

Fordham Intellectual Property, Media and Entertainment Law Journal

Volume 11 *Volume XI*
Number 3 *Volume XI Book 3*

Article 2

2001

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Recommended Citation

Katherine E. White, *A Rule for Determining When Patent Misuse Should be Applied*, 11 Fordham Intell. Prop. Media & Ent. L.J. 671 (2001).
Available at: <https://ir.lawnet.fordham.edu/iplj/vol11/iss3/2>

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A Rule for Determining When Patent Misuse Should be Applied

Katherine E. White*

INTRODUCTION

The new Millennium brings with it a change in how vitally innovative technology affects the global economy. With this change, patent law is growing in importance. The manner in which patented inventions are licensed and sold is crucial to the direction of the new world economy. Anticompetitive effects in patent license agreements or conditional sale restrictions should be minimized, as they contravene public policy. To attain a balance between granting exclusive patent rights to encourage technological development and competition in the marketplace, laws exist to curtail anticompetitive behavior. The contemporary law of patents recognizes its own anticompetitive effects and embeds the doctrine of patent misuse to limit these effects. Focusing only on the level of competition in the market, the antitrust laws police anticompetitive effect.

In recent years, there has been a shift away from applying patent misuse. Because antitrust and patent misuse are derived from different theoretical foundations, one should not completely supplant the other. Patent misuse is a broader doctrine than antitrust law. While an antitrust violation involving a patent always constitutes patent misuse,¹ one can have misuse without an antitrust violation.² Furthermore, some anticompetitive behavior

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¹ Alan J. Weinschel and Robert P. Stefanski, *Antitrust and Patent Misuse in Licensing: Part I*, 7 No. 11 J. PROPRIETARY RTS. 18, 18 (1995).

² *Zenith Radio Corp. v. Hazeltine Research*, 395 U.S. 100, 140 (1969); *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 490 (1942); *Senza-Gel Corp. v. Seiffart*, 803 F.2d 661 (Fed. Cir. 1986); see Alan J. Weinschel and Robert P. Stefanski, 7 No. 11 J.

still needs to be curtailed even when an antitrust violation cannot be proven.³

Patent misuse is a doctrine that seeks to balance the idea that a patent is an absolute property right with the notion that a patent must be exercised in a manner consistent with the public policies underlying its grant.⁴ Because activities giving rise to patent misuse often have actual or anticipated adverse effects on competition, a close relationship exists between patent misuse and antitrust law.⁵

Patent misuse differs from antitrust theory because the purpose of misuse is to avoid extending the patent monopoly, while antitrust law weighs the effect of acts on competition.⁶ Consequently, patent misuse has been used as a shield against patent infringement and as an affirmative defense, while antitrust claims have acted as a sword in litigation, with the potential for recovery of treble damages under the Clayton Act.⁷

Though patent misuse and antitrust law are related, they should not be conflated due to their separate origins. Patent misuse springs from the common law doctrine of unclean hands, as well as the public policy underlying patent law.⁸ The public policy behind patent law is to grant exclusive rights to a new and nonobvious invention for a limited time in exchange for its disclosure to the

PROPRIETARY RTS. 18,19 (1995).

³ *Zenith Radio*, 395 U.S. at 140. See Robert Merges, *Reflections on Current Legislation Affecting Patent Misuse*, 70 J. PAT. & TRADEMARK OFF. SOC'Y 793, 795 (1988).

⁴ See *Hensley Equip. Co., Inc. v. Esco Corp.*, 383 F.2d 252, 260 (5th Cir. 1967) (stating that “[t]he rationale of the doctrine is a rejection of the concept of the patent as an absolute property right in favor of its definition as a right which must not be exercised in a manner not consistent with the constitutionally-defined purpose for which it was conferred, i.e., to ‘promote the Progress of the useful Arts.’” (citing U.S. CONST. art. I, § 8)).

⁵ *Hensley*, 383 F.2d at 261 (quoting *Hartford-Empire Co. v. United States*, 323 U.S. 386, 415 (1945)) (“So long as the patent owner is using his patent in violation of the antitrust laws, he cannot restrain infringement of it by others.”).

⁶ See 6 DONALD CHISUM, CHISUM ON PATENTS, § 19.04 [2], at 19-44-46, (2000) (explaining that “[a]ntitrust analysis involves a balancing of patent interests and the impact or likely impact of a practice on competition. The misuse doctrine compounds the difficulty of balancing by substituting for competitive injury the vague concept of ‘extension.’”).

⁷ 15 U.S.C. § 14 (1982).

⁸ See *Morton Salt*, 314 U.S. at 490.

public.⁹ Theoretically, such disclosure will encourage and facilitate competition in the market after the patent term expires.¹⁰ The patent laws, however, are not intended to extend exclusive rights beyond the original scope of the patent.¹¹

A patent is granted only on inventions that are new and nonobvious.¹² The patented invention is thereby “monopolized,” kept from the public domain, yet is still able to contribute to society.¹³ The patent misuse doctrine prohibits efforts by a patentee that seek to extend a patent beyond the original scope of its grant.¹⁴

In 1988, Congress limited, but did not eliminate, the doctrine of patent misuse in the Patent Misuse Reform Act (“PMRA”).¹⁵ The

⁹ See *Rite Hite Corp. v. Kelley Co.*, 56 F.3d 1538, 1547 (Fed. Cir. 1995) (reasoning that “[a] patent is granted in exchange for a patentee’s disclosure of an invention, not for the patentee’s use of the invention. There is no requirement in this country that a patentee make, use or sell its patented invention.”) (emphasis added).

¹⁰ See *Image Technical Servs., Inc. v. Eastman Kodak Co.*, 125 F.3d 1195, 1214-15 (9th Cir. 1997) (stating that “[p]atent laws reward the inventor with the power to exclude others from making, using or selling [a patented invention] . . . [m]eanwhile, the public benefits both from the faster introduction of inventions and the resulting increase in competition.”).

¹¹ See *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 510 (1917) (stating that “[t]he scope of every patent is limited to the invention described in the claims contained in it, read in light of the specification . . . [I]t is to the claims of every patent, therefore, that we must return to when we are seeking to determine what the invention is, the exclusive use of which is given to the inventor by the grant provided for by the statute, — ‘He can claim nothing beyond them.’” (citing *Keystone Bridge Co. v. Phoenix Iron Co.*, 95 U.S. 274, 278)).

¹² 35 U.S.C. § 103 (1995).

¹³ See Giles S. Rich, *Are Letters Patent Grants of Monopoly?*, 15 W. NEW ENG. L. REV. 239, 251 (1993) (citations omitted). The late Honorable Giles S. Rich, former Circuit Judge for the U.S. Court of Appeals for the Federal Circuit, discussed this reconciliation as follows:

The patent and antitrust laws are reconcilable — and easily so. If the thing monopolized is in the public domain before the creation of the monopoly in it, the monopoly is odious, illegal, bad. If the thing is a new and unobvious contribution to society, a temporary monopoly is a fair quid pro quo for society to pay as a reward or inducement to the inventor and those who took the financial risk of commercializing the thing in order to make it available to society. This principle is, at the same time, what undergirds the law as to what may be patented, the law on patentability. The thing patented must be new and [non]obvious.

Id.

¹⁴ *Zenith Radio*, 395 U.S. at 140; *Morton Salt*, 314 U.S. at 491; *Transparent-Wrap Mach. Corp. v. Stokes & Smith*, 329 U.S. 637, 641 (1947).

¹⁵ Codified in 35 U.S.C. § 271(d) (1994).

PMRA was adopted to soften the type of harsh patent misuse outcome where “[a] patent owner loses the right to enforce his patent, at least until the conduct that has constituted the misuse has ceased and its effects have been purged.”¹⁶ Prior to the PMRA, courts had been applying patent misuse inconsistently, deciding analogous cases differently and finding misuse in situations where there was no anticompetitive effect.¹⁷ Often, misuse was found where the conduct had not injured the infringing party who raised misuse as a defense.¹⁸ In response, Congress carved out two exceptions where patent misuse would no longer apply without a showing of market power in the relevant market: (1) refusals to license; and (2) tying cases.¹⁹ However, requiring a showing of market power in these two areas has had an anticompetitive effect and almost merges the analysis for patent misuse into an antitrust rule of reason analysis. Though Congress contemplated that these modifications would have a pro-competitive effect on licensing, insofar as they would require some linkage between patent licensing practice and anticompetitive conduct,²⁰ this has not been the case.

Courts, however, have narrowed the scope of patent misuse beyond the level Congress dictated.²¹ This limitation has allowed courts to aid and abet patentees in expanding the rights under their patents beyond that legally allowed under prior case law, even taking into account legislative changes.²² Some restrictions may still amount to patent misuse violations while not rising to the level of antitrust violations.²³ One such example of this problem is when a patent holder restricts the use of a patented device to a

¹⁶ 134 CONG. REC. S17146-02 (daily ed. Oct. 21, 1988) (statement of Sen. Leahy); *Merges supra* note 3, at 795.

¹⁷ *See supra* note 16.

¹⁸ *See id.*

¹⁹ 35 U.S.C. § 271(d)(4)-(5) (1994).

²⁰ 134 CONG. REC. H10646 (daily ed. Oct. 20, 1988) (statement of Rep. Kastenmeier).

²¹ *See, e.g.,* *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992) (where restricting patented medical device to single use did not violate the doctrine of patent misuse).

²² *See, e.g.,* Mark A. Lemley, *Comment: The Economic Irrationality of the Patent Misuse Doctrine*, 78 CAL. L. REV. 1599, 1601-07 (discussing how courts have extended the rights of patentees by failing to enforce the antitrust laws against them).

²³ *See id.* at 1611, n.83 (explaining that nonmetered royalties, refusal to license, resale field of use limitations and grant-back clauses amount to patent misuse, but are not antitrust violations unless they constitute tying arrangements with market power).

single use.²⁴ These restrictions often venture beyond the original scope of the patent, and consequently amount to patent misuse as historically contemplated by the case law, taking into account the 1988 statutory changes.²⁵

This Article proposes a test for determining when patent misuse should be applied. After reviewing the pertinent case law, this Article will demonstrate that courts have eroded the patent misuse doctrine beyond what is required statutorily, without deriving any added pro-competitive benefit as contemplated under the PMRA. Such erosion has assisted patentees in masking anticompetitive effects that could be lessened by proper application of patent misuse. An example of this problem is *Mallinckrodt v. Medipart, Inc.*²⁶ where the Federal Circuit labeled a patent holder's single use restriction as a field of use restriction not amounting to *per se* antitrust or misuse violations but subject to the rule of reason.²⁷ After *Mallinckrodt*, contrary to the intent of its holding, single use restriction cases have been decided based on legal doctrines that fail to weigh pro-competitive versus anticompetitive behavior, *e.g.*, the repair/reconstruction doctrine.²⁸ Such analysis thwarts the ability to sufficiently balance between the exclusive patent right and competition in the market.

Part I discusses the historical treatment of the Patent Misuse doctrine up to the current treatment after the 1988 Amendments. Part II proposes a test for when patent misuse should be applied and examines the Federal Circuit cases where single use restrictions were evaluated. It also compares the court's analysis with the legal approach used when applying the proposed test. Part III concludes that since courts have eroded the historical application of patent misuse without deriving any added pro-competitive benefit, a specific rule should be implemented that finds patent misuse when (1) a reuse restriction is not made with respect to a separate product and (2) where the restriction forces

²⁴ See, *e.g.*, *Mallinckrodt*, 976 F.2d 700.

²⁵ See, *e.g.*, *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917) (restricting consumer use of patented machine to unpatented films was an invalid attempt at extending patentee's monopoly to products that he had not patented).

²⁶ 976 F.2d 700 (Fed. Cir. 1992).

²⁷ *Id.*

²⁸ See Hon. Arthur J. Gajarsa et al., *How Much Fuel to Add to the Fire of Genius? Some Questions About the Repair/Reconstruction Distinction in Patent Law*, 48 AM. U. L. REV. 1205 (1999).

the buyer to purchase something that need not be bought in fixed proportion to the patented device since the life span of the device outlasts the single use.

I. MISUSE

The doctrine of patent misuse began as an affirmative defense to patent infringement.²⁹ This defense emerged from the equitable affirmative defense of “unclean hands.”³⁰ The unclean hands doctrine is “invoked by a court only when a plaintiff otherwise entitled to relief has acted so improperly with respect to the controversy . . . that the public interest in punishing the plaintiff outweighs the need to prevent defendant’s tortious conduct.”³¹ The related patent misuse doctrine requires that the alleged infringer show that the patentee has impermissibly broadened the ‘physical or temporal scope’ of the patent grant with anticompetitive effect.³² Patent misuse does not affect a patent’s validity. Once the patentee has purged the anticompetitive behavior, the patent may again be enforced through infringement suits.³³

²⁹ *Windsurfing Int’l v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986) (citing *Bio-Rad Labs., Inc. v. Nicolet Instrument*, 739 F.2d 604, 617 (Fed. Cir. 1984)).

³⁰ *United States Gypsum Co. v. National Gypsum Co.*, 352 U.S. 457, 465 (1957) (stating that patent misuse is an extension of the doctrine of unclean hands); *Morton Salt*, 314 U.S. at 492-93 (linking patent misuse to the equitable doctrine of “unclean hands”); *C.R. Bard Sys. v. M3 Sys., Inc.*, 157 F.3d 1340, 1372 (Fed. Cir. 1998) (noting the defense of patent misuse arises from the equitable doctrine of unclean hands); *B. Braun Medical, Inc. v. Abbot Labs.*, 124 F.3d 1419, 1427 (Fed. Cir. 1997); *Merges*, *supra* note 3, at 797. The doctrine of unclean hands, however, differs from patent misuse in important ways. First, the patent misuse doctrine applies to suits in law, where damages are sought, as well as suits in equity, where injunctive relief is sought. *See Dawson Chem. Co. v. Rohm & Haas*, 448 U.S. 176, 185 (1980); *see Weinschel and Stefanski*, *supra* note 2, at 18; *see Mark A. Lemley, The Economic Irrationality of the Patent Misuse Doctrine*, 78 CAL. L. REV. 1599, 1607-20 (1990); P. AREEDA & L. KAPLOW, ANTITRUST ANALYSIS 184-85 (1987) (describing remedies generally available in antitrust cases).

³¹ *B.M.I., Inc. v. Hearst*, 746 F. Supp. 320 (S.D.N.Y. 1990).

³² *Windsurfing*, 782 F.2d at 1001 (quoting *Blonder-Tongue Labs., Inc. v. Univ. of Ill. Found.*, 402 U.S. 313 (1971)).

³³ *Hensley Equip. Co.*, 383 F.2d at 261; *see, e.g., United States Gypsum*, 352 U.S. at 465.

There are two types of patent misuse:³⁴ (1) an antitrust violation that is significantly related to the patent;³⁵ and (2) an act whereby the patentee has sought to extend the patent beyond the original scope of its grant, not necessarily amounting to an antitrust violation.³⁶ One of the most illustrative cases discussing the patent misuse doctrine is *Morton Salt Co. v. G.S. Suppiger Co.*³⁷

In *Morton Salt*, the court reflected on the reason for the patent grant and the importance of limiting the patentee's monopoly protection so that it extends only within that grant:³⁸

The grant to the inventor of the special privilege of a patent monopoly carries out a public policy adopted by the Constitution and laws of the United States, 'to promote the Progress of Science and useful Arts, by securing for limited Times to . . . Inventors the exclusive Right . . .' to their 'new and useful' inventions . . .³⁹ But the public policy, which includes inventions within the granted monopoly, excludes from it all that is not embraced in the invention.⁴⁰ It equally forbids the use of the patent to secure an exclusive right or limited monopoly not granted by the Patent Office and which it is contrary to public policy to grant.⁴¹

³⁴ Robert J. Hoerner, *Patent Misuse*, 53 ANTITRUST L.J. 641, 641-42 (1985).

³⁵ See, e.g., *Hartford-Empire Co. v. United States*, 323 U.S. 386, 419 (1945) (noting that "[s]o long as the patent owner is using his patent in violation of the antitrust laws, he cannot restrain infringement of it by others.").

³⁶ The Supreme Court has never required that an antitrust violation be proven to establish patent misuse. See, e.g., *Zenith Radio*, 395 U.S. at 140; *Morton Salt*, 314 U.S. at 491; *Transparent-Wrap Mach. Corp.*, 329 U.S. at 641. See also 134 CONG. REC. H10, 646-02 (daily ed. Oct. 20, 1988) (statement of Rep. Kastenheimer) (stating that [t]he term "market power" is used in the [Patent Misuse Act] in order to permit the courts to reasonably assess the potential for anticompetitive effect of a particular practice. We have chosen not to explicitly guide the courts as to the level of "market power" required for a finding of misuse. We do expect, however, that the courts will be guided - though not bound - by past and future decisions of the Supreme Court in the context of antitrust analysis of unlawful tie-ins.) (citing *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984); *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377 (1956)).

³⁷ 314 U.S. 488.

³⁸ *Id.* at 492.

³⁹ *Id.* (quoting U.S. CONST. art. I, § 8, cl. 8.).

⁴⁰ *Id.* at 492; see also *International Salt v. United States*, 332 U.S. 392, 395-96 (stating that the patents conferred no right to restrain use of, or trade in, unpatented salt; thus no antitrust immunity attached).

⁴¹ *Morton Salt*, 314 U.S. at 492; see also *International Salt*, 332 U.S. at 395-96.

The Court went on to say that where a patentee is using its patent to restrain competition in the sale of unpatented products, the underlying policy of granting patents is thwarted.⁴² As such, “[e]quity may rightly withhold its assistance from such a use of the patent by declining to entertain a suit for infringement.”⁴³ Furthermore, the court should continue to withhold assistance until the anticompetitive practice is abandoned and the effects of the patent misuse have been purged.⁴⁴

The Court then applied this rule to the facts in the case. In *Morton Salt*, the patent holder patented a machine for depositing salt tablets that was useful in the canning industry.⁴⁵ The trial court found that the patentee tied the lease of its patented machines to the purchase of unpatented salt tablets that were specifically designed for use in the patented salt-dispensing machines.⁴⁶ This tying thereby assisted in creating a limited monopoly in the salt tablets. Such monopolization was not within the patent grant, which only gave the patentee an exclusive right to make, use, and vend the machine described and claimed in the patent.⁴⁷

On appeal, the Court stated that “a patent affords no immunity for a monopoly not within the patent grant.”⁴⁸ The use of a patent “to suppress competition in the sale of an unpatented article may deprive the patentee of the aid of a court of equity to restrain an alleged infringement by one who is a competitor.”⁴⁹ The *Morton Salt* Court held that the patentee could not claim protection of the patent grant to avoid an antitrust violation.⁵⁰ The Court further held that the patentee’s infringement suit was against public policy, and affirmed the trial court’s dismissal of patentee’s complaint for want of equity.⁵¹ Consequently, it was unnecessary for the Court to decide whether the plaintiff had violated the Clayton Act.⁵² In other words, the patent misuse defense was used as a defense to

⁴² *Morton Salt*, 314 U.S. at 493.

⁴³ *Id.* at 493, construed in *Berlenbach v. Anderson and Thompson Ski Co.*, 329 F.2d 782, 784 (9th Cir. 1964).

⁴⁴ *Morton Salt*, 314 U.S. at 493.

⁴⁵ *Id.* at 488.

⁴⁶ *Id.* at 491.

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.* at 491.

⁵⁰ *Morton Salt*, 314 U.S. at 494.

⁵¹ *Id.*

⁵² *Id.* See also 15 U.S.C. § 14 (1982).

patent infringement, without having to prove an antitrust violation under the Clayton Act.⁵³

Over the years, there have been complaints that patent misuse has become overreaching, applying to situations that go beyond those intended.⁵⁴ Courts have been inconsistent in their application of the doctrine to analogous practices. Furthermore, misuse has been found where conduct has had no anticompetitive effect⁵⁵ or where the conduct has not injured the infringing party who raised misuse as a defense.⁵⁶

In response to these concerns, the United States Senate passed a bill requiring that a “court find a violation of the antitrust laws, after undertaking an economic analysis, before it can find a patent

⁵³ See HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY THE LAW OF COMPETITION AND ITS PRACTICE § 5.5b at 218 (1994).

⁵⁴ See 134 CONG. REC. H10, 646-02 (daily ed. October 20, 1988) (statement of Rep. Kastenheimer) (stating that the patent misuse doctrine was developed to address anticompetitive effects in patent licensing agreements but has extended its application to covenants not to compete, price-fixing, resale price maintenance, and grant backs). See *Dawson Chem. Co. v. Rohn and Haas Co.*, 448 U.S. 917, 201 (1980) (stating “a patentee may sell a nonstaple article . . . while enjoining others from marketing that same good without authorization.”); See *Mercoïd Co. v. Mid-Continent Inv. Co.* 320 U.S. 661, 664 (1944) (holding a patentee could not prevent a competitor from making an unpatented switch used in a patented combination, even if the switch could only be sued to infringe patentee’s patent). See L. Peter Farkas, *Can a Patent Still be Misused?*, 59 ANTITRUST L.J. 677, 679-80 (1990-91) (revealing several facts in *Morton Salt* that indicated that its leases did not substantially lessen competition:

- (a) the existence of alternatives to the patented machines;
- (b) Morton Salt’s [alleged infringer’s] identical tying provision;
- (c) the availability to Suppiger’s [patentee’s] lessees of competing machines and the lessees’ freedom to use any salt tablets they desired with those machines;
- (d) the small volume of salt used in the canning field in comparison to the salt business as a whole;
- (e) the fact that Suppiger’s [patentee’s machines] could be used for purposes other than depositing salt; and
- (f) the \$30 annual rental per machine, which could not be called a sham or a coverage to monopolize the sale of unpatented salt.)

(citing *G.S. Suppiger Co. v. Morton Salt Co.*, 117 F.2d 968, 971-72 (7th Cir. 1941).

⁵⁵ See *Dawson Chem.*, 448 U.S. at 201; *Mercoïd Corp.*, 320 U.S. at 664; *Morton Salt*, 117 F.2d at 968.

⁵⁶ 134 CONG. REC. S17, 146-02 (daily ed. October 21, 1988) (statement of Sen. Leahy) (discussing S. 1200 and S. 438). Patent misuse is a doctrine that could benefit from having a standing requirement that the misuse must directly effect the party raising the affirmative defense. Historically, there has been no standing requirement. This has caused substantial concern that the patent misuse doctrine is overbroad and overreaching. *Id.*

holder guilty of patent misuse.”⁵⁷ The House, however, did not adopt this bill. Instead, a compromise between the two houses was reached with Congress concentrating instead on preventing two categories of activity from being subject to patent misuse: (1) the refusal to use or license; and (2) the tying of a patented product to another separate product.⁵⁸ Finally, in 1988, the PMRA was signed into law.⁵⁹

Codified at 35 U.S.C. § 271(d)(4)-(5),⁶⁰ the PMRA does not address when conduct falling outside the statute can amount to patent misuse without an antitrust violation.⁶¹ After PMRA’s passage, there has been a pervasive perception that patent misuse is “dead,”⁶² and has been replaced with the antitrust rule of reason analysis.⁶³ The PMRA, however, only eliminates a finding of patent misuse, without showing market power in the relevant market, in two situations, not all circumstances.⁶⁴ The Act states that a patentee:

[O]therwise entitled to relief for direct or contributory infringement shall not be deemed guilty of patent misuse or illegal extension of the patent right by reason of his having . . . (5) conditioned the license of any rights to the patent or the sale of the patented product on the acquisition of a license to rights in another patent or purchase of a *separate* product, unless, in view of the circumstances, the patent owner has market power

⁵⁷ 134 CONG. REC. H10, 646-02 (daily ed. October 20, 1988) (statement of Rep. Kastenheimer) (discussing differences between S. 438 and the bill before the House).

⁵⁸ *Id.*

⁵⁹ Patent Misuse Reform Act of 1988, Pub. L. No. 100-73 (102 Stat. 4674) (codified at 35 U.S.C. § 271(d) (1994)). See 35 U.S.C. § 271(d)(4)-(5) (1994). Subsections 4 and 5 of 271(d) were added by § 201 of Public Law 100-703, the Patent and Trademark Authorization Act, approved Nov. 19 1988. Subsection 4 relates to a patentee’s ability to refuse to license his or her patent without being deemed guilty of patent misuse. For purposes of this Article, subsection 4 is not pertinent.

⁶⁰ 35 U.S. § 271 (d) (1994).

⁶¹ *Id.*

⁶² See Farkas, *supra* note 54; see also *Mallinckrodt*, 976 F.2d at 708.

⁶³ See *Mallinckrodt*, 976 F.2d at 708 (stating that the appropriate criterion for determining whether there is patent misuse, when a restriction reaches beyond the patent grant, is whether or not the restriction is justifiable under the rule of reason). *PSC Inc. v. Symbol Tech., Inc.*, 26 F. Supp. 2d 505 (W.D.N.Y. 1998) (stating alleged patent misuse must be evaluated in accordance with the rule of reason).

⁶⁴ *Cf.*, Hovenkamp, *supra* note 53, at 218 (stating that “claims of anticompetitive patent misuse are best tested by the antitrust laws).

in the relevant market for the patent or patented product on which the license or sale is conditioned.⁶⁵

A. Tying Arrangements

A primary reason for Congress making this change concerning tying arrangements was the belief that doing so would have a pro-competitive effect in the market place. Allowing patent holders to engage in certain licensing activity can promote competition and should be allowed in such circumstances.⁶⁶ To better understand this point, it is necessary to examine the typical situation in which tying arrangements occur. The basic logic of all tying cases is that the tying product is the product everyone wants, while the tied product is the product buyers are forced to purchase in order to receive the tying product. An unlawful tying arrangement prohibited by the antitrust laws⁶⁷ is established by showing:

- (1) there are separate products; (2) the purchase of one (the tying product) is conditioned on the purchase of the other (the tied product); (3) the

⁶⁵ 35 U.S.C. § 271(d)(5) (emphasis added).

⁶⁶ See *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2, 14-15 (1984), noted in 4 HARVARD J.L. & TECH. 1, 29-31. (discussing Justice O'Connor's concurring opinion in which she stated "that a legal 'monopoly' such as a patent should not be presumed to create market power in the tying product").

⁶⁷ Section 3 of the Clayton Act provides in relevant part:

It shall be unlawful for any person engaged in commerce, in the course of such commerce, to make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other commodities, whether patented or unpatented, for use, consumption or resale within the United States . . . on the condition, agreement, or understanding that the . . . purchaser thereof shall not use or deal in the goods, wares, merchandise, machinery, supplies, or other commodities of a competitor or competitors of the . . . seller, where the effect of such . . . 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.

15 U.S.C. § 14 (1982).

Section 1 of the Sherman Act provides in relevant part:

Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal. 15 U.S.C. § 14 (1982). See *Jefferson Parish Hosp. Dist. No. 2*, 466 U.S. at 23 n.39 (stating that the standard of analysis is the same under the Clayton Act as the Sherman Act). See Kenneth J. Burchfiel, *Patent Misuse and Antitrust Reform: Blessed Be the Tie?*, 4 HARV. J.L. & TECH. 1, 26-27 (1991).

tying product's market power appreciably restrains free competition in the tied product's market; and (4) a "not insubstantial" amount of commerce in the tied product is affected.⁶⁸

When these elements are shown, the tying arrangement is *per se* illegal.⁶⁹ Using the term, *per se* illegal is a misnomer, however, since market power in the relevant market must be shown in order to prove an antitrust violation.⁷⁰ Market power has been defined as the power "to force a purchaser to do something that he would not do in a competitive market."⁷¹ It is the ability of a single seller to raise prices and restrict output.⁷² In tying situations, market power is determined by whether or not the seller has the power "to raise prices, or impose other burdensome terms such as a tie-in, with respect to any appreciable number of buyers within the market."⁷³ The anticompetitive effects in tying come from having economic leverage in the tying product. This gives the seller the ability to force a buyer into either purchasing a tied product "that the buyer either did not want . . . or might have preferred to purchase elsewhere on different terms."⁷⁴

On the other hand, when the tying and tied product are consumed in fixed proportions, the possibility of economic leverage in the tying product is absent because it is not possible to make a monopoly profit on the tied product.⁷⁵ If the tied product is sold in fixed proportion to the tying product, generally only a competitive profit, and not a monopoly profit, is earned. If, however, the tied product is not sold in fixed proportion to the tying product, a monopoly profit can be earned on the tied

⁶⁸ Burchfiel, *supra* note 67, at 26-27 (citing *Northern Pac. Ry. v. United States*, 356 U.S. 1, 5-6 (1958); *Jefferson Parish*, 466 U.S. at 11-18; *Fortner Enters. v. United States Steel Corp.*, 394 U.S. 495, 498-99 (1969) [hereinafter *Fortner I*]; *Xeta, Inc. v. Atex, Inc.* 852 F.2d 1280, 1282-83 (Fed. Cir. 1988).

⁶⁹ Burchfiel, *supra* note 67, at 27.

⁷⁰ *Id.*

⁷¹ 504 U.S. at 464 (1992) (quoting *Jefferson Parish*, 466 U.S. at 14).

⁷² *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 464 (1992) (citing *Fortner I*, 394 U.S. at 503).

⁷³ *Fortner I*, 394 U.S. at 504. See Burchfiel, *supra* note 67 at 28.

⁷⁴ *Jefferson Parish*, 466 U.S. at 12. See Burchfiel, *supra* note 67, at 28.

⁷⁵ See Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L. J. 19, 21-23 (1957); see also *U.S. Steel Corp. v. Fortner Enters.*, 429 U.S. 610, 617 (1977) [hereinafter *Fortner II*] (citing Bowman *supra* for the proposition that economic leverage would not be possible because credit and prefabricated housing were sold in fixed proportions).

product.⁷⁶

For example, if a patent holder sells golf club woods as a tying product and sells irons as a tied product, the clubs are sold in fixed proportion to each other. Presumably, there would be no need to buy irons more frequently than woods. If, however, the golf balls are the tied products, they would not be sold in fixed proportion to the woods. The amount of golf balls needed would have no correlative relationship to the amount of woods needed. This way a seller is able to charge more to those who use the clubs more frequently, thus needing more golf balls, than those who use them less.⁷⁷ Consequently, the seller obtains a monopoly profit on the golf balls.⁷⁸ In a situation where the tying product is patented, extending the patent monopoly to an unpatented tied product excludes other sellers from the opportunity to sell to the patent holder's customers.⁷⁹

Despite the possible anticompetitive effects of tying cases, Congress requires that market power in the relevant market be shown to find patent misuse.⁸⁰ Making this change for tying arrangements allows patent holders to engage in certain licensing activities that can have pro-competitive effects. Field of use restrictions are an example of a licensing activity having the potential to promote competition.

A field of use restriction prohibits a licensee from realizing the benefits of the license in certain technical fields.⁸¹ For example, a license may restrict the use of a pharmaceutical to only veterinary applications, subjecting the licensee to liability if he or she uses the licensed pharmaceutical on humans or for any other non-veterinary application.⁸²

⁷⁶ See THOMAS D. MORGAN, *CASES AND MATERIALS ON MODERN ANTITRUST LAW AND ITS ORIGINS* 331-32 (1994).

⁷⁷ *Id.* at 332; see also Bowman, *supra* note 75, at 23.

⁷⁸ Thomas D. Morgan, Remarks at a George Washington University Law School Antitrust Lecture (Feb. 23, 1995).

⁷⁹ If, however, the tied product is patented, the patent holder would have a right to restrict its use. 35 U.S.C. § 154 (1994). This right to exclude is, in part, based on the fact that what is patented has contributed something new and nonobvious and has been disclosed to the public.

⁸⁰ See *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451 (1992).

⁸¹ See 6-19 CHISUM ON PATENTS § 19.04 at 31-38 (2000).

⁸² Thomas C. Meyers, *Field-of-Use Restrictions as Pro-competitive Elements in Patent and Know-How Licensing Agreements in the United States and the European*

Such pro-competitive effects, however, do not occur when a patentee restricts the sale of a patented invention to a single use, in cases where the use of such a device is not claimed as part of the patented invention.⁸³ In these cases, single use restrictions have been masked as “field of use” restrictions.⁸⁴ Field of use restrictions provide an important pro-competitive purpose since they allow patentees to license in different markets with varying market demand at commensurate royalty fees.⁸⁵

One of the most crucial circumstances that § 271(d)(5) does not address is when a product is sold with a “single use only” restriction. A single use restriction is not a restriction based on the purchase of a separate product, and a second use of the same product is not a separate product. It is not possible for a product having one physical substantiation to be a separate product. In a context where the use of a patented invention is not claimed, a single use restriction can create an excessive return on the patent.⁸⁶

When a single use restriction is employed, § 271(d)(5) is not immune to the application of patent misuse.⁸⁷ A single use restriction on a patented product, where the use of the product is not patented does not meet the pro-competitive goals of use restrictions. These situations are analogous to a purchaser buying golf clubs, but only being allowed to use them for one round of golf, even though there is plenty of life left in the clubs. Single use only restrictions allow the patentee to keep economic leverage and force a purchaser to buy another product when a new one is unnecessary.

Given these anticompetitive effects, patent misuse should be applied in cases where the restriction on reuse is not made with respect to a separate product, and where the restriction forces the

Communities, 12 Nw. J. INT'L L. & BUS. 364, 366 (1991).

⁸³ See CHISUM ON PATENTS, *supra* note 81, at 31-38.

⁸⁴ See *Mallinckrodt*, 976 F.2d at 703.

⁸⁵ See Meyers, *supra* note 82 at 367-69 (discussing how field of use restrictions encourage patentees to enter both high and low demand markets when the royalty fees can be charged commensurately with demand).

⁸⁶ See *Morton Salt*, 314 U.S. at 491 (stating a “patent affords no immunity for a monopoly not within the grant); *International Salt*, 332 U.S. at 395-6 (stating a patent affords no antitrust immunity over unpatented salt); *Aro Mfg. Co. Inc. v. Convertible Top Replacement Co., Inc.*, 365 U.S. 336, 339-340, 345 (1961) [hereinafter *Aro I*] (concluding that a patent did not confer a monopoly over an unpatented element of the combination).

⁸⁷ Patent Misuse Reform Act, 35 U.S.C. § 271(d)(5).

buyer to purchase something that need not be bought in fixed proportion to the patented device. Accordingly, a “market power rule of reason” analysis is not required under § 271(d)(5) for single use restrictions where a second use of the sold product is not based on a purchase of a separate product.⁸⁸

A case illustrative of the situation described above is *Mallinckrodt v. Medipart*.⁸⁹ In *Mallinckrodt*, the patentee, inscribed a “Single Use Only” restriction on its patented device⁹⁰ and the Federal Circuit held that the district court erred in holding that the restriction on reuse was unenforceable under the patent law,⁹¹ stating that:

If the sale of the [embodiment of the patented device] was validly conditioned under the applicable law such as the law governing sales and licenses, and if the restriction on reuse was within the original scope of the patent grant or otherwise justified, then violation of the restriction may be remedied by action for patent infringement.⁹²

In this case, Mallinckrodt owned a patent on an “apparatus for delivering radioactive and therapeutic material in aerosol mist form to the lungs of a patient.”⁹³ This device was used for diagnosis and treatment of pulmonary disease.⁹⁴ Mallinckrodt manufactured and sold this device to hospitals as a unitary kit, with a “Single Use Only” restriction notice inscribed on the device.⁹⁵ Furthermore, the instructions dictated that the entire apparatus be disposed of in accordance with biohazardous waste procedures.⁹⁶ Some

⁸⁸ *But see* *Virginia Panel Corp. v. MAC Panel Co.*, 133 F.3d 860, 869 (Fed. Cir. 1997) (stating “[w]hen a practice alleged to constitute patent misuse is neither *per se* patent misuse nor specifically excluded from a misuse analysis by 271(d), a court must determine if that practice is ‘reasonably within the patent grant.’”) (quoting *Mallinckrodt*, 976 F.2d at 708)).

⁸⁹ *Mallinckrodt*, 976 F.2d at 700.

⁹⁰ *Id.* at 701.

⁹¹ *Id.*; *see also* *Mallinckrodt v. Medipart*, 15 U.S.P.Q.2d 1113, 1120-21 (Fed. Cir. 1990) (holding Mallinckrodt’s “Single Use Only” restriction is not enforceable by way of a suit for patent infringement).

⁹² *Mallinckrodt*, 976 F.2d at 703.

⁹³ *Id.* at 701.

⁹⁴ *Id.*

⁹⁵ *Id.* at 701-2.

⁹⁶ *Id.* at 702. Note that any health and safety concerns can be covered by limiting express and implied warranties of the patented product beyond a single use.

hospitals, however, did not dispose of the patented device as instructed or limit its use to a single use.⁹⁷ Instead, they shipped the used patented devices to Medipart.⁹⁸ Medipart then reconditioned the patented devices and sent them back to the respective hospitals.⁹⁹ Consequently, Mallinckrodt sued Medipart for patent infringement and inducement to infringe.¹⁰⁰ Both parties then moved for summary judgment.¹⁰¹

The trial court granted defendant's motion for summary judgment finding that the violation of the single use restriction could not be remedied under patent law.¹⁰² Instead, the trial court said that this was a case of patent exhaustion, a doctrine stating that after sale, title passes, and that once the "patent owner has received the consideration he is due . . . his rights to control the future use of his invention come to an end."¹⁰³ The court then granted defendant's motion, "holding that the 'Single Use Only' restriction could not be enforced by suit for patent infringement."¹⁰⁴ In other words, even if the notice restriction was sufficient as a conditional sale, violation of that condition could not be remedied under patent law.¹⁰⁵

Mallinckrodt, on appeal, argued that its restriction on single use was merely a specified field of use restriction, wherein the field is a single (i.e. disposable) use.¹⁰⁶ As such, Mallinckrodt contended that this restriction did not enlarge the original scope of its patent.¹⁰⁷ In addition, Mallinckrodt argued that the "Single Use Only" restriction was reasonable because it was made for health and safety reasons and violated no public policy.¹⁰⁸ Mallinckrodt therefore concluded that its restriction should be a valid and

⁹⁷ *Id.*

⁹⁸ *Mallinckrodt*, 976 F.2d at 702.

⁹⁹ *Id.* These reconditioned units still bore the Mallinckrodt trademarks and the "Single Use Only" restriction. The units were also not tested for residual biological activity or for radioactivity. *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.* at 701.

¹⁰² *Mallinckrodt*, 15 U.S.P.Q.2d at 1120-21.

¹⁰³ *See id.* at 1114 (citing *Adams v. Burke*, 84 U.S. 453 (1873)).

¹⁰⁴ *Mallinckrodt*, 976 F.2d 700.

¹⁰⁵ *Id.* at 703.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* (arguing that "a single patient use is valid and enforceable under the patent law because the use is within the scope of the patent grant, and the restriction does not enlarge the patent grant").

¹⁰⁸ *Mallinckrodt*, 15 U.S.P.Q.2d, at 1120-21.

enforceable restriction under patent law.¹⁰⁹

On appeal, the Federal Circuit held that if a patentee's "Single Use Only" restriction was a valid condition of sale and did not *per se* violate the doctrine of patent misuse or antitrust law, provided that no other law prevented enforcement of the patent.¹¹⁰ The court reasoned that the appropriate criterion was to determine whether Mallinckrodt's restriction was "reasonably within the patent grant, or whether the patentee has ventured beyond the patent grant and into behavior having an anticompetitive effect not justifiable under the rule of reason."¹¹¹ Furthermore, the court held that if the single use restriction was valid, then "even repair of an unlicensed device constitutes infringement."¹¹²

The single use only restriction in *Mallinckrodt* does not fall within § 271(d)(5). Here, Mallinckrodt did not tie the sale of the patented product to the purchase of "a separate product."¹¹³ Instead, Mallinckrodt tied the sale of the patented product to a single use of the patented product.¹¹⁴ The uses are being sold in fixed proportion to the purchase of the patented product, even though the product has a life span beyond one use.¹¹⁵ Consequently, such a reuse restriction goes beyond the patent grant. Because this is not a tying case, market power in the tying product under the rule of reason is not required in evaluating it.

The Federal Circuit noted that *Mallinckrodt* was not a tying case,¹¹⁶ however the court may have been influenced by § 271(d)(5) in deciding this case. The court noted that the rule of reason was the appropriate criterion for determining whether

¹⁰⁹ *Mallinckrodt*, 976 F.2d at 702.

¹¹⁰ *Id.* at 708.

¹¹¹ *Id.*

¹¹² *Id.* at 709 (referring to *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 480 (1964) [hereinafter *Aro II*]). This reference, however, is somewhat misplaced. Here, the Court was talking about direct infringement existing because Ford did not have a license to make the convertible tops. The fact that defendant, Aro, made the repairs should not be any more of an infringement based on Ford's actions.

¹¹³ *Id.* at 709. In other words, if a purchaser bought the mist to refill the patented invention, this refilling would not violate the restriction. It is only the use of the refilled invention that would exceed the limitation.

¹¹⁴ *See Mallinckrodt*, 976 F.2d at 708.

¹¹⁵ *See id.*

¹¹⁶ *Id.* at 708 (emphasizing that this case was not a price-fixing or tying case, and the *per se* antitrust and misuse violations should not be applied).

Mallinckrodt's single use restriction was justifiably within the patent grant or had ventured "into behavior having anticompetitive effect."¹¹⁷ In actuality, § 271(d)(5) does not address this situation, as the single use restriction was not placed on a separate product.¹¹⁸ The broader question is whether there can be a single use restriction characterized as a specific field of use that is not patent misuse.

Following *Mallinckrodt*, single use restriction cases have been decided under legal doctrines that do not address the pro-competitive issues Congress attempted to stimulate in the PMRA.¹¹⁹ Post-*Mallinckrodt* cases have been decided using the permissible repair versus impermissible reconstruction doctrine.¹²⁰ Under this doctrine, a patent on a combination of elements "covers only the totality of the elements in the claim and . . . no element, separately viewed, is within the grant."¹²¹ As the Supreme Court has stated:

No element, not itself separately patented, that constitutes one of the elements of a combination patent is entitled to patent monopoly, however essential it may be to the patented combination and no matter how costly or difficult replacement may be.¹²²

A purchaser of a patented invention is entitled to replace non-patented "spent" parts that amount to permissible repair.¹²³ The

¹¹⁷ See *id.*; 35 U.S.C. §271(d)(5) (1994).

¹¹⁸ There was a bill in the Senate, S.1200, that would have limited the patent misuse defense to cases in which an antitrust violation existed, but this was not adopted. See 134 CONG. REC. S14,434-03 (daily ed. Oct. 4, 1988) (statement of Sen. Leahy); 134 CONG. REC. H10,646-02 (daily ed. Oct. 20, 1988) (statement of Rep. Kastenheimer); 134 CONG. REC. S17,146-02 (daily ed. Oct. 21, 1988) (statement of Sen. Leahy). Thus, the patent misuse doctrine should only be limited as much as Congress intended to limit it. See *In re Recombinant DNA*, 850 F.Supp.769, 774 (S.D. Ind. 1994).

¹¹⁹ See *Zenith Elecs. Corp. v. Exzec, Inc.*, 182 F.3d 1340 (Fed. Cir. 1999); see also *Mikohn Gaming Corp. v. Acres Gaming*, 165 F.3d 891 (Fed. Cir. 1998); see also *Image Technical Servs. v. Eastman Kodak Co.*, 125 F.3d 1195 (9th Cir. 1997); see also *B. Braun Med. v. Abbott Lab.*, 124 F.3d 1419 (Fed. Cir. 1997); see also *Zeneca, Ltd. v. Pharmachemie B.V.*, 37 F. Supp. 2d 85 (D. Mass. 1999).

¹²⁰ See, e.g., *supra* note 119.

¹²¹ *Aro I*, 365 U.S. at 344.

¹²² *Id.* at 345.

¹²³ *Heyer v. Duplicator Mfg. Co.*, 263 U.S. 100, 102 (1923) (asserting that the patented machine lasts indefinitely, while the bands are exhausted after a limited use and must be replaced); see also *Aro I*, 365 U.S. at 345 (holding that the "[m]ere replacement

term “spent” refers to the idea that the replacement parts have reached their life span, or have worn out;¹²⁴ however, the purchaser may not impermissibly reconstruct the patented device.¹²⁵

Patent monopoly is ‘exhausted’ by the first authorized sale of the

of individual unpatented parts, one at a time, whether of the same part repeatedly or different parts successively, is no more than the lawful right of the owner to [permissibly] repair his property.”); *see also* Kendall Co. v. Progressive Med. Tech., 85 F.3d 1570, 1573-74 (Fed. Cir. 1996) (stating that the “‘use of the whole’ of the combination which a purchaser buys, and [replacement of worn-out parts] is but an exercise of the right ‘to give duration to that which he owns’”); *see also* Sage Prods., Inc. v. Devon Indus., 45 F.3d 1575, 1578 (Fed. Cir. 1995) (reasoning that permissible repair encompasses any repair necessary for maintaining the use of the whole of the patented combination through replacing a spent part); *see also* Everpure, Inc. v. Cuno, Inc., 875 F.2d 300 (Fed. Cir. 1989) (agreeing with defendant that replacing a worn or spent part in a patented combination constitutes [permissible] repair and not reconstruction).

¹²⁴ *See* Everpure, 875 F.2d 300.

¹²⁵ *Wilson v. Simpson*, 50 U.S. 109, 123 (Mem) (1850) (stating “when the material of the [patented] combination ceases to exist . . . the right to renew it depends upon the right to make the invention. If [that] right does not exist, there is no right to [reconstruct the invention]”). *See also* American Cotton-Tie v. Simmons, 106 U.S. 89 (1882) (explaining why the defendants did not make a permissible repair, but an impermissible reconstruction.)

What the defendants did in piecing together the pieces of the old band was not a repair of the band or the tie, in any proper sense. The band was voluntarily severed by the consumer at the cotton-mill because the tie had performed its function of confining the bale of cotton in its transit from the plantation or the press to the mill. Its capacity for use as a tie was voluntarily destroyed. As it left the bale it could not be used again as a tie. As a tie the defendants reconstructed it, although they used the old buckle without repairing that. The case is not like putting new cutters into a planing-machine, as in *Wilson v. Simpson*, 9 How. 109, in place of cutters worn out by use. The principle of that case was that temporary parts wearing out in a machine might be replaced to preserve the machine in accordance with the intention of the vendor, without amounting to a reconstruction of the machine.

Id.

See also Sandvik Aktiebolag v. E.J. Co., 121 F.3d 669, 673 (Fed. Cir. 1997) (explaining an example regarding an impermissible reconstruction.)

Moreover, the nature of the work done by E.J. shows that retipping is more like reconstruction than like repair. E.J. does not just attach a new part for a worn part, but rather must go through several steps to replace, configure and integrate the tip onto the shank. It has to break the worn or damaged tip from the shank by heating it to 1300 degrees Fahrenheit. It brazes to the shank a new rectangular block of carbide and grinds and machines it to the proper diameter and creates the point. Thereafter, the tip is honed and sharpened, grinding the rake surfaces and the center of the point and honing the edges. These actions are effectively a re-creation of the patented invention after it is spent.

Id.

patented item, and patent law does not protect attempts by the patentee or his licensees to control use of the product after such sale.¹²⁶ Permissible repair is normally confined to repairing spent (*i.e.*, worn or broken) parts while impermissible reconstruction is limited to situations where the entity, viewed as a whole, has become spent.¹²⁷

The post-*Mallinckrodt* single use only restriction cases, which have been decided on the basis of the repair versus reconstruction doctrine, have expanded what constitutes “spent,” while the category unpatented components which have reached the end of their lifespan, has broadened.¹²⁸ Permissible repairs now include the replacement of unworn or even unused components of a patented combination.¹²⁹ Such expansion is confusing and does

¹²⁶ See *Hensley*, 383 F. 2d at 263 (citing *United States v. Univis Lens. Co.*, 316 U.S. 241 (1942)). See also *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917), *overruling* *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912).

¹²⁷ *Aro I*, 365 U.S. at 342-43 (1961) (stating: “[I]t is ‘the use of the whole’ of the combination which a purchaser buys, and . . . repair or replacement of the worn-out, damaged or destroyed part is but an exercise of the right ‘to give duration to that which he owns, or has a right to use as a whole.’”) (quoting *Wilson v. Simpson*, 50 U.S. (9 How.) 109, 123 (1850)).

Universal Elecs., Inc. v. Zenith Elecs. Corp., 846 F. Supp. 641, 648 (N.D. Ill.) (stating “[u]nder [the repair doctrine], a customer may replace or repair worn or broken unpatented parts of a patented combination”), *aff’d* *Universal Elecs., Inc. v. Zenith Elecs. Corp.*, 41 F.3d 1520 (Fed. Cir. 1994).

¹²⁸ See Gajarsa *supra* note 28.

¹²⁹ *Hewlett-Packard Co. v. Repeat-O-Type Stencil Mfg. Corp., Inc.*, 123 F.3d 1445, 1452 (Fed. Cir. 1997) (finding permissible repair where the parts were completely unused and unworn, while noting that the modifications were not conventional repair.)

While there is no bright-line test for determining whether a modification is a “reconstruction” sufficient to infringe a patent owned by the seller of the product, on the undisputed facts in this case, we agree with the district court that [defendant, ROT] has not reconstructed the cartridges. ROT’s modification of the caps of HP’s cartridges is more akin to permissible “repair” than to impermissible “reconstruction”.

Id.; see also *Kendall Co.*, 85 F.3d at 1576 (stating that [i]n sum, although the pressure sleeves were not physically worn-out, they were effectively spent because of the risk of contamination between successive patients. Replacement of the sleeves after each use was necessary, as a practical matter, for Kendall’s customers to continue to use the complete [patented system]); *Sage*, 45 F.3d at 1578.

It might be prudent to replace an expendable element before it has been completely exhausted This court has never said that an element is spent only when it is impossible to reuse it. Like the district court, we believe that when it is neither practical nor feasible to continue using an element that is intended to be replaced, that element is effectively spent.

Id. (citing *Everpure*, 875 F.2d at 303).

not address Congress' intent for restrictions to stimulate competition for patented inventions.

Another drawback of analyzing single use only restriction cases under the permissible repair versus impermissible reconstruction doctrine is that the courts are forced to look to the intent of the patentee.¹³⁰ This is often precarious since it is difficult to prove the subjective intent of the patentee. In addition, intent should not be an element in a judicial test for direct infringement as knowledge of infringement is not a required element in 35 U.S.C. § 271 (a).¹³¹ There are also severe inconsistencies in the existing repair versus reconstruction jurisprudence.¹³²

¹³⁰ *Wilson*, 50 U.S. at 125-26 (focusing on what the inventor contemplated regarding whether knives used in the patented machine would be replaced during the life of the machine.)

The right . . . to replace the cutter-knives is not because they are perishable materials, but because the inventor of the machine has so arranged them as a part of its combination, that the machine could not be continued in use without a succession of knives at short intervals. Unless they were replaced, the invention would have been of little use to the inventor or to others These, without having a definite duration are *contemplated by the inventor* to last so long as the materials of which they are formed can hold together in use in such a combination *With such intentions*, they are put into the structure [The] inventor cannot complain, if he sells the use of his machine, that the purchaser uses it in the way the inventor meant it to be used

Id. (emphasis added); *see also Morgan*, 152 U.S. at 434 (finding that replacing the toilet paper on a patented toilet paper roll was not impermissible reconstruction because: the purchaser of a new [toilet paper] roll does precisely what the patentee intended he should do; he replaces that which is in its nature perishable and without the replacement of which the remainder of the device is of no value); *Sandvik Aktiebolag*, 121 F.3d at 674 (finding that the evidence shows that plaintiff "never intended for its drills to be retipped. It did not manufacture or sell replacement drill tips. It did not publish instructions on how to retip or suggest [such]").

¹³¹ 35 U.S.C. § 271(a). "Except as otherwise provided in this title, whoever invents without authority makes, uses, offers to sell or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent." *Id.*; *see also Embrex, Inc. v. Service Eng'g Corp.*, 216 F.3d 1343, 1352 (Fed. Cir. 2000) (Rader, J. concurring) (stating that the patent act leaves no room for *deminimus* or experimental use excuses for infringement because intent is irrelevant to patent infringement so that an experimental use excuse cannot survive). Note, however, that intent is an element of active inducement infringement under 35 U.S.C. § 271(b) and contributory infringement under § 271(c).

¹³² *See Gajarsa, supra* note 28 at 1207-08.

B. Exhaustion

In addition to limiting patent misuse, *Mallinckrodt* put substantial restraints on the doctrine of patent exhaustion. In the seminal case on patent exhaustion, *Adams v. Burke*,¹³³ the Supreme Court held that a patent right is “exhausted” by the first sale of the patented product.¹³⁴ Thus, any attempt to restrict the use of such patented product, after it has passed into the stream of commerce, is unenforceable under patent laws.¹³⁵ This case was resolved under patent law without any antitrust discussion, as the case was decided prior to the Sherman Act.

Today, the “antitrust analogue to the [exhaustion doctrine] is the doctrine of ‘restraints on alienation,’ utilized by the Supreme Court in *United States v. Arnold, Schwinn & Co.*”¹³⁶ In *Arnold, Schwinn*, the Court held that any restriction by a seller of a product with respect to the resale of that product is *per se* illegal under the antitrust laws.¹³⁷ The Court, however, evaluated products where the manufacturer retained title under the rule of reason.¹³⁸ *Arnold, Schwinn* was overruled in *Continental T.V., Inc. v. GTE Sylvania, Inc.*¹³⁹

In *Continental T.V.*, the Court held that “vertical restrictions

¹³³ 84 U.S. 453 (1873).

¹³⁴ *See id.*; *see also* Keeler v. Standard Folding-Bed Co., 157 U.S. 659 (1895). When a patentee sells a patented article of manufacture, the Court said:

[I]t is obvious that a purchaser can use the article in any part of the United States, and, unless restrained by contract with the patentee, can sell or dispose of the same. It has passed outside of the monopoly, and is no longer under the peculiar protection granted to patented rights.

Id. at 663.

¹³⁵ 84 U.S. at 456.

¹³⁶ Weinschel and Stefanski, *supra* note 2 at 19 (quoting *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967)).

¹³⁷ *Schwinn*, 388 U.S. at 379.

Under the Sherman Act, it is unreasonable without more for a manufacturer to seek to restrict and confine areas or persons with whom an article may be traded after the manufacturer has parted with dominion over it Such restraints are so obviously destructive of competition that their mere existence is enough. If the manufacturer parts with dominion over his product or transfers risk of loss to another, he may not reserve control over its destiny or the conditions of its resale.

Id.

¹³⁸ *Id.* at 379-80.

¹³⁹ 433 U.S. 36 (1977).

promote interbrand competition by allowing the manufacturer to achieve efficiencies in the distribution.”¹⁴⁰ These restrictions allow sellers to regulate the amount of competition among their retailers through territorial restrictions, increasing interbrand competition.¹⁴¹ Thus, the Court held these restrictions should be evaluated under the rule of reason.¹⁴² In particular, the Court noted that there should be no distinction drawn between sale and non-sale transactions,¹⁴³ the rule of reason should be applied in both situations.¹⁴⁴

The question then becomes: Is *Adams* in conflict with *Continental T.V.*?¹⁴⁵ Technically, *Adams* makes restraints on patented products after sale unenforceable under patent law.¹⁴⁶ It could be viewed that the exhaustion doctrine merely places patented products on an equal footing with unpatented products when analyzing a licensor’s right to place restrictions on the purchaser of the product under the antitrust laws.¹⁴⁷ Following this logic, the Federal Circuit, in *Mallinckrodt*, supported this contention and rejected the doctrine of exhaustion as a basis for antitrust liability and patent misuse.¹⁴⁸

A further problem with *Mallinckrodt* is that it blurs the distinction between contracting for a sale of goods and contracting for patent rights. There are different consequences when contracting for a sale of goods versus contracting for patent rights. Restrictions on patent rights travel downstream, while restrictions on contracts do not. In other words, a patent owner may limit rights granted under a patent license agreement to those not in

¹⁴⁰ *Id.* at 55.

¹⁴¹ *See id.*

¹⁴² *See id.*

¹⁴³ *Id.* at 57 (holding “that the distinction drawn in *Schwinn* between sale and nonsale transactions is not sufficient to justify the application of a per se rule in one situation and a rule of reason in the other Accordingly, we conclude that the per se rule stated in *Schwinn* must be overruled.”).

¹⁴⁴ *See id.*

¹⁴⁵ Weinschel and Stefanski, *supra* note 2 at 19. In *Schwinn*, at footnote 6, the Court specifically excludes this analysis from applying to a patentee: “We have no occasion here to consider whether a patentee has any greater rights in this respect.” 388 U.S. at 380 (citations omitted).

¹⁴⁶ 84 U.S. at 457 (holding that purchaser “acquire[s] the right to this use of it [the patented device] freed from any claim of the patentee”).

¹⁴⁷ Weinschel and Stefanski, *supra* note 2 at 19.

¹⁴⁸ 976 F.2d at 708.

privity of contract.¹⁴⁹ If a sale is not authorized, it may result in an infringement.¹⁵⁰ An authorized sale of a patented product, however, places the product beyond the reach of the patent, exhausting the patent rights.¹⁵¹ In contrast, a patent owner may place conditions on a sale of a patented product through contract, but such restrictions should apply only to those in privity of contract.¹⁵² Generally, only those who are in privity of contract, with the exception of intended beneficiaries,¹⁵³ may sue on a contract.¹⁵⁴ The idea is that one who is not in privity of contract cannot be sued on such contract; therefore, one not in privity should not be able to sue on such contract either.¹⁵⁵

Although the courts have not thoroughly discussed the impact of determining whether a given contract covers a sale of goods or a license of intellectual property rights, the courts have tangentially examined this distinction. In both *Wilson v. Rousseau*¹⁵⁶ and *Bloomer v. McQuewan*,¹⁵⁷ those who had purchased patented

¹⁴⁹ 35 U.S.C. § 154 (a)(1). A patentee has:

[T]he right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.

Id.; *McCoy v. Mitsubishi*, 67 F.3d 917, 919 (Fed. Cir. 1995) (recognizing that a “patent confers the right to exclude others from making, using, or selling what is described in its claims.”)

¹⁵⁰ 35 U.S.C. § 271 (1994).

¹⁵¹ *Intel Corp. v. ULSI Sys. Tech., Inc.*, 995 F.2d 1566, 1568 (Fed. Cir. 1993) (emphasizing that patent exhaustion applies similarly to a sale of a patented product manufactured by a licensee acting within the scope of its license).

¹⁵² VERNON V. PALMER, *THE PATHS TO PRIVACY: THE HISTORY OF THIRD PARTY BENEFICIARY CONTRACTS AT ENGLISH LAW* 853 (1992) (discussing the traditional rule that “only a person who is a privity to a contract can sue on it). An exception to this rule is for intended beneficiaries who may sue on a contract that was made directly for their benefit. See *RESTATEMENT (SECOND) OF CONTRACTS* § 302 (1977).

¹⁵³ An exception to this principle has been made for third party intended beneficiaries. See *Seavor v. Ransom*, 120 N.E. 639, 641 (1918); *Lawrence v. Fox*, 20 N.Y. 268, 274 (1859) (holding that one not in privity of contract, but who is an intended beneficiary on the contract, may sue on such contract for breach).

¹⁵⁴ See *supra* note 153 and accompanying text. There are situations in which a person not in privity may have rights to sue on a contract, like a third party beneficiary or an aggrieved buyer trying to sue a manufacturer on its warranty. Contrary to *Mallinckrodt*, in these cases, the third parties are not being sued by a party to the contract.

¹⁵⁵ See *Seavor*, 120 N.E. at 640.

¹⁵⁶ 45 U.S. 646 (1846).

¹⁵⁷ 55 U.S. 539 (Mem), 14 How. 539 (1852).

machines during the patent's original term were held to have the right to continue using such machines after the patent term had been renewed twice, without paying a second royalty.¹⁵⁸ In its opinions the Court made a distinction "between the grant of the right to make and vend the machine, and the grant of the right to

¹⁵⁸ There is no longer a provision for extension of patent term. In 1836, however, Congress passed an act allowing for such extension:

And be it further enacted, that whenever any patentee of an invention or discovery shall desire an extension of his patent beyond the term of its limitation, he may make application therefore, in writing, to the Commissioner of the Patent Office, setting forth the grounds thereof; and the Commissioner shall, on the applicant's paying the sum of forty dollars to the credit of the treasury, as in the case of an original application for a patent, cause to be published in one or more of the principal newspapers in the city of Washington, and in such other paper or papers as he may deem proper, published in the section of country most interested adversely to the extension of the patent, a notice of such application, and of the time and place when and where the same will be considered, that any person may appear and show cause why the extension should not be granted. And the Secretary of State, the Commissioner of the Patent Office, and the Solicitor of the Treasury shall constitute a board to hear and decide upon the evidence produced before them, both for and against the extension, and shall sit for that purpose at the time and place designated in the published notice thereof. The patentee shall furnish to the said board a statement in writing, under oath, of the ascertained value of the invention, and of his receipts and expenditures, sufficiently in detail to exhibit a true and faithful account of loss and profit in any manner accruing to him from and by reason of said invention. And if, upon a hearing of the matter, it shall appear to the full and entire satisfaction of said board, having due regard to the public interest therein, that it is just and proper that the term of the patent should be extended, by reason of the patentee, without neglect or fault upon his part, having failed to obtain, from the use and sale of his invention, a reasonable remuneration for the time, ingenuity, and expense bestowed upon the same, and the introduction thereof into use, it shall be the duty of the Commissioner to renew and extend the patent, by making a certificate thereon of such extension, for the term of seven years from and after the expiration of the term; which certificate, with a certificate of said board of their judgment and opinion as aforesaid, shall be entered on record in the patent-office; and thereupon the said patent shall have the same effect in law as though it had been originally granted for the term of twenty-one years. And the benefit of such renewal shall extend to assignees and grantees of the right to use the thing patented, to the extent of their respective interest therein. Provided, however, that no extension of a patent shall be granted after the expiration of the term for which it was originally issued.

6 Stat. at Large, 678. Act approved 4th July, 1836, ch. 357. *See* Wilson v. Rousseau, 45 U.S. 646, 658 (1846).

use it.”¹⁵⁹ The Court also stated that when a patentee sells the exclusive privilege of making or vending the patented invention for use in a particular place, “the purchaser buys a portion of the franchise which the patent confers. The patentee cannot sell [the exclusive rights] for a longer time. And the purchaser buys with reference to that [limited] period.”¹⁶⁰

But when a purchaser buys the patented invention itself, the purpose of using it stands on different ground. “In using it, he exercises no rights . . . [granted] by Congress nor does [the title come from] the . . . exclusive privilege granted to the patentee.”¹⁶¹ When the machine passes to the purchaser, it no longer lies within the limits of the monopoly.¹⁶² “It passes outside of it.”¹⁶³ Thus, the patented invention becomes the individual property of the purchaser, it is individual property, no longer protected by federal laws, but by the laws of the State in which the property lies.¹⁶⁴ The right is expended under what is called the doctrine of patent exhaustion.

II. THE PROPOSED TEST

Several cases have been heard at the Federal Circuit where single use restrictions were placed on patented devices.¹⁶⁵ In some of these cases, the outcome would have changed or the questions asked would have been different if the test proposed in this article was used. In particular, *Mallinckrodt*¹⁶⁶ would have had a different outcome. In that case, the Federal Circuit held that if a patentee’s “single use only” restriction was a valid condition of sale, this restriction is not excluded from enforcement under patent law.¹⁶⁷ Such a restriction does not “*per se* violate the doctrine of patent misuse or the antitrust law, provided that no other law prevents

¹⁵⁹ *Bloomer v. McQuewan*, 55 U.S. 539, 548 (1852).

¹⁶⁰ *Id.* at 549.

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 549-50 (discussing that the purchasers derive no advantage for the patentee’s patent extension).

¹⁶⁵ See *Hewlett-Packard*, 123 F.3d 1445 (Fed Cir. 1997); *Aktiebolag v. E.J. Co.*, 121 F.3d 669 (Fed. Cir. 1997); *The Kendall Co. v. Progressive Med. Tech., Inc.*, 85 F.3d 1570 (Fed. Cir. 1996).

¹⁶⁶ 976 F.2d 700 (1992).

¹⁶⁷ *Id.* at 701.

enforcement of the patent.”¹⁶⁸

The proposed test requires that the doctrine of *per se* patent misuse be applied in cases where: (1) a reuse restriction is not made with respect to a separate product; and (2) where the restriction forces the buyer to purchase something that need not be bought in fixed proportion to the patented device, since the life-span of the device outlasts the single use. Because the single use restriction in *Mallinckrodt* was not a restriction on a separate product, the first prong of the test is met. Secondly, the second prong is satisfied because the single use restriction on the patented devices forces the buyer into purchasing more uses than is necessary since the general life-span of the patented devices outlasts a single use. Thus, such a restriction should be considered a *per se* patent misuse violation. After *Mallinckrodt*, single use restrictions no longer amounted to *per se* patent misuse.¹⁶⁹ Consequently, most cases were argued under other theories.¹⁷⁰

Another case where the patent holder utilized a single use restriction is *Sage Prods. v. Devon Indus.*,¹⁷¹ a post-*Mallinckrodt* case where the issue of patent misuse was not raised. Instead, the court’s decision rested on the permissible repair doctrine.¹⁷² In *Sage Prods.*, the court focused on the patent holder’s intent regarding the single use and whether the replaced part was “spent.”¹⁷³

Sage Products (“Sage”) was the assignee to Reissue Patent No. 33,413 (the “413 patent”) having claims drawn to a disposal system for contaminated items, particularly those used in a hospital.¹⁷⁴ The “413 patent” comprised an “outer enclosure” that could be mounted on a wall, and a cooperating, “removable inner

¹⁶⁸ *Id.* at 702.

¹⁶⁹ *See, e.g., B. Braun Med. v. Abbott Lab.*, 124 F.3d 1419, 1426 (Fed. Cir. 1997) (ruling that district court erred in instructing jury that use restrictions amounted to patent misuse without an evaluation under the rule of reason).

¹⁷⁰ *See, e.g., Hewlett-Packard*, 123 F. 3d 1445 (Fed. Cir. 1997) (finding that defendant’s modification of Hewlett-Packard’s patented ink cartridge was a non-infringing permissible repair).

¹⁷¹ 45 F.3d 1575 (Fed. Cir. 1995).

¹⁷² *Id.* at 1577 (where plaintiff “alleges that hospitals which replace the removable inner containers of its patented combination with Devon’s containers are impermissibly reconstructing the” plaintiff’s patented device).

¹⁷³ *Id.* at 1578.

¹⁷⁴ *Id.* at 1577.

container.”¹⁷⁵ The inner container was placed inside the outer enclosure.¹⁷⁶ “The removable inner container [was] an unpatented element of the ‘413 combination.”¹⁷⁷ When the inner container was full with contaminated items, it was removed from the outer enclosure, and preferably discarded.¹⁷⁸ Sage marked a “BIOHAZARD – SINGLE USE ONLY” warning on the containers, the idea being that a single use corresponded to a full inner container.¹⁷⁹ Sage’s sales literature also instructed customers to discard the inner containers once they were full to comply with the single use restriction.¹⁸⁰

In addition to selling the disposal system as a unit, Sage also sold replacement inner containers.¹⁸¹ Sage sold far more inner containers than combinations of inner containers and outer enclosures.¹⁸² Sale of inner containers is a sizeable market.¹⁸³

Although the “‘413 patent discourag[ed] reuse, it [was] physically possible to empty, clean, and reuse the commercial embodiment of the inner container.”¹⁸⁴ This, however, was difficult and could damage to the inner container.¹⁸⁵ Nevertheless, the inner containers were sometimes reused and Sage, subsequently, refused to sell directly to buyers that reused the containers.¹⁸⁶

Devon, the defendant, manufactured and sold an inner container that could be used with a wall bracket made by either Devon or by

¹⁷⁵ 45 F.3d at 1576 (citing the language from the claims in the patent at issue).

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 1577 (noting that “[t]he specification states that the inner container is intended to be disposable and is preferably discarded when full Proper disposal, such as incineration, of filled inner containers prevents improper reuse of, and possible contamination or spread of disease.”).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* (noting that “Sage actively campaigns against reuse of inner containers and has even refused to sell directly to buyers which reuse the containers”).

¹⁸¹ *Sage*, 45 F.3d 1575.

¹⁸² *Id.* (attributing the discrepancy in sales to the fact that “outer enclosures could last indefinitely under normal use”).

¹⁸³ *Id.* (noting that “Sage claims that its disposal systems are sold at over half of the hospitals in the United States”).

¹⁸⁴ *Id.* at 1577.

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*; see also *supra* note 180.

Sage.¹⁸⁷ Devon did not manufacture an outer enclosure that, together with Devon's inner container, would have infringed the '413 patent.¹⁸⁸

Sage sued Devon, alleging that the hospitals directly infringed the '413 patent by using Devon replacement containers with Sage's outer enclosure.¹⁸⁹ Sage argued that the replacement impermissibly reconstructed the '413 patented combination, meaning Devon either actively induced infringement or was a contributory infringer.¹⁹⁰ Sage contended that any entity that made the inner container infringed the patent, even though the inner container was an unpatented element of a combination.¹⁹¹ To avoid being liable as an infringer, Devon alleged that replacing the inner container was permissible repair.¹⁹²

At trial, the court granted Devon's motion for partial summary judgment holding that replacing the inner containers was permissible repair.¹⁹³ Sage appealed. The dispute on appeal was whether or not undamaged, filled, inner containers were considered "spent," so that their replacement was considered permissible repair.¹⁹⁴ Sage conceded that replacing a damaged container would be permissible repair.¹⁹⁵ According to Sage, that was not the case because the replaced containers were not "spent," used up, or in need of repair.¹⁹⁶ In order to determine whether or not the replaced containers were spent, the court looked to Sage's intent.¹⁹⁷ This analysis is confusing because determining a patentee's intent and whether the device is "spent" should be independent from one another.¹⁹⁸

¹⁸⁷ *Sage*, 45 F.3d 1575.

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² *Id.* at 1578.

¹⁹³ *Sage*, 45 F.3d at 1577. "[T]he district court held that there was no genuine issue of material fact about whether the inner container was a disposable element of the patented combination, and that replacing the container constituted permissible repair of the Sage system." *Id.*

¹⁹⁴ *Id.* at 1578.

¹⁹⁵ *Id.* "Sage does not suggest that replacing a damaged inner container is reconstruction." *Id.*

¹⁹⁶ *Id.* at 1578.

¹⁹⁷ *Id.* (relying on "Sage's marketing of its sharps disposal units" to reject the argument that the "inner containers could be reused").

¹⁹⁸ *Sage*, 45 F.3d at 1578. Here, the court determined that Sage's intent determines

First, the court noted that Sage labeled the inner containers “SINGLE USE ONLY,” meaning Sage intended the containers to be discarded when full.¹⁹⁹ Furthermore, “Sage admitted that it intended that its customers not reuse its containers and [had] refused to deal directly with distributors and users who [did].”²⁰⁰ The court then concluded that an article is effectively spent “when it is neither practical nor feasible to continue using an element that is intended to be replaced.”²⁰¹ The court affirmed the trial court’s summary judgment grant, finding that the defendants engaged in permissible repair and did not contributorily infringe the subject patent.²⁰²

The courts’ choice to focus on Sage’s intent is problematic since the court said that it would have come out differently had it been practical to continue to use the inner container.²⁰³ Sage argued that the patent claimed a “removable” inner container, and not a “disposable” one.²⁰⁴ In the future, Sage proposed, there may be a way to safely dispose of the waste, without discarding the inner container along with the waste.²⁰⁵ The court went so far as to admit that it might have decided the case differently had this been the case:

If those were the facts, our conclusion that this is permissible repair might be different But here, following the teaching of the ‘413 patent, Sage commercialized a unit designed for safe removal and disposal of hazardous waste. It intended that its customers dispose of inner containers and went to great lengths to ensure that they did.²⁰⁶

The problem with using the permissible repair versus impermissible reconstruction analysis is that it yields different

whether or not the inner container is spent.

¹⁹⁹ *Id.*

²⁰⁰ *Id.* at 1577.

²⁰¹ *Id.* at 1578 (citing *Everpure, Inc. v. Cuno, Inc.*, 875 F.2d 300, 303).

²⁰² *Id.* at 1579.

²⁰³ *Id.* (citing *FMC Corp. v. Up-Right Inc.*, 21 F.3d 1073, 1078-79 (Fed. Cir. 1994)).

²⁰⁴ *Sage*, 45 F.3d at 1579; see U.S. Patent No. 4,715,498 (reissue no. 33,413) (issued Dec. 29, 1987). Claim 1d., the patent-in-suit, describing the inner container as: “A disposal system comprising . . . a *removable* inner container disposed within said outer enclosure, said inner container including an inlet in registration with” *Id.* (emphasis added).

²⁰⁵ *Sage*, 45 F.3d 1575.

²⁰⁶ *Id.* at 1579.

results depending on whether the thing intended to be replaced is considered “spent.” Thus, the court might have found that reusing the inner container, if it was not considered spent, would have amounted to impermissible reconstruction, triggering patent infringement without looking at anticompetitive effect. The more important focus rests on whether the anticompetitive restriction on reuse expands the patent’s original scope as to effect misuse of the patent.

In *Sage Prods.*, the court was troubled by Sage’s attempt to hold Devon liable for infringement for supplying an unpatented element that Sage, itself, recommended replacing:²⁰⁷ “[Sage] thus seeks to keep for itself a market in parts which are intended to be periodically replaced — this is no more than an attempt to expand patent rights to an unpatented product.”²⁰⁸

The problem was not Sage’s intent regarding how often a part was to be replaced. Rather, it was that Sage was trying to expand its monopoly coverage to the inner container, an unpatented element not privy to exclusive rights coverage under the patent.²⁰⁹ The proposed test focuses on this issue.²¹⁰ In applying the proposed test, *per se* patent misuse should be triggered. The proposed test requires that the doctrine of *per se* patent misuse should be applied in cases where: (1) a reuse restriction is not made with respect to a separate product; and (2) where the restriction forces the buyer to purchase something that need not be bought in fixed proportion to the patented device, since the life-span of the device outlasts the single use.

First, the restriction is not made with respect to a separate product. According to the restriction, the entire patented device can be used only until the inner container is full.²¹¹ Consequently, this restriction is on the entire device and not tied to a separate product. In fact, replacing the container with a Sage inner container would technically infringe. If this occurred, however, Sage would probably still sue because its goal in this litigation was to eliminate its competition so that it might sell all of the replacement containers, where it makes its largest profit margin.

²⁰⁷ *Id.* at 1579.

²⁰⁸ *Id.*

²⁰⁹ *Id.*

²¹⁰ See discussion *infra* Part II.

²¹¹ See *Mallinckrodt*, 976 F.2d at 702.

Second, the “SINGLE USE ONLY” restriction forces the buyer to purchase something that need not be bought in fixed proportion to the patented device’s further uses. This is like *Mallinckrodt*, where any use beyond a single use was prohibited.²¹²

Notice that Sage was not suing its customers, the hospitals, but instead chose to sue a competitor that made replacement inner containers.²¹³ Sage wanted to supply replacement inner containers and keep the competition from taking away this business. Under the Act, Sage is permitted to tie sales of the inner containers to the tying product, the patented device, “unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the . . . sale is conditioned.”²¹⁴ In this case, Sage probably did have market power in the relevant market since Sage sold to over half of the hospitals in the United States.²¹⁵ Under the rule of reason, Sage would probably have to sell the replacement containers at a competitive price to avoid an antitrust violation.²¹⁶ Instead of characterizing the transaction as a tying arrangement, Sage avoided this by placing a single use restriction on its device.²¹⁷

In another case, *Kendall Co. v. Progressive Medical Tech.*,²¹⁸ the patentee placed a single use restriction on an unpatented element of a patented device. In this case, Kendall, the assignee of U.S. Patent No. 4,253,449 (“449 patent”) drawn to a medical device for applying compressive pressure to a patient’s limb in order to increase blood flow.²¹⁹ The patent is a combination patent having three components: a pump, a pair of pressurized sleeves; and connecting tubes.²²⁰

Kendall sold an embodiment of an invention, called the SCD system, to health facilities.²²¹ Included in the SCD System was a pump, a tubing assembly, and a plurality of sleeves.²²² In order to

²¹² See *Sage*, 45 F.3d at 1577.

²¹³ See *id.*

²¹⁴ 35 U.S.C. § 271(d)(5) (1994).

²¹⁵ See *Sage*, 45 F.3d at 1577.

²¹⁶ *Id.*

²¹⁷ *Id.*

²¹⁸ 85 F.3d 1570 (Fed. Cir. 1996).

²¹⁹ *Id.* at 1571.

²²⁰ *Id.*

²²¹ *Id.* at 1572.

²²² *Id.* at 1571. “The patented device is comprised of three basic components: a

discourage reuse of the pressure sleeves on the device, Kendall placed a notice on the sleeve packaging that read, “For Single Patient Use Only. Do not Reuse.”²²³ According to Kendall, the purpose for this notice was for hygienic reasons, since the sleeves might become contaminated with a patient’s blood or other bodily fluids.²²⁴ Although most customers replaced the sleeves after each use, not all of them purchased sleeves from Kendall.²²⁵ Some purchased sleeves from Progressive Medical Technology (“Progressive”), the defendant.²²⁶ In any event, Kendall’s sale of replacement sleeves accounted for about \$80 million out of \$85 million dollars in total annual sales.²²⁷

Consequently, Kendall sued Progressive for contributory infringement.²²⁸ The trial court granted Progressive’s motion for partial summary judgment of noninfringement based on the repair doctrine, holding that Kendall’s customers acted within their right to repair the SCD system by replacing the pressure sleeves after each use.²²⁹ Without direct infringement, the court could not find contributory infringement.²³⁰ Kendall appealed. The issue on appeal was whether purchasers of Kendall’s complete SCD system “directly infringed the ‘449 patent when they replaced the pressure sleeves after a single use with sleeves purchased from someone other than Kendall.”²³¹

In order to determine direct infringement, the court analyzed whether Kendall’s customers had an implied license to replace the pressure sleeves after each use.²³² The court found that Kendall had granted its customers an implied license to use the device for its useful life.²³³ Given this implied license, Kendall’s customers had the “right to repair the patented article and necessarily to

controller-pneumatic pump for supplying pressurized fluid, a pair of pressure sleeves that wrap around a patient’s limbs and controlling tubes.” *Id.*

²²³ *Id.* at 1572.

²²⁴ *Kendall*, 85 F.3d 1570.

²²⁵ *Id.*

²²⁶ *Id.*

²²⁷ *Id.*

²²⁸ *Id.*

²²⁹ *Id.*

²³⁰ *Kendall*, 85 F.3d 1570.

²³¹ *Id.* at 1573.

²³² *See id.*

²³³ *Id.*

purchase repair parts from others.”²³⁴ The court characterized Kendall’s sale as one without restriction, such that direct infringement could only occur with complete reconstruction of the device.²³⁵ Replacement of individual unpatented components was considered permissible repair.²³⁶

In *Kendall*, the court followed the reasoning in *Sage* and said the sleeves were effectively spent, since reusing the sleeves would not have been feasible due to the risk of contamination.²³⁷ Again, the court looked at the patentee’s intent. The court noted Kendall’s mark on the sleeve packaging, “For Single Patient Use Only. Do Not Reuse,” showed Kendall’s intent that it permitted its customers to replace the sleeves.²³⁸

The court then distinguished *Kendall* from *Mallinckrodt*,²³⁹ claiming that in *Kendall* the customers followed the single use restriction rather than ignoring it.²⁴⁰ Furthermore, the “single use only” restriction in *Mallinckrodt* referred to reusing the entire patented device.²⁴¹ Thus, customers could not buy replacement parts under an implied license theory. In addition, Kendall’s customers were under no contractual obligation to purchase the replacement sleeves from Kendall under the “single patient use” restriction.²⁴²

Kendall was more similar to *Sage* than to *Mallinckrodt*. As in *Sage*, the court focused on the replacement of the sleeves as permissible repair and not impermissible reconstruction.²⁴³ Similar to the inner container in *Sage*, the sleeves were part of the patented combination, but not separately patented.²⁴⁴ The problem was not

²³⁴ *Id.*

²³⁵ *Id.* at 1574.

²³⁶ *Kendall*, 85 F.3d 1570.

²³⁷ *Id.* at 1574 (“This court has never said that an element is spent only when it is impossible to reuse it. [W]hen it is neither practical nor feasible to continue using an element that is intended to be replaced, that element is effectively spent”) (quoting *Sage*, 45 F.3d at 1578).

²³⁸ *Id.* at 1575.

²³⁹ Compare *Kendall*, 85 F.3d at 1575 (Fed. Cir. 1996), with *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992).

²⁴⁰ *Kendall*, 85 F.3d at 1576.

²⁴¹ *Id.* at 1575.

²⁴² *Id.* at 1576.

²⁴³ *Id.*

²⁴⁴ Claim 1 is illustrative:

A device for applying compressive pressures against a patient’s limb from a source of pressurized fluid, comprising:

Kendall's intent, but that it was trying to expand its monopoly beyond that which was granted under the patent. Application of the proposed test would trigger patent misuse.²⁴⁵

First, the restriction is not made with respect to a separate product. According to the restriction, the entire patented device can only be used once the sleeves have been used once.²⁴⁶ Consequently, this restriction is on the entire device and not tied to a separate product. Second, the "SINGLE USE ONLY" restriction forces the buyer to purchase something that need not be bought in fixed proportion to the patented devices' further uses.²⁴⁷ This situation is akin to *Mallinckrodt*, where any use beyond a single use was prohibited.²⁴⁸

In order to control the use of the sleeves, Kendall should have secured a design patent on them. This action is exemplified in the court's comment concerning counsel's plea that the "sky is falling":

At oral argument, Kendall's counsel made a "sky is falling" plea, pointing out that an affirmance of the district court's decision would make it uneconomical for companies to invent and develop devices like that involved in this case, because much of the profit arises from sale of the replaceable sleeves rather than from sale of the

a pair of first and second elongated pressure sleeves for enclosing a length of the patient's limbs, with said sleeves each having a plurality of fluid pressure chambers;
a first set of plurality conduits in communication with chambers in said first sleeve;
a second set of a plurality of conduits in communication with chambers in said second sleeve, with the number of conduits in said second set being the same as the number of conduits in said first set;
a third set of a plurality of conduits in communication with said source, with the number of conduits in said third set being the same as the number of conduits in said first and second sets; and means for connecting the conduits of said first and second sets with each conduit in the third set being connected to only one conduit in each of said first and second sets to establish communication between the source and the first and second sleeves.

U.S. Patent No. 4,253,449 (issued Mar. 3, 1981) (emphasis added).

²⁴⁵ See discussion *infra* Part II.

²⁴⁶ See discussion *infra* Part II.

²⁴⁷ See discussion *infra* Part II.

²⁴⁸ See *Mallinckrodt*, 976 F.2d at 700.

original device. If that is so, we are not of course in a position to guess whether the result is related to the pricing of the original device, the failure to obtain effective patent protection for the replaceable sleeve, or other factors.²⁴⁹

Kendall still controls the marketing of the device. As in *Sage*, Kendall sells the replacement parts.²⁵⁰ Under the PMRA, Kendall may tie sales of the sleeves to the tying product, the patented device, “unless, in view of the circumstances, the patent owner has market power in the relevant market for the patent or patented product on which the . . . sale is conditioned.”²⁵¹ Whether Kendall has market power is unclear, but to avoid an antitrust violation under the rule of reason, Kendall would probably have to sell the replacement sleeves at a competitive price.²⁵² Instead of characterizing the transaction as a tying arrangement, Kendall avoided this by placing a single use restriction on its device.²⁵³

A case having issues similar to *Mallinckrodt* is *Hewlett-Packard Co. v. Repeat-O-Type Stencil Mfg. Corp.*²⁵⁴ In this case, Hewlett-Packard Co. (“HP”), had numerous patents on inventions dealing with ink jet printing technology.²⁵⁵ HP manufactures and sells ink jet printers having disposable ink jet cartridges.²⁵⁶ “Once the ink in a cartridge has been depleted, HP expects the cartridge to be discarded and replaced by a new one.”²⁵⁷ In fact, HP disclaims any liability for damage to its printers from cartridges that have been refilled.²⁵⁸ HP advises the user to “discard old print cartridge immediately.”²⁵⁹ HP also warns its customers that print quality

²⁴⁹ *Kendall*, 85 F.3d at 1576.

²⁵⁰ *Id.* at 1572.

²⁵¹ 35 U.S.C. § 271(d)(5) (1994).

²⁵² “Under the rule of reason, ‘the finder of fact must decide whether the questioned practice imposes an unreasonable restraint on competition taking into account a variety of factors, including specific information about the relevant business, its condition before and after the restraint was imposed and the restraint’s history, nature, and effect.’” *Virginia Panel*, 133 F.3d at 860 (quoting *State Oil Co. v. Kahn*, 522 U.S. 3, 10 (1997)).

²⁵³ *See Kendall*, 85 F.2d at 1572.

²⁵⁴ 123 F.3d 1445 (Fed. Cir. 1997)

²⁵⁵ *Id.* at 1447.

²⁵⁶ *Id.* at 1446.

²⁵⁷ *Id.* at 1447.

²⁵⁸ *Id.*

²⁵⁹ *Id.*

may be damaged through refilling the print cartridges.²⁶⁰

Repeat-O-Type Stencil Mfg. Co. (“ROT”) purchased two types of HP ink jet cartridges, one designed for color printing, the other for black and white printing.²⁶¹ Both were designed to be non-refillable.²⁶² ROT disregarded HP’s advice to “[d]iscard the old print cartridge immediately.”²⁶³ Instead, ROT purchased these cartridges and “modif[ied] them so that they will be refillable, and then [resold] them as refillable ink jet cartridges.”²⁶⁴ In addition, ROT sold these cartridges in kits including both the modified cartridge and color ink refills.²⁶⁵ HP did not manufacture or supply this ink.²⁶⁶ ROT had a patent for this cartridge modification that covered the product and the process.²⁶⁷

HP then sued ROT for patent infringement on its twelve patents.²⁶⁸ At trial, the district court ruled in favor of ROT on the patent infringement claims, and granted summary judgment of noninfringement.²⁶⁹

The court articulated the dispositive point in the case to be whether the modification was authorized or whether such modification exceeded the original scope of the implied license.²⁷⁰ In its examination, the court focused on HP’s unconditional sale of the cartridges as the reason for why there was no infringement.²⁷¹

Generally, when a seller sells a product *without restriction*, it in effect promises the purchaser that in exchange for the price paid, it will not interfere with the purchaser’s full enjoyment of the

²⁶⁰ *Hewlett-Packard*, 123 F.3d at 1447.

²⁶¹ *Id.*

²⁶² *Id.* at 1448.

²⁶³ *Id.*

²⁶⁴ *Id.*

²⁶⁵ The cartridge designed for black and white printing is refillable with color ink through ROT’s patented apparatus and method. *Id.* at 1449.

²⁶⁶ *Hewlett-Packard*, 123 F.3d at 1449.

²⁶⁷ *Id.* at 1448; *see also* U.S. Patent No. 5,408,256 (issued Apr. 18, 1995) (entitled “Refillable Color Ink Jet Cartridge and Method for Making Said Cartridge”).

²⁶⁸ *Hewlett-Packard*, 123 F.3d at 1449-50.

²⁶⁹ *Id.* at 1449. Note that trademark issues are significant here, because the customer is likely to be confused as from which source this product comes. These are actual HP cartridges, but the modification is not made by HP and HP does not warranty their use in its printers. As such, HP won its summary judgment motion regarding trademark infringement. This ruling was not appealed. *Id.*

²⁷⁰ *Id.* at 1451.

²⁷¹ *Id.*

purchased product. The buyer has an implied license under any patents of the seller that dominate the product or any uses of the product to which the parties might reasonably contemplate the product will be put.²⁷²

In this case, the court noted that it was clear that HP sold the cartridges ROT purchased without restriction, and no breach of contract was asserted.²⁷³ Failing to restrict the sales, HP lost the right to enforce any of its patents relating to the cartridges sold to exclude the purchaser from using or selling them.²⁷⁴ Neither the cap nor the ink are recited elements of the claims, thus the modification or replacement of the cartridges could not constitute infringement.²⁷⁵

The court also discussed whether modifying the caps on the cartridges, so that they could be refilled, is more akin to permissible repair than to impermissible reconstruction.²⁷⁶ The cap modification is not conventional repair since the caps on the cartridges are not broken or defective.²⁷⁷ The modification is also not reconstruction, since the cartridge, as a combination, is not spent.²⁷⁸ “Furthermore, ROT does not replace any of the elements recited in the claims.”²⁷⁹

“HP’s unilateral intentions cannot change the fact that ROT had only modified an unused cartridge that HP sold without restriction.”²⁸⁰ Again, the court looked to the useful life of the patented product being substantially longer than the life of a single reservoir of ink.²⁸¹ The court, however, cited *Mallinckrodt* stating that “absent a restriction having contractual significance, a purchase carries with it the right to modify as long as reconstruction of a spent product does not occur.”²⁸²

Repeat-O-Type rejects the idea that a seller’s intent creates a limitation on the right of a purchaser to use, sell or modify, absent

²⁷² *Id.* at 1451.

²⁷³ *Hewlett-Packard*, 123 F.3d at 1451.

²⁷⁴ *Id.* at 1451-52 (citing *Aro II*, 377 U.S. at 685).

²⁷⁵ *See id.* at 1451 (outlaying ROT’s arguments for noninfringement).

²⁷⁶ *Id.* at 1452 (citing *Kendall Co.*, 85 F.3d at 1575).

²⁷⁷ *Id.*

²⁷⁸ *Id.*

²⁷⁹ *Hewlett-Packard*, 123 F.3d at 1452.

²⁸⁰ *Id.*

²⁸¹ *Id.*

²⁸² *Id.* (citing *Mallinckrodt*, 976 F.2d at 709).

a contractual agreement making such restriction.²⁸³ Instead, *Repeat-O-Type* was decided on the basis of the exhaustion doctrine.²⁸⁴ Because HP only “expected” that the toner cartridges would be discarded after they became empty, there was no contractual “single use restriction” utilized.²⁸⁵ If, however, HP had contractually restricted the toner cartridges to one use, this would have amounted to misuse under the proposed test as long as HP did not have a patent on the ink or its use.²⁸⁶

In applying the proposed test, prong one is satisfied because the restriction on reusing the toner cartridge was not made on a separate product. The restriction forces the buyer to purchase another cartridge, when the cartridge still has a useful life, but just needs to be refilled. Thus, the second prong is also satisfied.

III. CONCLUSION

The contemporary law of patents recognizes its own anticompetitive effects and embeds the doctrine of patent misuse to limit these effects. Focusing only on the level of competition in the market, the antitrust laws police anticompetitive effect. In recent years, there has been a shift away from applying the common law doctrine of patent misuse.²⁸⁷ Because antitrust and patent misuse flow from different theoretical foundations, one should not completely replace the other. Some anticompetitive behavior still needs to be curtailed when an antitrust violation cannot be proven.

After reviewing the pertinent case law, it is evident that the courts have eroded the patent misuse doctrine beyond what is statutorily required under the Patent Misuse Reform Act,²⁸⁸ (PMRA), without deriving any added pro-competitive benefit as was originally contemplated by Congress. Such erosion has assisted patentees in masking any anticompetitive effect that could

²⁸³ *Id.* at 1453.

²⁸⁴ *See infra* Part I.B.

²⁸⁵ *Hewlett-Packard*, 123 F.3d at 1454.

²⁸⁶ *See infra* Part II.

²⁸⁷ *See generally* Maureen A. O'Rourke, *Evaluating Mistakes in Intellectual Property Law Configuring the System to Account for Imperfection*, 4 J. SMALL & EMERGING BUS. L. 167 (2000).

²⁸⁸ 35 U.S.C. § 271(d) (1994).

be lessened by proper application of patent misuse. In order to reinvigorate the historical application of patent misuse, a new test should be used to determine when patent misuse should be applied. Patent misuse should be found when: (1) a reuse restriction is not made with respect to a separate product; and (2) where the restriction forces the buyer to purchase something that need not be bought in fixed proportion to the patented device, since the life-span of the device outlasts the single use.