computers. LGE brought a patent infringement suit against Quanta. After recounting the long history of patent exhaustion in U.S. courts, the Supreme Court rejected LGE's argument that patent exhaustion did not apply to method claims—an argument the Court characterized as an end-

⁵⁷ *Id.* at 243-44.

⁵⁸ *Id.* at 241.

⁵⁹ *Id.* at 249. In so holding, the Court assumed that the patents in question were practiced in part by the wholesalers and retailers who ground the blanks into lenses. *See id.* at 248-49.

⁶⁰ *Id.* at 252.

⁶¹ 128 S. Ct. 2109 (2008).

⁶² *Id.* at 2113-14.

⁶³ *Id.* at 2113.

⁶⁴ *Id.* at 2114. In a separate agreement, Intel agreed to give written notice to its customers informing them that they did not have LGE's permission to combine the microprocessors and chipsets with non-Intel components. *Id.*

run around patent exhaustion.⁶⁵ The Court further held that Intel's sale of the microprocessors and chipsets triggered patent exhaustion because they substantially embodied LGE's patents.⁶⁶

B. The Default Rule

The Supreme Court's embrace of the mandatory rule of exhaustion has not been consistent, however. Not counting *A.B. Dick*, which was overruled by *Motion Picture Patents*,⁶⁷ the Supreme Court has upheld patentees' rights under patent law to enforce patent restrictions against purchasers on two separate occasions. Taking advantage of this inconsistency, the Federal Circuit has interpreted patent exhaustion as a default rule that applies only in unconditional sales.

The first occasion on which the Supreme Court upheld a patent restriction on purchasers was the 1872 case of *Mitchell v. Hawley*, where the owner of a patent covering a machine for making felt hats granted to a licensee the exclusive right "to make and use, and to license to others the right to use the said machines, in the states of Massachusetts and New Hampshire, during the remainder of the original term of said letters patent"⁶⁸ Unlike the license in *Bloomer*, the license in *Mitchell* explicitly provided that it conferred no rights beyond the expiration of the patent's original term.⁶⁹ But when the licensee manufactured four patented machines and sold them to the defendant purchasers, the license granted by the licensee to the defendants omitted any references to the time limitation on the use right the licensee was authorized to grant.⁷⁰ The patent term was subsequently extended, and the patentee's assignee for the extended term brought an infringement suit

⁶⁵ *Id.* at 2118.

⁶⁶ *Id.* at 2119 ("We agree with Quanta that *Univis* governs this case. As the Court there explained, exhaustion was triggered by the sale of the lens blanks because their only reasonable and intended use was to practice the patent and because they 'embodie[d] essential features of [the] patented invention.' Each of those attributes is shared by the microprocessors and chipsets Intel sold to Quanta under the Licensing Agreement.").

⁶⁷ See *supra* notes 44-48 and accompanying text.

⁶⁸ 3 U.S. (21 Wall.) 544, 545 (1872).

⁶⁹ *Id.* ("Provided, that the [licensee] shall not in any way or form dispose of, sell, or grant an license to use the said machines beyond the 3d day of May, A.D. 1867.").

⁷⁰ The license to the defendant only provided that it would allow the defendant to use the machines in the town of Haverhill, Massachusetts under the patentee's patent bearing the date of May 3, 1864. See *id.* at 546.

against the defendants who were continuing using, during the extended term, the machines they purchased during the original term.⁷¹

In an about-face from the outcome in *Bloomer*, the Supreme Court in *Mitchell* held that the defendants' continued use of the patented machines during the patent's extended term constituted infringement.⁷² The Court stated that the purchaser of a patented machine for the purpose of using it in the ordinary pursuits of life acquires a "complete title" to the machine, unburdened by the limits of the patent monopoly.⁷³ This rule is "well settled," according to the Court in *Mitchell*, when "the sale is absolute, and without any conditions."⁷⁴ But since the patentee in this case expressly restricted the rights being granted to the licensee to those for the remainder of the patent's original term, the Court held that the patentee did not forego its rights for the extended term.⁷⁵ The purchaser did not need to have notice of the patent restriction, because "no one can convey . . . any better title than he owns"⁷⁶ (*nemo dat quod non habet*) and "the law imposes the risk upon the purchaser, as against the real owner, whether the title of the seller is such that he can make a valid conveyance."⁷⁷

The second occasion on which the Supreme Court upheld a patent restriction on purchasers was in *General Talking Pictures*

⁷¹ *Id.* at 549.

⁷² *Id.* at 550-51.

⁷³ *Id.* at 548 ("Complete title to the implement or machine purchased becomes vested in the vendee by the sale and purchase, but he acquires no portion of the franchise, as the machine, when it rightfully passes from the patentee to the purchaser, ceases to be within the limits of the monopoly.").

⁷⁴ *Id.* at 548 ("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 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.") (emphasis added).

⁷⁵ *Id.* at 549-51. The Court emphasized that it was expressly stipulated in the instrument of conveyance that the licensee "shall not, in any way, or form, dispose of, sell, or grant any license to use the said machines beyond the expiration' of the original term." *Id.* at 549.

⁷⁶ *Id.* at 550 ("Persons . . . who buy goods from one not the owner, and who does not lawfully represent the owner, however innocent they may be, obtain no property whatever in the goods, as no one can convey in such a case any better title than he owns, unless the sale is made in market overt, or under circumstances which show that the seller lawfully represented the owner.").

⁷⁷ *Id.*

*Corp. v. Western Electric Co.*⁷⁸ In that case, the owner of patents covering an amplifier used in telephones, radios and other public address systems licensed its patents to different licensees to manufacture and sell the patented amplifiers in different fields.⁷⁹ One licensee was licensed to manufacture and sell the amplifiers for private use only, but knowingly sold some of them to the defendant for commercial use, with the defendant having actual knowledge of the fact that the licensee had no license to make such sales.⁸⁰ The patentee sued the defendant for using the amplifiers for commercial purposes, alleging patent infringement. In defense, the defendant resorted to the mandatory rule of exhaustion, arguing that “[t]he owner of a patent cannot, by means of the patent, restrict the use made of a device manufactured under the patent after the device has passed into the hands of a purchaser in the ordinary channels of trade and full consideration paid therefor.”⁸¹ The Court rejected this argument. Citing *Mitchell*, the Court stated that the licensee “could not convey to [the purchaser] what both knew it was not authorized to sell.”⁸² The Court held that because the sale made by the licensee to the defendant was outside the scope of the licensee’s license and both parties knew that fact, the defendant was not a “purchaser in the ordinary channels of trade.”⁸³

In 1992, in *Mallinckrodt, Inc. v. Medipart, Inc.*, the Federal Circuit substantially broadened the rule in *General Talking Pictures* and explicitly declared patent exhaustion to be a default rule applying to unconditional sales only.⁸⁴ The plaintiff in *Mallinckrodt* attempted to enforce a “single use only” restriction inscribed on a patented medical device against a servicer who retrofitted the devices for multiple uses by hospitals.⁸⁵ Adopting the mandatory

⁷⁸ 304 U.S. 175 (1937), *rehearing granted* 304 U.S. 587, *aff’d on rehearing* 305 U.S. 124 (1938).

⁷⁹ 304 U.S. at 179.

⁸⁰ *Id.* at 179-80. Pursuant to a license requirement, the licensee affixed a notice to all amplifiers it manufactured and sold stating that the amplifiers were to be used for private use only. *Id.* at 180.

⁸¹ *Id.* at 180 (majority opinion).

⁸² *Id.* at 181. This characterization of *Mitchell*, however, was not accurate, as *Mitchell* did not attach any significance to the purchaser’s knowledge of limitations on the rights of use it acquired. See *supra* note 75 and accompanying text.

⁸³ *Id.* at 180-81.

⁸⁴ 976 F.2d 700 (Fed. Cir. 1992).

⁸⁵ *Id.* at 701.

rule of exhaustion, the trial court below held that the plaintiff's attempt must fail because "no restriction whatsoever could be imposed under the patent law."⁸⁶ On appeal to the Federal Circuit, the plaintiff characterized the "single use only" restriction it was trying to enforce as a field-of-use restriction, in an apparent effort to invoke the permissive rule for field-of-use restrictions under *General Talking Pictures*.⁸⁷

The Federal Circuit, however, went beyond *General Talking Pictures* in ruling for the plaintiff. It held that *General Talking Pictures* did not address the specific situation involved in the instant case, where "the patentee was the manufacturer and the device reached a purchaser in ordinary channels of trade."⁸⁸ It instead cited earlier Supreme Court cases on patent exhaustion to support the plaintiff's infringement claim. After summarizing the Supreme Court's rulings in *Bloomer*, *Mitchell*, *Adams*, and *Keeler*, the Federal Circuit concluded that those earlier cases "do not stand for the proposition that no restriction or condition may be placed upon the sale of a patented article."⁸⁹ Rather, in the view of the Federal Circuit, the Supreme Court in those cases "simply applied, to a variety of factual situations, the rule of contract law that sale may be conditioned."⁹⁰ The Federal Circuit reasoned that since the patent law grants a patentee the right to exclude others from making, selling, or using the invention altogether, a patentee can choose to waive the right of exclusion "in whole or in part."⁹¹ In other words, a patentee has the freedom of alienating less than full property interests in its patent rights, as long as it makes explicit the scope of the property interests being alienated. The Federal Circuit finally held that if the "single use only" notice inscribed on the devices constituted a valid condition of sale, then violation of the restriction may be remedied by action for patent infringement as long as such restriction was within the scope of the patent grant or otherwise justified.⁹²

⁸⁶ *Id.*

⁸⁷ *Id.* at 703. The permitted field of use here, the plaintiff argued, was single or disposable use. *Id.*

⁸⁸ *Id.* 705.

⁸⁹ *Id.* at 708.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.* at 709. The Federal Circuit did not decide whether the "single use only" notice was legally sufficient to constitute a license or condition of sale, because it was reviewing an appeal of the district court's ruling on a summary judgment and the district court did not address that question in its ruling. See *id.* at 701.

II. PATENT EXHAUSTION AS A DEFAULT-PLUS RULE

The foregoing discussions recount two starkly different approaches to patent exhaustion: The mandatory rule of exhaustion would extinguish all patent restrictions on purchasers, including those explicitly imposed by the patentee as a condition of the sale, while the default rule of exhaustion would only extinguish patent restrictions that are not a condition of the sale. In this Part, this Article lays out an alternative approach to patent exhaustion—a “default-plus” rule that combines the default rule with a patent misuse test that is independent of the exhaustion analysis. Following discussions in this Part of how this default-plus rule differs from the mandatory rule and the default rule, the Article in the next Part will lay out the normative arguments for the default-plus rule.

To start, it is instructive to note that patent exhaustion is a doctrine that invalidates patent restrictions imposed on purchasers. By extinguishing all patent restrictions upon sale, the mandatory rule of exhaustion essentially treats all patent restrictions on purchasers as *per se* unlawful. Under this approach, it is not necessary to assess the lawfulness of a specific patent restriction on purchasers on its own merit—that inquiry is avoided by a blanket prohibition of all patent restrictions on purchasers. But the fundamental reason why a court may want to employ the mandatory rule is still based on a policy judgment that the specific patent restriction at issue violates public policy of some sorts. In *Bauer*, for example, the Supreme Court used patent exhaustion to pass judgment on the lawfulness of resale price maintenance.⁹³ In *Motion Picture Patents*, for another example, the Court used patent exhaustion to reject the patentee’s tying of patented motion picture projectors to unpatented films.⁹⁴ In both cases, the Court was motivated by what it saw as the inconsistency of the specific patent restriction in question with public policy and resorted to patent exhaustion as a way of disapproving the restriction.⁹⁵

But mandatory patent exhaustion is not the only way to reject a

The district court only held that no restrictions could be imposed under patent law whether or not the notice was sufficient. *Id.*

⁹³ See *supra* notes 39-43 and accompanying text.

⁹⁴ See *supra* notes 44-48 and accompanying text.

⁹⁵ Similarly, the Federal Circuit in *Mallinckrodt* argued that the district court’s holding in that case that the “single use only” restriction in question was unenforceable was based on “policy considerations. See *Mallinckrodt Inc. v. Medipart, Inc.*, 976 F.2d 700, 704 (1992).

patent restriction as against public policy. Instead of declaring all patent restrictions on purchasers per se unlawful under the name of patent exhaustion, an alternative approach would be to evaluate whether the specific restriction comports with public policy on its own merits, in an analysis separate from the exhaustion analysis. To the extent that such a stand-alone public policy analysis is informed by the same policy considerations as under the mandatory rule of exhaustion, it would produce the same outcomes in terms of specific cases. In *Bauer*, for example, the restriction at issue—minimum resale price maintenance—was considered a per se violation of the Sherman Act if it was imposed on the resale of unpatented goods under the legal standard prevailing at the time.⁹⁶ The Supreme Court could have limited its holding in *Bauer* to one declaring that minimum resale price maintenance for patented articles also violates public policy, without resorting to a blanket prohibition of all patent restrictions on purchasers.⁹⁷ In *Motion Picture Patents*, the patented motion picture projectors were the only ones with which motion picture films could be used successfully,⁹⁸ meaning that the patentee had a virtual monopoly on the market for motion picture projectors. The patentee's tying of patented projectors to unpatented films, therefore, would have violated the prohibition of anticompetitive tying under antitrust law.⁹⁹ Conversely, the Supreme Court's decision in *A.B. Dicks* not to apply patent exhaustion appears to be motivated by its belief that the patented machine in question was just one of many similar products on the market and the patentee's practice of tying its use to the use of unpatented inks would cause

⁹⁶ *Bauer & Cie. v. O'Donnell*, 229 U.S. 1, 11-12 (1913) (citing *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, 220 U.S. 373 (1911)). The legal treatment of minimum resale price maintenance has since then evolved. Today, the practice is subject to a rule of reason analysis. See *Leegin Creative Leather Products, Inc. v. PSKS, Inc.*, 551 U.S. 877 (2007).

⁹⁷ The Federal Circuit in *Mallinckrodt* argued that the Supreme Court's holding in *Bauer* was indeed limited to minimum resale price maintenance. See *Mallinckrodt*, 976 F.2d at 704 ("These cases established that price fixing and tying restrictions 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."). To the extent that the Supreme Court did limit its holding in such a fashion, it certainly did not do so explicitly.

⁹⁸ *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, 243 U.S. 502, 508 (1917).

⁹⁹ For discussions of treatment of tying arrangements under antitrust law, see ABA SECTION OF ANTITRUST LAW, *ANTITRUST LAW DEVELOPMENTS* 172-210 (6th ed. 2007).

no harms to the public.¹⁰⁰

One historical factor that led the Supreme Court to use mandatory patent exhaustion to reject patent restrictions that would have been unlawful under antitrust law was the perceived conflict between patent law and antitrust law.¹⁰¹ Because of the notion that the patent monopoly authorized by the Constitution required “absolute freedom” in the use or sale of patent rights,¹⁰² courts struggled in defining the boundary between the permissible patent monopoly and the monopoly that would be condemned by antitrust law.¹⁰³ One convenient way of resolving the perceived conflict between patent law and antitrust law was to declare the patent monopoly to have been exhausted—so that there would be no impediments to the full application of antitrust law. In *Univis*, for example, the Supreme Court declared the patentee’s patent rights to have been exhausted upon the sale of the lens blanks before it held that the patentee’s attempt to control the resale prices of the finished lenses violated the Sherman Act.¹⁰⁴

Yet there are no principled reasons why antitrust law can be applied only when patent rights have been exhausted. In *Motion Picture Patents*, the appeals court below indeed solely relied on the Clayton Act, which prohibits anticompetitive tying even when it involves patented articles,¹⁰⁵ in striking down the patentee’s tying

¹⁰⁰ See *Henry v. A.B. Dick*, 224 U.S. 1, 34 (1912) (“[T]he public is always free to take or refuse the patented article on the terms imposed. If they are too onerous or not in keeping with the benefits, the patented article will not find a market.”).

¹⁰¹ In the first twenty years after the enactment of the Sherman Act in 1890, courts tended to defer to the prerogatives of intellectual property right holders when their licensing restrictions were challenged under the Sherman Act. See Willard K. Tom & Joshua A. Newberg, *Antitrust and Intellectual Property: From Separate Spheres to Unified Field*, 66 ANTITRUST L.J. 167, 168-70 (1997). Between 1912 and the mid-1970s, however, courts generally perceived patent law and antitrust law as rigidly separate spheres of law. See *id.* at 170-73.

¹⁰² See, e.g., *A.B. Dick*, 224 U.S. 1, 29-30 (1912) (“[T]he general rule is absolute freedom in the use or sale of rights under the patent laws of the United States. 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.”).

¹⁰³ See Tom & Newberg, *supra* note 101, at 170-73.

¹⁰⁴ See *United States v. Univis Lens Co.*, 316 U.S. 241, 252 (1942) (“The price fixing features of appellee’s licensing system, which are not within the protection of the patent law, violate the Sherman Act . . .”).

¹⁰⁵ Section 3 of the Clayton Act provides:

That it shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other

restriction.¹⁰⁶ The Supreme Court in *Motion Picture Patents* pointed out that its reliance on patent exhaustion made it unnecessary to apply the Clayton Act,¹⁰⁷ but it did not rule that it was inappropriate to rely on the Clayton Act directly.¹⁰⁸ Even when there are no congressional statutes like the Clayton Act directly on point, courts could still interpret the patent monopoly in a manner that does not give patentees the power to use their patents in violation of public policy goals reflected under antitrust law. This principle has long been recognized by modern antitrust jurisprudence, which treats intellectual property as essentially comparable to any other form of property for antitrust purposes.¹⁰⁹

If one takes the view that a patent restriction may violate public policy even if it does not violate antitrust law, it is also clear that a rejection of a patent restriction on public policy grounds does not require the application of mandatory patent exhaustion. Courts could conduct a public policy test for the patent restriction even though the patentee is still theoretically protected by its patent rights. Such public policy tests are routinely conducted under the rubric of the patent misuse doctrine, an equitable doctrine that holds a patent unenforceable, but not void, if it is being used in

commodities, *whether patented or unpatented*, for use, consumption or resale within the United States or any territory thereof . . . on the condition, agreement or understanding that the lessee or purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies or other commodities of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract for sale or such condition, agreement or understanding may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

Act of Oct. 15, 1914, c. 323, § 3, Pub. L. 63-212, 38 Stat. 731, codified at 15 U.S.C. § 14 (emphasis added).

¹⁰⁶ *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 235 F. 398, 400 (1916) (“If the prohibitions of the Clayton Act mean anything at all, this case falls within them, and the restrictions as to use of films other than complainant’s with the projecting machines are therefore void.”).

¹⁰⁷ *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 517 (1917) (“Our conclusions make it unnecessary to make the application of this statute to the case at bar which the circuit court of appeals made of it . . .”).

¹⁰⁸ Indeed, the Supreme Court acknowledged that that the Clayton Act was “a most persuasive expression of the public policy of our country with respect to the question before us,” *id.* at 518, hinting that its decision to apply patent exhaustion was informed by the same public policy underlying the Clayton Act.

¹⁰⁹ This view is one of the principles underlying the 1995 Guidelines for the Licensing of Intellectual Property issued by the U.S. Department of Justice and Federal Trade Commission. See Tom & Newberg, *supra* note 101, at 173.

violation of the public policy behind the patent monopoly.¹¹⁰ Indeed, in the very first case that laid out the patent misuse doctrine, *Morton Salt Co. v. G.S. Suppiger Co.*, the Supreme Court rejected a tying restriction on public policy grounds without even discussing patent exhaustion.¹¹¹

This Article proposes a modified rule of exhaustion that, like *Morton Salt*, conducts a patent misuse test independent of the exhaustion analysis. This modified rule of exhaustion would preserve patent exhaustion as a default rule, a rule that requires exhaustion only when the patentee has not subjected the sale to express patent restrictions. When a patent restriction survives a sale under this default rule because it is made an express condition of the sale, a separate patent misuse test will be conducted to determine whether the patentee could enforce the specific patent restriction from the point of view of public policy. Below, this Article will refer to this modified rule of exhaustion as the “default-plus” rule, with the word “plus” standing for the stand-alone patent misuse test.

It bears noting that the patent misuse doctrine is not without problems. First of all, under current case law, it is unclear exactly what public policy factors should go into the patent misuse analysis. When the Supreme Court invented the patent misuse doctrine in *Morton Salt*, it made clear that a patent restriction did not have to violate antitrust law to violate the broader public policy, but it did that without specifying what that broader public policy was.¹¹² Since the 1980s, the Federal Circuit has tried to put some rationality into the patent misuse doctrine by limiting the use

¹¹⁰ See, e.g., *U.S. Gypsum Co. v. National Gypsum Co.*, 352 U.S. 457, 465 (1957) (“[C]ourts will not aid a patent owner who has misused his patents to recover any of their emoluments accruing during the period of misuse or thereafter until the effects of such misuse have been dissipated, or ‘purged’ as the conventional saying goes.”).

¹¹¹ See 314 U.S. 488 (1942). *Morton Salt* involved a patentee leasing its patented salt-depositing machines on the condition that such machines be used only with salt tablets sold by the patentee. *Id.* at 491. The case did not involve patent exhaustion because there were no sales of patented articles. But that did not prevent the Supreme Court from holding that the patentee’s tying restriction violated public policy and constituted patent misuse. See *id.* at 494 (“It is the adverse effect upon the public interest of a successful infringement suit in conjunction with the patentee’s course of conduct which disqualifies him to maintain the suit . . .”).

¹¹² See *Morton Salt*, 314 U.S. at 494 (“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 . . .”).

of the doctrine to situations where a patent restriction raises antitrust concerns.¹¹³ The narrowing of the patent misuse doctrine by the Federal Circuit, however, is clearly at odds with the Supreme Court's expansive formulation of the doctrine.¹¹⁴ Without a clear guidance on what public policy factors should be considered under the patent misuse doctrine, the doctrine is at the risk of becoming a circular exercise.¹¹⁵ Moreover, the patent misuse doctrine suffers problems from the standpoint of proportionality and deterrence, as it leads to a level of sanction that is unrelated to the injury caused, is duplicative, and operates as a windfall for patent infringers who are not injured by the misuse.¹¹⁶

The problems with the patent misuse doctrine notwithstanding, a public policy test for patent restrictions is inevitable considering that the patent monopoly authorized by the Constitution is only for the limited purpose of "promoting the progress of science and useful arts."¹¹⁷ The goal of this Article is not to define the proper scope of the patent misuse doctrine, but to argue that, to the extent that a patent misuse test has to be conducted, it ought not to be conducted under the name of patent exhaustion. For reasons to be discussed in Part III, the proper role of patent exhaustion should only be to exhaust a patentee's rights

¹¹³ In 1986, in *Windsurfing Int'l, Inc. v. AMF, Inc.*, the Federal Circuit required a patent restriction to cause an "anticompetitive effect" for it to constitute patent misuse. See 782 F.2d 995, 1001 (1986) ("The doctrine of patent misuse is an affirmative defense to a suit for patent infringement . . . and requires that the alleged infringer show that the patentee has impermissibly broadened the 'physical or temporal scope' of the patent grant with anticompetitive effect.") (citing *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation*, 402 U.S. 313, 343 (1971)). This requirement continued to be imposed in subsequent cases. See Robert J. Hoerner, *The Decline (and Fall?) of the Patent Misuse Doctrine in the Federal Circuit*, 69 ANTITRUST L.J. 669, 679-82 (2001).

¹¹⁴ See Hoerner, *supra* note 113, at 684-85.

¹¹⁵ See Mark R. Patterson, *Leveraging Information About Patents: Settlements, Portfolios, and Holdups*, 50 HOUS. L. REV. 483, 500 (2012) ("[T]he scope argument in this context is entirely circular. If the patent is valid, an agreement that delays entry of a competitor that uses the patented technology is within the scope of the patent, but validity is exactly the issue on which legality of the agreement turns, so relying on scope is assuming the result of the argument."). For an example of the circularity of the patent misuse analysis conducted by courts, see *A.G. Design & Associates, LLC v. Trainman Lantern Co.*, 630 F.Supp.2d 1275, 1279 (W.D. Wash. 2008) ("A patent is unenforceable for misuse when its owner attempts to use it to exclude competition knowing that the patent is invalid or enforceable. For a patent to become unenforceable, the patent owner must both have an unenforceable patent and know the patent is unenforceable.").

¹¹⁶ See Lemley, *supra* note 13, at 1599.

¹¹⁷ See *supra* note 1 and accompanying text.

to enforce a patent restriction that is not an express condition of the sale.

In fairness, the default rule envisioned by the Federal Circuit in *Mallinckrodt* also includes a public policy test. In holding that the patentee in that case had the right to enforce its “single use only” patent restriction, the Federal Circuit announced that “[u]nless the condition violates some other law or policy . . . , private parties retain the freedom to contract concerning conditions of sale.”¹¹⁸ This public policy test, however, is often ignored or de-emphasized by courts and proponents of the *Mallinckrodt* rule. In *Quanta*, for example, the patentee LGE was trying to enforce a patent restriction precluding third-party computer makers from using the microprocessors and chipsets sold by Intel.¹¹⁹ In so doing, LGE was essentially trying to exact a second royalty payment from third-party computer makers for the microprocessors and chipsets when it had already received a royalty payment from Intel.¹²⁰ The Federal Circuit in the proceedings below held that LGE should be allowed to enforce its license restriction because patent exhaustion did not apply to an expressly conditional sale.¹²¹ At no point did the Federal Circuit discuss whether LGE’s license restriction violated public policy.¹²² The Supreme Court in *Quanta* rejected LGE’s license restriction under the name of patent exhaustion, but that may not be so much a rejection of the *Mallinckrodt* default rule as a rejection of LGE’s license restriction on public policy grounds, even though the Supreme Court did not specify what the public policy objection to LGE’s license restriction might be.¹²³ Richard

¹¹⁸ *Mallinckrodt*, 976 F.2d at 708.

¹¹⁹ See *supra* notes 61-66 and accompanying text for discussions of *Quanta*.

¹²⁰ See Robert W. Gomulkiewicz, *The Federal Circuit’s Licensing Law Jurisprudence: Its Nature and Influence*, 84 WASH. L. REV. 199, 233 (2009) (noting that LGE’s license restriction in *Quanta* served as a notice to third-party computer makers that they needed to purchase a license from LGE).

¹²¹ *LG Electronics, Inc. v. Bizcom Electronics, Inc.*, 453 F.3d 1364, 1370 (2006) (“The ‘exhaustion doctrine . . . does not apply to an expressly conditional sale or license,’ . . . so LGE’s rights in asserting infringement of its system claims were not exhausted.”) (citing *B. Braun Med., Inc. v. Abbott Laboratories*, 124 F.3d 1419, 1426 (Fed. Cir. 1997)).

¹²² See *id.* at 1369-70.

¹²³ Other commentators also suggested that the Supreme Court heard the dispute in *Quanta* to comment on the types of patent license agreements that it approves. See, e.g., F. Scott Kieff, *Quanta v. LG Electronics: Frustrating Patent Deals by Taking Contracting Options Off the Table?*, 2008 CATO SUP. CT. REV. 315, 316 (“[T]he true import of the case is the way it speaks about what patent contracting can be done—as a way of Court created policy for federal patent law.”).

Epstein, who has forcefully argued that the *Mallinckrodt* default rule is the correct approach to patent exhaustion,¹²⁴ rejected the Supreme Court's ruling in *Quanta* as "a pure exercise in idle formalism" because it did not indicate why Intel and Quanta should not be allowed to contract around patent exhaustion.¹²⁵ According to Epstein, an application of the *Mallinckrodt* rule should result in LGE being allowed to enforce its license restriction because that restriction, in his view, was "efficient."¹²⁶ Epstein's view of the public policy implications of LGE's license restriction, however, is obviously far too narrower than the view of the Supreme Court in *Quanta* and the view of a U.S. district court that struck down a double-royalty scheme similar to the one in *Quanta* on patent misuse grounds.¹²⁷ Therefore, the application of the default-plus rule in *Quanta*, with the patent misuse test conducted in full accordance with the confines of the test as currently formulated by courts, would lead to a different result than Epstein argued should be under the default rule of exhaustion.

III. THE NORMATIVE CASE FOR THE DEFAULT-PLUS RULE

The main thrust of the new default-plus rule sketched out in Part II is two-fold. First, patent exhaustion should be treated as a default rule—namely, it should only exhaust a patent restriction that is not expressly imposed on the purchaser at the time of the sale. Second, this default rule should be coupled with a patent misuse test that is separate from the exhaustion analysis. Unlike the mandatory rule of exhaustion, which functions as an across-

¹²⁴ See Epstein, *supra* note 13, at 503-11. Epstein's view on patent exhaustion is in keeping with his long-held view that intellectual property rights and traditional property rights in tangible property serve a common purpose of "maximize[ing] the overall value of assets held in private hands." *Id.* at 522.

¹²⁵ *Id.* at 510.

¹²⁶ *Id.* ("The efficiency rationale of this two-part payment system seems too evident to question."). Epstein argued that LGE's license restriction in *Quanta* was efficient because it assured parties who already purchased a license from LGE that they would not be required to pay for a license a second time and also warned other parties that an additional license payment was required. See *id.* at 509-10.

¹²⁷ In 1998, in *PSC Inc. v. Symbol Technologies, Inc.*, the U.S. District Court for the Western District of New York held that a licensor misused its patents by charging royalties for laser scan engines used in laser detectors, and charging a second royalty to another licensee when engines were installed in detection services. See 26 F.Supp.2d 505 (W.D.N.Y. 1998). The court held that the patentee's double-royalty scheme both broadened the scope of the patents with anticompetitive effect and imposed an unreasonable restraint on competition. *Id.* at 510-11.

the-board prohibition of all patent restrictions on purchasers, this default-plus rule of exhaustion allows patentees to reserve patent rights against purchasers through express restrictions, provided that such restrictions pass the patent misuse test.

In this Part, this Article presents the normative case for why the default-plus rule is superior to the mandatory rule of exhaustion. This normative case revolves around three arguments: Compared to the mandatory rule, the default-plus rule stands on a firmer theoretical foundation, is more malleable in giving effects to socially beneficial patent restrictions, and creates fewer incentives for circumvention efforts.

A. *Theoretical Foundation*

Although patent exhaustion has been routinely described as a mandatory rule, no satisfactory explanations exist as to why there should be an across-the-board prohibition of patent restrictions on purchasers from the standpoint of legal theory. By contrast, a strong argument could be made that patent exhaustion has its purpose in protecting and enabling fair bargaining between the seller and the buyer over the value of the patented article. This rationale only requires patent exhaustion to be a default rule, not a mandatory rule.

1. *The Mandatory Rule*

Despite the Supreme Court's frequent invocation of the mandatory rule of exhaustion,¹²⁸ the theoretical justification for the mandatory rule has been unclear at best. The only rationale offered by the Supreme Court for patent exhaustion—first articulated in *Mitchell v. Hawley* in 1873 and then dutifully repeated thereafter—is the idea that a patentee is entitled to only one reward that has to be realized in the form of the sale price of the patented article when it is first sold.¹²⁹ Under this “single reward”

¹²⁸ See *supra* Part I.A.

¹²⁹ See *Mitchell v. Hawley*, 83 U.S. 544, 547 (1873) (“[W]hen [patentees] have made one or more of the things patented, and have vended the same to others to be used, they have parted to that extent with their exclusive right, as they are never entitled to but one royalty for a patented machine”); *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 456 (1873) (“[T]he 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.”); *United States v. Univis Lens Co.*, 316 U.S. 241, 251 (1942) (“[T]he purpose of the patent law is fulfilled with respect to any particular article when

theory, a patentee loses its patent rights with respect to a sold article after it has already collected its rewards from the sale of the article.

As Glen Robinson has pointed out, however, this single-reward theory begs the question of why a patentee should be required to collect its rewards all at once when the patented article is first sold.¹³⁰ According to Robinson, the single-reward theory calls for a constraint not just on the total amount of the rewards from a patent, but also on how the rewards are structured.¹³¹ Robinson argued that even under the assumption that a patent represents a monopoly and therefore the total amount of the rewards to the patentee needs to be capped at no greater than is necessary to fulfill the special purposes of the patent grant, the single-reward theory still cannot be justified because “the patent law does not prescribe a fixed schedule of allowable returns from the patent or the form in which they can be received.”¹³²

The single-reward theory becomes somewhat more sensible when the theory is viewed in light of common law’s traditional hostility to servitudes on chattels.¹³³ Scholars including Glen Robinson and Molly Van Houweling have discussed patent exhaustion in the context of common law’s refusal to recognize chattel servitudes, suggesting a link between the two.¹³⁴ If the courts were reluctant to enforce servitudes on chattels as a matter of general property law, the logic goes, it seems natural for them to take a similar stance towards servitudes on chattels embodying

the patentee has received his reward for the use of his invention by the sale of the article, and that once that purpose is realized the patent law affords no basis for restraining the use and enjoyment of the thing sold.”).

¹³⁰ Robinson, *supra* note 13, at 1465.

¹³¹ *Id.* at 1496.

¹³² *Id.* Note that modern antitrust law does not take the view that a patent necessarily represents a monopoly. See, e.g., *Asahi Glass Co. v. Pentech Pharms, Inc.*, 289 F.Supp.2d 986, 995 (N.D. Ill. 2003) (“A patent confers a monopoly in the sense of a right to exclude others from selling the patented product. But if there are close substitutes for the patented product, the patent ‘monopoly’ is not a monopoly in a sense relevant to antitrust law.”).

¹³³ In the early 1900s, the English Court of Chancery generally disfavored the imposition of equitable servitudes on the use or resale of chattels after the first sale, and U.S. generally endorsed this approach. See Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1, 18 & nn. 67-68 (2000); see also Van Houweling, *supra* note 13, at 907-10.

¹³⁴ See Robinson, *supra* note 13, at 1464-69; Van Houweling, *supra* note 13, at 910-14.

patents and other intellectual property rights.¹³⁵

However, a simple juxtaposition of the doctrine of patent exhaustion and the common law rules on chattel servitudes can only explain where the courts might have derived the idea of mandatory exhaustion; it does not offer an operative theory about why mandatory exhaustion ought to be the rule. Such a theory has to come from an explanation about the potential rationales behind the common law rules on chattel servitudes themselves. One such rationale, as suggested by Judge Lurton, is that common law's objection to chattel servitudes serves the purpose of promoting the free transfer of property rights in chattels.¹³⁶ But given that common law has been much more receptive to servitudes on real property,¹³⁷ the ultimate question is what, if any, makes free transfer of property rights so much more important for chattels than for real property.

In an influential article, Zechariah Chafee first pondered over the question of what might justify common law's hostility towards chattel servitudes.¹³⁸ Chafee acknowledged that judicially enforcing equitable servitudes on chattels would require balancing the interests of manufactures against those of consumers and distributors and would also require taking into account the cost of

¹³⁵ Adam Massoff argues that linking the exhaustion doctrine to traditional judicial hostility to use restrictions on chattels is "anachronistic" given that patents were historically treated as sharing attributes of both real estate and chattels and it was not until modern times that patents were redefined as personal property. See Massoff, *supra* note 13, at 719 & nn. 84, 85. This argument, however, fails to recognize that regardless of whether patents are characterized as real or personal property, the exhaustion doctrine only concerns restrictions imposed on personal property. So even though patents were once considered to possess certain characteristics of real property, that in and of itself does not make the analogy between the exhaustion doctrine and common law rules on chattel servitudes out of sync with the historical period in which the exhaustion doctrine was born.

¹³⁶ *John D. Park & Sons Co. v. Hartman*, 153 F. 2d 39 (6th Cir. 1907) ("A prime objection to the enforceability of such a system of restraint upon sales and prices is that they offend against the ordinary and usual freedom of traffic in chattels or articles which pass by mere delivery. The right of alienation is one of the essential incidents of a right of general property in movables, and restraints upon alienation have been generally regarded as obnoxious to public policy, which is best subserved by great freedom of traffic in such things as pass from hand to hand.")

¹³⁷ See Robinson, *supra* note 13, at 1449-50 ("Anglo-American property law has recognized contractually created servitudes on real property for over four centuries."); Van Houweling, *supra* note 13, at 891-906 (discussing the common law jurisprudence of land servitudes).

¹³⁸ See Zechariah Chafee, Jr., *Equitable Servitudes on Chattels*, 41 HARV. L. REV. 945 (1928).

such judicial enforcement.¹³⁹ Despite this difficult balancing task, Chafee expressed optimism that “the complexities and variety of modern business may eventually present opportunities for restrictions on personalty which are free from the disadvantages of restraint of trade and when that time comes the appropriate equitable machinery is ready for use.”¹⁴⁰ Decades later, Chafee had a second thought on the issue and became less convinced of the reasonableness of chattel servitudes.¹⁴¹ But Chafee’s newly found objection to chattel servitudes was not an objection to chattel servitudes per se, but an objection to courts enforcing chattel servitudes without taking into account whether they were consistent with public policy.¹⁴² Chafee still favored the weighing of the public policy implications of specific chattel servitudes on a case-by-case basis¹⁴³—rather than an across-the-board prohibition of all chattel servitudes as is the case under the mandatory rule of patent exhaustion.

Unlike Chafee, Glen Robinson was unreserved in his objection to common law’s reluctance to recognize use and resale restraints on personal property.¹⁴⁴ Robinson argued that the common law policy against restraints on alienation “makes for a very flimsy argument” against allowing such restraints in the case of personal

¹³⁹ *Id.* at 1013 (“Against the persuasive effect of analogous property interests and the advantages of such restrictions to manufacturers and to the marketing process must be offset not only the economic claims of consumers and independent wholesalers and retailers, but also the immense judicial labor required for a satisfactory development of the operation and limits of the proposed device.”).

¹⁴⁰ *Id.*

¹⁴¹ See Zechariah Chafee, Jr., *The Music Goes Round and Round: Equitable Servitudes and Chattels*, 69 HARV. L. REV. 1250, 1250-63 (1956) (criticizing a New Hampshire Supreme Court ruling for enforcing restrictions on the use of a jukebox installed on the premise of a luncheonette).

¹⁴² See *id.* at 1258 (“The big point is that the imposition of a novel burden, either on land or a chattel or both, ought not to depend solely on the will of the burden. The validity or invalidity of the burden they want to create ought to depend on considerations of public policy.”).

¹⁴³ Chafee’s preference for case-by-case deliberations on the public policy implications of chattel servitudes is clear since the inquiries he argued were necessary for such deliberations were all tailored to the specific servitude in question. See *id.* (“Do business needs make it desirable to create this novel burden? Does its enforcement involve such grave possibilities of annoyance, inconvenience, and useless expenditure of money that it should not be allowed?”).

¹⁴⁴ See Robinson, *supra* note 13, at 1449. (“This Article argues that the traditional hostility to use and resale restraints on personal property is misguided in both the common law and intellectual property contexts.”).

property.¹⁴⁵ “To the extent that such restraints are valid for real property,” Robinson argued, “they should be valid, *pari passu*, for personal property.”¹⁴⁶ Robinson further argued that “such restraints ought to be equally valid for intellectual property” insofar as patent exhaustion is grounded on this policy.¹⁴⁷

Not everyone is skeptical about the common law rule on chattel servitudes, however. Molly Van Houweling contended that common law’s reluctance to enforce chattel servitudes can be explained by the high costs of identifying and verifying information related to such servitudes.¹⁴⁸ Van Houweling argued that given the relatively low value of chattels and the rapidity with which chattels are ordinarily sold, refusal to enforce chattel servitudes serves a socially desirable function of avoiding “adding an extra level of informational complexity to what might otherwise be relatively simple and fluid commerce.”¹⁴⁹ By contrast, Van Houweling explained, courts have been more willing to enforce patent restrictions on manufacturing licensees because “[a] manufacturer who produces patented articles can reasonably be expected to pay attention to the terms of his manufacturing license, considering that the essence of the license is the permission it grants the licensee to do that which would otherwise be forbidden by the Patent Act.”¹⁵⁰

Van Houweling’s information-cost theory, however, does not provide a justification for patent exhaustion being a mandatory rule. As a threshold matter, although it might be accurate to characterize personal property in day-to-day use as having relatively low values, the same may not hold true for patented

¹⁴⁵ *Id.* at 1453.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* Robinson included in his discussion the counterpart of patent exhaustion in copyright and trademark laws, the “first sale” doctrine. See *id.* at 1452 n.13.

¹⁴⁸ Van Houweling, *supra* note 13, at 914-16. Guy Rub also proposed a similar theory to justify the first sale doctrine in copyright law. See Guy A. Rub, *Rebalancing Copyright Exhaustion*, 64 EMORY L.J. ____ (forthcoming 2015), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2433780.

¹⁴⁹ Van Houweling, *supra* note 13, at 914.

¹⁵⁰ *Id.* at 919. Like Van Houweling, Jay Dratler also justified patent exhaustion on information cost concerns. See JAY DRATLER, JR., LICENSING OF INTELLECTUAL PROPERTY § 7.05 (2014) (“The doctrine avoids burdening purchasers of protected chattels with the inconvenience, increased transaction costs and general inefficiency that would attend requiring them to trace the patent pedigree of every object in their possession and comply with various restrictions upon their use or resale to which the purchasers had never agreed.”).

articles purchased as production inputs or inventory, whose value could be quite significant over time.¹⁵¹ But even assuming that patented articles are generally of low values, Van Houweling's information-cost theory could only explain why it does not make sense to allow patentees to impose patent restrictions through notices affixed to patented articles: Purchasers may overlook such notices,¹⁵² and more importantly, they would have to "take the time and energy to understand and take account of" the patent restrictions specified in the notices—a socially undesirable investment when the value of the patented articles is low.¹⁵³ It does not explain, however, why it does not make sense to allow patent restrictions to be enforceable when purchasers have actual knowledge, as opposed to mere notice, of such restrictions. Indeed, Van Houweling conceded that when a purchaser could not plausibly claim that "it could have been confused by, inattentive to, or otherwise cognitively burdened by" the existence of a patent restriction, enforcing the restriction under patent law appears to be the correct outcome.¹⁵⁴ This runs diametrically opposed to the notion of mandatory exhaustion, which rejects all patent restrictions on purchasers, including those of which purchasers have actual knowledge.

2. *The Default-Plus Rule*

While the mandatory rule of exhaustion lacks a clear theoretical basis, the theoretical justification for the default-plus rule of exhaustion is overwhelmingly strong. As will be discussed below, such a justification lies in the role of patent exhaustion in protecting and enabling fair bargaining over the value of the patented articles. This role only requires patent exhaustion to be a

¹⁵¹ One example of the purchases of patented articles as inputs was the purchases of microprocessors and chipsets by Quanta from Intel in the *Quanta* case. Quanta combined those microprocessors and chipsets with other components to assemble computers. See *supra* notes 61-66 and accompanying text.

¹⁵² See Van Houweling, *supra* note 13, at 915 ("[I]t must be recognized that not one purchaser in many would read such a notice, and that not one in a much greater number, if he did read it, could understand its involved and intricate phraseology.") (quoting *Straus v. Victor Talking Machine Co.*, 243 U.S. 490, 501 (1917)).

¹⁵³ *Id.* at 915.

¹⁵⁴ *Id.* at 920 (discussing the Supreme Court's holding in *General Talking Picture Corp. v. Western Electric Co.* and its relevance to the information-cost theory). Van Houweling argued, however, that this situation was a "special instance" to which her information-cost theory did not apply. See *id.*

default rule, not a mandatory rule.

To appreciate the purpose of patent exhaustion, one has to start with the extremely broad rights granted to patentees under the Patent Act. The Patent Act specifies that patentees enjoy exclusive rights to make, use, offer to sell, sell, or import a patented invention, with no explicit limitations on when patentees could exercise these rights.¹⁵⁵ Without a judicial construct limiting the timing of the exercise of these rights, a patentee could impose a patent restriction pursuant to its patent rights at any points in time, including *after* a patented article has been sold when the restriction in question is not a condition of the sale.

Such after-the-fact restrictions would pose fundamental problems for the sale of patented articles, or, for that matter, the sale of any articles of merchandise. A principle underlying all property sales is that the value of the property to the buyer necessarily depends on the uses to which the property could be put.¹⁵⁶ When the sale of an article of merchandise is subject to no express restrictions on the possible uses of the article (including its resale), the price the buyer will be willing to pay for the article supposedly reflects the article's unbridled uses. In such cases, the imposition of after-the-fact restrictions on the uses of the article (including its resale) would cause diminution in the market value of the article, upsetting the bargain the purchaser and the seller struck over the value of the article at the time of its sale.

An intent to protect fair bargaining over the value of the patented article, therefore, explains the courts' refusals to enforce after-the-fact patent restrictions. This intent was at work in some of the earlier Supreme Court cases on patent exhaustion. In *Adams v. Burke*, for example, while the patentee imposed geographical restrictions on the licensee's rights to make, use, and sell the patented coffin lids, no such restrictions were imposed on the purchaser when it purchased the coffin lids from the licensee.¹⁵⁷

¹⁵⁵ See *supra* note 2 and accompanying text.

¹⁵⁶ See, e.g., *United States ex rel. Tennessee Valley Authority v. Indian Creek Marble Co.*, 40 F.Supp. 811, 816-17 (1941) ("They will consider all the elements of value inherent in the property, including the uses to which it was being put as well as the uses it was reasonably susceptible to, which would add to its market value."); *West Jefferson Levee Dist. V. Coast Quality Construction Corp.*, 640 So.2d 1258, 1272 (La. 1994) ("The jurisprudence has always held in takings cases that the fair market value is the price a buyer is willing to pay after he has considered all of the uses to which the property may be put . . .").

¹⁵⁷ *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 455 (1873) ("[The purchaser] has used in his business . . . no coffin containing the invention secured by said letters patent, except such coffins containing said invention as have been manufactured

The purchaser therefore supposedly paid a price for the coffin lids based on its belief that their uses would be unrestricted.¹⁵⁸ Allowing the patentee to enforce the geographical restrictions on the uses of the coffin lids against the purchaser after the sale had been consummated would unwind the bargaining between the purchaser and the seller, an outcome the Supreme Court refused to give judicial sanction to. Similarly, the outcome in *Keeler v. Standard Folding Beds Co.* could be explained by the fact that the sale of the patented articles to the purchaser in that case was not, at the time of the sale, subject to the geographical restriction the plaintiff imposed on the manufacturing licensee.¹⁵⁹ Again, allowing such after-the-fact restrictions would be unfair to the purchaser, who presumably based its bargaining over the value of the patented articles on the assumption of unrestricted uses.

Prohibiting after-the-fact restrictions not only protects fair bargaining over the value of the patented article—it enables it in the first place. To see this point, imagine a world in which there is not a rule of patent exhaustion, namely, a world in which a patentee is allowed to impose restrictions on the use or resale of a patented article without being required to inform the purchaser of

by [the licensee], within a circle, whose radius is ten miles, having city of Boston as its centre, and sold within said circle by [the licensee], without condition or restriction.”).

¹⁵⁸ There is no indication that the purchaser in *Adams* was even aware of the geographical limitations on the rights of the licensee from whom it purchased the coffin lids.

¹⁵⁹ The majority in *Keeler* emphasized that

[when a patentee] has himself constructed a machine and sold it without any conditions, or authorized another to construct, sell, and deliver it, or to construct, use, and operate it, without any conditions, and the consideration has been paid to him for the thing patented, the rule is well established that the patentee must be understood to have parted to that extent with all his exclusive right, and that he ceases to have any interest whatever in the patented machine so sold and delivered or authorized to be constructed and operated.

Keeler v. Standard Folding Bed Co., 157 U.S. 659, 663 (1895). The dissent in *Keeler* hinted that the defendant purchaser was fully informed of the rights of the plaintiff assignee in Massachusetts. *Id.* at 672 (Brown, J., dissenting) (“Yet we are asked to hold in this case that one who is fully informed of the rights of territorial assignee may deal in the patented articles in defiance of such assignee, upon the ground that he has once submitted to the exactions of the patentee by purchasing the article of one who had a right to sell it.”). But merely informing the purchaser of the conflicting rights of another assignee is not the same as placing express restrictions on the rights conferred upon the purchaser, which does not appear to be the case in *Keeler*.

the restrictions at the time of the sale of the patented article.¹⁶⁰ In such a world, the purchaser faces an enormous amount of uncertainty as to what restrictions might be imposed by the patentee in the future—it could be a minor restriction that will not substantially hinder the purchaser’s use of the patented article, or it could be a major restriction rendering the patented article entirely useless. This uncertainty makes it very difficult, if not impossible, for the purchaser to assess the value of the patented article.¹⁶¹ It is conceivable that if the uncertainty surrounding the rights that come with a purchase proves to be too much to bear, some risk-averse purchasers may forego the purchase altogether. Seen in this light, the doctrine of patent exhaustion could be understood as a way of preventing the seller from imposing after-the-fact restrictions so as to force the purchaser and the seller to bargain over the value of the patented article based on specific patent restrictions known to the purchaser at the time of the purchase.

Conversely, when the patentee has expressly laid out a patent restriction at the time of the sale of a patented article, it is no longer necessary to rely on patent exhaustion to protect and enable fair bargaining between the purchaser and the seller over the value of the patented article. As long as the patent restriction is an express condition of the sale, the purchaser will supposedly take the restriction into account in arriving at the price it will be willing to pay for the patented article. As the Federal Circuit noted in *B. Braun Medical Inc. v. Abbot Laboratories*, in an expressly conditional

¹⁶⁰ This is not a purely hypothetical scenario. The patentee in *Motion Picture Patents* attempted to impose after-the-fact restrictions through a notice that stated:

The sale and purchase of this machine gives only the right to use it solely with moving pictures containing the invention of reissued patent No. 12,192, leased by a licensee of the Motion Picture *507 Patents Company, the owner of the above patents and reissued patent, while it owns said patents, and *upon other terms to be fixed* by the Motion Picture Patents Company and complied with by the user while it is in use and while the Motion Picture Patents Company owns said patents.

Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 506-07 (1917).

¹⁶¹ To put a value on the patented article in such circumstances, the purchaser would need to estimate the types of patent restrictions that might be imposed by the patentee in the future and the probability of each type of restrictions being imposed. The final value of the patented article to the purchaser will be the weighted average of the value of the article under each possible restriction. This evaluation process requires a large amount of information to which the purchaser may not have access.

sale, “it is more reasonable to infer that the parties negotiated a price that reflects only the value of the ‘use’ rights conferred by the patentee.”¹⁶² This does not mean that the patentee has complete freedom to impose whatever patent restrictions it wants to, as it is still not allowed to impose patent restrictions that violate public policy and constitute patent misuse.¹⁶³ The rule of patent exhaustion itself, however, only serves the public policy of protecting and enabling fair bargaining over the value of the patented article.

In sum, patent exhaustion could be best understood as a judicial construct that injects a time dimension into the otherwise timeless grant of patent rights under the patent statute. It forces the patentee to exercise its patent rights with respect to a patented article at the time of its sale so as to facilitate the sale. This purpose only requires patent exhaustion to be a default rule that kicks in when the patentee does not exercise its patent rights at the time of the sale. A broader conceptualization of patent exhaustion as a mandatory rule—a rule that applies regardless of whether the patentee exercises its patent rights at the time of the sale—finds no support in this fair-bargaining rationale.

It is worth noting, however, that although this fair-bargaining rationale provides a solid theoretical justification for allowing a patentee to retain its patent rights with respect to a sold patented article through a patent restriction imposed as an express condition of the sale, it does not address the question of what actions would be required to make a patent restriction an express condition of the sale. One recurring issue that courts have wrestled with is whether a patentee could enforce a patent restriction under patent law by merely affixing a notice to the patented article.¹⁶⁴ The answer to that question depends, under the default-plus rule laid out in this

¹⁶² 124 F.3d 1419, 1426 (Fed. Cir. 1997).

¹⁶³ That is the “plus” part of the default-plus rule of patent exhaustion. See *supra* Part II.

¹⁶⁴ This practice is involved in a number of leading Supreme Court cases on patent exhaustion. See *Henry v. A.B. Dick*, 224 U.S. 1, 11 (1912) (attaching a notice to patented stencil-duplicating machines requiring the machines to be used only with supplies made by the patentee); *Bauer & Cie. v. O'Donnell*, 229 U.S. 1, 8-9 (1913) (attaching a label to patented chemical products requiring the products to be resold at a price not less than one dollar); *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 506-07 (1917) (attaching a label to patented motion picture projectors requiring the projectors to project a specific kind of motion picture films made by the patentee); *General Talking Pictures Corp. v. Western Electric Co.*, 304 U.S. 175, 180 (1938) (attaching a label to patented amplifiers requiring the amplifiers to be used for private use only).

Article, on whether the notice would constitute a valid condition of the sale under the law governing sales and licenses.¹⁶⁵ That is an important question, but is not within the scope of this Article.

B. Malleability

Not only does the mandatory rule of patent exhaustion stand on a less firm theoretical ground than the default-plus rule, it is also less malleable than the default-plus rule in accommodating socially beneficial patent restrictions. As will be detailed below, the mandatory rule could only recognize socially beneficial patent through ad hoc carve-outs, while the default-plus rule could evaluate patent restrictions in a more flexible manner.

1. The Mandatory Rule

The mandatory rule of patent exhaustion is supposedly mandatory, cutting off the patentee's rights after a patented article has been sold. But occasionally, courts saw compelling reasons for enforcing a patent restriction against a purchaser. In such cases, courts would have to create special carve-outs from mandatory patent exhaustion in order to rule for the patentee. There are only so many ways in which such special carve-outs could be created, however, jeopardizing socially beneficial patent restrictions that do not fit any of them.

The first time when a court attempted to bypass patent exhaustion was in the 1872 case of *Mitchell v. Hawley*, where a patentee tried to prevent a purchaser from using, during the patent's extended term, patented machines constructed during the patent's original term.¹⁶⁶ Apparently motivated by the fact that the patentee expressly stipulated in the license to the manufacturing licensee that no rights were conferred beyond the expiration of the patent's original term,¹⁶⁷ the Supreme Court held that the patentee could still enforce the patent restriction even after the patented

¹⁶⁵ See *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 709 (Fed. Cir. 1992) (“If the sale of the [patented article] was validly conditioned under the applicable law such as the law governing sales and licenses, and if the restriction on reuse was within the scope of the patent grant or otherwise justified, then violation of the restriction may be remedied by action for patent infringement.”). Because of the posture of the case, the Federal Circuit in *Mallinckrodt* did not provide an answer to this question.

¹⁶⁶ 3 U.S. (21 Wall.) 544, 545 (1872).

¹⁶⁷ See *id.* at 544.

machines had been sold to the purchaser.¹⁶⁸ To get around patent exhaustion, the Court relied on *nemo dat quod non habet*, the legal doctrine that denies a purchaser rights that the seller does not have even if the purchaser is innocent.¹⁶⁹

The principle of *nemo dat quod non habet*, however, is an exception that threatens to swallow the rule of patent exhaustion. When a patentee imposes a patent restriction on a manufacturing licensee, the point in contention is whether the restriction will be enforceable against a downstream purchaser who purchases from the manufacturing licensee. *Nemo dat quod non habet* automatically turns a patent restriction on the manufacturing licensee into a patent restriction on the purchaser, regardless of whether the purchaser has knowledge of the restriction.¹⁷⁰ Under this principle, the sale of a patented article will never exhaust the patentee's rights with respect to the article, as long as the patentee imposes a valid restriction on the manufacturing licensee that manufactures the article.

As if realizing this grave implication, the Supreme Court quickly shunned away from *nemo dat quod non habet* the next time it addressed patent exhaustion. In *Adams v. Burke*, which involved a patentee enforcing against a purchaser a geographical restriction originally imposed on a manufacturing licensee,¹⁷¹ the Court stuck to the rhetoric initially used in *Bloomer v. McQuewan*, proclaiming that when a patentee sells a patented article, "[t]he article, in the language of the court, passes without the limit of the monopoly."¹⁷² The difference in the Court's handling of essentially the same factual situation in *Adams* and *Mitchell* is striking. In *Adams*, instead of holding that the patent restriction imposed on the

¹⁶⁸ *Id.* at 550-51.

¹⁶⁹ *Id.* at 550 ("Persons . . . who buy goods from one not the owner, and who does not lawfully represent the owner, however innocent they may be, obtain no property whatever in the goods, as no one can convey in such a case any better title than he owns, unless the sale is made in market overt, or under circumstances which show that the seller lawfully represented the owner.").

¹⁷⁰ Recall that the Supreme Court in *Mitchell* held that the purchaser did not need to have notice of a patent restriction for it to be enforceable against the purchaser, because "the law imposes the risk upon the purchaser, as against the real owner, whether the title of the seller is such that he can make a valid conveyance." *Id.* at 550.

¹⁷¹ The patentee in *Adams* was trying to prevent a purchaser from using patented coffin lids in a town outside of the area assigned to the manufacturing licensee that manufactured the coffin lids. See *supra* note 25 and accompanying text.

¹⁷² *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 456 & n2 (1873).

manufacturing licensee automatically applied to the purchaser under the principle of *nemo dat quod non habet*, the Court opted for the contrary rule, treating the first sale of a patented article as an event extinguishing the patentee's rights with respect to the sold article.

After its brief dabble in *nemo dat quod non habet*, the Supreme Court needed new ways of bypassing patent exhaustion—when necessary—without gutting the doctrine altogether. The Court found one in *General Talking Pictures Corp. v. Western Electric Co.*, where it allowed a patentee to enforce a “private use only” patent restriction against a purchaser when the patentee only imposed the restriction on the manufacturing licensee.¹⁷³ Although it did not explicitly explain the public policy reason for upholding a field-of-use restriction like the “private use only” restriction at issue, the Court in *General Talking Picture* appeared to be motivated by the fact that field-of-use restrictions were widely used and were always legal.¹⁷⁴ Indeed, field-of-use restrictions are generally considered procompetitive, as “the ability to provide different licensing terms for different users can encourage broader licensing of inventions.”¹⁷⁵ Specifically, the licensing arrangement in *General Talking Pictures* “allowed the patentees to reserve the right to manufacture for commercial use, which was apparently more profitable, while still allowing the technologies to be used broadly for home applications.”¹⁷⁶ To extend a field-of-use restriction to a purchaser, however, the Court needed to override patent exhaustion, which, under the case law thus far, conferred an “absolute property” on the purchaser.¹⁷⁷ The Court was able to do that in *General Talking Pictures* by taking advantage of the fact that the sale from the manufacturing licensee to the purchaser was outside the scope of the licensee's license. Patent exhaustion did

¹⁷³ See *supra* notes 78-83 and accompanying text.

¹⁷⁴ See *General Talking Pictures v. Western Electric Co.*, 305 U.S. 124, 127 (1938) (“The practice of granting licenses for a restricted use is an old one So far as appears, its legality has never been questioned. The parties stipulated that ‘it is common practice where a patented invention is applicable to different uses, to grant written licenses to manufacture under United States Letters Patents restricted to one or more of the several fields of use permitting the exclusive or non-exclusive use of the invention by the licensee in one field and excluding it in another field.’”) (citation omitted).

¹⁷⁵ Mark R. Patterson, *Contractual Expansion of the Scope of Patent Infringement Through Field-of-Use Licensing*, 49 WM. & MARY L. REV. 157, 159 (2007).

¹⁷⁶ *Id.*

¹⁷⁷ See *Keeler v. Standard Folding Bed Co.*, 157 U.S. 659, 666 (1895).

not apply here, the Court reasoned, because the patentee did not authorize the licensee to sell the patented machines for commercial use and the purchaser was not a “purchaser in the ordinary channels of trade.”¹⁷⁸

This method of bypassing patent exhaustion, however, is very idiosyncratic and, for that matter, arbitrary. The patentee in *General Talking Pictures* was able to enforce its “private use only” restriction against the purchaser only because the restriction happened to limit the sales that could be made by the manufacturing licensee—since the sale itself was not authorized by the patentee, patent exhaustion did not apply and the patentee still retained its rights against the purchaser. Essentially, this creates an ad hoc carve-out from patent exhaustion for a particular type of field-of-use restrictions imposed on a particular group of licensees (manufacturing licensees). This ad hoc carve-out would not be available to enforce patent restrictions that do not limit the sales of a manufacturing licensee.¹⁷⁹ Nor would it be available to a patentee who sells the patented articles itself, in which case the sales are by definition authorized.¹⁸⁰ These artificial distinctions, based on the form of the patent restriction and the identity of the seller, are irrelevant to the policy considerations underlying patent exhaustion and lead to “formalistic line-drawing.”¹⁸¹ Yet under the

¹⁷⁸ *General Talking Pictures v. Western Electric Co.*, 304 U.S. 175, 180-81 (1937), *rehearing granted* 304 U.S. 587, *aff'd on rehearing* 305 U.S. 124 (1938). This statement is now routinely interpreted as requiring a sale to be authorized by the patentee before it can exhaust the patentee's rights with respect to the sold article. See, e.g., *Server & Casey*, *supra* note 20, at 573 (“[T]he Court confirmed that only a first sale that is authorized by the holder of the patent right (as opposed to an infringing sale) triggers exhaustion that renders a post-sale restriction on the buyer of the patented product unenforceable through a patent infringement remedy.”).

¹⁷⁹ Had the patentee in *General Talking Pictures* only required the patented amplifiers to be *used* for private purposes only and not required the manufacturing licensee to only *sell* the patented amplifiers for private purposes, the sale to the purchaser would have been an authorized sale and the patentee would not have been able to enforce the “private use only” restriction against the purchaser.

¹⁸⁰ See Thomas G. Hungar, *Observations Regarding the Supreme Court's Decision in Quanta Computer, Inc. v. LG Electronics, Inc.*, 49 IDEA 517, 538 n.108 (2009) (“To be sure, the patent holder by definition cannot make an unauthorized sale.”). Had the patentee in *General Talking Pictures* manufactured and sold the patented amplifiers itself and imposed the same “private use only” restriction on the purchaser, the patentee would not have been able to prevent the purchaser from using the amplifiers for commercial purposes under the mandatory rule of patent exhaustion.

¹⁸¹ See *Server & Casey*, *supra* note 20, at 581.

mandatory rule of exhaustion, they have become the decisive factors in deciding whether a patent restriction is enforceable against purchasers.¹⁸² This outcome is “anomalous” and “make[s] little economic sense.”¹⁸³

After *General Talking Pictures*, a second occasion on which the Supreme Court found it necessary to bend the mandatory rule of exhaustion to accommodate a socially beneficial patent restriction against purchasers arose in the 2013 case of *Bowman v. Monsanto*.¹⁸⁴ In *Monsanto*, the plaintiff owned certain patents for a genetically modified soybean seed that allowed soybean plants to survive exposure to glyphosate, the active ingredient in many herbicides.¹⁸⁵ The plaintiff sold, and allowed other companies to sell, the patented seeds under a special licensing agreement that permitted a grower to plant the seeds in one growing season only.¹⁸⁶ Knowing about the licensing restriction, the defendant farmer purchased soybeans intended for human or animal consumption from other local farmers and planted them in his fields, with the anticipation that many of them contained the plaintiff’s patented technology.¹⁸⁷ The defendant then applied a glyphosate-based herbicide to the plants, and the plants that survived the herbicide produced a crop of soybeans with the patented anti-glyphosate trait. The defendant saved the seeds from that crop to use in his late-season planting next year and repeated this practice for eight growing seasons.¹⁸⁸

When sued for violating the “one season only” licensing restriction for the use of the seeds, the defendant invoked patent

¹⁸² See Chris Holman, *Quanta and Its Impact on Biotechnology*, Holman’s Biotech IP Blog (June 11, 2008), <http://holmansbiotechipblog.blogspot.com/2008/06/quanta-and-its-impact-onbiotechnology.html>, at *4 (“In *Quanta*, the Supreme Court cited *Talking Pictures* with approval, apparently clearing the way for a patent owner to restrict the use of a product by sales through a licensee in a manner that would not be permitted if the patent owner sold the product directly.”).

¹⁸³ *Id.* (This is clearly an anomalous outcome, and seems to make little economic sense. If this sort of restriction is permissible when accomplished through a licensee, why not let the patent owner achieve the same result directly?).

¹⁸⁴ 133 S.Ct. 1761 (2013).

¹⁸⁵ *Id.* at 1764.

¹⁸⁶ *Id.*

¹⁸⁷ *Id.* at 1765. The defendant had actual knowledge of the licensing restriction because he complied with it for his first crop of each growing season. He engaged in the challenged practice only for the riskier second crop of each season. *Id.*

¹⁸⁸ *Id.*

exhaustion and argued that the plaintiff could not control the use of the seeds after they were sold.¹⁸⁹ The Supreme Court disagreed. The Court saw a compelling reason for Monsanto's "one season only" license restriction: Without the restriction, "Monsanto's patent would provide scant benefit."¹⁹⁰ That is because "[t]he grower could multiply his initial purchase, and then multiply that new creation, *ad infinitum*—each time profiting from the patented seed without compensating its inventor."¹⁹¹ Public policy, therefore, requires Monsanto's patent rights with respect to the seeds to not be exhausted upon the sale of the seeds. The Court was able to effectuate this public policy consideration by holding that "the [patent exhaustion] doctrine restricts a patentee's rights only as to the 'particular article' sold . . . ; it leaves untouched the patentee's ability to prevent a buyer from making new copies of the patented item."¹⁹² Since the defendant planted the soybeans he purchased and harvested many more of them than he started with, the Court explained, he engaged in making new copies of the patented seeds and therefore was not protected by the exhaustion doctrine.¹⁹³ In so holding, the Court essentially created an ad hoc carve-out from patent exhaustion for a particular type of self-replicating products,¹⁹⁴ much like it created an ad hoc carve-out from patent exhaustion for a particular type of field-of-use restrictions in *General Talking Pictures*.

These ad hoc carve-outs from patent exhaustion are capable of saving the patentees from the strictures of patent exhaustion in circumstances where courts believe that deviation from patent exhaustion is warranted from the standpoint of public policy. The problem, however, is that such carve-outs are idiosyncratic and cannot save patent restrictions that are not covered under them yet may be as socially beneficiary. To exempt those patent restrictions, new carve-outs would have to be created. But there are only so many ways to create such ad hoc carve-outs, severely limiting the

¹⁸⁹ *Id.*

¹⁹⁰ *Id.* at 1767.

¹⁹¹ *Id.*

¹⁹² *Id.* at 1766.

¹⁹³ *Id.* at 1766-67. The Court cited the definition of "make" from Webster's Third New International Dictionary: "Make" means "cause to exist, occur, or appear," or more specifically, "plant and raise (a crop)." *Id.* at 1767.

¹⁹⁴ The Court emphasized that it was not granting a blanket exemption from patent exhaustion for all self-replicating products. *See id.* at 1769 ("Our holding today is limited—addressing the situation before us, rather than every one involving a self-replicating product.").

scope of patent restrictions that could escape patent exhaustion. Even if courts could get very creative in making new carve-outs available, the lack of inherent logic in the current carve-outs gives patentees no reasonable guidance as to where the next carve-outs would come from.

As a result, some patent restrictions that are arguably socially beneficial are thrown into legal limbo under the mandatory rule of exhaustion. One example of such patent restrictions, for illustration purposes, is the licensing structure utilized by the MPEG-2 patent pool, whose administrator filed an amicus curiae brief in *Quanta* in support of the patentee in that case, LGE.¹⁹⁵ The MPEG-2 patent pool licenses hundreds of patents essential to the MPEG-2 technology in single packages to manufacturers wishing to make MPEG-2 products.¹⁹⁶ The patents covered by the MPEG-2 pool are implemented at various levels of the production and distribution process, “from the fabrication of a chip, to its incorporation in a circuit board, to the manufacture, sale, and use of a finished product.”¹⁹⁷ To encourage individual patentees to enter into the patent pool arrangement, the MPEG-2 patent pool, like many other patent pools, grant royalty-free licenses to component manufacturers while reserving the right to charge royalties at the final stage of the production process, namely, to manufacturers that produce finished products to be used by consumers.¹⁹⁸ This license structure, if challenged, might not pass muster under the mandatory rule of exhaustion, as royalties are assessed at a time after the patented articles have already been sold.¹⁹⁹ Had a court concluded that the MPEG-2 license structure is

¹⁹⁵ See Brief of MPEG LA LLC As Amicus Curiae in Support of Respondent in *Quanta Computer, Inc. v. LG Electronics, Inc.*, the Supreme Court of the United States, No. 06-937, Dec. 10, 2007 [hereinafter MPEG-2 Quanta Brief].

¹⁹⁶ *Id.* at 2. MPEG-2 is a core platform technology used in every DVD player, DVD-enabled personal computer, DVD movie disc, digital cable box, and satellite television receiver sold in the United States and in certain other locations, as well as in all HDTV television sets. *Id.* at 1.

¹⁹⁷ *Id.* at 4-5.

¹⁹⁸ *Id.* The administrator of the MPEG-2 pool did not explain why this arrangement would provide greater incentives for individual patentees to join the patent pool. But presumably, this arrangement would yield a greater amount of royalties than otherwise because the value of the finished products—on the basis of which royalties are assessed—is greater than those of the intermediate products.

¹⁹⁹ The administrator of the MPEG-2 patent pool filed its amicus curiae brief in *Quanta* in support of the respondent precisely out of concerns that a ruling for the petitioner would have negative implications for its own licensing structure. See *id.*

indeed socially beneficial,²⁰⁰ it does not appear that it would be able to exempt the license structure from mandatory patent exhaustion under any of the carve-outs currently available under *General Talking Pictures* and *Monsanto*: The sale encompassed under the MPEG-2 patent pool are all authorized sales, and the products in question are not self-replicating products. Nor is it clear that any new carve-outs could be created to accommodate the MPEG-2 license structure without jeopardizing the mandatory rule of exhaustion altogether.

2. *The Default-Plus Rule*

In contrast to the inflexibility of the mandatory rule of exhaustion, the default-plus rule of exhaustion could give legal effects to socially beneficial patent restrictions without resorting to ad hoc carve-outs. As discussed earlier, the default-plus rule of exhaustion allows patentees to enforce all patent restrictions that are an express condition of the sale, provided that the restrictions pass a separate patent misuse test.²⁰¹ This rule is not unique to a particular type of patent restrictions or a particular type of products; instead, it is capable of accommodating all patent restrictions regardless of factual circumstances.

Under the default-plus rule of exhaustion, a court could have given effects to the patent restrictions at issue in *General Talking Pictures* and *Monsanto* without having to jump through the legal hoops necessary for creating an ad hoc carve-out from patent exhaustion. In *General Talking Pictures*, both the manufacturing licensee who sold the patented amplifiers and the purchaser who purchased them had actual knowledge of the “private use only” patent restriction.²⁰² Despite knowing about the patent restriction and presumably having bargained for a price commensurate with that patent restriction, the purchaser in that case nonetheless violated the patent restriction used the patented amplifiers for commercial purposes. The default-plus rule of exhaustion would

at 5-6 (“An automatic exhaustion rule such as that advocated by Petitioners would needlessly hinder the ability of patentees to provide patent pools and the procompetitive benefits they offer.”).

²⁰⁰ It is not within the scope of this Article to assess whether the MPEG-2 license structure, or for that matter, any license structure, is indeed socially beneficial. The point to be made here is that the mandatory rule of exhaustion is not malleable enough to accommodate the MPEG-2 license structure *if* it is found to be socially beneficial.

²⁰¹ See *supra* Part II.

²⁰² See *supra* notes 78-83 and accompanying text.

require the non-application of patent exhaustion, provided that the “private use only” restriction does not constitute a patent misuse. A ruling condoning the “private use only” restriction under the default-plus rule would no longer need to rely on the artificial distinction between sales made by a manufacturing licensee and sales made by a patentee as the ruling in *General Talking Pictures* did. The patentee in *Monsanto*, too, made the “one season only” patent restriction at issue in that case an express condition of the sale, which was known to the defendant purchaser.²⁰³ As long as the “one season only” restriction is not considered a violation of public policy, it would be exempted from patent exhaustion under the default-plus rule, again with no need to create a special carve-out from patent exhaustion for self-replicating products.

Similarly, the default-plus rule allows courts more flexibility in handling patent restrictions that do not easily fit any of the ad hoc carve-outs under the mandatory rule. It would be much easier, for example, for courts to evaluate the MPEG-2 license structure discussed above under the default-plus rule. To the extent that courts do not view the collection of royalties in the final stage of the production and distribution process as a violation of public policy,²⁰⁴ the default-plus rule would provide a ready way to recognize the MPEG-2 license structure as lawful, provided that the limited licenses granted to component manufacturers are an express condition of the sale to those manufacturers. Again, under the default-plus rule, giving effects to these patent restrictions would only require the application of the same principle as in any other factual circumstances.²⁰⁵

C. Circumvention

The default-plus rule of exhaustion is superior to the

²⁰³ See *supra* notes 184-194 and accompanying text.

²⁰⁴ Courts have yet to have an opportunity to evaluate the public policy implications of the MPEG-2 license structure. The Supreme Court in *Quanta* rejected LGE’s efforts to collect double royalties, and another court expressed concerns about such double royalties on antitrust and patent misuse grounds. See *supra* notes 127 and accompanying text. The MPEG-2 license structure, however, does not impose double royalties. See MPEG-2 Quanta Brief, *supra* note 195, at 5 (“MPEG LA collects only a single royalty for each product.”).

²⁰⁵ Consistent with this view, Herbert Hovenkamp argued that “[i]n its current form, the [patent exhaustion] doctrine is far too draconian—a ham-handed attempt to provide IP-law constraints that would be much better evaluated under the law of antitrust or misuse.” Hovenkamp, *supra* note 13, at 2155.

mandatory rule of exhaustion in yet another respect: circumvention. As will be discussed below, not only is the mandatory rule inflexible, it is also formalistic, in the sense that patent exhaustion applies only to sales transactions. This encourages patentees who wish to enforce patent restrictions on purchasers under patent law to engage in circumvention efforts by adopting alternative transaction forms or product designs, resulting in social wastes in the process. These social wastes could be avoided under the default-plus rule, which provides patentees with a viable way of enforcing patent restrictions with respect to sold patented articles as long as those restrictions do not constitute patent misuse.

1. *The Mandatory Rule*

Patentees started making efforts to circumvent patent exhaustion as soon as it became clear that the Supreme Court was going to stick to the mandatory rule of exhaustion. In 1917, four years after the Supreme Court declined to apply in *Bauer & Cie. v. O'Donnell* the default rule announced in *Henry v. A.B. Dick Co.*,²⁰⁶ the Supreme Court was confronted in *Strauss v. Victor Talking Machine Co.* with the question of how to deal with a patent restriction imposed in a form of transaction designed to circumvent the mandatory rule of exhaustion.²⁰⁷ In *Victor Talking Machine*, a patentee took great pains to label the sales of patented machines as mere “licenses,” substituting the term “license” for the term “sale” and the term “royalty” for the term “sale price” in the relevant transaction documents.²⁰⁸ The purpose of this deliberate choice of words was apparently to enforce a resale-price-maintenance clause in the sale contract requiring the machines to be resold for not less than a certain amount.²⁰⁹ The Supreme Court saw through the disguise and held that the patentee’s license

²⁰⁶ See *supra* Part I.A for discussions of *A.B. Dick* and *Bauer*.

²⁰⁷ See 243 U.S. 490 (1917).

²⁰⁸ *Id.* at 494-95. In a document entitled “License Notice,” the patentee declared, among others, that the machines covered by the notice were manufactured under patents, that authorized distributors may assign a right to use the machines to the public or retailers, and that the distributors may convey the license to use the machines only when a royalty of a certain amount was paid. *Id.*

²⁰⁹ *Id.* at 500 (“There remains for this ‘License Notice,’ so far as we can discover, the function only of fixing and maintaining the price of plaintiff’s machines to its agents and to the public, and this, we cannot doubt, is the purpose for which it really was designed.”).

scheme was an attempt to control the prices of the machines after they had been sold.²¹⁰ Such attempt must be brought within the purview of patent exhaustion, said the Court, despite the patentee's efforts to characterize the transactions as a license.²¹¹

The Supreme Court's holding in *Victor Talking Machine* certainly makes sense—after all, the applicability of patent exhaustion should not depend on the language used by the patentee to describe a transaction. But the Court's holding in *Victor Talking Machine* created a perverse incentive for patentees to go even farther in their quest to evade patent exhaustion. Under *Victor Talking Machine*, it was not enough to merely make nominal changes to the form of the transaction; the transaction must be different in substance from a sales transaction in order for patent exhaustion not to apply. Patentees started doing just that—making substantive changes to the transaction form to avoid patent exhaustion. In *Morton Salt Co. v. G.S. Suppiger Co.*, for example, the patentee leased its patented salt-depositing machines on the condition that the machines were to be used only with salt tablets sold by the patentee.²¹² While the patentee could have had other motivations in its decision to lease its machines,²¹³ it appears that at least part of the calculus was to structure the transaction as a none-sale so as to bypass mandatory patent exhaustion, given that the Supreme Court just struck down a similar tying restriction in *Motion Picture Patents* on patent exhaustion grounds.²¹⁴

Such circumvention efforts reveal a fatal defect of the mandatory rule of exhaustion: The rule is so formalistic that it can be easily circumvented. As discussed earlier, the mandatory rule of exhaustion invalidates all patent restrictions on purchasers as per se unlawful, so that it is unnecessary to evaluate specific patent

²¹⁰ *Id.* at 498-500.

²¹¹ *Id.* at 501.

²¹² See *supra* note 111 and accompanying text.

²¹³ There are other explanations as to why a firm may want to lease, rather than sell, its products. Ronald Coase argued that the lease-only policy of a durable-goods monopolist may be designed to overcome the time-inconsistency problem in charging a monopolist price for the goods. See Ronald H. Coase, *Durability and Monopoly*, 15 J. L. & ECON. 143 (1972). Michael Waldman demonstrated that a durable-goods monopolist sometimes has an incentive to eliminate the secondhand market, and leasing is one method to achieve that goal. See Michael Waldman, *Eliminating the Market for Secondhand Goods: An Alternative Explanation for Leasing*, 40 J. L. & ECON. 61 (1997).

²¹⁴ See *supra* notes 44-48 and accompanying text for discussions of the Supreme Court's holding in *Motion Picture Patents*.

restrictions on their own merits.²¹⁵ But since patent exhaustion only applies to sales of patented articles, it cannot block patent restrictions imposed in a transaction that is genuinely different from a sale. Had the Supreme Court in *Morton Salt* relied on the mandatory rule of exhaustion, it would not have been able to call a stop to the patentee's tying restriction because of the patentee's use of leasing as the transaction form. The Court did not fall for the trap—it rejected the tying restriction on its own merits, in a stand-alone patent misuse test that was not tied to patent exhaustion.²¹⁶

The use of leasing as the transaction form eventually did not help the patentee in *Morton Salt* because of the perceived problems with the tying restriction.²¹⁷ But when a patentee wishes to enforce a patent restriction that is not considered to pose public policy problems, it may pay for the patentee to go the extra length to structure the transaction as a non-sale. Unless the patent restriction could fit in one of the ad hoc carve-outs from mandatory patent exhaustion, which is unlikely given the idiosyncratic nature of such carve-outs,²¹⁸ there would be no other ways to escape from mandatory patent exhaustion. In such circumstances, the mandatory rule of exhaustion creates incentives for patentees to adopt inefficient transaction forms, transaction forms that they otherwise would not adopt.

Patentees may also attempt to evade mandatory exhaustion by making changes to the design of their products. For example, if a patentee were prevented by mandatory patent exhaustion from enforcing a “single use only” restriction—the type of restriction at issue in *Mallinckrodt*—one option for the patentee would be to design the product in a way that makes it impossible for the product to be used more than once.²¹⁹ The patentee would no longer need to impose a legal restriction on the use of the product, rendering irrelevant the question of patent exhaustion. Of course, the ability to enforce a patent restriction under patent law may not be the sole or dominant reason for changing the design of a

²¹⁵ See *supra* Part II.

²¹⁶ See *supra* note 111 and accompanying text.

²¹⁷ Recall that the Supreme Court in *Morton Salt* adopted a broad patent misuse test that went beyond antitrust considerations. See *supra* note 112 and accompanying text.

²¹⁸ See *supra* Part III.B.1.

²¹⁹ Whether this is a realistic option will depend on a lot of factors, including the type of use restriction the patentee wishes to impose, the availability of technology, and cost considerations.

product,²²⁰ but all things being equal, having a formalistic rule like the mandatory rule of exhaustion can only add to the incentives for patentees to do so.

2. *The Default-Plus Rule*

Compared to the mandatory rule of exhaustion, the default-plus rule of exhaustion is better equipped to mollify patentees' circumvention incentives. As discussed earlier, the default-plus rule exhausts patent rights with respect to sold patented articles only in unconditional sales.²²¹ Under the default-plus rule, patentees who wish enforce a patent restriction against purchasers only need to make that patent restriction an express condition of the sale. The patent restriction may fail the separate patent misuse test under the default-plus rule, but if so, that would be the case regardless of the form of the transaction. In other words, patentees would gain no advantages under the default-plus rule by adopting alternative transaction forms. Similarly, under the default-plus rule, patentees would have fewer incentives to adopt alternative product designs for purposes of enforcing a patent restriction, as they could easily enforce the restriction through a conditional sale.²²²

IV. CONCLUSION

The puzzle of patent exhaustion demands a solution. This Article demonstrates that one solution could come from a reformulation of the doctrine as a default plus rule. This default-plus rule is better grounded in theory, is more malleable, and creates fewer circumvention incentives. Essentially, the default-plus rule could achieve the purpose of patent exhaustion with the minimum amount of legal impediments to socially beneficial patent restrictions and the maximum amount of flexibility in accommodating new technologies and licensing practices yet to

²²⁰ Firms may also design their products in a way that excludes rivals who make interoperable complementary products from the market or extracts overcharges from customers in the complementary-product market. See John M. Newman, *Anticompetitive Product Design in the New Economy*, 39 FLORIDA ST. U. L. REV., 681, 683 (2012).

²²¹ See *supra* Part II.

²²² Of course, patentees may prefer building patent restrictions into product designs if doing that is more effective and cost efficient than relying on legal restrictions. That, however, is not a problem brought about by the default-plus rule.

come. The sensibility and clarity of the default-plus rule will go a long way towards guiding and facilitating patent licensing in the modern innovative economy.