

Joint Patent Misappropriation: An Appropriate Solution to Joint Patent Infringement

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INTRODUCTION

Through innovation or a “flash of creative genius,”¹ an inventor creates something new and useful that is not obvious from existing inventions. Imagine that this inventor—or her employer in many cases—decides to invest money and time in researching and developing the new invention. Eventually, after she determines that the invention will work, she invests even more money to file a patent application with the US Patent and Trademark Office (PTO). After a series of negotiations with a PTO patent examiner, which can take years, the examiner grants the inventor a patent on her invention. Just when she is primed to reap the fruits of her labor, a competitor swoops in, uses her invention, and begins profiting from it without permission. In response, the inventor turns to patent law, which she believes gives her the right to preclude others from using her invention.² Yet, much to her dismay, she has no recourse against this competitor because the competitor is not acting alone. Under existing law, when multiple entities jointly make, use, or sell every element of a patented invention as a group—but no *single* entity does so alone—none of the entities has infringed the patent.³

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¹ *Cuno Engineering Corp v Automatic Devices Corp*, 314 US 84, 91 (1941).

² See 35 USC § 154(a)(1) (“[A] patent shall contain . . . a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention.”).

³ See *Limelight Networks, Inc v Akamai Technologies, Inc*, 134 S Ct 2111, 2118 (2014) (“[P]erformance of all the claimed steps cannot be attributed to a single person, so direct infringement never occurred.”); *Muniauction, Inc v Thomson Corp*, 532 F3d 1318, 1329 (Fed Cir 2008) (“[D]irect infringement requires a single party to perform every step of a claimed method.”).

This loophole has been termed “joint patent infringement” or “divided patent infringement.”⁴ Joint infringers have been able to circumvent the federal patent statute because courts have held that a *single* entity must individually make, use, or sell *each and every* element of a patented invention to infringe a patent.⁵

In *Limelight Networks, Inc v Akamai Technologies, Inc*,⁶ the US Supreme Court grappled with the issue of joint patent infringement.⁷ Akamai Technologies sued its competitor, Limelight Networks, for infringing its patent covering a method for delivering Web content.⁸ The patented method included (1) designating or “tagging” content—such as music or video files—and (2) storing that content on servers accessed by Internet users.⁹ Limelight performed some of Akamai’s patented method steps but relied on other parties to complete the remaining step.¹⁰ Specifically, Limelight stored the content providers’ content on a server but instructed its customers to designate the content themselves.¹¹ By dividing the patented steps among multiple parties, Limelight shielded itself from patent infringement liability.¹² This left the patent owner with no remedy under federal patent law, even though the joint conduct harmed the owner to the same degree as infringement by a single entity would have.

This result presents a conundrum. On the one hand, the law explicitly rules out holding joint infringers liable for patent infringement if no individual actor makes, uses, or sells every element of a patented invention. On the other hand, strong policy considerations recommend the opposite outcome—joint infringers should not be able to avoid liability simply by working as a group. In fact, even the Supreme Court has acknowledged that its interpretation of the patent statute “permit[s] a would-be infringer to evade liability by dividing performance of a method patent’s steps with another whom the defendant neither directs

⁴ See, for example, Mathew Lowrie, Kevin M. Littman, and Lucas Silva, *The Changing Landscape of Joint, Divided and Indirect Infringement—The State of the Law and How to Address It*, 12 J High Tech L 65, 65 (2011).

⁵ See, for example, *BMC Resources, Inc v Paymentech, LP*, 498 F3d 1373, 1380 (Fed Cir 2007).

⁶ 134 S Ct 2111 (2014) (“Limelight”).

⁷ *Id.* at 2120.

⁸ *Id.* at 2115–16.

⁹ *Id.* at 2115.

¹⁰ *Limelight*, 134 S Ct at 2115.

¹¹ *Id.*

¹² *Id.* at 2119.

nor controls.”¹³ Although the Court characterized that result as an “anomaly,” it ultimately declined to resolve the issue.¹⁴ Yet there is a solution to the joint-infringement conundrum not yet considered by any court or commentator: joint patent misappropriation.

This Comment argues that state courts can and should apply the misappropriation doctrine to resolve the joint-infringement problem. To reach that conclusion, this Comment proceeds in three parts. Part I describes the elements of various patent infringement claims. It then explores an important element of patent law that influences the joint patent infringement problem—namely, the single-entity rule. Part II illustrates the joint patent infringement problem and then problematizes previously proposed solutions to it. Finally, Part III describes the joint-patent-misappropriation claim in detail and considers how it would work in practice. Part III also examines the claim’s viability as a solution to joint patent infringement, concluding that, although the joint-patent-misappropriation approach is imperfect, it is still a powerful solution to a significant problem.

I. PATENT INFRINGEMENT

This Part overviews the types of patent infringement claims that are available under 35 USC § 271. In addition, it introduces the single-entity rule and explores that rule’s origin and purpose. Finally, it presents and explains the rule’s sole exception—the direct-and-control standard.

Article I, § 8 of the US Constitution authorizes Congress to grant patent rights to inventors in exchange for full public disclosure of their inventions.¹⁵ A patent is a federal intellectual property right that permits patent owners to exclude others from making, using, or selling the patented invention for twenty years.¹⁶ Notably, patented inventions and patents are not necessarily the same thing. Patents include a specification, at least one claim, and oftentimes drawings.¹⁷ Patented inventions, however, are defined only by patent claims, which are single sentences that may be much broader than the actual product or

¹³ *Id.* at 2120.

¹⁴ *Limelight*, 134 S Ct at 2120.

¹⁵ US Const Art I, § 8, cls 1, 8 (“The Congress shall have Power . . . To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.”).

¹⁶ See 35 USC § 154(a)(1)–(2).

¹⁷ See 35 USC § 111(a).

method described in the corresponding patent.¹⁸ Put another way, the patent *claims*, not the entire patent, define the metes and bounds of the property right.¹⁹ Patent owners typically enforce these rights by suing for patent infringement. Title 35 of the US Code contains the main body of patent law, and § 271 governs patent infringement. Specifically, § 271 covers direct and indirect infringement. The latter can take two forms—induced and contributory infringement. The following paragraphs discuss each infringement category in turn.

A. Direct Infringement

Direct patent infringement is the most common type of patent infringement.²⁰ Under § 271(a), a party is liable for direct patent infringement if it “makes, uses, offers to sell, or sells” another’s patented invention within the United States without authorization.²¹ In *Aro Manufacturing Co v Convertible Top Replacement Co*,²² the Supreme Court declared that a party is not liable for direct patent infringement unless it performs each and every element or step of a patent claim.²³ This declaration is known as the “all-elements rule.”²⁴

Almost fifty years later in *BMC Resources, Inc v Paymentech, LP*,²⁵ the Federal Circuit explicitly acknowledged another rule, the single-entity rule, which states that direct infringement requires that a single entity perform each and every element of a patent claim.²⁶ In that case, BMC accused Paymentech, a third-party processor of consumer financial transactions, of infringing BMC’s

¹⁸ See *Markman v Westview Instruments, Inc*, 517 US 370, 373 (1996), quoting 35 USC § 112 (“[A] patent includes one or more ‘claims,’ which ‘particularly point out and distinctly claim the subject matter which the applicant regards as his invention.’”) (brackets omitted).

¹⁹ See *In re Hiniker*, 150 F3d 1362, 1368–69 (Fed Cir 1998).

²⁰ See Jason A. Rantanen, *An Objective View of Fault in Patent Infringement*, 60 Am U L Rev 1575, 1576 (2011).

²¹ 35 USC § 271(a).

²² 365 US 336 (1961) (“Aro I”).

²³ *Id.* at 340, quoting *Mercoid Corp v Mid-Continent Co*, 320 US 661, 667 (1944) (“The patent is for a combination only. Since none of the separate elements of the combination is claimed as the invention, none of them when dealt with separately is protected by the patent monopoly.”).

²⁴ See, for example, *Global Patent Holdings, LLC v Panthers BRHC LLC*, 586 F Supp 2d 1331, 1334 (SD Fla 2008), quoting *Canton Bio-Medical, Inc v Integrated Liner Technologies, Inc*, 216 F3d 1367, 1370 (Fed Cir 2000). The Supreme Court recently affirmed the all-elements rule in *Limelight*, 134 S Ct at 2117.

²⁵ 498 F3d 1373 (Fed Cir 2007) (“BMC”).

²⁶ See *id.* at 1380.

patent on a method for processing debit transactions without a personal identification number.²⁷ Paymentech denied infringing the patent on the ground that it did not perform each and every step of the patent claim—its customers performed some of them.²⁸ The *BMC* court agreed with Paymentech’s argument and held that Paymentech did not infringe the patent at issue.²⁹

Some courts, however, have noted that the single-entity rule “severely limits the protection provided for patents which would otherwise be valid and enforceable.”³⁰ While that may be true, the single-entity rule plays a crucial role in patent law and policy. Indeed, without the rule, an entity that performs part of a patented method—not knowing that another entity has or will perform the remaining portion—could be held liable for direct patent infringement, as direct infringement is a strict-liability offense.³¹ In short, the single-entity rule protects parties that did not themselves commit all the acts necessary to constitute infringement and had no way of knowing that the acts of others would cause their collective conduct to infringe a patent.³²

To comprehend the full weight of the single-entity rule, it is necessary to ascertain its origin and scope. Thus, this Comment now turns to a discussion of the potential sources of the single-entity rule and then examines its sole exception.

1. The origin of the single-entity rule.

Although there is virtually no disagreement about the rationale for the single-entity rule, its origin is disputed. The Supreme Court recently declared—and some Federal Circuit judges have agreed—that the single-entity rule is “Federal Circuit case law.”³³ Other judges have disagreed, attributing the rule to

²⁷ *Id.* at 1375–76.

²⁸ *Id.* at 1377.

²⁹ *BMC*, 498 F3d at 1380.

³⁰ *McKesson Information Solutions LLC v Epic Systems Corp*, 2009 WL 2915778, *7 (ND Ga). Judge Moore argued that the rule creates a “gaping hole” in patent infringement liability. See *Akamai Technologies, Inc v Limelight Networks, Inc*, 2015 WL 2216261, *11 (Fed Cir) (Moore dissenting).

³¹ See *Akamai Technologies*, 2015 WL 2216261 at *9 (contemplating the extraordinary possibility that consumers could be liable “even without knowing of the patent”); *BMC*, 498 F3d at 1381 (“Direct infringement is a strict-liability offense, but it is limited to those who practice each and every element of the claimed invention.”).

³² See *Akamai Technologies, Inc v Limelight Networks, Inc*, 692 F3d 1301, 1307 (Fed Cir 2012) (“*Akamai*”).

³³ *Limelight*, 134 S Ct at 2113. See also *Akamai*, 692 F3d at 1308.

the Supreme Court. Still others have noted a possible statutory source. Each of these perspectives is discussed below.

Then–chief judge Randall Rader and Judges Alan Lourie, William Bryson, Kimberly Moore, Jimmie Reyna, and Evan Walach of the Federal Circuit have suggested that *Fromson v Advance Offset Plate, Inc*³⁴ provides one of the earliest declarations of the single-entity rule.³⁵ Fromson owned a patent on the process of making a sensitized photographic plate, and Advance practiced all but one element of the patent—Advance did not itself apply a diazo coating or other light-sensitive layer to the plate.³⁶ Instead, Advance’s customers applied the diazo coating.³⁷ For that reason, the court held that Advance could not be liable for direct infringement.³⁸

Judges Richard Linn, Timothy Dyk, Sharon Prost, and Kathleen O’Malley, however, have refuted the notion that the Federal Circuit introduced the single-entity rule in *Fromson*.³⁹ Instead, they have proposed that the Supreme Court introduced the single-entity rule in its 1961 *Aro I* decision.⁴⁰ Specifically, Linn’s dissent in *Akamai* cited *Aro I* for the proposition that “[d]irect infringement liability requires that *one* actor performs each and every element or step of a claim.”⁴¹ The *Aro I* Court did note that direct infringement requires a showing that the purchaser *himself* infringed the patent⁴²—and the term “himself” could be interpreted to suggest *only one* person. Despite *Aro I*, the Supreme Court has attributed the single-entity rule to the Federal Circuit.⁴³

There is a third possible source of the single-entity rule: the Patent Act. Section 271(a) states that “whoever without authority [] uses . . . any patented invention . . . infringes the patent.” Many Federal Circuit judges have suggested that the term “whoever” in § 271(a) denotes a single entity.⁴⁴ Judge Pauline

³⁴ 720 F2d 1565 (Fed Cir 1983).

³⁵ See *Akamai*, 692 F3d at 1305, 1307.

³⁶ *Fromson*, 720 F2d at 1567–68.

³⁷ *Id.*

³⁸ *Id.* at 1568.

³⁹ See *Akamai*, 692 F3d at 1337, 1342 (Linn dissenting).

⁴⁰ See *id.* at 1347 (Linn dissenting).

⁴¹ *Id.* (Linn dissenting) (emphasis added), citing *Aro I*, 365 US at 340.

⁴² See *Aro I*, 365 US at 341.

⁴³ See *Limelight*, 134 S Ct at 2120.

⁴⁴ See, for example, *Akamai*, 692 F3d at 1307 (“[T]he accused infringer must perform all the steps of the claimed method, either personally or through another acting under his direction or control.”); *id.* at 1347–48 (Linn dissenting) (“[W]here a single entity

Newman, however, has disagreed with this view; she argued in her *Akamai* dissent that joint patent infringement constitutes direct patent infringement under § 271(a) because “[d]irect infringement may be by more than one entity.”⁴⁵ Specifically, she argued that the term “whoever” in § 271(a) “embraces the singular and plural” and therefore “does not support the single-entity rule.”⁴⁶ Rejecting Newman’s view, Linn explained:

[Newman’s] argument fails for two reasons. First, if one interprets “whoever” to include the plural, the statute simply states the obvious: More than one entity can be *independently* liable for direct patent infringement if each entity practices every element of the claim. Second, the statutory context, with § 271(b) and (c) extending liability to actors who do not independently infringe . . . [,] indicates that § 271(a) excludes joint liability.⁴⁷

Thus, according to Linn, courts should not construe § 271(a) to cover joint activity.

While *Fromson*, *Aro I*, and the Patent Act likely all influenced the firm establishment of the single-entity rule, the broader single-entity concept predated the Federal Circuit’s establishment in 1982, the 1964 *Aro I* case, and the Patent Act’s enactment in 1952. Indeed, the concept extends back to the common law, the relevant principles of which the patent statute aimed to codify.⁴⁸ For example, in the 1875 case *Saxe v Hammond*,⁴⁹ the plaintiff owned a patent on musical instruments with a fan-tremolo.⁵⁰ The defendants made fan-tremolos according to the patent but sold them to organ manufacturers that completed the remaining element of the patent claim—placing the fans in musical instruments.⁵¹ Because no single party combined all the separate elements of the claim without

does not perform each and every claim limitation, that entity may not be characterized as or held liable as a direct infringer.”)

⁴⁵ Id at 1322 (Newman dissenting).

⁴⁶ Id (Newman dissenting). Moore recently adopted this view. See *Akamai Technologies*, 2015 WL 2216261 at *16 (Moore dissenting) (explaining that “whoever” encompasses multiple entities).

⁴⁷ Id at 1348 (Linn dissenting) (emphasis added).

⁴⁸ See Nathaniel Grow, *Joint Patent Infringement following Akamai*, 51 Am Bus L J 71, 77–80 (2014) (noting that Congress codified common-law principles of trespass infringement, contributory infringement, and vicarious liability in § 271).

⁴⁹ 21 F Cases 593 (CCD Mass 1875).

⁵⁰ Id at 593–94.

⁵¹ Id at 594.

authorization, the court held that the defendants had not infringed the patent—directly or indirectly.⁵² In other words, no infringement by a *single* party meant no infringement at all.

Despite the existence of the single-entity concept in the common law and its plausible basis in the Patent Act and *Aro I*, no court explicitly articulated the principle until the Federal Circuit’s 2007 decision in *BMC*.⁵³ Indeed, *Mobil Oil Corp v Fil-trol Corp*⁵⁴—decided in 1974, after *Aro I* and after Congress enacted the Patent Act, but before Congress created the Federal Circuit—illustrates this point. In *Mobil Oil*, the Ninth Circuit failed to acknowledge the single-entity rule, noting that the court “question[ed] whether a method claim [could] be infringed when two separate entities perform[ed] different operations and neither [had] control of the other’s activities.”⁵⁵ The court then added that “[n]o case in point [had] been cited,”⁵⁶ which suggests that the single-entity rule was not then prevalent.

To summarize, while it is difficult to pinpoint the origin of the single-entity rule, the rule’s existence became undeniable after *BMC*, when the Federal Circuit not only acknowledged the single-entity rule but also created an exception to it.

2. The exception to the single-entity rule: the direct-and-control standard.

The *BMC* court created an exception to the single-entity rule that derives from the agency principle of vicarious liability: the direct-and-control standard.⁵⁷ The exception states that when a party directs or controls the infringing behavior of its agent, the directing principal is liable for direct infringement under § 271(a).⁵⁸ Simply put, a party cannot avoid direct

⁵² Id (“A patent is valid for a new combination of old elements. A person who uses one or more of the old elements is not an infringer, unless he uses the new combination.”).

⁵³ See *BMC*, 498 F3d at 1380 (stating that “the traditional standard requir[es] a single party to perform all steps of a claimed method”).

⁵⁴ 501 F2d 282 (9th Cir 1974).

⁵⁵ Id at 291–92.

⁵⁶ Id at 292.

⁵⁷ Earlier patent cases recognized a looser standard as an exception to the single-entity rule. See Part II.B.3.

⁵⁸ See *BMC*, 498 F3d at 1381 (requiring direction or control for a finding of joint infringement); *Centillion Data Systems, LLC v Quest Communications International, Inc*, 631 F3d 1279, 1284 (Fed Cir 2011) (“[T]o ‘use’ a system for purposes of infringement, a party must . . . control the system as a whole.”); *Muniauction, Inc v Thomson Corp*, 532 F3d 1318, 1329 (Fed Cir 2008) (“[W]here the actions of multiple parties combine to perform every step of a claimed method, the claim is directly infringed only if one party

infringement merely by having someone else perform one or more of the claimed steps on its behalf.⁵⁹ For example, in *TGIP, Inc v AT&T Corp*,⁶⁰ the court considered patents that TGIP owned on a prepaid-calling card system that allowed customers to purchase calling cards and recharge them.⁶¹ TGIP asserted that AT&T had directly infringed its patents, but AT&T contended that it had not infringed the patents because other companies provided the data terminals and activation platforms necessary to practice the patent.⁶² In other words, AT&T argued that it did not perform each and every element of the patent claim on its own. The *TGIP* court determined, however, that the jury was right to find that AT&T had directly infringed TGIP's patent because there was sufficient evidence in the record that AT&T "controlled or directed" the other companies to perform the remaining elements of the patent.⁶³

The Federal Circuit most recently refined its position on the direct-and-control standard in *Muniauction, Inc v Thomson Corp*,⁶⁴ although the court did not find an agency relationship in that case.⁶⁵ *Muniauction* accused Thomson of directly infringing its patent, which covered original-issuer-municipal-bond auctions conducted over the Internet using a Web browser.⁶⁶ But Thomson was not a single party performing every step of the asserted claims. While Thomson's electronic auctioneer system performed most of the steps, Thomson instructed individual bidders to perform the remaining input step.⁶⁷ Because Thomson did not "control or direct[]" the entire process, the court held that Thomson's actions did not warrant liability for direct infringement.⁶⁸

The direct-and-control standard is satisfied in situations in which the law would traditionally hold the accused party

exercises 'control or direction' over the entire process such that every step is attributable to the controlling party, i.e., the 'mastermind.'").

⁵⁹ See *BMC*, 498 F3d at 1379.

⁶⁰ 527 F Supp 2d 561 (ED Tex 2007).

⁶¹ *Id* at 568–69.

⁶² *Id* at 577. See also Keith Jaasma, *Finding the Patent Infringement "Mastermind": The "Control or Direction" Standard for "Joint" Infringement*, 26 Santa Clara Computer & High Tech L J 411, 437 (2010).

⁶³ *TGIP*, 527 F Supp 2d at 578.

⁶⁴ 532 F3d 1318 (Fed Cir 2008).

⁶⁵ See *id* at 1329–30.

⁶⁶ *Id* at 1321.

⁶⁷ *Id* at 1328–29.

⁶⁸ *Muniauction*, 532 F3d at 1330.

vicariously liable for another party's unlawful conduct.⁶⁹ Specific actions that qualify as direction or control include: (1) contracting out the steps of a patented process,⁷⁰ (2) employing an agent to infringe a patent,⁷¹ and (3) otherwise causing performance of each and every patent step.⁷² However, the plaintiffs in *Akamai*, the plaintiff in *BMC*, and several commentators have argued that the direct-and-control standard is too narrow an exception to the single-entity rule.⁷³ Indeed, in a recent amicus brief submitted to the Federal Circuit, several companies asserted that “[i]t is time for this Court to . . . apply a flexible rule that recognizes situations, in addition to when one party is under the direction or control of another, where entities acting in concert can be held responsible for direct infringement.”⁷⁴ But the Federal Circuit declined to do so, reiterating that “direct infringement liability of a method claim under 35 U.S.C. § 271(a) exists when all the steps of the claim are performed by or attributed to a single entity—as would be the case . . . in a principle-agent relationship, in a contractual arrangement, or in a joint enterprise.”⁷⁵

⁶⁹ See *Centillion*, 631 F3d at 1288 (holding that the defendant was not vicariously liable for its customers' actions when it in no way directed them to perform the remaining elements of the patented invention); *Muniauction*, 532 F3d at 1330 (holding that the fact that the defendant controlled access to its system and instructed bidders on the system's use did not suffice to create liability for direct infringement); *Crowell v Baker Oil Tools*, 143 F2d 1003, 1004 (9th Cir 1944) (“It is obvious that one may infringe a patent if he employs an agent for that purpose or have [sic] the offending articles manufactured for him by an independent contractor.”). See also Restatement (Third) of Agency § 1.01 (2006) (defining “agency” as the fiduciary relationship that arises when one person, the agent, willingly acts on behalf of another person, the principal, subject to the principal's assent and control).

⁷⁰ See *BMC*, 498 F3d at 1381.

⁷¹ See *Crowell*, 143 F2d at 1004.

⁷² See *BMC*, 498 F3d at 1382.

⁷³ See *Limelight*, 134 S Ct at 2120 (noting that *Akamai* criticized the Court's approach for allowing “would-be infringer[s] to evade liability by dividing performance of a method patent's steps with another whom the defendant neither directs nor controls”); *BMC*, 498 F3d at 1379–80 (noting that *BMC* argued that the court should expand its direct-or-control standard to a “participation and combined action” standard). See also, for example, Stacie L. Greskowiak, Note, *Joint Infringement after BMC: The Demise of Process Patents*, 41 Loyola U Chi L J 351, 393 (2010) (“The Federal Circuit erred in reasoning that permitting joint infringement liability without a finding of ‘direction or control’ would subvert the statutory scheme for indirect infringement.”).

⁷⁴ Brief of Amici Curiae Double Rock Corporation, Island Intellectual Property, LLC and Broadband iTV, Inc in Support of the Statement Requesting Continued En Banc Review, *Akamai Technologies, Inc v Limelight Networks, Inc*, Nos 2009-1372, 2009-1380, 2009-1416, 2009-1417, *3 (Fed Cir filed June 20, 2014) (available on Westlaw at 2014 WL 3586013).

⁷⁵ *Akamai Technologies*, 2015 WL 2216261 at *1.

In *Limelight*, the Supreme Court acknowledged the possibility that the direct-and-control standard, which it termed “the *Muniauction* rule,”⁷⁶ may interpret § 271(a)’s scope too narrowly.⁷⁷ Some commentators have construed this acknowledgement as the Court disapproving of the *Muniauction* rule.⁷⁸ Yet the Court refused to address the direct-infringement issue head-on, despite Akamai’s urging.⁷⁹ Consequently, others could argue that this refusal suggests that the Court finds no fault with the *Muniauction* rule. In short, because the Court refused to explicitly address the direct-infringement issue, it is unclear whether the Court approves or disapproves of the *Muniauction* rule.

Under existing patent law, satisfying the direct-and-control standard is the only way for a party that does not itself perform each and every element of a patent claim to be held liable for direct infringement. And in the provider-user context, meeting this standard is rare.⁸⁰ Indeed, most cases of multiparty infringement are governed by indirect patent infringement doctrines.⁸¹ It is these doctrines—induced and contributory infringement—to which this Comment now turns.

B. Induced Infringement

Under § 271(b), a party is liable for induced patent infringement if it “actively induces” infringement of a patent. A party actively induces if it takes affirmative steps to lead, influence, or persuade others to engage in conduct that amounts to

⁷⁶ *Limelight*, 134 S Ct at 2119.

⁷⁷ See *id.* Note that the Court acknowledged that *Muniauction* was the most recent case—but not the first case—to articulate the direct-and-control standard as an exception to the single-entity rule. See *id.* at 2113.

⁷⁸ See, for example, Michael A. Carrier, *Limelight v. Akamai: Limiting Induced Infringement*, 2014 Wis L Rev Online 1, 6 (“A reevaluation of the Federal Circuit’s rule nonetheless seemed to be an option suggested by the [Supreme] Court’s continued reminders that it was assuming the validity of *Muniauction*.”).

⁷⁹ See *Limelight*, 134 S Ct at 2120. See also Supplemental Brief of Akamai Technologies, Inc and the Massachusetts Institute of Technology, *Limelight Networks, Inc v Akamai Technologies, Inc*, Civil Action Nos 12-786 and 12-960, *6 (Fed Cir filed Dec 23, 2013) (available on Westlaw at 2013 WL 7231551).

⁸⁰ See Jaasma, 26 Santa Clara Computer & High Tech L J at 429–30 (cited in note 62) (noting that the direct-and-control standard is used successfully in most cases in which there is a contractual relationship between the joint infringers, but not when at least one of the joint infringers is a user or customer).

⁸¹ See Reza Dokhanchy, Note, *Cooperative Infringement: I Get By (Infringement Laws) with a Little Help from My Friends*, 26 Berkeley Tech L J 135, 136 (2011) (“Typically, the indirect liability theories of inducement and contributory infringement . . . cover infringement situations involving multiple parties.”).

direct infringement.⁸² Congress provided less guidance in the Patent Act regarding how to determine liability for induced patent infringement than it did for direct patent infringement. Thus, courts have supplemented the text of § 271(b) through statutory interpretation. Historically, courts have interpreted induced infringement under § 271(b) as requiring the presence of direct infringement.⁸³ Recently, the Supreme Court explicitly affirmed that interpretation.⁸⁴ Thus, just as direct infringement requires that a single entity perform each and every element of the patented invention, so too does induced infringement.⁸⁵

The following hypothetical situation illustrates this concept: Matt Mastermind verbally convinces Gus Gullible to perform half the steps of a patented method. Mastermind then talks Iris Ignorant into performing the remaining steps. According to § 271(b), Mastermind is not liable for induced infringement. However, if Mastermind convinces Gullible to perform each and every step of the patented method alone—such that Gullible *directly* infringes the patent—Mastermind could be held liable for induced patent infringement under § 271(b), at least if he *knew* that the induced acts constituted direct infringement.

The Supreme Court applied this rule in a recent case. In *Global-Tech Appliances, Inc v SEB SA*,⁸⁶ Pentalpha, a wholly owned subsidiary of Global-Tech, copied SEB's innovative "cool-touch" deep fryer.⁸⁷ Pentalpha then induced Sunbeam to sell the allegedly infringing fryers to retail stores.⁸⁸ The Court held Pentalpha liable for induced infringement under § 271(b) because Pentalpha knew that the induced acts constituted direct patent infringement.⁸⁹ Thus, unlike direct infringement, induced infringement is not a strict-liability tort; the accused inducer must

⁸² See *Global-Tech Appliances, Inc v SEB SA*, 131 S Ct 2060, 2065 (2011) (noting that "at least some intent is required" by § 271(b) and, as such, "the inducement must involve the taking of affirmative steps to bring about the desired result").

⁸³ See, for example, *Dynacore Holdings Corp v US Philips Corp*, 363 F3d 1263, 1272 (Fed Cir 2004); *Met-Coil Systems Corp v Korners Unlimited, Inc*, 803 F2d 684, 687 (Fed Cir 1986) ("Absent direct infringement of the patent claims, there can be neither contributory infringement . . . nor inducement of infringement.").

⁸⁴ See *Limelight*, 134 S Ct at 2117 ("[O]ur case law leaves no doubt that inducement liability may arise 'if, but only if, there is . . . direct infringement.'") (brackets omitted).

⁸⁵ See *id.*

⁸⁶ 131 S Ct 2060 (2011).

⁸⁷ *Id.* at 2064.

⁸⁸ *Id.*

⁸⁹ *Id.* at 2071–72. Note that the jury found Pentalpha liable for both direct and induced patent infringement, but the appeal concerned only the induced-infringement issue. *Id.* at 2064.

have *known* that the acts that it induced constituted patent infringement.⁹⁰ Moreover, an accused inducer may not hide its head in the sand. Willful blindness constitutes knowledge.⁹¹

Accordingly, induced infringement under § 271(b) requires (1) the presence of direct infringement and (2) the alleged inducer to knowingly induce acts that constitute direct infringement of a valid patent.

C. Contributory Infringement

Like the doctrine of induced infringement, the contributory-infringement doctrine addresses multiparty violations. Section 271(c) states that a party is liable for contributory patent infringement if it sells or offers to sell a material component of a patented invention *knowing* that the component is “to be especially made or especially adapted for use in an infringement” of the patent. Further, contributory infringement under § 271(c) requires the presence of direct infringement.⁹² For an illustration of this rule, recall Mastermind from Part I.B. Assume that instead of verbally convincing Gullible and Ignorant to jointly perform all the patented method steps, he sold them a machine specially designed to enable them to jointly perform the steps. According to § 271(c), Mastermind is not liable for contributory infringement because neither Gullible nor Ignorant performed all the method steps alone. However, Mastermind could be liable for contributory patent infringement under § 271(c) if he sold the machine to Gullible only and knew that Gullible would have directly infringed the patent had he performed each and every step himself.

Aro I and *Aro Manufacturing Co v Convertible Top Replacement Co*⁹³ (“Aro II”), are formative contributory infringement cases. In *Aro I*, Convertible Top Replacement sued Aro Manufacturing and certain car owners for direct infringement of its patent covering a combination of components, one of which

⁹⁰ See *Global-Tech*, 131 S Ct at 2068.

⁹¹ See *id* at 2070–71 (“[A] willfully blind defendant is one who takes deliberate actions to avoid confirming a high probability of wrongdoing and who can almost be said to have actually known the critical facts.”).

⁹² See *Dynacore Holdings*, 363 F3d at 1272 (“Indirect infringement, whether inducement to infringe or contributory infringement, can only arise in the presence of direct infringement.”); *Met-Coil Systems*, 803 F2d at 687 (“Absent direct infringement of the patent claims, there can be neither contributory infringement . . . nor inducement of infringement.”).

⁹³ 377 US 476 (1964).

was a “flexible top material” for certain convertible car tops.⁹⁴ This material eventually wore out on certain convertibles, and the car owners (or repair shops) bought replacement fabric from Aro Manufacturing.⁹⁵ The *Aro I* Court held that, since the defendants made, used, or sold only one element of the patented invention—the flexible-top material—and no defendant made, used, or sold *every* element of the patented invention, the defendants were not liable for direct infringement.⁹⁶ The Court also held that Aro Manufacturing was not liable for contributory infringement because contributory infringement cannot exist without direct infringement.⁹⁷

The Court reached a different conclusion in *Aro II*. It held that the car owners at issue there—those that had purchased Ford convertibles—had in fact directly infringed Convertible Top’s patent.⁹⁸ This opposite holding can be chiefly attributed to the differing facts in *Aro II*. Namely, the car owners in *Aro I* owned General Motors cars, while the car owners in *Aro II* owned Ford cars. Importantly, General Motors had a license to practice the patent, while Ford did not.⁹⁹ Thus, the *Aro I* defendants were protected under the license, but the *Aro II* defendants were not. Another significant point is that the *Aro II* Court held Aro Manufacturing liable for contributory infringement because Aro Manufacturing *knew* that its fabric top, which it designed especially for the convertible cars, was infringing.¹⁰⁰ Thus, like induced infringement, contributory infringement is not a strict-liability tort. It requires that the alleged contributory infringer have prior knowledge of the patent as well as knowledge that its actions would lead to patent infringement.¹⁰¹

In summary, courts interpret § 271(c), which covers contributory infringement, to require: (1) direct infringement and (2) that the alleged contributory infringer knew that its actions would lead to infringement of a valid patent.

⁹⁴ *Aro I*, 365 US at 339 & n 2.

⁹⁵ *Id* at 337–38.

⁹⁶ *Id* at 340.

⁹⁷ *Id* at 341. See also *Deepsouth Packing Co v Laitram Corp*, 406 US 518, 526 (1972).

⁹⁸ *Aro II*, 377 US at 485.

⁹⁹ *Id* at 478–79.

¹⁰⁰ *Id* at 488–89.

¹⁰¹ See *id* at 488.

* * *

As this Part has discussed, the Patent Act recognizes three causes of action for patent infringement—direct, induced, and contributory patent infringement. In most cases, these claims are adequate channels for protecting the rights associated with valid patents. However, existing patent law leaves patent owners vulnerable to a unique form of patent infringement: joint patent infringement.

II. THE JOINT PATENT INFRINGEMENT PROBLEM

Joint patent infringement occurs when multiple actors practice each and every element of a valid patent claim as a group, but no single member practices all the claim elements alone.¹⁰² Because existing patent law does not assign liability unless a *single entity* performs all the claim elements, multiple actors can shield themselves from infringement liability by working in concert.¹⁰³ This doctrinal loophole raises significant policy concerns.

This Part begins with an illustration of the joint-infringement problem. It then presents several previously proposed solutions and explains why these proposals are inadequate.

A. Joint Patent Infringement in Practice

Recall the hapless inventor introduced in the opening paragraph of this Comment. As the owner of a valid patent, she believed that she could exclude others from practicing her patent without her permission. However, a group of joint infringers were able to get around her patent with impunity. This Section sets forth the details of this inventor's unfortunate hypothetical situation.

Several years ago, the inventor—after earning her graduate degree at a top research institution—took a position as an independent research scientist. She earned only a modest salary, but she expected to make millions on her most recent idea—a method of incorporating the specified dose of several different medications into a single pill. Her invention would allow people prescribed multiple medications to take only one pill. To determine whether her idea would work, the inventor invested her entire savings in research and development. After several years,

¹⁰² See Lowrie, Littman, and Silva, 12 J High Tech L at 69 (cited in note 4).

¹⁰³ See id at 76; *Limelight*, 134 S Ct at 2120.

she successfully developed a process for making the unified pill. She then retained a law firm to file a patent application on her behalf. After a series of negotiations with a PTO patent examiner, the inventor received a patent on her method of making the unified pill.¹⁰⁴ Her patent claim read as follows: a method for making a single pill comprising (1) crushing a pill consisting of one medicine into a powder form, (2) crushing another pill consisting of a different medicine into a powder form, (3) combining the two different powders, and (4) filling an empty pill capsule with the combined powder. Believing that her patent gave her the right to exclude others from using her invention, she quit her job and started her own business, using this method to make and sell her patented product.

Business was great for several months, but it eventually waned when a competitor entered the market. This competitor performed the first three steps of the inventor's patent claim. Then it sold the combined powder and a package of empty pill capsules to its customers. These customers performed the final step of the inventor's method themselves by filling each capsule with the recommended amount of powder. Outraged, the inventor sued her competitor for patent infringement. Yet, much to her dismay, the district court dismissed her case for failure to state a claim for which relief could be granted. Because neither the competitor nor its customers performed all four steps by themselves, they could not be held liable for patent infringement. Under existing law, when multiple entities jointly make, use, or sell every element of a patented invention as a group—but no *single* entity does so alone—they have not directly infringed the patent under § 271(a).¹⁰⁵ Nor have they indirectly infringed the patent under § 271(b) or § 271(c) because both induced infringement and contributory infringement require the existence of direct infringement.¹⁰⁶ Thus, through this joint conduct—termed “joint patent infringement”—the competitor was able to profit from the inventor's valid patent without the

¹⁰⁴ For a discussion of PTO patent negotiations, see Blaine Larson, Comment, *How Tangential Does It Have to Be? Making Sense of Festo's Tangential Limitations Doctrine*, 48 Houston L Rev 959, 963–64 (2011) (“The [PTO] usually rejects the applicant's original claims as overly broad in light of earlier patents or printed publications [I]t often takes patent applicants several rounds of narrowing amendments before the [PTO] grants a patent.”).

¹⁰⁵ For a discussion of the single-entity rule, see Part I.A.

¹⁰⁶ For a discussion of indirect infringement, see Parts I.B, I.C.

inventor's permission and without penalty. This undesirable result invites an effective solution.

B. Proposed Solutions to the Joint Patent Infringement Problem

Commentators have introduced various solutions to the joint patent infringement problem. This Section discusses three such proposed solutions. First, at least one commentator has suggested that Congress should amend the Patent Act to include a new cause of action: civil conspiracy to commit patent infringement.¹⁰⁷ Second, another school of thought posits that patent applicants should draft their patent claims in a unitary fashion in order to preclude joint infringers from divvying up various claim elements among themselves.¹⁰⁸ Third, others have argued that the direct-and-control exception to the single-entity rule is too narrow and should be replaced with a less-limiting participation-and-combined-action standard.¹⁰⁹ This Section evaluates each of these proposals and explains how each fails to solve the joint-infringement problem.

1. Civil conspiracy to commit patent infringement.

Conspiratorial patent infringement has been proposed to mend the joint patent infringement loophole.¹¹⁰ Such a claim would create liability for entities collaborating to infringe a patent.¹¹¹ The current Patent Act, however, does not recognize this claim as a viable cause of action. Consequently, at least one commentator has urged Congress to *create* liability for it.¹¹² But thus far, Congress has declined to do so. Courts have also declined to recognize conspiratorial patent infringement as a viable cause of action. In *Digene Corp v Ventana Medical Systems, Inc*¹¹³ and *Conceal City, LLC v Looper Law Enforcement, LLC*,¹¹⁴

¹⁰⁷ See Long Truong, Note, *After BMC Resources, Inc. v. Paymentech, L.P.: Conspiratorial Infringement as a Means of Holding Joint Infringers Liable*, 103 Nw U L Rev 1897, 1927–28 (2009).

¹⁰⁸ See Mark A. Lemley, et al, *Divided Infringement Claims*, 33 AIPLA Q J 255, 272–73 (2005).

¹⁰⁹ See, for example, Greskowiak, Note, 41 Loyola U Chi L J at 367–68, 391–92 (cited in note 73).

¹¹⁰ See Truong, Note, 103 Nw U L Rev at 1927 (cited in note 107).

¹¹¹ See id at 1925.

¹¹² See id at 1927–28.

¹¹³ 476 F Supp 2d 444 (D Del 2007).

¹¹⁴ 917 F Supp 2d 611 (ND Tex 2013).

the respective plaintiffs asserted claims for civil conspiracy to commit patent infringement.¹¹⁵ But the courts adjudicating these cases determined that federal patent law conflict-preempts¹¹⁶ this state law claim because conspiracy to infringe does not include an additional element that is distinct from an inducement claim under 35 USC § 271(b).¹¹⁷

The plaintiffs in *Mopex, Inc v Chicago Stock Exchange, Inc*¹¹⁸ attempted, unsuccessfully, to circumvent this preemption issue by arguing that the “agreement” element of a state conspiracy claim is an additional element not required by § 271(b).¹¹⁹ The *Mopex* court failed to see how “agreement” was meaningfully different from the knowingly aiding and abetting requirement for an inducement claim.¹²⁰ Thus, because a conspiratorial patent infringement claim does not include elements distinct from induced patent infringement under § 271(b), such a claim would impermissibly “attempt to offer patent-like protection to subject matter addressed by federal law.”¹²¹ Because courts have consistently declined to recognize a civil-conspiratorial–patent infringement cause of action, it is not a workable solution for addressing the problem of joint patent infringement.

2. Unitary patent claim construction.

Constructing patent claims in a unitary fashion is another proposed solution to the joint patent infringement problem. Some commentators, including leading patent scholar Professor Mark Lemley, have suggested that patent owners and patent prosecutors might avoid the enforcement problems arising from

¹¹⁵ *Digene*, 476 F Supp 2d at 447; *Conceal City*, 917 F Supp 2d at 616.

¹¹⁶ Conflict preemption applies when state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress. See *Hunter Douglas, Inc v Harmonic Design, Inc*, 153 F3d 1318, 1332 (Fed Cir 1998).

¹¹⁷ See *Digene*, 476 F Supp 2d at 450–51 (“[The plaintiff’s claim] alleging civil conspiracy, under Delaware law, to infringe Digene’s asserted patents is preempted by conflict with the federal patent laws.”); *Conceal City*, 917 F Supp 2d at 618 (“Conceal City’s Texas-law claim for civil conspiracy to infringe the [] patent is preempted by federal patent law and must be dismissed.”). See also *Mopex, Inc v Chicago Stock Exchange, Inc*, 2003 WL 715652, *5 (ND Ill) (“[P]laintiff’s conspiracy claim must be [conflict] preempted because it is symmetrical with infringement and alleges nothing in addition to that required by the patent laws.”).

¹¹⁸ 2003 WL 715652 (ND Ill).

¹¹⁹ *Id* at *6.

¹²⁰ *Id* (“If a party must knowingly aid and abet another party’s direct infringement for inducement under § 271(b), certainly it can be said that this party already ‘agreed’ to the other party’s acts constituting direct infringement.”).

¹²¹ *Digene*, 476 F Supp 2d at 450–51.

joint patent infringement by drafting unitary patent claims when applying for patents.¹²² A unitary patent claim is a series of steps drafted such that only one entity could perform them.¹²³ To illustrate Lemley's solution, consider the following unitary patent claim: a method for code sharing comprising (1) a server receiving a code request from a user and (2) the server sending the user the requested code. The construction of this patent claim restricts performance of steps (1) and (2) to the server only; it leaves no room for the user to perform any of the steps. To be sure, this solution works well in circumstances in which it can be implemented—such as when the inventive method does not *require* more than one entity to practice it.

However, in those situations in which practicing an inventive method requires the participation of multiple entities, unitary-claim drafting may be impractical or even impossible.¹²⁴ In the network-computing context, for instance, “patented processes may involve some steps performed on the client side and others performed on the server side.”¹²⁵ Besides, “even if patent claims are ‘properly’ drafted to focus on one particular entity, it will almost always be possible to subdivide the performance of the claimed steps between several entities when the actions of multiple entities are contemplated and inherent to the process.”¹²⁶ The following unitary patent claim illustrates this point: a method of playing catch comprising (1) catching a ball thrown by a pitcher and (2) returning the ball to the pitcher, with the catcher performing the returning. While this claim requires that the catcher perform both steps, the process of playing catch cannot be completed unless the initial thrower catches the returned ball. Thus, performance of this claim must be divided between multiple parties. Further, even if patent applicants could draft unitary patent claims to describe processes encompassing the actions of multiple parties, doing so would likely result in “indirect, passive, and confusing [patent] claims.”¹²⁷

Even so, when the Federal Circuit addressed the joint-infringement issue in *BMC*, it endorsed this unitary-drafting

¹²² See, for example, Lemley, 33 AIPLA Q J at 272–73 (cited in note 108).

¹²³ See *id.*

¹²⁴ See Greskowiak, Note, 41 Loyola U Chi L J at 404 (cited in note 73); Truong, Note, 103 Nw U L Rev at 1920 (cited in note 107).

¹²⁵ Greskowiak, Note, 41 Loyola U Chi L J at 402 n 392 (cited in note 73).

¹²⁶ *Id.* at 406.

¹²⁷ *Id.* at 405.

solution as the best available option.¹²⁸ Judge Linn also did so in his *Akamai* dissent.¹²⁹ Nonetheless, unitary claim drafting is not a comprehensive solution to the joint-infringement problem for at least three reasons. First, it is not always feasible to implement a unitary claim (for instance, it may be that the steps of a patent process must be carried out by multiple parties). Second, even if it is *possible* to implement a unitary patent claim, it is difficult to do so. Lastly, unitary claim drafting could lead to deficient patent claims that incorrectly describe the invention in order to facilitate unitary construction.

3. The *On Demand* “participation-and-combination standard.”

The *On Demand Machine Corp v Ingram Industries, Inc*¹³⁰ participation-and-combination standard is a third possible solution to the joint-infringement problem.¹³¹ This solution suggests replacing the direct-and-control standard—currently the sole exception to the single-entity requirement—with the less restrictive vicarious liability standard of participation and combination. In effect, this solution would narrow the single-entity rule by broadening the exception to it. Weakening the single-entity rule, however, might make innocent joint infringers—such as everyday consumers ignorant of their infringing conduct—vulnerable to liability for direct patent infringement, which is a strict-liability offense.¹³² Moreover, as explained in detail below, this solution could overwhelm an important aspect of the Patent Act.

In the earliest joint-infringement cases, several federal district courts ruled that joint infringement constituted direct

¹²⁸ See *BMC*, 498 F3d at 1381 (stating that a party can offset joint-infringement problems by strategic claim drafting, such as structuring a patent claim so that its steps must be carried out by a single entity).

¹²⁹ See *Akamai*, 692 F3d at 1350 (Linn dissenting) (noting that the asserted claims were drafted to require the activities of both Limelight and its customers; thus, *Akamai* subjected itself to joint infringement).

¹³⁰ 442 F3d 1331 (Fed Cir 2006) (“*On Demand*”).

¹³¹ See *id.* at 1344–45 (“[T]he district court instructed . . . [that] [w]here the infringement is the result of the participation and combined action(s) of one or more persons or entities, they are all joint infringers and jointly liable for the infringement. We discern no flaw in this instruction as a statement of law.”). See also Greskowiak, Note, 41 *Loyola U Chi L J* at 391 (cited in note 73) (“The *On Demand* case unmistakably confirmed that joint infringement is a viable legal theory and results from the participation and combined action of more than one entity.”).

¹³² See *Akamai*, 692 F3d at 1307.

infringement under § 271(a) as long as there was “some connection” between the entities that jointly infringed the patented invention.¹³³ However, courts were inconsistent as to the degree of closeness required to establish “some connection.”¹³⁴ The Federal Circuit remained silent on whether joint infringement constituted direct infringement under § 271(a) until 2006, when it was asked to review a district court’s jury instruction in *On Demand*. At issue in that case was *On Demand*’s method patent, which claimed steps for enabling a customer to select a book that he wanted copied and to make the copy.¹³⁵ *On Demand* alleged that two defendants, Amazon.com and Lightning Source, had jointly infringed its patent: Amazon.com enabled customers to select books to copy, and Lightning Source produced the book copies that customers ordered on Amazon.com.¹³⁶ The district court gave the following jury instruction:

It is not necessary for the acts that constitute infringement to be performed by one person or entity. When infringement results from the *participation and combined action(s)* of more than one person or entity, they are all joint infringers and jointly liable for patent infringement. Infringement of a patented process or method cannot be avoided by having another perform one step of the process or method. Where the infringement is the result of the participation and combined

¹³³ Greskowiak, Note, 41 Loyola U Chi L J at 364 (cited in note 73). See also, for example, *Marley Mouldings Ltd v Mikron Industries, Inc*, 2003 WL 1989640, *3 (ND Ill) (“A party cannot avoid direct infringement merely by having another entity perform one or more of the required steps when that party is connected with the entity performing one or more of the required steps.”); *Cordis Corp v Medtronic AVE, Inc*, 194 F Supp 2d 323, 350 (D Del 2002) (holding that a “close relationship” between the parties satisfied the “some connection” test); *Faroudja Laboratories, Inc v Dwin Electronics, Inc*, 1999 WL 111788, *5 (ND Cal) (noting that “several district courts have found a party liable for direct infringement of a process patent even where the various steps included in the patent are performed by distinct entities,” so long as the finding is justified by “some connection between the different entities”); *E.I. DuPont De Nemours and Co v Monsanto Co*, 903 F Supp 680, 735 (D Del 1995) (stating that a first party paying a second party to practice the initial steps of a patented method could not avoid direct-infringement liability even if the first party practiced only the remaining steps of the patented method); *Metal Film Co v Metlon Corp*, 316 F Supp 96, 111 (SDNY 1970) (holding the defendant liable for direct infringement when it arranged for suppliers to complete the first step of a patented method and then performed the remaining steps itself).

¹³⁴ See Greskowiak, Note, 41 Loyola U Chi L J at 366 (cited in note 73).

¹³⁵ *On Demand*, 442 F3d at 1334.

¹³⁶ *Id* at 1335–36.

action(s) of one or more persons or entities, they are joint infringers and are jointly liable for the infringement.¹³⁷

On de novo review of the jury instruction, the Federal Circuit stated that it could “discern no flaw in this instruction as a statement of law.”¹³⁸

The plaintiff in *BMC* and some commentators have argued that the Federal Circuit’s statement regarding the jury instruction was a precedential adoption of the participation-and-combination standard.¹³⁹ However, the Federal Circuit has denied this contention.¹⁴⁰ Rather, the court has characterized its statement in *On Demand* as dictum because the jury instruction was not directly necessary to the court’s decision in that case.¹⁴¹ The Federal Circuit has endorsed the standard requiring control or direction of an agent by a mastermind and rejected the participation-and-combination standard.¹⁴²

One commentator has argued that overturning *BMC* and applying the participation-and-combination standard is the best solution to the joint-infringement problem.¹⁴³ Certainly, the joint-infringement loophole was not lost on the *BMC* court, which acknowledged that “the standard requiring control or direction for a finding of joint infringement may in some circumstances allow parties to enter into arms-length agreements to avoid infringement.”¹⁴⁴ However, the court concluded that the joint-infringement concern “does not outweigh concerns over

¹³⁷ Id at 1344–45 (emphasis added).

¹³⁸ Id at 1345.

¹³⁹ See *BMC*, 498 F3d at 1378 (“*BMC* argued that *On Demand* changed the law governing joint infringement by multiple parties.”). See also, for example, Truong, Note, 103 Nw U L Rev at 1908 (cited in note 107) (“[T]he Federal Circuit’s opinion in [*On Demand*] contained language that seemed to create a [] theory of infringement that would have greatly expanded liability for joint infringers by requiring only that there be ‘participation’ and a ‘combination’ of actions between parties.”); Greskowiak, Note, 41 Loyola U Chi L J at 368 (cited in note 73) (“Even in its reversal, by considering the conduct of multiple discrete actors in determining whether joint infringement existed, the [*On Demand*] panel’s analysis further affirmed joint infringement as a viable legal theory.”).

¹⁴⁰ Judge Newman’s dissent in *Akamai* is consistent with her position in the *On Demand* majority opinion. In both cases, she opined that legal liability existed for joint patent infringement. See *Akamai*, 692 F3d at 1322 (Newman dissenting) (“Direct infringement may be by more than one entity.”); *On Demand*, 442 F3d at 1344–45.

¹⁴¹ See *BMC*, 498 F3d at 1380 (noting that the district court properly analyzed Federal Circuit precedent by refusing to read the *On Demand* court’s statement that there was “no flaw” in the jury instruction as a “wholesale adoption” of the instruction).

¹⁴² See, for example, id at 1380–81.

¹⁴³ See Greskowiak, Note, 41 Loyola U Chi L J at 410 (cited in note 73).

¹⁴⁴ *BMC*, 498 F3d at 1381.

expanding the rules governing direct infringement,” which could swallow the legal claim for indirect infringement.¹⁴⁵ According to the *BMC* court, the participation-and-combination standard “would subvert the statutory scheme for indirect infringement” because a patent owner “would rarely, if ever, need to bring a claim for indirect infringement.”¹⁴⁶ Instead, litigants would simply sue multiparty infringers for direct infringement under the participation-and-combination standard. Noting that this standard would effectively nullify a concept that Congress codified in the Patent Act, the *BMC* court refused to adopt the standard.¹⁴⁷

In sum, the *On Demand* participation-and-combination solution would replace the direct-and-control exception to the single-entity requirement with a less restrictive vicarious liability standard. This solution, however, could result in courts penalizing innocent joint infringers ignorant of their infringing conduct for direct patent infringement (a strict-liability offense).¹⁴⁸ Thus, although replacing the current direct-and-control exception with the proposed participation-and-combination standard theoretically could resolve the joint infringement problem, the unwanted consequences of doing so counsel against adopting that approach.

* * *

The existing proposals for addressing joint patent infringement are flawed. First, the conspiratorial patent infringement solution is conflict-preempted by federal patent law and moreover would require legislative action. Second, the solution of unitary patent claim drafting, while theoretically viable, is impractical in many instances. Finally, the participation-and-combination solution has too much bite because it would potentially subject the consuming public to direct patent infringement claims. Courts are unlikely to accept that unwanted consequence. Accordingly, a solution to the joint patent infringement problem that is superior to the proposed solutions is needed. The next Part focuses on such a solution—joint patent misappropriation.

¹⁴⁵ *Id.* See also *Akamai Technologies*, 2015 WL 2216261 at *4–5 (asserting that an expansive interpretation of § 271(a) renders § 271(b) and (c) superfluous and violates accepted principles of statutory construction).

¹⁴⁶ *BMC*, 498 F3d at 1381.

¹⁴⁷ *Id.* (noting that expanding direct infringement would subvert the current statutory scheme for indirect infringement).

¹⁴⁸ See *Akamai*, 692 F3d at 1307.

III. THE JOINT-PATENT-MISAPPROPRIATION SOLUTION

The three solutions discussed in Part II involve changing current patent law or existing claim-drafting techniques. However, instead of focusing on patent-based approaches to resolving the joint patent infringement problem, a superior solution is to apply state-law misappropriation doctrine, in combination with general tort principles.

Briefly, joint patent misappropriation is the wrongful acquisition of another's patent and the subsequent profitable use of that patent by multiple parties working in concert.¹⁴⁹ Joint-patent-misappropriation claims are a superior solution because they (1) are not preempted by federal patent law; (2) are pragmatic—plaintiffs simply pursue the claims in state court; and (3) include a requisite mens rea of at least knowledge, thereby protecting unknowing consumers. Furthermore, the joint-patent-misappropriation cause of action is an attractive solution to the joint patent infringement problem because the misappropriation doctrine is generally not as restrictive as patent infringement law. In particular, unlike patent infringement claims, a successful misappropriation claim does not require that a single entity perform each and every element of the patent claim. Joint patent misappropriation is simply an application of the old and well-known misappropriation doctrine to joint activity in the patent law context. Lastly, and most importantly, such claims do not subvert patent law or congressional intent.

This Part begins by defining the common-law doctrine of misappropriation and setting forth the elements of a misappropriation claim. It then explains this doctrine's application to the patent context. In so doing, it lays the foundation for understanding the concept of *joint* patent misappropriation. Once that foundation is laid, this Part defines joint patent misappropriation and explains the intricacies of such a claim. Finally, it considers how this claim might be applied to the facts of two recent joint patent infringement cases.

¹⁴⁹ See Heather Richtarsik, Note, *Misappropriation in Massachusetts and around the Country: How Technology Will Utilize This Tort*, 35 New Eng L Rev 717, 729 (2001). See also *Black's Law Dictionary* 1088 (West 9th ed 2009) (defining "misappropriation" as "[t]he application of another's property or money dishonestly to one's own use").

A. The Doctrine of Misappropriation and Its Application to Patents

In order to establish that the joint-patent-misappropriation cause of action is better than existing proposals, it is important to understand misappropriation doctrine more generally. Misappropriation is a common-law form of unfair competition.¹⁵⁰ The Supreme Court described the tort of misappropriation as “an unauthorized interference with the normal operation of [a] complainant’s legitimate business precisely at the point where the profit is to be reaped, in order to divert a material portion of the profit from those who have earned it to those who have not.”¹⁵¹ While misappropriation law varies by state, a successful misappropriation claim generally requires proof that (1) the plaintiff “made a substantial investment of time, effort, and money in[] creating the thing misappropriated such that the court can characterize that ‘thing’ as a kind of property right”; (2) the defendant “appropriated the ‘thing’ at little or no cost, such that the court can characterize [the] defendant’s actions as ‘reaping where it has not sown’”; and (3) the defendant’s acts injured the plaintiff.¹⁵² In the context of *patent* misappropriation, the thing appropriated would be a patented invention.

Patent-misappropriation claims are not appropriate in every instance. Indeed, in cases in which 35 USC § 271 works properly to protect patent owners’ rights, it is unnecessary to pursue a patent-misappropriation claim at all—an injured plaintiff could simply seek recourse through patent law. In fact, not only would it be unnecessary to bring a misappropriation claim in such a case, but federal preemption law would also preclude the claim under the doctrine of conflict preemption.¹⁵³ Moreover, if a patent owner wanted to sue a *single* actor for patent misappropriation, she would find no remedy because federal patent law would

¹⁵⁰ See Elaine Stoll, Comment, *Hot News Misappropriation: More Than Nine Decades after INS v. AP, Still an Important Remedy for News Piracy*, 79 U Cin L Rev 1239, 1241 (2011) (“The tort of misappropriation is a species of unfair competition.”). See also *United States Sporting Products, Inc v Johnny Stewart Game Calls, Inc*, 865 SW2d 214, 217 (Tex App 1993) (characterizing unfair competition as an “umbrella for all statutory and nonstatutory causes of action,” such as misappropriation, “arising out of business conduct which is contrary to honest practice in industrial or commercial matters”).

¹⁵¹ *International News Service v The Associated Press*, 248 US 215, 240 (1918).

¹⁵² David W. Barnes, *Misappropriation of Trademark*, 9 NC J L & Tech 171, 174 (2008).

¹⁵³ For a discussion of federal preemption law, see Part III.D.3.

preempt such a suit.¹⁵⁴ However, *joint* patent infringement creates a distinct problem that requires a unique solution. In joint patent infringement cases, in which patent holders' rights currently fall through a crack in the patent law,¹⁵⁵ a *joint*-patent-misappropriation claim—specifically, conspiratorial, aiding-and-abetting, or induced patent misappropriation—would provide an adequate safeguard.

B. Joint Patent Misappropriation

Joint patent misappropriation occurs when multiple actors misappropriate a plaintiff's patent in concert, and no single actor does so alone. Because misappropriation is a common-law tort, the plaintiff must rely on third-party liability under traditional tort doctrines to recover from defendants in those cases.¹⁵⁶ The most relevant tort doctrines are: (1) liability for conspiring to commit a tort,¹⁵⁷ (2) liability for aiding and abetting commission of a tort,¹⁵⁸ and (3) liability for inducing a tort.¹⁵⁹ The ensuing discussion identifies three joint-patent-misappropriation claims based on these tort doctrines—conspiratorial, aiding-and-abetting, and induced patent misappropriation—and analyzes each in turn.

1. Conspiratorial patent misappropriation.

Conspiracy law varies by state.¹⁶⁰ In most states, establishing a civil conspiracy requires a plaintiff to prove: “(1) an association of two or more persons; (2) an unlawful objective; (3) an agreement, understanding, or ‘meeting of the minds’ regarding

¹⁵⁴ See, for example, *Mopex*, 2003 WL 715652 at *5 (noting that federal patent law would preempt state claims that simply duplicate federal infringement claims and provide extra damages or double recoveries). See also Part III.D.3.

¹⁵⁵ Judge Moore characterizes this crack as a “gaping hole.” *Akamai Technologies, Inc v Limelight Networks, Inc*, 2015 WL 2216261, *12 (Fed Cir) (Moore dissenting).

¹⁵⁶ See Edmund J. Sease, *Misappropriation Is Seventy-Five Years Old: Should We Bury It or Revive It?*, 70 ND L Rev 781, 781 (1994) (explaining that the Supreme Court recognized the misappropriation cause of action under federal common law). Note that the law of indirect infringement of patents, copyrights, and trademarks also derives from common-law tort doctrines. See Charles W. Adams, *Indirect Infringement from a Tort Law Perspective*, 42 U Richmond L Rev 635, 636 (2008).

¹⁵⁷ See Restatement (Second) of Torts § 876(a) (1979).

¹⁵⁸ See Restatement (Second) of Torts § 876(b) (1979).

¹⁵⁹ See Restatement (Second) of Torts § 877(a) (1979).

¹⁶⁰ See Stoll, Comment, 79 U Cin L Rev at 1247–48 (cited in note 150) (explaining that some states have embraced the common-law misappropriation doctrine, while others have yet to acknowledge it).

the objective and the means of pursuing it; (4) commission of an unlawful act in furtherance of the agreement; and (5) injury resulting from the conspiracy.”¹⁶¹ While a minority of jurisdictions have acknowledged civil conspiracy as an independent tort, the majority of states require civil conspiracy claims to incorporate an underlying tort.¹⁶² In other words, in most cases, a plaintiff cannot bring a civil conspiracy suit unless she has been injured by an act that was itself tortious.¹⁶³ In addition, the requisite scienter in many state civil conspiracy laws is intent.¹⁶⁴

For conspiratorial patent misappropriation, the underlying tortious act is patent misappropriation. Thus, if a plaintiff is able to establish all the elements of the patent-misappropriation claim, as provided in Part III.A, and all the elements of the civil conspiracy claim, as provided in this Section, the defendant would typically be liable for conspiratorial patent misappropriation. However, in states in which the scienter standard requires intent, a conspiratorial-patent-misappropriation claim might be unsuitable. For example, if a defendant provides a user with a product that has many uses, the defendant could simply argue that he did not *intend* for the user to perform the remaining steps of the plaintiff’s patent. Therefore, provided that the fact finder believes the defendant, the conspiratorial-patent-misappropriation claim would likely fail. Further, the defendant could argue that there was no meeting of the minds, another element of a conspiratorial-patent-misappropriation claim.¹⁶⁵ This argument could be effective if the joint actors never mutually agreed to misappropriate the patent at issue. Here again, a conspiratorial-patent-misappropriation claim might fail.

Hence, a conspiratorial-patent-misappropriation claim does not resolve the joint patent infringement problem in every instance. However, an injured plaintiff may instead turn to other third-party claims for relief. For example, in cases in which it is difficult to prove specific intent or mutual assent, a plaintiff

¹⁶¹ Truong, Note, 103 Nw U L Rev at 1923 (cited in note 107).

¹⁶² See *id.* See also Steven A. Beckelman and Judah Skoff, *Legal Defenses to Conspiracy or Aiding and Abetting Claims*, 243 NY L J 1, 4 (June 21, 2010).

¹⁶³ See Truong, Note, 103 Nw U L Rev at 1923 (cited in note 107).

¹⁶⁴ See, for example, *Conceal City, LLC v Looper Law Enforcement, LLC*, 917 F Supp 2d 611, 617 (ND Tex 2013); *Reading Radio, Inc v Fink*, 833 A2d 199, 212 (Pa App 2003) (holding that an unjustified intent to injure is an essential part of a civil conspiracy claim).

¹⁶⁵ See *Conceal City*, 917 F Supp 2d at 617.

might pursue an aiding-and-abetting–patent-misappropriation claim.

2. Aiding-and-abetting patent misappropriation.

Generally, aiding and abetting occurs when one party advises or encourages another party to perform an underlying tort.¹⁶⁶ A claim for civil aiding and abetting is similar to one for civil conspiracy. There are, however, some subtle differences. Although the line is not always clear,¹⁶⁷ a crucial distinction is that aiding and abetting requires an agreement, while conspiracy does not.¹⁶⁸ Another important distinction is that civil aiding and abetting requires “substantial assistance,” but civil conspiracy does not.¹⁶⁹ Thus, a defendant may be liable for civil conspiracy even if he did not *substantially* assist his co-conspirators, while aiding and abetting requires deeper involvement.¹⁷⁰

The requisite scienter for aiding and abetting varies by state, but the general elements of aiding-and-abetting liability are consistent: (1) the existence of an underlying tort, (2) the defendant’s knowledge of the underlying tort, and (3) the defendant’s substantial assistance in the commission of the underlying tort.¹⁷¹ Here, the underlying tort in aiding-and-abetting–patent-misappropriation claims is patent misappropriation. Notably, in the patent context, this form of liability protects customers who unknowingly perform steps of a method patent. These customers would not have the necessary scienter—knowledge of the underlying patent-misappropriation tort—to incur liability.

In cases in which a defendant takes a less hands-on approach and does not substantially assist others in misappropriating a patent, he cannot be held liable for aiding-and-abetting patent misappropriation.¹⁷² In those cases, an injured plaintiff might instead bring a claim for induced patent misappropriation.

¹⁶⁶ See Adams, 42 U Richmond L Rev at 640 (cited in note 156).

¹⁶⁷ See Nathan Issac Combs, Note, *Civil Aiding and Abetting Liability*, 58 Vand L Rev 241, 257 (2005) (“Courts and commentators frequently blur the distinction between conspiracy and aiding and abetting.”).

¹⁶⁸ See *id.*

¹⁶⁹ See *id.* at 257–58 (“[F]or conspiracy liability, a defendant need only provide the assistance inherent within the agreement itself.”).

¹⁷⁰ See *id.* at 258–59.

¹⁷¹ See Mark Bartholomew and Patrick F. McArdle, *Causing Infringement*, 64 Vand L Rev 675, 696 (2011).

¹⁷² See *id.*

3. Induced patent misappropriation.

Civil inducement covers situations in which one party orders or induces another party's tortious conduct.¹⁷³ Such claims are different from aiding-and-abetting claims in that they do not require substantial assistance; however, the two types of claims often overlap.¹⁷⁴ For instance, a party that orders or induces tortious conduct might also substantially assist with carrying out the tortious acts.¹⁷⁵

The general elements of inducement are provided in the Restatement (Second) of Torts § 877(a): (1) the existence of an underlying tort, (2) the defendant's actual or constructive knowledge of the underlying tort, (3) the defendant's inducement of the performance of the underlying tort, and (4) the defendant's specific intent to bring about the underlying tort. Again, the underlying tort in induced-patent-misappropriation claims is patent misappropriation.

Importantly, for joint-patent-misappropriation claims, the inducement cannot rise to the level of direction or control. In cases in which the inducer directs or controls the conduct of his coactors, he may be liable as a principal or mastermind under the law of agency in addition to being liable for inducement.¹⁷⁶ However, since such conduct is an exception to the single-entity rule, an injured plaintiff would be able to bring a claim for direct patent infringement under these circumstances.¹⁷⁷ In fact, federal patent law would conflict-preempt an induced-patent-misappropriation claim if the *BMC* direct-and-control standard were met.¹⁷⁸ This is because a conflict would exist between federal patent law and state misappropriation law if both could be used to adjudicate a dispute.¹⁷⁹ Under federal preemption law for patents, federal law would trump state law.

In practice, this sort of conflict might occur if there were a question whether the inducement met the *BMC* direct-and-control standard and the plaintiff brought both claims—the direct patent infringement claim and the induced-patent-misappropriation claim—in court. Because these two claims are

¹⁷³ See Adams, 42 U Richmond L Rev at 642 (cited in note 156).

¹⁷⁴ See id.

¹⁷⁵ See id.

¹⁷⁶ See id at 643.

¹⁷⁷ For a discussion of the direct-and-control standard, see Part I.A.2.

¹⁷⁸ See Part III.D.3.

¹⁷⁹ For a discussion of federal preemption law, see Part III.D.3.

mutually exclusive, at least one of them would fail once the court determined the level of inducement that had occurred.

* * *

Part III.B described the three types of liability for joint-patent-misappropriation claims and how such claims would function in theory. Each species of claim discussed above is theoretically available to plaintiffs, depending on the circumstances of the case. Although there is some overlap between the elements of the three claims, they vary enough to encompass a broad range of joint misconduct. Thus, the enhanced remedial flexibility that these claims offer would be advantageous to plaintiffs. The next Section aims to provide concrete examples of how joint-patent-misappropriation claims would work in practice.

C. Applying the Joint-Patent-Misappropriation Solution

To illustrate how the proposed solution would operate in practice, consider how joint patent misappropriation would be applied to the facts of two important district court companion cases—*Akamai Technologies, Inc v Limelight Networks, Inc*¹⁸⁰ and *McKesson Information Solutions LLC v Epic Systems Corp.*¹⁸¹ The Federal Circuit consolidated these cases when it decided the joint patent infringement issue en banc in *Akamai*.¹⁸²

The facts of the consolidated case, as presented by the Federal Circuit on appeal, are as follows: Akamai Technologies owns a patent that covers a method for delivering Web content.¹⁸³ The patented method steps include (1) placing a content provider's content on a server and (2) modifying the content provider's Web site.¹⁸⁴ The defendant, Limelight Networks, performed some steps of the patented method but induced other parties to commit the remaining steps.¹⁸⁵ Specifically, Limelight placed the content providers' content on a server and then instructed its customers to modify the content providers' Web sites themselves.¹⁸⁶

The defendant in *McKesson* jointly infringed a patent in a different way. It induced multiple other parties to collectively

¹⁸⁰ 614 F Supp 2d 90 (D Mass 2009).

¹⁸¹ 2009 WL 2915778 (ND Ga) ("McKesson").

¹⁸² See *Akamai*, 692 F3d at 1301.

¹⁸³ *Id* at 1306.

¹⁸⁴ *Id*.

¹⁸⁵ *Id* at 1305.

¹⁸⁶ *Akamai*, 692 F3d at 1306.

perform all the steps of the claimed method, but no single party performed every step itself.¹⁸⁷ The plaintiff in *McKesson* owns a patent covering a method of electronic communication between health care providers and their patients.¹⁸⁸ The defendant, Epic Systems, owns a software program that permits health care providers to communicate electronically with their patients.¹⁸⁹ Although Epic did not perform any of the steps of McKesson's method patent, its software enabled the health care providers and their patients to jointly perform each and every step of the patented method themselves.¹⁹⁰ Arguably, by dividing the patented steps among multiple parties, Limelight and Epic each attempted to shield themselves from patent infringement liability, leaving the patent owners with no remedy under federal patent law,¹⁹¹ even though the joint conduct resulted in an outcome that, if performed by a single actor, would have been held to violate the patent owners' rights.

On appeal in *Akamai*, the Federal Circuit did not explicitly determine Limelight's scienter, nor that of its customers. Because Limelight performed all but one of the patented method steps and instructed its customers to perform the final step themselves, it seems fair to assume that Limelight "should [have] know[n] of circumstances that would make the conduct tortious if it were [its] own."¹⁹² Indeed, based on these facts, a fact finder could infer that Limelight possessed specific intent to misappropriate Akamai's patent—Limelight did, after all, *instruct* its customers to perform the final patented step.¹⁹³

If Limelight's customers' acts could be considered Limelight's acts under the Restatement, Limelight would be liable for direct infringement.¹⁹⁴ But general tort liability and induced patent infringement liability are not equivalent; *BMC* holds that "(1) liability for induced infringement requires proof of direct infringement and (2) liability for direct infringement requires that a single party commit all the acts necessary to constitute infringement."¹⁹⁵ Thus, Limelight would not be liable for induced

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ *Akamai*, 692 F3d at 1306.

¹⁹¹ *See id.*

¹⁹² Restatement (Second) of Torts § 877(a) (1979).

¹⁹³ *See Akamai*, 692 F3d at 1306.

¹⁹⁴ For a discussion of direct infringement, see Part I.A.

¹⁹⁵ *Akamai*, 692 F3d at 1308.

patent infringement under § 271(b). Misappropriation, however, has no such restriction. If Limelight's customers' acts were Limelight's acts, Limelight would be liable for directly misappropriating Akamai's patent. Thus, under misappropriation doctrine and induced tort liability, Limelight could be liable for induced patent misappropriation.

The facts in *McKesson* suggest that the defendant could be liable for aiding-and-abetting misappropriation, depending on its level of knowledge. A showing of specific intent to cause patent misappropriation is not required for aiding-and-abetting misappropriation.¹⁹⁶ If Epic knew about McKesson's patent, and there were no uses for Epic's product other than the misappropriating use, then a court might find Epic liable for aiding-and-abetting patent misappropriation.¹⁹⁷ However, if Epic's product had other uses such that Epic could not anticipate that its customers would use the product to misappropriate McKesson's patent, a fact finder might determine that Epic did not have the necessary mens rea to commit joint patent misappropriation. In such a case, Epic might not face liability for aiding-and-abetting patent misappropriation.

Notably, neither of these cases could be resolved by bringing contributory patent infringement claims under § 271(c). Specifically, contributory patent infringement requires direct patent infringement, and direct infringement is limited by the single-entity rule—a single party must perform each and every element of a patent to be held liable for direct infringement.¹⁹⁸ An aiding-and-abetting–patent-misappropriation claim differs from a contributory patent infringement claim in that the former is not limited by the single-entity rule. Thus, under the misappropriation doctrine and general tort liability, Epic could be liable for aiding-and-abetting patent misappropriation, but not for contributory patent infringement.

To summarize, the combination of the misappropriation doctrine and general theories of tort liability provides a unique solution to the joint patent infringement problem, as evidenced by its application to the facts of *Akamai* and *McKesson*. Unlike the solution that the Federal Circuit applied in the recently reversed

¹⁹⁶ See Restatement (Second) of Torts § 876(b) (1979).

¹⁹⁷ See Adams, 42 U Richmond L Rev at 656 (cited in note 156) (“[S]elling a component with no substantial use other than for infringement would almost always constitute ‘substantial assistance’ to an infringer.”).

¹⁹⁸ For a discussion of contributory infringement, see Part I.A.

consolidated appeal,¹⁹⁹ this joint-patent-misappropriation solution respects the existing boundaries of patent law while allowing entities injured by joint patent infringement to seek relief. The solution, however, is not unassailable. The next Section anticipates some objections to this solution and responds to each.

D. Possible Objections to the Joint-Patent-Misappropriation Solution

There are at least three foreseeable arguments against bringing joint-patent-misappropriation claims to seek traditional, tort-based relief against joint patent infringers: (1) traditional tort liability does not provide a remedy for joint tortious activity, (2) state forum shopping will occur because some states do not recognize the misappropriation doctrine, and (3) federal patent law preempts all state-law-patent-misappropriation claims. Analysis of each objection, however, demonstrates that none is persuasive enough to reject the solution that this Comment proposes.

1. Inapplicability of tort liability to joint misappropriation.

Some have argued that traditional tort liability cannot apply to multiple entities that misappropriate a patent as a group.²⁰⁰ Specifically, these advocates reason that, since none of the actors alone committed any tortious conduct, the actors cannot be properly characterized as tortfeasors.²⁰¹ This argument, in effect, incorporates a single-entity rule into traditional tort law. It is thus unsound.

Several legal commentators and courts have suggested that a tortfeasor need not be a single actor. First, Professor William Prosser has argued that “[n]obody knows what exactly is a joint

¹⁹⁹ The *Akamai* court, in a 6–5 decision, attempted to resolve the issue of joint patent infringement by expanding § 271(b), which governs indirect infringers (that is, those inducing patent infringement). It held Limelight and Epic liable for induced infringement under § 271(b) even though neither party directly infringed a patent. See generally *Akamai*, 692 F3d 1301, revd *Limelight*, 134 S Ct at 2119–20.

²⁰⁰ See, for example, Brief of Defendant-Cross-Appellant Limelight Networks, Inc on Rehearing En Banc, *Akamai Technologies, Inc v Limelight Networks, Inc*, Civil Action Nos 2009-1372, 2009-1380, 2009-1416, 2009-1417, *50 (Fed Cir filed Aug 3, 2011) (available on Westlaw at 2011 WL 3796785) (“[T]he *mens rea* requirement for co-conspirator liability is incompatible with the strict-liability nature of direct infringement.”).

²⁰¹ See, for example, *id* (arguing that the prerequisites for conspiratorial liability—namely, commission of a tort by a primary tortfeasor and knowledge of the wrongful nature of this conduct—were not met).

tort” and that “joint tort-feasor” means radically different things to different courts, and often even to the same court.²⁰² Second, *Black’s Law Dictionary* defines “joint tortfeasors” as “[t]wo or more tortfeasors who contributed to the claimant’s injury and who may be joined as defendants in the same lawsuit.”²⁰³ Third, as the Federal Circuit noted several times in *Akamai*,²⁰⁴ Judge Giles Rich, one of the drafters of the Patent Act, has noted that, “where two people [] together create an infringement which neither one of them individually or independently commits . . . , they are joint tortfeasors.”²⁰⁵ This might suggest that the Federal Circuit would consider two people whose combined actions misappropriate a patent to be joint tortfeasors.

It is true that, even if the aggregate conduct of joint actors constitutes a tort, the *individual* conduct of one joint tortfeasor might not itself satisfy all the elements of a tort claim. Consider the following situation: Several defendants independently pollute a stream on the plaintiff’s property, but, standing alone, each defendant has committed no tort—none of the defendants has been negligent, nor has any of them individually caused any legally cognizable harm.²⁰⁶ But the combined acts of all the defendants have rendered the stream entirely unfit for use. Obviously, the plaintiff’s interests have been invaded.²⁰⁷ If each defendant escapes liability on the ground that his individual contribution was de minimis, the plaintiff has no remedy.²⁰⁸ Nonetheless, a single actor has committed a tort if he has the scienter that the particular tort requires and his coactors have completed the remaining elements of the relevant tort.²⁰⁹ Prosser

²⁰² William L. Prosser, *Joint Torts and Several Liability*, 25 Cal L Rev 413, 413 (1937).

²⁰³ *Black’s Law Dictionary* at 1627 (cited in note 149).

²⁰⁴ See *Akamai*, 692 F3d at 1310.

²⁰⁵ *Id.* at 1311.

²⁰⁶ For the basis of this example, see *Hill v Smith*, 32 Cal 166, 167 (1867) (noting that the injury from the conduct of one actor might be so small as to avoid materially affecting the water, meaning that the conduct cannot be negligent).

²⁰⁷ See *id.* at 167–68. See also Prosser, 25 Cal L Rev at 439–40 (cited in note 202).

²⁰⁸ See *Hill*, 32 Cal at 167–68. See also Prosser, 25 Cal L Rev at 439–40 (cited in note 202).

²⁰⁹ See, for example, *Boeing Co v Washington*, 572 P2d 8, 12 (Wash 1978) (“[I]f two individuals commit independent acts of negligence which concur to produce the proximate cause of an injury to a third person, they are to be regarded as concurrent tortfeasors, and each is liable as if solely responsible for the injury.”). See also Christopher T. Moore, Note, *Torts: Kirkpatrick v. Chrysler Corp.—Are You Satisfied? Oklahoma’s Rigid Application of the One Satisfaction Rule Is Not So Rigid Anymore*, 50 Okla L Rev 601, 602 (1997):

has explained this concept, noting that if “the individual defendant knows, or at least has reason to know, that his conduct may concur with that of others to cause injury,” then the plaintiff should be entitled to relief.²¹⁰

Consider this concept in the patent context: An individual sells a product—knowing or intending that his customers will use the product in a wrongful, tortious way. Depending on the requisite scienter, he has potentially committed a wrong. Notably, this wrong could not be patent infringement in the absence of direct infringement, as each form of patent infringement requires *direct* infringement—a strict-liability offense.²¹¹ Conversely, patent misappropriation is not a strict-liability offense. In fact, *International News Service v The Associated Press*²¹² seems to suggest that the Court intended for misappropriation claims to require scienter.²¹³ Indeed, the *INS* Court contemplated the defendant’s intentions throughout the opinion. For example, the Court stated that the “defendant in appropriating [material that had been acquired by the complainant] and selling it as its own is *endeavoring* to reap where it has not sown,” that the appropriation “amounts to an unauthorized interference with the normal operation of complainant’s legitimate business . . . *in order to divert . . . profit from those who have earned it to those who have not,*” and that the defendant is “misappropriating [] *for the purpose of disposing of [the thing misappropriated] to his own profit and to the disadvantage of complainant.*”²¹⁴ Therefore, because patent misappropriation is not a strict-liability tort,²¹⁵ *Akamai* does not counsel against holding multiple independent parties liable for jointly misappropriating a patent—even if none of them does so alone. According to *Akamai*, the reason that

Generally speaking, all individuals sharing responsibility for the commission of a tort are jointly liable for that tort. At times, the actions of two or more defendants may concur to produce a single, indivisible harm. In such an instance, the parties producing the harm have been considered joint tortfeasors. Where no concert of action exists, but instead the independent actions of two or more parties cause the harm, the parties are known as concurrent tortfeasors.

²¹⁰ Prosser, 25 Cal L Rev at 441 (cited in note 202).

²¹¹ See note 83. See also Parts I.B, I.C.

²¹² 248 US 215 (1918) (“INS”).

²¹³ See id at 239–40.

²¹⁴ Id (emphasis added).

²¹⁵ See Linda B. Samuels and Bryan K. Johnson, *The Uniform Trade Secrets Act: The States’ Response*, 24 Creighton L Rev 49, 57 (1990) (“Liability for misappropriation can extend to those who knew or should have known of the misappropriation, including third parties.”).

“[d]irect infringement has not been extended to cases in which multiple independent parties perform the steps of the method claim” is “[b]ecause direct infringement is a strict liability tort.”²¹⁶ However, under the misappropriation doctrine, there can be no tortious conduct unless the individual defendant knows, or at least has reason to know, that his conduct may concur with that of others to cause injury.²¹⁷ Thus, a party that knowingly combines its actions with those of another to commit a misappropriation tort—even if each party’s acts, standing alone, would not be wrongful—could be held liable if the acts together harmed the plaintiff.²¹⁸

2. Forum shopping.

An additional concern that could be raised in response to a state-law solution to joint patent infringement is that this approach will encourage forum shopping—the practice adopted by some litigants to ensure that their case is heard in the court believed most likely to render a favorable judgment.²¹⁹ While choice-of-law rules in tort cases usually require courts to apply the law of the state in which the tort victim was injured, some states have different choice-of-law rules that apply specifically to misappropriation.²²⁰ In addition, state misappropriation claims differ from state to state—some states refuse to recognize the misappropriation tort at all.²²¹ Thus, the forum-shopping concern is foreseeable.

This concern, however, rests on a self-fulfilling prophecy. Critically, more states will begin to acknowledge the joint-patent-misappropriation claim if it proves viable. The Uniform

²¹⁶ *Akamai*, 692 F3d at 1307.

²¹⁷ See Prosser, 25 Cal L Rev at 441 (cited in note 202).

²¹⁸ See W. Page Keeton, et al, *Prosser and Keeton on the Law of Torts* § 52 at 355 (West 5th ed 1984).

²¹⁹ See Mark A. Lemley, *Where to File Your Patent Case*, 38 AIPLA Q J 401, 402–03 (2010) (explaining that forum shopping occurs when a litigant selects a forum based on specific jurisdictional characteristics such as win rate, likelihood of reaching trial, and speed of resolution).

²²⁰ See, for example, *Salton, Inc v Philips Domestic Appliances and Personal Care BV*, 391 F3d 871, 878–79 (7th Cir 2004) (“[T]he Illinois choice of law rule applicable to misappropriation . . . [applies the law of] the place where the misappropriation took place or the defendant obtained the benefit of the misappropriation, the latter being the state or other jurisdiction in which the defendant has its principle place of business.”).

²²¹ See Stoll, Comment, 79 U Cin L Rev at 1247 n 52 (cited in note 150) (noting that state courts in Alaska, Colorado, Delaware, Illinois, Maryland, Missouri, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Texas, and Wisconsin have adopted the misappropriation doctrine, though Massachusetts and Hawaii have specifically rejected it as preempted).

Trade Secrets Act²²² (UTSA) is a good example of this phenomenon.²²³ After the Supreme Court held in *Kewanee Oil Co v Bicorn Corp*²²⁴ that federal patent law did not conflict-preempt state-court–trade-secret-misappropriation claims,²²⁵ Congress enacted the UTSA of 1979 to address the disparate treatment of state trade secret law among the state courts.²²⁶ At the time, individual state legislatures that chose to adopt the statute had to enact the law themselves.²²⁷ Five states quickly adopted the UTSA, but most states were slow to do so, continuing to apply the Restatement instead.²²⁸ Eventually, the statute became prevalent, such that forty-seven states and the District of Columbia have now adopted some version of the UTSA.²²⁹ The joint-patent-misappropriation doctrine could spread in a similar manner.

In addition, the economy might spur wider acceptance of joint-patent-misappropriation claims. It is conceivable that businesses would consider whether a state recognizes the misappropriation tort when deciding where to incorporate or establish their principal places of business.²³⁰ Thus, abstaining state legislatures might view recognition of this tort as a business-friendly initiative. If realized, this dynamic has the potential to resolve the forum-shopping issue.

But even assuming, for the sake of argument, that the misappropriation cause of action fails to become widespread in the future, this solution would still be available (1) when the misappropriation occurs in a state that recognizes the misappropriation claim or (2) when a litigant has a place of business

²²² 14 ULA 529 (1985).

²²³ See Sharon K. Sandeen, *The Evolution of Trade Secret Law and Why Courts Commit Error When They Do Not Follow the Uniform Trade Secrets Act*, 33 Hamline L Rev 493, 538 (2010) (noting that, in less than ten years, over half the states adopted the UTSA).

²²⁴ 416 US 470 (1974) (“Kewanee”).

²²⁵ See Sandeen, 33 Hamline L Rev at 516 (cited in note 223).

²²⁶ See id at 496 (asserting that the states—which, prior to the UTSA, had the freedom to accept or reject various arguments for recognition, expansion, or narrowing of trade secret law—were confined by the adoption of the UTSA).

²²⁷ See id at 538.

²²⁸ See id.

²²⁹ Massachusetts, New York, and North Carolina have not enacted the UTSA, but they offer statutory or common-law protection that corresponds to many of the UTSA’s key principles. See Brian T. Yeh, *Protection of Trade Secrets: Overview of Current Law and Legislation* *6 & n 36 (Congressional Research Service, Sept 5, 2014), archived at <http://perma.cc/4K3Q-FKAZ>.

²³⁰ See *Salton*, 391 F3d at 878–79 (noting that a company’s principal place of business typically determines which law applies in trade secret misappropriation cases).

or is incorporated in a state that recognizes the misappropriation claim. Also, since at least fourteen states have already acknowledged the common-law misappropriation claim,²³¹ this state-law solution could considerably reduce the negative effects of the joint-infringement problem.

Furthermore, despite limits on the state forums in which a litigant could bring a patent-misappropriation claim, pursuing a joint-patent-misappropriation claim would likely have little or no effect on a plaintiff's choice of forum. State-law misappropriation suits will almost certainly end up in federal court. The following example illustrates what would most likely happen: A plaintiff brings a joint-patent-misappropriation claim in the state court in which her chances of winning are greatest. Though patents are presumed valid,²³² the defendant will surely want to rebut that presumption. Besides state court, there are two other forums in which the defendant can challenge the patent's validity—in federal district court or at the Patent Trial and Appeal Board (PTAB).²³³ Thus, the defendant can do one of two things if he does not want to stay in state court: (1) remove the case to federal court or (2) ask the state court for a stay while the PTAB considers the validity of the patent at issue.²³⁴ If the defendant takes the first route, he will remove the case to federal court under 28 USC § 1454.²³⁵ Once the case is removed, the federal court will apply the relevant state law to resolve the joint-patent-misappropriation claim. Alternatively, if the defendant takes the second route—and the state court grants the stay—the PTAB will determine the patent's validity.²³⁶ If the

²³¹ See Stoll, Comment, 79 U Cin L Rev at 1247–48 & n 52 (cited in note 150).

²³² 35 USC § 282(a).

²³³ The PTAB is an administrative body of the PTO that decides issues of patentability. See 35 USC § 6(a)–(b).

²³⁴ State courts are adequate forums in which to adjudicate patent validity issues. See *Jacobs Wind Electric Co v Florida Department of Transportation*, 919 F2d 726, 728 (Fed Cir 1990) (“[A]lthough a state court is without power to invalidate an issued patent, there is no limitation on the ability of a state court to decide the question of validity when properly raised in a state court proceeding.”).

²³⁵ See 28 USC § 1454 (allowing a defendant with a patent-invalidity counterclaim to timely remove the case to federal court).

²³⁶ It is unclear whether the state court would grant such a stay; state courts have not yet had the opportunity to address this issue because Congress only recently created the PTAB on September 16, 2012. Federal district courts have now begun to mandate such stays when requested. In a recent split decision, the Federal Circuit ordered the Eastern District of Texas to stay district court litigation pending a covered-business-method PTAB review, reversing the district court's decision to deny the accused infringer's motion to stay. The decision was the Federal Circuit's first opportunity to weigh in on newly

PTAB invalidates the patent, the patent owner cannot pursue any claim related to that patent because the patent would no longer exist.²³⁷ However, if the PTAB finds the patent valid, the patent owner may then bring her misappropriation claim in state court—at which point the defendant can remove the case to federal court under 28 USC § 1454. Thus, irrespective of the state forum in which the plaintiff chooses to bring her joint-patent-misappropriation claim, the federal court would determine which state law to apply based on choice-of-law rules. In short, when bringing any misappropriation claim, state court forum shopping would be futile; the state court in which the complaint is filed is immaterial to choice-of-law rules in misappropriation cases.²³⁸

3. Federal preemption.

Federal preemption is the primary objection to pursuing state-law–joint-patent-misappropriation claims to resolve the joint patent infringement problem. Because federal law controls patent infringement causes of action, there might be some reticence about a state-law solution to joint patent infringement. While most of the case law relating to the misappropriation doctrine is federal, following *Erie Railroad Co v Tompkins*²³⁹—the Supreme Court decision purportedly abolishing federal common law—courts have had to deal with misappropriation as a state-law doctrine.²⁴⁰ Since *Erie*, at least fourteen states have recognized the misappropriation tort.²⁴¹ Once litigants began to bring misappropriation claims in state court, however, preemption became a common objection.²⁴²

Under Supreme Court precedent, state law may be preempted in three ways: (1) explicit preemption, (2) field

enacted statutory provisions that provide for immediate interlocutory appeal from a district court's grant or denial of a motion to stay litigation pending a covered-business-method PTAB review. See *VirtualAgility Inc v Salesforce.com, Inc*, 759 F3d 1307, 1320 (Fed Cir 2014).

²³⁷ See *SCVNGR, Inc v eCharge Licensing, LLC*, 2014 WL 4804738, *8 (D Mass) (“If . . . the PTAB declares the challenged claims invalid, then any pending litigation based on those invalid claims becomes moot.”).

²³⁸ See note 230.

²³⁹ 304 US 64 (1938).

²⁴⁰ See *Sease*, 70 ND L Rev at 790 (cited in note 156).

²⁴¹ See *Stoll*, Comment, 79 U Cin L Rev at 1247–48 & n 52 (cited in note 150).

²⁴² See Katherine F. Horvath, Comment, *NBA v. Motorola: A Case for Federal Preemption of Misappropriation?*, 73 Notre Dame L Rev 461, 467 (1998).

preemption, or (3) conflict preemption.²⁴³ Explicit preemption arises when Congress defines, through express statutory language, the extent to which its enactment preempts state law.²⁴⁴ Conflict preemption arises when there is a conflict between federal law and state law. Such a conflict exists when it is impossible for a private party to comply with both state and federal requirements, or when state law stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.²⁴⁵ Finally, field preemption arises when state law attempts to regulate conduct in a field that Congress intends the federal government to occupy exclusively.²⁴⁶ In practice, these three preemption categories are not entirely distinct. For example, state law that falls within a preempted field might also conflict with federal law in that field.²⁴⁷

Federal patent law does not explicitly preempt joint-patent-misappropriation claims because the text of the Patent Act does not expressly exclude them.²⁴⁸ Whether federal patent law preempts a state joint-patent-misappropriation claim under field preemption or conflict preemption, however, is a question that requires closer examination.

The issue of field preemption has previously arisen in the patent law context. The early cases, often called the *Sears-Compco* line of cases, held that the federal patent law indeed preempts the field of state unfair competition law.²⁴⁹ In both *Sears, Roebuck & Co v Stiffel Co*²⁵⁰ and *Compco Corp v Day-Brite Lighting, Inc.*²⁵¹ the defendants copied and marketed the plaintiffs' lighting fixtures.²⁵² The plaintiffs sued, alleging patent infringement under federal law and unfair competition under Illinois law.²⁵³ The Supreme Court held that "[j]ust as a State cannot encroach upon the federal patent laws directly, it cannot,

²⁴³ See *Hunter Douglas, Inc v Harmonic Design, Inc*, 153 F3d 1318, 1332 (Fed Cir 1998).

²⁴⁴ See *English v General Electric Co*, 496 US 72, 78–79 (1990).

²⁴⁵ See *id* at 79.

²⁴⁶ See *id*.

²⁴⁷ See *id* at 79 n 5.

²⁴⁸ See *Hunter Douglas*, 153 F3d at 1332 (“[F]ederal patent law plainly does not provide for explicit preemption.”).

²⁴⁹ See Goodwin, Note, 43 Fordham L Rev at 242–43 (cited in note 151).

²⁵⁰ 376 US 225 (1964) (“Sears”).

²⁵¹ 376 US 234 (1964) (“Compco”).

²⁵² See *Sears*, 376 US at 225–26; *Compco*, 376 US at 234–35. See also Goodwin, Note, 43 Fordham L Rev at 242–43 (cited in note 151).

²⁵³ See *Sears*, 376 US at 226; *Compco*, 376 US at 235.

under some other law, such as that forbidding unfair competition, give protection of a kind that clashes with the objectives of the federal patent laws.”²⁵⁴ According to the Court, federal patent law’s objective is to promote invention while preserving free competition.²⁵⁵ Thus, “when an article is unprotected by a patent . . . , state law may not forbid others [from] copy[ing] that article.”²⁵⁶ In other words, the Court essentially held that, if federal intellectual property law does not protect an invention, then it is in the public domain and therefore not entitled to protection under state law. These two cases “left the states’ common law of misappropriation . . . in doubt” and subject to preemption by federal patent law because misappropriation is a common-law unfair competition claim.²⁵⁷

In *Kewanee*, the Court clarified the extent to which states may concurrently regulate trade in intellectual property that would qualify for protection under the Patent Act but for a technical statutory infirmity.²⁵⁸ The defendants in *Kewanee* were former employees of Harshaw Chemical Company, a manufacturer of synthetic crystals.²⁵⁹ The defendants left Harshaw and formed Bicon Corporation, at which they produced the same crystals.²⁶⁰ Kewanee Oil, Harshaw’s parent company, sued Bicon, alleging trade secret misappropriation.²⁶¹ The Court held that federal patent law did not preempt the state law governing trade secret misappropriation.²⁶² While *Kewanee* primarily concerned trade secret misappropriation, the Court limited *Sears* and *Compro* to situations in which state regulation “conflict[ed]” or “clash[ed]” with the objectives of the patent law.²⁶³ Therefore, while the Court left open the possibility that some misappropriation claims may be conflict-preempted, it dismissed the contention that they are field-preempted.²⁶⁴

Much like trade secret misappropriation, other misappropriation claims are not field-preempted. As stated above, misappropriation is an unfair competition claim, and “there is no field

²⁵⁴ *Sears*, 376 US at 231.

²⁵⁵ *Id.* at 230–31.

²⁵⁶ *Compro*, 376 US at 237.

²⁵⁷ Goodwin, Note, 43 Fordham L Rev at 243 (cited in note 151).

²⁵⁸ See *Kewanee*, 416 US at 491.

²⁵⁹ *Id.* at 473.

²⁶⁰ *Id.*

²⁶¹ *Id.* at 473–74.

²⁶² *Kewanee*, 416 US at 493.

²⁶³ *Id.* at 479–80.

²⁶⁴ *Id.* at 493.

preemption of state unfair competition claims that rely on a substantial question of federal patent law.”²⁶⁵ For example, in *Gilson v Republic of Ireland*,²⁶⁶ Gilson sued the defendants for “using the plaintiff[s] patent rights.”²⁶⁷ Gilson, however, had no standing to sue for patent infringement because he had only a *nonexclusive* license to use the patent.²⁶⁸ Instead, he claimed that the defendants misappropriated his patent rights.²⁶⁹ Although the court determined that the defendant did not misappropriate Gilson’s patent rights, it first noted that Gilson’s complaint did not arise under the Patent Act because it was grounded in tort.²⁷⁰ Even though the court did not base this conclusion on an explicit analysis of whether federal patent law preempted state-law–patent-misappropriation claims, neither did the court flag preemption as an issue.

Currently, there is no consensus among courts or scholars about whether field preemption precludes patent owners from bringing *joint*-patent-misappropriation claims—especially in light of *Enzo Biochem, Inc v Amersham PLC*,²⁷¹ which seems to contradict *Gilson*.²⁷² Enzo Biochem entered an agreement with Amersham in which it allowed Amersham to market and distribute some of its patented products.²⁷³ However, Amersham began selling some of Enzo’s products without permission.²⁷⁴ Enzo sued Amersham, alleging patent infringement and patent misappropriation; both claims failed.²⁷⁵ Regarding the misappropriation claim, the court noted that “Enzo seeks only to protect its patents from misappropriation”; thus, “its state-law claim for unfair competition is preempted by federal patent law”²⁷⁶ because

²⁶⁵ *Hunter Douglas*, 153 F3d at 1333.

²⁶⁶ 787 F2d 655 (DC Cir 1986).

²⁶⁷ *Id* at 656.

²⁶⁸ *Id* (explaining that Gilson’s patent was nonexclusive because he had been a joint inventor of the patented product and the four inventors had assigned their patent to their employer, who in turn gave Gilson a nonexclusive, royalty-free license under the patent).

²⁶⁹ *Id* at 657–58.

²⁷⁰ *Gilson*, 787 F2d at 658.

²⁷¹ 981 F Supp 2d 217 (SDNY 2013).

²⁷² Compare *id* at 226 (“[Enzo’s] state-law claim for unfair competition is preempted by federal patent law.”), with *Gilson*, 787 F2d at 658 (stating that Gilson’s claim was based on tort and “[did] not arise under the patent laws”).

²⁷³ *Enzo Biochem*, 981 F Supp 2d at 220.

²⁷⁴ *Id* at 220–21.

²⁷⁵ *Id* at 221–22. The court disposed of the patent infringement claim on summary judgment in 2012. *Id* at 221.

²⁷⁶ *Id* at 226.

“states cannot, under the guise of regulating unfair competition, grant what is in effect patent protection.”²⁷⁷ But the Supreme Court has warned against such a broad reading of *Sears*.²⁷⁸ Other courts and commentators have as well.²⁷⁹

At the heart of *Sears* and *Dow Chemical Co v Exxon Corp*²⁸⁰ is the conclusion that, because there is a “strong federal policy favoring free competition in ideas which do not merit patent protection,” state law may not restrict access to ideas that federal law *intentionally* leaves in the public domain.²⁸¹ Federal patent law does not intentionally leave valid patents in the public domain.²⁸² Rather, federal patent law intends to *exclude* the public from unrestricted use of inventions disclosed in valid patents for a limited time.²⁸³ Therefore, joint-patent-misappropriation claims will not upset the balance between preemptive federal-rights concepts and the concept of public domain property.²⁸⁴ Most successful misappropriation cases “have simply kept a wrongdoer from engaging in clearly offensive, inequitable conduct beyond simple copying.”²⁸⁵

Furthermore, joint patent misappropriation does not implicate the concerns raised in *Sears-Compco*, which dealt with unpatented inventions. Rather, the joint-patent-misappropriation solution aims to protect the rights associated with valid patents. The concept of public domain that appears in *Sears-Compco* describes articles that are unprotected by federal patent law because (1) they have failed to meet the requirements for patentability, (2) they were granted patent protection but subsequently

²⁷⁷ *Enzo Biochem*, 981 F Supp 2d at 226, citing *Sears*, 376 US at 231.

²⁷⁸ See *Bonito Boats, Inc v Thunder Craft Boats, Inc*, 489 US 141, 154 (1989) (reasoning that “the broadest reading of *Sears* would prohibit the States from regulating . . . tortious appropriation,” and warning that this extrapolation is “inappropriate”).

²⁷⁹ See S. Stephen Hilmy, Note, *Bonito Boats’ Resurrection of the Preemption Controversy: The Patent Leverage Charade and the Lanham Act “End Around”*, 69 Tex L Rev 729, 737–38 (1991) (noting that “[c]riticism of *Sears-Compco* had come not just from legal scholars, but from virtually all quarters, including judges in the lower courts”).

²⁸⁰ 139 F3d 1470 (Fed Cir 1998).

²⁸¹ Hilmy, Note, 69 Tex L Rev at 756 (cited in note 279), quoting *Bonito Boats*, 489 US at 168.

²⁸² See *Limelight*, 134 S Ct at 2120 (acknowledging that permitting a would-be infringer to evade liability by dividing performance of a method patent’s steps with another whom the defendant neither directs nor controls is an anomaly).

²⁸³ See Hilmy, Note, 69 Tex L Rev at 737 (cited in note 279), quoting *Mine Safety Appliances Co v Electric Storage Battery Co*, 405 F2d 901, 902 n 2 (CCPA 1969) (“Patent laws function only to keep things *out* of the public domain temporarily.”). See also 35 USC § 154(a)(2).

²⁸⁴ See *Sease*, 70 ND L Rev at 805 (cited in note 156).

²⁸⁵ *Id.*

lost it through expiry or invalidation, or (3) the owner of the article simply chose not to seek patent protection.²⁸⁶ In the joint-infringement context, the patented article is indeed unprotected, but not due to any of the reasons contemplated in *Sears-Compco*. Patent law intends to protect the patented articles in joint-infringement cases for a limited time. But for a statutory and common-law loophole, joint infringers would be unable to avoid patent infringement liability.²⁸⁷ Thus, federal patent law and policy support the idea that federal patent law does not field-preempt joint-patent-misappropriation claims.

Some courts have refused to decide field preemption issues, preferring to apply conflict preemption instead. The *Hunter Douglas* court rejected the “blunt tool of field preemption,” preferring conflict preemption as a more precise means of determining which state law causes of action federal patent law preempts.²⁸⁸ In doing so, the court raised three analytical points, which the court in *Mopex* summarized as follows: (1) federal patent law and state unfair competition law regulate different conduct—federal patent law seeks to reward and foster innovation, while unfair competition law regulates commercial and contractual relations; (2) “the fact that federal patent law and state unfair competition law have long existed as distinct and independent bodies of law” counsels against field preemption; and (3) since the boundaries of unfair competition law are unclear, conflict preemption is a better tool for examining whether federal law preempts a state-law claim.²⁸⁹

Federal patent law does not conflict-preempt joint-patent-misappropriation claims. Federal law conflict-preempts state-law claims only when they “stand[] as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.”²⁹⁰ In *Rodime PLC v Seagate Technology, Inc.*,²⁹¹ the Federal Circuit set forth a test for determining whether a state-law claim is conflict-preempted.²⁹² The test provides that federal

²⁸⁶ See Hilmy, Note, 69 Tex L Rev at 748 (cited in note 279).

²⁸⁷ See Part II.A.

²⁸⁸ *Hunter Douglas*, 153 F3d at 1321, 1334–35 (considering the issue whether “federal patent law preempts state law causes of action prohibiting tortious activities in the marketplace, when . . . the plaintiff must prove that a United States patent is [] invalid or unenforceable,” in the context of motorized-window-blind patents).

²⁸⁹ *Mopex*, 2003 WL 715652 at *3, citing *Hunter Douglas*, 153 F3d at 1333–36.

²⁹⁰ *Hunter Douglas*, 153 F3d at 1332, quoting *Hines v Davidowitz*, 312 US 52, 67 (1941).

²⁹¹ 174 F3d 1294 (Fed Cir 1999).

²⁹² See id at 1306.

patent law does not conflict-preempt state-law torts when the tort action includes additional elements not found in the federal patent law cause of action.²⁹³ Patent misappropriation involves an underlying tort that is separate and distinct from patent infringement, and the elements of patent infringement are markedly different from those of patent misappropriation. Patent infringement under § 271(a) requires that a single entity practice each and every element of a patent claim.²⁹⁴ Patent misappropriation, on the other hand, requires: (1) the plaintiff to make “a substantial investment of time, effort, and money into creating the thing misappropriated”—the patent—such that the court can characterize the patent as a kind of property right; (2) the defendant to appropriate the patent “at little or no cost, such that the court can characterize [the] defendant’s actions as ‘reaping where it has not sown’”; and (3) that the defendant’s acts injure the plaintiff.²⁹⁵

By way of illustration, if an unauthorized person offered to sell a patented product to the public, he would be liable for patent infringement.²⁹⁶ But if no one bought the product from him, he would not be liable for patent misappropriation unless his acts actually injured the patent owner in some way. Successful misappropriation claims require actual injury, but successful patent infringement claims do not.²⁹⁷ On the other hand, if the seller performed all but one element of a patent claim, and the buyer performed the remaining element, the seller and buyer may have jointly misappropriated the patent—depending on their scienter²⁹⁸—but the single-entity rule would shield them from infringement liability. In such a case, entities could commit joint patent misappropriation without committing any of the current federal patent infringement violations. Thus, because a joint-patent-misappropriation claim would not duplicate a federal patent infringement claim, federal patent law would not conflict-preempt a joint-patent-misappropriation claim.²⁹⁹

²⁹³ See *Mopex*, 2003 WL 715652 at *5, citing *Rodime*, 174 F3d at 1306.

²⁹⁴ See Part I.A.

²⁹⁵ Barnes, 9 NC J L & Tech at 174 (cited in note 152). See also Part III.A.

²⁹⁶ See 35 USC § 271(a).

²⁹⁷ See Barnes, 9 NC J L & Tech at 174 (cited in note 152).

²⁹⁸ See Part III.B.

²⁹⁹ See *Mopex*, 2003 WL 715652 at *5 (“[A] claim must be preempted [if] it is symmetrical with infringement and alleges nothing in addition to that required by the patent laws.”); *Rodime*, 174 F3d at 1306 (explaining that state-law causes of action that “require proof of additional elements not found in the patent law cause of action . . . do

Further, the *Kewanee* court offered three reasons for finding that trade secret misappropriation is not conflict-preempted: (1) the patent policy of encouraging invention is not disturbed by another incentive to invent; (2) the policy that materials, once in the public domain, must remain in the public domain is not incompatible with the existence of trade secret protection because trade secrets are by definition not in the public domain; and (3) there is no substantial risk that holders of patentable inventions would not seek patents and rely on state protection instead.³⁰⁰

Although *Kewanee* dealt with trade secret misappropriation claims rather than patent-misappropriation claims, the Court's reasoning still suggests federal law does not conflict-preempt joint-patent-misappropriation claims. First, the patents that a joint-patent-misappropriation claim would protect are valid. Thus, ensuring their protection when federal patent law fails to do so would not disturb patent policy encouraging invention. To the contrary, it would further incentivize invention. Permitting unauthorized users to profit from valid patents may chill interest in pursuing patents at all because obtaining a patent requires significant investments of time and money. Alternatively, trade secret protection might become more attractive to inventors, because trade secret law encourages invention in areas that patent law does not reach.³⁰¹ Put another way, if the joint patent infringement problem remains unresolved, inventors may resort to using trade secrets to protect their inventions instead of patents. Trade secrets, however, are vulnerable to reverse engineering.³⁰² And that risk could dissuade inventors from bringing their unpatented inventions to market.

Second, like trade secrets, valid patents are not in the public domain. In fact, patent law intends to keep them *out* of the public domain for twenty years.³⁰³ If a patent were invalid or the inventor never obtained one, a court could decide that federal law *intends* to leave the invention in the public domain, totally excluding it from protection. That is not the case when the patent

not constitute an impermissible attempt to offer patent-like protection to subject matter addressed by federal law").

³⁰⁰ See *Kewanee*, 416 US at 484–89.

³⁰¹ See *id.* at 485.

³⁰² See *id.* at 490.

³⁰³ See Hilmy, Note, 69 Tex L Rev at 737 (cited in note 279). See also 35 USC § 154(a)(2).

is valid and patent law is functioning properly. Patent law aims to protect valid patents.

Lastly, although the third *Kewanee* justification—that there is no substantial risk that holders of patentable inventions would rely on state protection instead of seeking patents—is debatable today because many inventors do choose to pursue other forms of protection (such as trade secrets), it is also irrelevant because both patent infringement and patent misappropriation *require* patent ownership. Thus, joint-patent-misappropriation claims would not discourage people from seeking patents. However, as stated above, federally preempting the joint misappropriation claim could incentivize inventors to pursue trade secrets instead of patents.

It is well established that state courts have authority to adjudicate patent questions, so long as the action itself does not arise under federal patent law.³⁰⁴ In *Dow Chemical*, the Federal Circuit ruled that Supreme Court precedent preempts only state laws that seek to offer patent-like protection to intellectual property that is *inconsistent with* the federal scheme.³⁰⁵ Indeed, states are free to regulate the use of intellectual property in any manner not inconsistent with federal law.³⁰⁶ Thus, state courts should be free to adjudicate joint-patent-misappropriation claims because, as explained above, not only are these claims consistent with the federal patent law, but they also actually promote its objectives.

4. Getting past preemption problems.

Given its potential viability, the joint-patent-misappropriation solution raises the question: Why, if joint-patent-misappropriation claims are available, have patent holders harmed by joint action not brought them? Most likely because patent holders think that such claims are preempted, and therefore futile, under the *Sears-Compco* line of cases.³⁰⁷ This is unsurprising given the confusing commentary that followed those cases, which was “too often

³⁰⁴ See *Dow Chemical*, 139 F3d at 1475, citing *Hathorn v Lovorn*, 457 US 255, 266 n 18 (1982).

³⁰⁵ *Dow Chemical*, 139 F3d at 1474.

³⁰⁶ See *id.*, citing *Aronson v Quick Point Pencil Co*, 440 US 257, 262 (1979).

³⁰⁷ See Ted D. Lee and Ann Livingston, *The Road Less Traveled: State Court Resolution of Patent, Trademark, or Copyright Disputes*, 19 St Mary's L J 703, 704 (1988) (noting that lawyers unfamiliar with patent law might mistakenly assume that patent claims must be brought in federal court, rather than state court, because of preemption concerns).

simplistic, usually concluding either that the field [of unfair competition] is totally preempted [by federal patent law] or that it is left totally unpreempted.”³⁰⁸ But the patent-misappropriation concept is not so easily delineated—it lies in the gray area between “totally preempted” and “totally unpreempted.”³⁰⁹ For example, in many cases, if a patent is directly misappropriated, it is also directly infringed. This relationship reflects a conflict between federal patent infringement and state-law patent misappropriation. Thus, federal patent law would conflict-preempt a state-law *direct* patent-misappropriation claim. However, there is no conflict between federal patent infringement and *joint*-patent-misappropriation claims, with one exception—induced patent misappropriation involving direction or control by one joint actor. Generally, if a patent were jointly misappropriated, it would *not* be infringed because a single entity did not practice each and every element of the patent. That being the case, federal patent law would not conflict-preempt a state-law–joint-patent-misappropriation claim. But if one joint actor served as a mastermind and directed or controlled the conduct of the other joint actors, the mastermind could be held liable for direct patent infringement, as the direct-and-control standard is an exception to the single-entity rule.³¹⁰

Thus, preemption should be addressed on a case-by-case basis. Some courts and patent litigators, however, find it easier to simply treat all patent-related disputes as preempted by federal patent law.³¹¹ That approach is wrong.³¹² For example, in *Dow Chemical*, the Federal Circuit reversed the district court’s holding that federal patent law preempted state-law claims based on bad-faith–patent-license enforcement.³¹³ And in *Gunn v Minton*,³¹⁴ the Supreme Court reversed the Texas Supreme Court’s holding that federal patent law preempted state legal malpractice claims based on underlying patent matters.³¹⁵ Finally, in *Kewanee*, the

³⁰⁸ Richard H. Stern, *A Reexamination of Preemption of State Trade Secret Law after Kewanee*, 42 Geo Wash L Rev 927, 929 (1974).

³⁰⁹ *Id.*

³¹⁰ For a discussion of the direct-and-control standard, see Part I.A.2.

³¹¹ See, for example, *Enzo Biochem*, 981 F Supp 2d at 226.

³¹² See *Gunn v Minton*, 133 S Ct 1059, 1068 (2013), quoting *New Marshall Engine Co v Marshall Engine Co*, 223 US 473, 478 (1912) (“The Federal courts have exclusive jurisdiction of all cases arising under the patent laws, but not of all questions in which a patent may be the subject-matter of the controversy.”).

³¹³ *Dow Chemical*, 139 F3d at 1479.

³¹⁴ 133 S Ct 1059 (2013).

³¹⁵ *Id.* at 1068.

Supreme Court reversed the Sixth Circuit's holding that federal patent law preempted state trade secret misappropriation claims because the trade secrets at issue were patentable.³¹⁶

Overall, as far as objections to the joint-patent-misappropriation solution go, federal preemption appears to be the strongest. That is partially because the concept of federal preemption is complicated as it relates to intellectual property protection, and courts have provided inconsistent guidance. That said, federal preemption does not disqualify joint patent misappropriation as a solution to the joint patent infringement problem. As one commentator noted, "misappropriation *does* serve a useful purpose, *but* its use must be carefully balanced against the preemptive federal right concepts embodied in patent . . . law. . . . Most successful misappropriation cases have not upset this balance."³¹⁷ As this Comment establishes, joint-patent-misappropriation claims do not offend the policy behind federal preemption law, and such claims would resolve an important and unsettled intellectual property issue.

* * *

This Part has detailed why the joint-patent-misappropriation solution is consistent with the purpose behind federal patent law preemptive rights—specifically, ensuring that property in the public domain remains free for all to use.³¹⁸ To be sure, joint-patent-misappropriation claims do not protect inventions that are properly in the public domain. On the contrary, such claims aim to protect only valid patents that are lost to the public domain through a loophole in the patent law. The three aforementioned objections to the joint-patent-misappropriation solution—inapplicability of traditional tort theories, forum shopping, and federal preemption—are plausible but ultimately unconvincing. This is especially true because the relative upsides of the solution outweigh any downsides that dissenters might present based on these objections. Thus, patent owners—when confronted with a joint patent infringement issue—should bring joint-patent-misappropriation claims.

³¹⁶ *Kewanee*, 416 US at 493.

³¹⁷ Sease, 70 ND L Rev at 805 (cited in note 156).

³¹⁸ See *id.*

CONCLUSION

In essence, the joint-patent-misappropriation solution is an outside-the-box approach to fixing an unintentional loophole in the patent law. Such gaps are rare because federal patent law is well drafted. Consequently, the fact that litigants have not brought many joint-patent-misappropriation claims is not an indication that this cause of action is inappropriate. Rather, it simply reflects uncertainty. This Comment argues that the joint-patent-misappropriation cause of action can resolve the joint-infringement conundrum. Indeed, once courts realize that federal patent law does not preempt state-law–joint-patent-misappropriation claims, patent owners will become less vulnerable to the exploits of joint infringers.