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PATENT FORFEITURE

SEAN B. SEYMORE[†]

ABSTRACT

Patent law doesn't look kindly on patent owners who engage in wrongdoing involving the patent. The U.S. Supreme Court and lower courts have refused to enforce patents tainted with inequitableness, fraud, or bad faith. This issue typically arises in patent litigation when an accused infringer asserts that the patent should be unenforceable if the patentee engaged in one of four proscribed activities: inequitable conduct (deliberate misrepresentations or omissions of material information from the Patent Office); patent misuse (anticompetitive licensing practices); unclean hands (business or litigation misconduct); or waiver/estoppel (a lack of candor before a standard-setting organization). This seems right—a patentee shouldn't be allowed to benefit from wrongdoing.

However, the use of unenforceability to remedy patentee misconduct is largely understudied and undertheorized in legal scholarship. One reason is doctrinal. Aside from the four proscribed activities, there is no clear-cut remedy for other types of patentee misconduct involving the asserted patent. For instance, should a patent for a nutritional supplement that makes affirmative misstatements about its safety and efficacy be enforceable? How about a patent that plagiarizes someone else's copyrighted work or makes intentionally misleading assertions about the invention's capabilities?

This Article seeks to answer these questions and fill the doctrinal and scholarly gap in patent unenforceability remedies. It offers a new, unclean-hands-based theory of unenforceability called patent forfeiture. If a patentee engages in egregious pre- or post-issuance misconduct involving the patent and gains an inequitable benefit from it or harms a third party, the patentee may forfeit the right to enforce

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the patent until the misconduct has been abandoned and its ill effects dissipate. Patent forfeiture adopts the hallmarks of equity—flexibility, discretion, and individualization—but is sufficiently constrained to align with other policy objectives of the patent system. And while morality, conscience, and good faith may not play a role in obtaining a patent, patent forfeiture reaffirms the importance of these equitable principles in enforcing a patent.

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INTRODUCTION

Much of a patent's value lies in the ability of a patent owner ("patentee") to enforce it in federal court against infringers.¹ In response, the accused infringer can assert that there's been no infringement; that the patent is invalid because it shouldn't have been issued in the first place; or that the patent should be unenforceable.² Unenforceability is an equitable affirmative defense whose application is committed to the court's sound discretion.³

Some of patent law's unenforceability doctrines find their roots in unclean hands—perhaps the most storied general affirmative defense in civil cases.⁴ Unclean hands can be traced to a moral principle in Roman law that "relief will be refused to one who is trying to get the court to give him relief based on a shameful act."⁵ The English chancellors, influenced by medieval canon lawyers,⁶ established the maxim that "one who invokes the aid of a court must come into it with a clear conscience and clean hands."⁷ This maxim is a bedrock of equity

1. See 35 U.S.C. § 281 ("A patentee shall have remedy by civil action for infringement of his patent."); Shaun Martin & Frank Partnoy, *Patents as Options*, in PERSPECTIVES ON COMMERCIALIZING INNOVATION 303, 321 (F. Scott Kieff & Troy A. Paredes eds., 2011).

2. See *infra* Part I.A.

3. *eSpeed, Inc. v. BrokerTec USA, L.L.C.*, 480 F.3d 1129, 1135 (Fed. Cir. 2007); see also *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992) (en banc) (noting that other equitable defenses, including laches and equitable estoppel, are left to the trial court's discretion).

4. See generally DAN B. DOBBS & CAPRICE L. ROBERTS, LAW OF REMEDIES § 2.4(2) (3d ed. 2018) (discussing the general rule of unclean hands and its effect).

5. RALPH A. NEWMAN, EQUITY AND LAW: A COMPARATIVE STUDY 250 (1961).

6. William W. Bassett, *Canon Law and the Common Law*, 29 HASTINGS L.J. 1383, 1417–18 (1978) (explaining that the English chancellors followed medieval canon lawyers, who developed notions of equity far beyond those in Roman law).

7. Zechariah Chafee, Jr., *Coming into Equity with Clean Hands*, 47 MICH. L. REV. 1065, 1088 (1949) (quoting *Kellogg v. Kellogg*, 137 N.W. 249, 250 (Mich. 1912)); cf. 1 JOHN NORTON POMEROY & JOHN NORTON POMEROY, JR., A TREATISE ON EQUITY JURISPRUDENCE, AS ADMINISTERED IN THE UNITED STATES OF AMERICA 674 (4th ed. 1918) (listing the "maxims of equity," including "he who comes into equity must come with clean hands" (emphasis omitted)); RICHARD FRANCIS, MAXIMS OF EQUITY 5 (Dublin, Henry Watts, 3d ed. 1791) ("Maxim II. He that hath committed . . . Iniquity, shall not have Equity."); Samuel L. Bray, A Student's Guide to the Meanings of "Equity" 5 (July 20, 2016) (unpublished manuscript), <https://osf.io/sabev> [<https://perma.cc/L5M9-KGS7>] (describing the hallmarks of equity courts as "case-specificity, discretion, flexibility, moral reasoning, and resistance to fraud, exploitation, and the abuse of legal rights").

jurisprudence.⁸ In the United States, the doctrine dates back to the early Republic.⁹

Unclean hands shuts the courthouse doors to a plaintiff who commits a willful act “tainted with inequity or bad faith” relative to the matter for which relief is sought.¹⁰ In patent cases, the Supreme Court has stated that the doctrine is particularly important¹¹ likely because of the “carefully crafted bargain,”¹² or quid pro quo, between the inventor and the public.¹³ This bargain between the inventor and the public is the essence of the U.S. patent system.¹⁴ The basic idea is that in order to promote the full disclosure of information about the invention to the public, the inventor must be given something in return.¹⁵ What the inventor gets is the limited period of exclusory rights conferred by the patent grant;¹⁶ the public gets a full disclosure of the invention¹⁷ as soon as the patent document publishes and possession of it at the end of the patent term.¹⁸ In theory, patents

8. HAROLD GREVILLE HANBURY, *MODERN EQUITY* 4 (1935) (“There is no clearer maxim of equity than ‘[h]e who comes to equity must come with clean hands.’”); cf. RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 25 (1977) (“We say that our law respects the principle that no man may profit from his own wrong . . . [but] people often profit, perfectly legally, from their legal wrongs.”).

9. ZECHARIAH CHAFEE, JR., *SOME PROBLEMS OF EQUITY* 5 (1950). The doctrine was recognized by the Supreme Court as early as 1795. *Talbot v. Janson*, 3 U.S. (3 Dall.) 133, 158 (1795) (opinion of Paterson, J.) (“[P]ersons guilty of fraud, should not gain by it. Hence the efficacy of the legal principle, that no man shall set up his own fraud or iniquity, as a ground of action or defence.”); see also *Cathcart v. Robinson*, 30 U.S. (5 Pet.) 264, 276 (1831) (applying the “well settled” principle that “the plaintiff must come into court with clean hands,” lest “the court . . . refuse its aid”).

10. *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 814 (1945).

11. See *id.* at 816.

12. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 150 (1989).

13. See *Special Equip. Co. v. Coe*, 324 U.S. 370, 378 (1945) (discussing the bestowal of exclusivity that accompanies the grant of a patent); *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480–81 (1974) (explaining the wisdom of bestowing limited monopoly rights in the patent system to encourage innovation).

14. See *Kewanee Oil*, 416 U.S. at 480–81; *Pennock v. Dialogue*, 27 U.S. (2 Pet.) 1, 23 (1829).

15. See *Kewanee Oil*, 416 U.S. at 480–81 (discussing what the inventor receives in exchange for fully disclosing his invention).

16. *Id.* at 480 (“In return for the right of exclusion—this ‘reward for inventions’—the patent laws impose upon the inventor a requirement of disclosure.” (citation omitted)).

17. See, e.g., *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int’l, Inc.*, 534 U.S. 124, 142 (2001) (noting that in order to obtain a patent on a plant, the breeder must describe the plant well enough for the public to be able to use it after the patent expires, which includes depositing publicly-available biological materials).

18. See Sean B. Seymore, *The Teaching Function of Patents*, 85 NOTRE DAME L. REV. 621, 624 (2010) [hereinafter, Seymore, *Teaching Function*] (noting that “the patent document has potential immediate value to the public, which can use the information for any purpose that does

tainted with fraud or inequitableness prevent the public from recouping its end of the bargain.¹⁹

Federal courts currently recognize a genus of unclean hands affirmative defenses in patent cases.²⁰ The first defense (one species of the genus) is inequitable conduct.²¹ A finding of inequitable conduct renders a patent universally unenforceable if intentional misconduct (such as withholding information material to patentability) led the Patent Office to issue the patent.²²

The second defense is patent misuse.²³ It can be asserted when the patentee expands the legitimate physical or temporal scope of a patent in an anticompetitive manner.²⁴ In practice, patent misuse is a narrow defense: it's applied almost exclusively to abusive conduct in patent licensing with anticompetitive effects.²⁵ A finding of misuse renders the patent unenforceable until the patentee stops, or purges, the misuse.²⁶

The third defense is implied waiver of the right to assert infringement claims.²⁷ An accused infringer can assert implied waiver

not infringe upon the claims"); *see also Kewanee Oil*, 416 U.S. at 481 (explaining that when the information disclosed in a patent becomes publicly available it adds to the "general store of knowledge" and assumedly will stimulate ideas and promote technological development).

19. *See* Sean B. Seymore, *Making Patents Useful*, 98 MINN. L. REV. 1046, 1074 (2014) [hereinafter, *Seymore, Making Patents Useful*] ("[I]t is very easy for the public to get the short end of the stick in this so-called patent bargain.").

20. It's important to briefly mention the defense of equitable estoppel, which requires proof of (1) misleading conduct by the patentee, which led the alleged infringer to reasonably infer that the patent wouldn't be enforced; (2) the alleged infringer's detrimental reliance on the patentee's conduct; and (3) material prejudice to the alleged infringer if the lawsuit proceeds. *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992) (en banc). Misleading conduct "may include specific statements, action, inaction, or silence where there was an obligation to speak." *Id.* While the unclean-hands-based defenses require willful conduct, equitable estoppel can arise from inadvertent or negligent conduct. *See Nagano v. McGrath*, 187 F.2d 753, 758–59 (7th Cir. 1951) (distinguishing the two defenses). Accordingly, equitable estoppel need not be "morally reprehensible." *Id.* When the patentee's alleged misconduct is willful, an alleged infringer can assert equitable estoppel and an unclean-hands-based defense as alternative grounds for unenforceability. *See Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1021–24, 1021 n.8 (Fed. Cir. 2008) (holding that both implied waiver and equitable estoppel were cognizable defenses in the infringement suit).

21. *See infra* Part I.C.1.

22. *See infra* Part I.C.1.

23. *See infra* Part I.C.2.

24. *Windsurfing Int'l, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986) (quoting *Blonder-Tongue Lab'ys, Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 343 (1971)).

25. *See* 35 U.S.C. § 271(d) (providing exceptions and safe harbors to shield certain activities from patent misuse); *see also infra* Part I.C.2.

26. *See infra* notes 145–149 and accompanying text.

27. *See infra* Part I.C.3.

when evidence shows that the patentee's conduct "was so inconsistent with an intent to enforce its [patent] rights as to induce a reasonable belief that such right has been relinquished."²⁸ This defense is typically reserved for scenarios where the patentee intentionally breaches a duty to disclose relevant patents or patent applications before a standard-setting organization ("SSO").²⁹ A finding of implied waiver renders the patent unenforceable against all current and future standard-compliant products.³⁰

The fourth defense is unclean hands itself.³¹ It's a broad doctrine that polices patentee misconduct beyond anticompetitive misuse and dealings with the Patent Office.³² Unclean hands has—until recently—been a fairly dormant, seldomly asserted affirmative defense in patent cases.³³ This changed in the 2018 case *Gilead Sciences, Inc. v. Merck & Co.*,³⁴ where the U.S. Court of Appeals for the Federal Circuit ("Federal Circuit")³⁵ affirmed a ruling that the patents-in-suit couldn't be enforced for unclean hands based on prelitigation business misconduct.³⁶ Before *Gilead*, most patent-related unclean hands cases dealt with litigation misconduct. So, *Gilead* raised eyebrows because it resurrected the dormant unclean hands doctrine and applied it more broadly than before.³⁷

Gilead also chipped away at patent law exceptionalism³⁸—the notion that patent law's specialized and technical nature should allow

28. *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1348 (Fed. Cir. 2011) (quoting *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1020 (Fed. Cir. 2008)).

29. *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1365 (Fed. Cir. 2018) (citing *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1347–48 (Fed. Cir. 2011)). A standard-setting organization is a group of IP actors that convenes to adopt technical standards to create uniform, cross-platform products or processes. See *infra* notes 151–153 and accompanying text.

30. See *infra* note 176 and accompanying text.

31. See *infra* Part I.C.4.

32. See *infra* Part I.C.4.

33. See generally Sean B. Seymore, *Unclean Patents*, 102 B.U. L. REV. 1491, 1508–14 (2022) (outlining usage changes in the unclean hands doctrine).

34. *Gilead Scis., Inc. v. Merck & Co. (Gilead Scis. II)*, 888 F.3d 1231 (Fed. Cir. 2018).

35. The U.S. Court of Appeals for the Federal Circuit ("Federal Circuit") is a twelve-judge Article III court whose jurisdiction includes appeals from the Patent Office and patent suits emerging from the U.S. district courts. See 28 U.S.C. §§ 44(a), 1295(a).

36. *Gilead Scis. II*, 888 F.3d at 1234.

37. See *infra* notes 203–208 and accompanying text.

38. See Tejas N. Narechania, *Certiorari, Universality, and a Patent Puzzle*, 116 MICH. L. REV. 1345, 1388–90 (2018) (discussing the decline of patent exceptionalism and the Supreme Court's "strong interest in universal rules").

judges to deviate from recognized principles and doctrines applicable to other areas of law.³⁹ Recent Supreme Court patent cases squarely reject exceptionalism and seek to (re)connect patent law with other areas of law.⁴⁰ For example, in *eBay Inc. v. MercExchange, L.L.C.*,⁴¹ a unanimous Court held that a district court deciding whether to grant an injunction must apply “familiar,” “well-established principles of equity” without any patent-specific rules and standards.⁴²

Gilead’s resurrection of unclean hands and the move away from exceptionalism raise interesting theoretical questions about the role of equitable doctrines in patent law. How courts should use unenforceability to remedy patentee misconduct is largely understudied and undertheorized in legal scholarship.⁴³ But there’s also a doctrinal problem. While extant remedial defenses address patentee misconduct in dealings with the Patent Office, anticompetitive licensing practices, candor before an SSO, and litigation behavior, there’s no clear-cut remedy for *other* types of patentee misconduct involving the asserted patent. For instance,

39. See, e.g., Paul R. Gugliuzza, *The Federal Circuit as a Federal Court*, 54 WM. & MARY L. REV. 1791, 1817–18 (2013) (describing how the Federal Circuit’s jurisdictional decisions reflect patent exceptionalism); Greg Reilly, *Decoupling Patent Law*, 97 B.U. L. REV. 551, 610 (2017) (noting “patent law’s penchant for special approaches that diverge from mainstream law even on issues that are not unique to patent cases”); David O. Taylor, *Formalism and Antiformalism in Patent Law Adjudication: Rules and Standards*, 46 CONN. L. REV. 415, 474 (2013) (discussing Federal Circuit judges who endorse patent-specific rules given the unique, particular, and special issues that arise in patent law).

40. E.g., *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 127–34 (2007) (rejecting the Federal Circuit’s patent-specific test for declaratory judgments); *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 572 U.S. 545, 553–54 (2014) (admonishing the Federal Circuit to use general equitable principles for determining “exceptional” cases for the award of attorney’s fees); see also Timothy R. Holbrook, *Explaining the Supreme Court’s Interest in Patent Law*, 3 IP THEORY 62, 71–72 (2013) (listing examples of Supreme Court patent cases rejecting patent exceptionalism); Peter Lee, *The Supreme Assimilation of Patent Law*, 114 MICH. L. REV. 1413, 1425–50 (2016) (discussing the Supreme Court’s rejection of patent exceptionalism interest in universality and assimilation of patent law into other areas of law).

41. *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388 (2006).

42. *Id.* at 391. For a recent example of the Supreme Court’s rejection of the Federal Circuit’s extraterritorial application of U.S. patent law and reaffirmance of the “presum[ption] that federal statutes ‘apply only within the territorial jurisdiction of the United States,’” see *WesternGeco LLC v. ION Geophysical Corp.*, 138 S. Ct. 2129, 2136 (2018) (quoting *Foley Bros., Inc. v. Filardo*, 336 U.S. 281, 285 (1949)). For commentary, see Timothy R. Holbrook, *Is There a New Extraterritoriality in Intellectual Property?*, 44 COLUM. J.L. & ARTS. 457, 503–04 (2021).

43. Most commentators focus on the extant inequitable conduct doctrine. See generally Tun-Jen Chiang, *The Upside-Down Inequitable Conduct Defense*, 107 NW. U. L. REV. 1243 (2013) (evaluating the deterrent effects of the inequitable conduct defense); Kevin R. Casey, “*Infectious Unenforceability*”: *The Extent or Reach of Inequitable Conduct on Associated Patents*, 17 AIPLA Q.J. 338 (1989) (advocating for separate analyses for inequitable conduct and unclean hands).

should a patent for a nutritional supplement that makes affirmative misstatements about its safety and efficacy be enforceable? How about a patent that plagiarizes someone else's copyrighted work or makes intentionally misleading assertions about the invention's capabilities?

Crafting a new remedial defense to redress patentee misconduct raises three important normative questions. First, what types of patentee misconduct should trigger an unenforceability defense? Second, should the scope of the remedy be temporary or permanent unenforceability of the patent? Third, would the new remedial defense align with other policy goals and objectives of the patent system?

This Article seeks to answer these questions and fill the doctrinal and scholarly gap in patent unenforceability remedies. It offers a new, unclean-hands-based theory of unenforceability called *patent forfeiture*. Part I lays the groundwork for the proposed defense by exploring the justifications for and contours of patent law's extant unenforceability doctrines emanating from unclean hands. Part II develops the proposed theory by first defining it: if a patentee engages in egregious pre- or post-issuance misconduct involving the patent and gains an inequitable benefit from it or harms a third party, the patentee may forfeit the right to enforce the patent until the misconduct has been abandoned and its ill effects dissipate. Part II then illustrates scenarios where patent forfeiture should and shouldn't apply. Finally, Part III explores the policy considerations associated with patent forfeiture. It discusses normative justifications for the proposed defense, including redressability and deterrence of wrongful conduct. Next, Part III discusses the defense's potential tensions with other policy objectives of the patent system and how to resolve them. Part III concludes by explaining how patent forfeiture chips away at patent law exceptionalism and helps reestablish the importance of equitable principles in patent law.

I. JUSTIFYING PATENT UNENFORCEABILITY

A patent gives a patentee the statutory right "to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States."⁴⁴ After patent issuance, the patentee can bring an

44. 35 U.S.C. § 154(a)(1); *see also id.* § 271(a) ("Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.").

infringement suit for damages and injunctive relief in federal district court against any person or entity who allegedly has infringed the patent.⁴⁵ Section 282 of the U.S. Code permits an alleged infringer to assert a number of affirmative defenses,⁴⁶ including noninfringement,⁴⁷ invalidity,⁴⁸ and unenforceability.⁴⁹ This Part explores the types of unenforceability and the history and contours of patent law's extant unenforceability doctrines.

A. *The Scope of the Remedy*

Case law recognizes two types of unenforceability. The first—what I call *relational unenforceability*—only involves parties in a particular infringement suit. This has been the traditional remedy for a finding of

45. *Id.* §§ 281, 283–284.

46. 35 U.S.C. § 282(b); *see also* SCA Hygiene Prods. Aktiebolag v. First Quality Baby Prods., LLC, 807 F.3d 1311, 1322 (Fed. Cir. 2015) (en banc) (explaining that § 282(b)(1) lists “categories” of defenses available in an infringement suit), *vacated on other grounds*, 137 S. Ct. 954 (2017). These defenses must be raised in the answer. 35 U.S.C. § 282(b).

47. 35 U.S.C. § 282(b)(1). Infringement is a question of fact that “the patentee must prove by a preponderance of the evidence.” Siemens Med. Sols. USA, Inc. v. Saint-Gobain Ceramics & Plastics, Inc., 637 F.3d 1269, 1279 (Fed. Cir. 2011).

48. 35 U.S.C. § 282(b)(2). An invalidity defense requires the accused infringer to prove by clear and convincing evidence that the patent fails to satisfy one or more of the statutory patentability requirements. Microsoft Corp. v. i4i Ltd. P’ship, 564 U.S. 91, 95 (2011). Briefly, the claimed invention must be useful, novel, nonobvious, and directed to patentable subject matter. 35 U.S.C. §§ 101–103. The patent must adequately describe, enable, and set forth the best mode for the invention and conclude with definite claims. *Id.* § 112(a)–(b).

49. 35 U.S.C. § 282(b)(1). “An unenforceable patent is effectively useless to the patentee.” Lee Petherbridge, Jason Rantanen & R. Polk Wagner, *Unenforceability*, 70 WASH. & LEE L. REV. 1751, 1753 (2013). But unenforceability and invalidity are different. A patent can be valid (because it satisfies all of the statutory patentability requirements) yet unenforceable. Bristol-Myers Squibb Co. v. Rhone-Poulenc Rorer, Inc., 326 F.3d 1226, 1237 (Fed. Cir. 2003) (citing PerSeptive Biosys., Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315, 1322 (Fed. Cir. 2000)). While this Article focuses on unclean hands-based unenforceability defenses, the Federal Circuit has recognized other, albeit rarely-asserted, grounds for unenforceability. *See* Symbol Techs., Inc. v. Lemelson Med., Educ. & Rsch. Found., LP, 422 F.3d 1378, 1386 (Fed. Cir. 2005) (holding that the district court didn’t abuse its discretion in rendering Lemelson’s patents unenforceable for prosecution laches due to the patentee’s unreasonable 18 to 39 years of delay in slowing down patent issuance while members of the public began using the technology covered by the patents), *amended on reh’g in part* by 429 F.3d 1051, 1052 (Fed. Cir. 2005) (en banc). Similarly, the Federal Circuit affirmed a district court’s ruling that the patentee was equitably estopped from enforcing a patent because:

(1) the patentee, through misleading conduct, led the alleged infringer to reasonably believe that the patentee did not intend to enforce its patent against the infringer; (2) the alleged infringer relied on that conduct; and (3) due to its reliance, the alleged infringer would be materially prejudiced if the patentee were permitted to proceed with its charge of infringement.

Aspex Eyewear Inc. v. Clariti Eyewear, Inc., 605 F.3d 1305, 1310 (Fed. Cir. 2010).

unclean hands—a personal defense to the patentee’s post-issuance misconduct.⁵⁰ The court dismisses the patentee’s cause of action,⁵¹ which is equivalent to rendering the patent unenforceable as to the defendant in the instant lawsuit.⁵² The patentee is free to enforce the patent against others in future litigation.⁵³

The second—what I call *universal unenforceability*—renders the patent unenforceable against the current defendant *and* any subsequent infringers.⁵⁴ Rendering a patent unenforceable “against the world”⁵⁵ is essentially a forfeiture of the patent right.⁵⁶ Universal

50. See generally DONALD S. CHISUM, CHISUM ON PATENTS § 19.03[6][b][i] (2009) (summarizing the doctrine and its seminal cases).

51. See, e.g., *Aptix Corp. v. Quickturn Design Sys., Inc.*, 269 F.3d 1369, 1378 (Fed. Cir. 2001) (affirming the district court’s dismissal of the complaint but leaving the patent enforceable); *Gilead Scis. II*, 888 F.3d 1231, 1240 (Fed. Cir. 2018) (affirming the district court’s conclusion of unclean hands and order barring Merck from enforcing its patents against Gilead).

52. See *Aptix*, 269 F.3d at 1376 (noting that “a finding of unclean hands generally does not prejudice the offending party in subsequent cases, but only provides a bar to relief in the case at hand”); *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1287 (Fed. Cir. 2011) (en banc) (distinguishing the remedies for inequitable conduct (“unenforceability of the entire patent”) from the doctrine of unclean hands (“mere dismissal of the instant suit”)).

53. *Aptix*, 269 F.3d at 1376.

54. See, e.g., *AstraZeneca Pharms. LP v. Teva Pharms. USA, Inc.*, 583 F.3d 766, 770 (Fed. Cir. 2009) (“Upon determining that there was inequitable conduct in obtaining the patent, the district court may in its discretion declare the patent permanently unenforceable.”); *Glaverbel Société Anonyme v. Northlake Mktg. & Supply, Inc.*, 45 F.3d 1550, 1556 (Fed. Cir. 1995) (“Failure to disclose material information during the patent procurement process or the submission of material false information, with the intent to mislead or deceive the patent examiner into granting the patent, may render the patent permanently unenforceable.”). Procedurally, the Federal Circuit has explained that a subsequent infringer can take advantage of a prior unenforceability determination under the collateral estoppel doctrine:

The principle of *Blonder-Tongue Labs., Inc. v. University of Illinois Foundation*, 402 U.S. 313 (1971), respecting collateral estoppel also applies to unenforceability. Thus, there is no risk that others will be subject to infringement suits in the future because the patentee cannot enforce a patent held unenforceable after a full and fair opportunity, as here, to litigate the issue. Nor is there need for the patentee to secure an appellate court’s validity determination regarding an unenforceable patent. The patent is simply not enforceable, regardless of its validity.

Gen. Electro Music Corp. v. Samick Music Corp., 19 F.3d 1405, 1413 (Fed. Cir. 1994) (internal parallel citations omitted).

55. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1009 (Fed. Cir. 2008) (reviewing a district court’s holding that the patents-in-suit were “unenforceable against the world” due to the patentee’s misconduct in a standards-setting organization); see also Dmitry Karshedt, *Did Learned Hand Get It Wrong?: The Questionable Patent Forfeiture Rule of Metallizing Engineering*, 57 VILL. L. REV. 261, 309 n.304 (2012) (“[U]nlike the traditional ‘litigation laches’ that serves merely as a personal defense, prosecution laches renders the patent unenforceable as against the world.”).

56. See *Scripps Clinic & Rsch. Found. v. Genentech, Inc.*, 927 F.2d 1565, 1574 (Fed. Cir. 1991) (noting that inequitable conduct results in “forfeiture of all patent rights”).

unenforceability is reserved for inequitable conduct because fraud during patent acquisition taints the property right *ab initio*.⁵⁷

This dichotomy makes sense from a theoretical and policy perspective. When the misconduct occurs post-issuance with respect to a particular defendant in litigation, less-severe relational unenforceability seems appropriate.⁵⁸ But when the misconduct is more egregious, such as fraud on the Patent Office, universal unenforceability is warranted.⁵⁹ The guiding principle is that the scope of the court's remedy should give an "equitable response reflective of the offending conduct."⁶⁰

B. *Lessons from the Supreme Court*

In a trio of cases decided between 1933 and 1945, the Supreme Court addressed circumstances in which a patentee seeking to enforce a patent had engaged in deceit or fraud before the court or the Patent

57. *Aptix*, 269 F.3d at 1376 ("Inequitable conduct in the process of procuring a patent taints the property right itself.").

58. However, opinions differ. In *Aptix*, a district court dismissed the patentee's complaint and rendered the patent unenforceable after finding that the inventor engaged in litigation misconduct involving post-issuance forgery of laboratory notebooks. *Id.* at 1371. On appeal, the Federal Circuit affirmed the dismissal but reversed the unenforceability ruling because the district court imposed it as a "penalty" for the misconduct. *Id.* at 1377–78. This was an abuse of discretion because the doctrine of unclean hands "is not a source of power to punish." *Id.* at 1378. In dissent, Judge Mayer argued that (permanent) unenforceability is warranted:

Had Mohsen succeeded, he might unjustly have retained or enlarged the scope of his property right . . . and thus remained the owner of valid patent claims where he should have none. . . . [T]he patent would be strengthened through its testing in litigation and in reliance upon the fraudulent documentation and testimony. *Aptix* would likely be able to command a higher price for it (in license or assignment), and would more readily be able to obtain settlements from potential infringers than if it had not survived a challenge to its validity. This strengthened patent could be helpful in obtaining infringement verdicts in subsequent litigation, resulting in a chain of judgments based on the same fraud. . . .

This type of deception taints the patent itself. The documentary record of the invention has been permanently blotted. . . . To permit this . . . is to countenance the continued involvement of the courts in sorting through the muddy morass of Mohsen's forgeries and dishonest testimony. The unclean hands doctrine does not permit this boon to the forger and stain on the courts.

Id. at 1381–82 (citation omitted).

59. See *supra* notes 55–57 and accompanying text.

60. *Qualcomm*, 548 F.3d at 1026.

Office.⁶¹ In each case, the patentee was denied the relief sought.⁶² These cases form the backbone of extant unclean hands-related affirmative defenses in patent law⁶³ and are routinely cited by modern courts.⁶⁴

In *Keystone Driller Co. v. General Excavator Co.*,⁶⁵ the patentee knew of a possible invalidating prior use by a third party prior to filing a patent application.⁶⁶ After the patent issued, the patentee paid the third party to sign a false affidavit that its use was part of an abandoned experiment, to keep secret the details of the use, and to suppress evidence of the use.⁶⁷ The patentee then prevailed in an infringement suit, no doubt because the court was unaware of the patentee's misconduct.⁶⁸ However, the misconduct came to light in a second infringement suit when the patentee asserted the same patent and sought injunctive relief against different defendants.⁶⁹ In affirming the dismissal of both cases, the Supreme Court explained that if the court in the first case had been aware of the corrupt transaction, it "undoubtedly would have been warranted in holding it sufficient to require dismissal of the cause of action."⁷⁰ Because the patentee used

61. *Keystone Driller Co. v. Gen. Excavator Co.*, 290 U.S. 240, 240–44 (1933); *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238, 238 (1944), *abrogated by* *Standard Oil Co. v. United States*, 429 U.S. 17 (1976); *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 807–10 (1945).

62. See *Keystone Driller*, 290 U.S. at 241 (denying equitable relief); *Precision Instrument*, 324 U.S. at 819 (same); *Hazel-Atlas*, 322 U.S. at 241, 251 (denying equitable and legal relief).

63. See generally T. Leigh Anenson, *Announcing the "Clean Hands" Doctrine*, 51 U.C. DAVIS L. REV. 1827 (2018) (discussing the three cases and their impacts on the development of the unclean hands doctrine in the United States).

64. See, e.g., *Aptix Corp. v. Quickturn Design Sys., Inc.*, 269 F.3d 1369, 1374–75 (Fed. Cir. 2001); *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1285 (Fed. Cir. 2011) (en banc); *Gilead Scis. II*, 888 F.3d 1231, 1239 (Fed. Cir. 2018).

65. *Keystone Driller Co. v. Gen. Excavator Co.*, 290 U.S. 240 (1933).

66. *Id.* at 243. A third party's prior use of the invention defeats patent law's novelty requirement. *Coffin v. Ogden*, 85 U.S. (18 Wall.) 120, 120, 125 (1873). In modern patent law, this behavior—fraud on the Patent Office—would constitute inequitable conduct. See *infra* Part I.C.1. As discussed below, that doctrine developed in the wake of *Keystone Driller*. See *infra* Part I.C.1.

67. *Keystone Driller*, 290 U.S. at 243. An abandoned experiment by a third party couldn't serve as a patent-defeating prior use of the invention. *Coffin*, 85 U.S. (18 Wall.) at 124. Likewise, a third party's concealment, suppression, or secret use doesn't qualify as a patent-defeating prior use because private knowledge can't defeat patent law's novelty requirement. See *Gayler v. Wilder*, 51 U.S. (10 How.) 477, 497 (1850).

68. *Keystone Driller*, 290 U.S. at 243.

69. *Id.* at 242–44.

70. *Id.* at 246. Perhaps the court was referring to the then-existing "whole truth" statutory defense to patent infringement, which allowed a defendant to prove "[t]hat for the purpose of deceiving the public the description and specification filed by the patentee in the patent office

that victory as the basis for the injunction, the patentee “did not come with clean hands in respect of any cause of action in these cases,”⁷¹ thereby making dismissal the appropriate relief in both cases.⁷² However, the patentee was free to enforce the patent against other defendants without the taint of the prior misconduct.⁷³

In *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*,⁷⁴ the patentee fabricated an article describing the invention as a remarkable advance in the art and had a well-known expert publish it in a trade journal as his own—all in an effort to overcome “apparently insurmountable Patent Office opposition.”⁷⁵ After the patentee submitted the article, the Patent Office issued the patent.⁷⁶ In infringement litigation against Hazel-Atlas, the patentee took great effort to conceal the false authorship before the Third Circuit, which relied on the fabricated article to hold the patent valid and infringed.⁷⁷ When the misconduct came to light in a subsequent infringement suit involving another litigant, Hazel-Atlas petitioned the Third Circuit to vacate its judgment.⁷⁸ The Third Circuit refused, but the Supreme Court reversed; it stated that “[t]he total effect of all this fraud . . . calls for nothing less than a complete denial of relief.”⁷⁹ Accordingly, the Court vacated the judgment and dismissed the suit.⁸⁰

was made to contain less than the whole truth relative to his invention or discovery, or more than is necessary to produce the desired effect.” Patent Act of 1870, ch. 230, § 61, 16 Stat. 198, 208 (formerly codified at REV. STAT. 4920 (1874); 35 U.S.C. § 69 (1925) (repealed 1952)); *see also* Loom Co. v. Higgins, 105 U.S. 580, 588–89 (1881) (discussing the defense).

71. *Keystone Driller*, 290 U.S. at 247.

72. *Id.*

73. This is exactly what happened two years later in *Keystone Driller Co. v. Northwest Engineering Corp.*, 294 U.S. 42 (1935). While the Court acknowledged the earlier unclean hands finding, it nevertheless resolved the case on the merits. *See id.* at 44 n.2, 49–50. Some take this to mean that: (1) prior litigation misconduct doesn’t taint a subsequent case (i.e., render a patent permanently unenforceable); and (2) litigation misconduct leaves the property right intact (i.e., the patent remains enforceable). *See* Aptix Corp. v. Quickturn Design Sys., Inc., 269 F.3d 1369, 1377 (Fed. Cir. 2001).

74. *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238 (1944), *abrogated by* *Standard Oil Co. v. United States*, 429 U.S. 17 (1976).

75. *Id.* at 240 (quoting *Hartford-Empire Co. v. Hazel-Atlas Glass Co.*, 137 F.2d 764, 766 (3d Cir. 1943)).

76. *Id.* at 240–41.

77. *Id.* at 241.

78. *Id.* at 243–44.

79. *Id.* at 243–44, 250.

80. *Id.* at 249–51. The Court noted in dicta that “[t]o grant full protection to the public against a patent obtained by fraud, that patent must be vacated.” *Id.* at 251. However, the Court explained that “[i]t has previously been decided that such a remedy is not available in

In *Precision Instrument Manufacturing Co. v. Automotive Maintenance Machinery Co.*,⁸¹ a Precision employee applied for a patent on a torque wrench.⁸² During prosecution,⁸³ the employee submitted an affidavit with false dates as to the invention's conception and reduction to practice.⁸⁴ Meanwhile, Automotive filed a patent application claiming a torque wrench.⁸⁵ The Patent Office declared an interference—a fight between two inventors over who is entitled to a patent.⁸⁶ During the discovery phase of the interference, Automotive learned about the false affidavit and that Precision's employee had stolen the invention from Automotive. Rather than disclose the fraud to the Patent Office, Automotive coerced Precision into a settlement, which included: a concession that Automotive should win the interference; an assignment of the perjury-tainted patent application to Automotive; and an agreement that Precision would never challenge the validity of any resulting patents.⁸⁷ The Patent Office ultimately issued patents to Automotive for both its own and the tainted

infringement proceedings, but can only be accomplished in a direct proceeding brought by the Government." *Id.*; see also *Mowry v. Whitney*, 81 U.S. (14 Wall.) 434, 441 (1871) (holding that a judicial proceeding to cancel a patent obtained by fraud must be instituted by the federal government). For a detailed discussion, see John F. Duffy, *The Inequities of Inequitable Conduct: A Case Study of Judicial Control of Administrative Process*, 51 HOUS. L. REV. 417, 423–28 (2013).

81. *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806 (1945).

82. *Id.* at 808–09.

83. The process of obtaining a patent—where the inventor files an application with the Patent Office—is called patent prosecution. JANICE M. MUELLER, *PATENT LAW* 59 (5th ed. 2016).

84. *Precision Instrument*, 324 U.S. at 809–10. Invention requires two acts—conception and reduction to practice. See 1 WILLIAM C. ROBINSON, *THE LAW OF PATENTS FOR USEFUL INVENTIONS* 116 (Boston, Little, Brown & Co. 1890) ("Every invention contains two elements: (1) An idea conceived by the inventor; (2) An application of that idea to the production of a practical result."). Conception, often referred to as the "touchstone" of inventorship, is the "formation, in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice." *Id.* at 532; accord *Burroughs Wellcome Co. v. Barr Lab'ys, Inc.*, 40 F.3d 1223, 1227–28 (Fed. Cir. 1994) ("Conception is the touchstone of inventorship, the completion of the mental part of invention.").

85. *Precision Instrument*, 324 U.S. at 809.

86. *Id.* Under the first-to-invent system, patent rights are awarded to the first inventor. See 35 U.S.C. § 102(g) (2002), amended by Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 3(b), 125 Stat. 284, 285–87 (2011). When two parties claim the same invention, the Patent Office institutes an "interference" proceeding to determine priority (i.e., which party is entitled to a patent). *Id.* The first party "to reduce the invention to practice" usually wins; however, a party that was "first to conceive the invention but last to reduce it to practice" (either actively or constructively) will win if that party "demonstrates reasonable diligence [toward] reduction to practice." *Cooper v. Goldfarb*, 240 F.3d 1378, 1382 (Fed. Cir. 2001).

87. See *Precision Instrument*, 324 U.S. at 813, 818–19.

application.⁸⁸ When Precision started manufacturing wrenches covered by the patents, Automotive sued for infringement and breach of contract.⁸⁹ In litigation, the district court found unclean hands and dismissed the suit, which the Seventh Circuit reversed.⁹⁰ Given the public's "paramount interest in seeing that patent[s] . . . spring from backgrounds free from fraud or other inequitable conduct,"⁹¹ the Supreme Court reinstated the district court's dismissal.⁹² According to the Court, parties before the Patent Office "have an uncompromising duty to report to it all facts concerning possible fraud or inequitable conduct underlying the applications in issue,"⁹³ otherwise the Patent Office and the public become the "mute and helpless victims of deception and fraud."⁹⁴

This trio of cases provides several substantive lessons for applying unclean hands defenses in patent cases. First, as equitable defenses, courts have broad discretion to redress a wide range of patentee misconduct.⁹⁵ Second, the defenses should be reserved for egregious patentee misconduct.⁹⁶ Third, courts applying the doctrines should consider the public interest "almost as if the public is a third party to the suit."⁹⁷

C. Extant Unenforceability Doctrines for Patentee Misconduct

The Supreme Court hasn't addressed misconduct in a patent case since 1945.⁹⁸ This left the regional circuits reviewing appeals in

88. *Id.* at 814.

89. *Id.*

90. *Id.* at 808.

91. *Id.* at 816.

92. *Id.* at 819–20.

93. *Id.* at 818.

94. *Id.* (quoting *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238, 246 (1944)).

95. *See id.* at 815 (explaining that courts invoking unclean hands maxim "necessarily gives wide range to the equity court's use of discretion in refusing to aid the unclean litigant").

96. *See Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1287–90 (Fed. Cir. 2011) (en banc).

97. Sean M. O'Connor, *Defusing the "Atomic Bomb" of Patent Litigation: Avoiding and Defending Against Allegations of Inequitable Conduct After McKesson et al.*, 9 J. MARSHALL REV. INTELL. PROP. L. 330, 336 (2009).

98. T. Leigh Anenson & Gideon Mark, *Inequitable Conduct in Retrospective: Understanding Unclean Hands in Patent Remedies*, 62 AM. U. L. REV. 1441, 1452 (2013). *See generally* Robert J. Goldman, *Evolution of the Inequitable Conduct Defense in Patent Litigation*, 7 HARV. J.L. & TECH. 37 (1993) (providing a historical perspective). In *Kingsland v. Dorsey*, 338 U.S. 318 (1949) (per curiam), the Court considered the disbarment of the attorneys who helped fraudulently procure the patents at issue in *Hazel-Atlas*. *Id.* at 318–19. It held that "[i]t was the Commissioner

infringement cases and, since 1982, the Federal Circuit⁹⁹ to develop modern unenforceability doctrines.¹⁰⁰ This Section explores the contours and theoretical underpinnings of patent law's extant unenforceability doctrines.

1. *Inequitable Conduct*. Inequitable conduct is a form of unclean hands that evolved from *Keystone Driller, Hazel-Atlas*, and *Precision Instrument*.¹⁰¹ It's loosely referred to as fraud on the Patent Office.¹⁰² Because patent procurement is ex parte, for patent applicants "[t]he potential for mischief is great"¹⁰³ because they can withhold information that might jeopardize patentability.¹⁰⁴ Additionally, the agency has no way to test or verify what's disclosed.¹⁰⁵ So the Patent

[of Patents], not the courts, that Congress made primarily responsible for protecting the public from the evil consequences that might result if practitioners should betray their high trust." *Id.* at 319–20. In *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1965), the Court referred to inequitable conduct when it stated that "a person sued for infringement may challenge the validity of the patent on various grounds, including fraudulent procurement." *Id.* at 176. Robert Merges and John Duffy argue that "the[se] cases have no holdings on the scope of judicial power to hold patents unenforceable based on administrative misconduct." ROBERT PATRICK MERGES & JOHN FITZGERALD DUFFY, *PATENT LAW AND POLICY* 1056 (8th ed. 2021).

99. See *supra* note 35 and accompanying text.

100. See, e.g., *Norton v. Curtiss*, 433 F.2d 779, 795–96 (C.C.P.A. 1970); *Therasense, Inc.*, 649 F.3d at 1286–95. The U.S. Court of Customs and Patent Appeals (C.C.P.A.) was a five-judge Article III appellate court on the same level as the U.S. Courts of Appeals. The Federal Courts Improvement Act of 1982 abolished the C.C.P.A. See Pub. L. No. 97-164, 96 Stat. 25 (codified as amended in scattered sections of 28 U.S.C.). Soon after its creation, the Federal Circuit adopted C.C.P.A. decisional law as binding precedent. *South Corp. v. United States*, 690 F.2d 1368, 1370 (Fed. Cir. 1982) (en banc).

101. *Therasense*, 649 F.3d at 1285.

102. *Korody-Colyer Corp. v. Gen. Motors Corp.*, 760 F.2d 1293, 1294 n.1 (Fed. Cir. 1985) (describing "inequitable conduct" as "fraud on the Patent and Trademark Office"). However, inequitable conduct differs from (and is a lesser offense than) common law fraud, which requires:

(1) a representation of a material fact, (2) the falsity of that representation, (3) the intent to deceive or, at least, a state of mind so reckless as to the consequences that it is held to be the equivalent of intent (scienter), (4) a justifiable reliance upon the misrepresentation by the party deceived which induces him to act thereon, and (5) injury to the party deceived as a result of his reliance on the misrepresentation.

Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1069–70 (Fed. Cir. 1998) (quoting *Norton*, 433 F.2d at 793).

103. Goldman, *supra* note 98, at 37.

104. Cf. Joseph Scott Miller, *Building a Better Bounty: Litigation-Stage Rewards for Defeating Patents*, 19 BERKELEY TECH. L.J. 667, 734 (2004) (arguing that applicants can do much to improve the information deficit because they "know better than [the Patent Office or] anyone else precisely what it is they have developed or invented").

105. SUSAN S. DESANTI, WILLIAM E. COHEN, GAIL F. LEVINE, HILLARY J. GREENE, MATTHEW BYE, MICHAEL S. WROBLEWSKI, ROBIN MOORE, MICHAEL BARNETT, NICOLE GORHAM, CECILE KOHRS, DAVID SCHEFFMAN, MARK FRANKENA, ROY LEVY, ALDEN F.

Office and the courts impose a duty of candor and good faith upon applicants.¹⁰⁶

A finding of inequitable conduct renders a patent unenforceable if intentional misconduct, such as a deliberate misrepresentation or omission of material information from the Patent Office, led the patentee to obtain an unwarranted patent claim.¹⁰⁷ The Patent Office rarely learns about potential misconduct during prosecution; it typically comes to light in patent litigation.¹⁰⁸

A decade ago the Federal Circuit reconsidered the contours and standards governing inequitable conduct in *Therasense, Inc. v. Becton, Dickinson & Co.*¹⁰⁹ The inequitable conduct defense has two prongs—materiality and intent.¹¹⁰ The general rule for materiality is that the misrepresented or omitted information must be “but-for material”—meaning that the challenger must prove, by a preponderance of the evidence, that “the [Patent Office] would not have allowed a claim had it been aware of the undisclosed” information.¹¹¹ This “requires that the court place itself in the shoes of a patent examiner and determine whether, had the [information] been before the examiner at the time, the claims of the patent would have still issued.”¹¹² Regarding intent, the challenger must prove by clear and convincing evidence a specific intent to deceive the Patent Office, which must be the most reasonable inference drawn from the evidence.¹¹³ In the case of nondisclosure, this requires proof that “the applicant . . . made a deliberate decision to

ABBOTT, SUZANNE MICHEL, PAIGE PIDANO & KARINA LUBELL, FED. TRADE COMM’N, TO PROMOTE INNOVATION: THE PROPER BALANCE OF COMPETITION AND PATENT LAW AND POLICY 9 (2003) [hereinafter FTC REPORT] (“Yet the [Patent Office] lacks testing facilities, and assertions that cannot be overcome by documentary evidence promptly identifiable by the examiner often must be accepted.”); see *Beckman Instruments, Inc. v. Chemtronics, Inc.*, 439 F.2d 1369, 1378–79 (5th Cir. 1970) (noting that the Patent Office lacks its own research facilities).

106. See *Digit. Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309, 1314 (Fed. Cir. 2006) (describing the duty of candor and good faith).

107. See *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1292 (Fed. Cir. 2011) (en banc) (noting that “[w]hen the patentee has engaged in affirmative acts of egregious misconduct, such as the filing of an unmistakably false affidavit, the misconduct is material,” and, hence, the patent is unenforceable).

108. See Gary M. Hoffman & Michael C. Greenbaum, *The Duty of Disclosure Requirements*, 16 AIPLA Q.J. 124, 145 (1988) (discussing a process of finding fraud that relies on the examiners and leads to inequities in reporting).

109. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276 (Fed. Cir. 2011) (en banc).

110. *Id.* at 1290.

111. *Id.* at 1291; *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1334 (Fed. Cir. 2012).

112. *Regeneron Pharms., Inc. v. Merus N.V.*, 864 F.3d 1343, 1351 (Fed. Cir. 2017).

113. *Therasense*, 649 F.3d at 1290.

withhold” known material information.¹¹⁴ This means that the applicant “knew of the [information], knew that it was material, and made a deliberate decision to withhold it.”¹¹⁵ If the challenger proves both elements, then the court “must weigh the equities to determine whether the applicant’s conduct before the [Patent Office] warrants rendering the entire patent unenforceable.”¹¹⁶

Although but-for materiality typically must be proven to satisfy the materiality prong, *Therasense* created a key exception in cases of “affirmative acts of egregious misconduct,”¹¹⁷ such as when the applicant filed “an unmistakably false affidavit.”¹¹⁸ This exception to the general rule is derived from the aforementioned Supreme Court unclean hands cases, which all involved egregious misconduct.¹¹⁹ When the applicant has engaged in such acts, the misconduct is deemed material.¹²⁰

Sometimes “the taint of a finding of inequitable conduct can spread from a single patent to render unenforceable other related patents and applications in the same technology family,”¹²¹ thereby endangering an entire patent portfolio.¹²² And a patent rendered unenforceable due to inequitable conduct can’t be asserted in future cases “because the property right [itself] is tainted *ab initio*.”¹²³ So unlike the validity defenses (lack of novelty, obviousness,

114. *Id.*

115. *Id.*; accord 1st Media, LLC v. Elec. Arts, Inc., 694 F.3d 1367, 1376–77 (Fed. Cir. 2012) (applying the *Therasense* test for deceptive intent). Given the difficulty in obtaining direct evidence of deception, intent can be inferred from circumstantial evidence if it is “the single most reasonable inference.” *Therasense*, 649 F.3d at 1290 (citation omitted).

116. *Therasense*, 649 F.3d at 1287. Unlike invalidity which may only affect a single claim, “[i]t is . . . settled law that inequitable conduct with respect to one claim renders the entire patent unenforceable.” *Baxter Int’l, Inc. v. McGaw, Inc.*, 149 F.3d 1321, 1332 (Fed. Cir. 1998). Also, a patent can be rendered unenforceable despite its validity. See *supra* note 54 and accompanying text.

117. *Therasense*, 649 F.3d at 1292.

118. *Id.*; see also *Intellect Wireless, Inc. v. HTC Corp.*, 732 F.3d 1339, 1345 (Fed. Cir. 2013) (discussing that applicant’s “[s]ubmission of an affidavit containing fabricated examples of actual reduction to practice in order to overcome a prior art reference raises a strong inference of intent to deceive”).

119. *Therasense*, 649 F.3d at 1292.

120. *Id.*

121. *Id.* at 1288.

122. *Id.* at 1289; *Fox Indus. v. Structural Pres. Sys., Inc.*, 922 F.2d 801, 804 (Fed. Cir. 1990) (“[A] breach of the duty of candor early in the prosecution may render unenforceable all claims which eventually issue from the same or a related application.”).

123. *Aptix Corp. v. Quickturn Design Sys., Inc.*, 269 F.3d 1369, 1376 (Fed. Cir. 2001); see also *supra* notes 54–57 and accompanying text.

nonenabement, among others), which are claim specific, a finding of inequitable conduct renders the *entire* patent unenforceable against *any* defendant.¹²⁴

The “taint” of a finding of inequitable conduct typically can’t be cured after litigation has begun.¹²⁵ However, the America Invents Act of 2011 (“AIA”)¹²⁶ permits patentees to request a post-issuance “supplemental examination” by the Patent Office “to consider, reconsider, or correct information believed to be relevant to the patent” without having to admit why the missing or incorrect information was initially withheld.¹²⁷ Importantly for the patentee, a trial court can’t hold a patent unenforceable “on the basis of conduct relating to information that had not been considered, was inadequately considered, or was incorrect in a prior examination of the patent if the information was considered, reconsidered, or corrected during a supplemental examination of the patent.”¹²⁸ So supplemental examination provides “amnesty”¹²⁹ to patentees by permitting them to “inoculate”¹³⁰ patents against plausible charges of inequitable conduct.¹³¹

124. *Therasense*, 649 F.2d at 1288; see also *supra* notes 54–57 and accompanying text.

125. *Therasense*, 649 F.2d at 1288.

126. Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (codified as amended in scattered sections of 35 U.S.C.). The AIA is the most sweeping change to the U.S. patent system since the Patent Act of 1952. CRAIG ALLEN NARD, *THE LAW OF PATENTS* 33 (6th ed. 2022). Most notably, the AIA converted the U.S. patent system from a first-to-invent regime to a first-inventor-to-file regime. *Id.*

127. Leahy-Smith America Invents Act § 12(a), 35 U.S.C. § 257(a). But there are critics. Compare Jason Rantanen & Lee Petherbridge, *Toward a System of Invention Registration: The Leahy-Smith America Invents Act*, 110 MICH. L. REV. FIRST IMPRESSIONS 24, 31 (2011) (arguing that supplemental examination will open the door for strategic disclosures by patentees and ultimately increase the number of low-quality patents), with Robert A. Armitage, *Understanding the America Invents Act and Its Implications for Patenting*, 40 AIPLA Q.J. 1, 111 (2012) (“If there is any possibility for regret over the new provision on supplemental examination, it is not that it went too far as a reform but rather that it did not go far enough in preempting the ‘inequitable conduct’ plague.”).

128. 35 U.S.C. § 257(c)(1).

129. NARD, *supra* note 126, at 853.

130. MERGES & DUFFY, *supra* note 98, at 990.

131. The supplemental examination amnesty is subject to two limitations. First, the patentee must wait for the supplemental examination to conclude before filing an infringement suit. 35 U.S.C. § 257(c)(2). Second, the amnesty doesn’t apply if an inequitable conduct is fully pleaded before supplemental examination is sought. *Id.* Suppose the Patent Office detects fraud? Section 257(e) orders the Director who “becomes aware, during the course of a supplemental examination . . . that a material fraud . . . may have been committed in connection with the patent that is the subject of the supplemental examination . . . [to] refer the matter to the Attorney General . . .” 35 U.S.C. § 257(e).

2. *Patent Misuse*. Patent misuse, borne from unclean hands,¹³² is a judge-made doctrine that withholds any infringement remedy if the patentee has engaged in post-issuance practices that draw anticompetitive power from the patent right.¹³³ Its purpose is to prevent the patentee from extending the patent beyond its statutorily-conferred scope.¹³⁴ The doctrine is almost exclusively applied in the context of patent licensing,¹³⁵ such as when the patentee requires a licensee to purchase unpatented goods along with the patented product or process.¹³⁶ The key question is whether, by imposing a condition upon the licensee, the patentee has “impermissibly broadened the ‘physical or temporal scope’ of the patent grant with anticompetitive effect.”¹³⁷ If so, a court “will not lend its support to enforcement of a patent that has been misused.”¹³⁸

Perhaps the most famous patent misuse case is *Morton Salt Co. v. G.S. Suppiger Co.*,¹³⁹ which involved a patentee tying a license to the licensee’s promise to purchase unpatented goods with its patented machines. Suppiger held a patent for a machine for depositing salt tablets useful in food canning.¹⁴⁰ Suppiger licensed its machines to canning companies with a condition that they purchase salt tablets from Suppiger’s wholly-owned subsidiary.¹⁴¹ Morton was a competitor of Suppiger that produced tablet-depositing machines and salt tablets.¹⁴² When Suppiger sued Morton for infringement, Morton argued in defense that Suppiger was misusing its patent rights through an impermissible tying arrangement.¹⁴³ The Supreme Court rendered

132. See *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 492–93 (1942).

133. See *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 704 (Fed. Cir. 1992).

134. *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1372 (Fed. Cir. 1998).

135. See CHISUM, *supra* note 50, § 19.04[3] (discussing the classic acts of misuse); *Princo Corp. v. Int’l Trade Comm’n*, 616 F.3d 1318, 1321 (Fed. Cir. 2010) (en banc) (discussing patent misuse in the licensing context and noting that “[b]ecause patent misuse is a judge-made doctrine that is in derogation of statutory patent rights against infringement, this court has not applied the doctrine of patent misuse expansively”).

136. CHISUM, *supra* note 50, § 19.04[3].

137. *Windsurfing Int’l, Inc. v. AMF, Inc.*, 782 F.2d 995, 1001 (Fed. Cir. 1986) (quoting *Blonder-Tongue Lab’ys, Inc. v. Univ. of Ill. Found.*, 402 U.S. 313, 343 (1971)).

138. *B. Braun Med., Inc. v. Abbott Lab’ys.*, 124 F.3d 1419, 1427 (Fed. Cir. 1997).

139. *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1942).

140. *Id.* at 489.

141. *Id.* at 491.

142. *Id.* at 490–91.

143. *Id.* at 489–90. A tying agreement is “an agreement by a party to sell [the tying product] but only on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that product from any other supplier.” *N. Pac. Ry. Co. v. United*

the patent unenforceable for patent misuse because Suppiger attempted to expand its monopoly rights in its patented machine by requiring its licensees to purchase salt from its subsidiary; in other words, Suppiger was attempting to gain a competitive advantage in the sales of an unpatented product.¹⁴⁴

Two facets of patent misuse distinguish it from the other unclean-hands-based unenforceability doctrines. First, a finding of misuse renders the patent unenforceable during the period of misuse against *all* infringers.¹⁴⁵ The corollary, as shown in *Morton Salt*, is that the party asserting misuse need not be a direct victim of the patentee's anticompetitive conduct (a licensee) because the Supreme Court views the true victim of patent misuse as the public at large.¹⁴⁶

Second, a patent rendered unenforceable for patent misuse can become enforceable again if the misuse is "purged."¹⁴⁷ According to *Morton Salt*, this occurs when a court finds that "the improper practice has been abandoned and that the consequences of the misuse of the

States, 356 U.S. 1, 5–6 (1958). The essential characteristic of an invalid tying arrangement "lies in the seller's exploitation of its control over the tying product to force the buyer into the purchase of a tied product that the buyer either did not want at all, or might have preferred to purchase elsewhere on different terms." *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28, 34–35 (2006) (internal quotation omitted).

144. *Morton Salt*, 314 U.S. at 489; *see also* *Carbice Corp. v. Am. Patents Dev. Corp.*, 283 U.S. 27, 31 (1931) (concluding that the patentee "may not exact as the condition of a license that unpatented materials used in connection with the invention shall be purchased only from the licensor; and if it does so, relief against one who supplies such unpatented materials will be denied"); *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458, 463 (1938) ("[E]very use of a patent as a means of obtaining a limited monopoly of unpatented material is prohibited.").

145. *See Morton Salt*, 314 U.S. at 492.

146. *See id.* Mark Lemley argues that this lack-of-injury requirement rewards and encourages infringement:

Parties unrelated to the patentee's wrongful acts may infringe its patents with impunity, since they are protected from liability Indeed, because the bar on infringement suits continues until the wrongful consequences have been dissipated fully, a finding of misuse essentially gives a green light to infringers of that patent

Mark A. Lemley, Comment, *The Economic Irrationality of the Patent Misuse Doctrine*, 78 CALIF. L. REV. 1599, 1619 (1990).

147. As the Federal Circuit has explained,

[T]he patent misuse doctrine is an extension of the equitable doctrine of unclean hands, whereby a court of equity will not lend its support to enforcement of a patent that has been misused. Patent misuse arose, as an equitable defense available to the accused infringer, from the desire to restrain practices that did not in themselves violate any law, but that drew anticompetitive strength from the patent right, and thus were deemed to be contrary to public policy. When used successfully, this defense results in rendering the patent unenforceable until the misuse is purged.

B. Braun Med., Inc. v. Abbott Lab'ys, 124 F.3d 1419, 1427 (Fed. Cir. 1997) (quoting *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 704 (Fed. Cir. 1992)) (internal citations and quotation marks omitted).

patent have been dissipated.”¹⁴⁸ Stated differently, “[w]hen patent misuse is proven, a court may *temporarily* suspend the owner’s ability to enforce the patent while the improper practice and its effects remain ongoing.”¹⁴⁹ Of course, if purging doesn’t happen, the patent becomes universally unenforceable.

3. *Waiver/Estoppel.* A district court may render a patent unenforceable for implied waiver when clear and convincing evidence shows that the patentee’s conduct was so antithetical to patent enforcement that it induced a reasonable belief that the patent wouldn’t be enforced.¹⁵⁰ The classic implied waiver scenario occurs when a patentee participating in a standard-setting organization exploits the standard-setting process for private gain.¹⁵¹

“A standard is a common platform that allows products to work together.”¹⁵² Often industry groups form SSOs to develop a set of common standards in a given area.¹⁵³ The goals of standards (and SSOs) are product interoperability, consumer welfare, safety, market efficiency, and rapid diffusion of new technologies.¹⁵⁴ Famous standards include household electrical outlets, HTML, the QWERTY keyboard layout, and the Microsoft Windows operating system.¹⁵⁵ Many SSOs implement rules to control the use of patent rights among its participants. For example, if adoption of a standard requires the use of a SSO participant’s patented technology, the participant must provide open access (in other words, a royalty-free license) or only seek a reasonable royalty.¹⁵⁶ Participants must also disclose any issued

148. *Morton Salt*, 314 U.S. at 493.

149. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1025 (Fed. Cir. 2008) (emphasis in original).

150. *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1348 (Fed. Cir. 2011) (quoting *Qualcomm*, 548 F.3d at 1020).

151. See, e.g., *id.* at 1348; *Qualcomm*, 548 F.3d at 1020; *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1365 (Fed. Cir. 2018).

152. MICHAEL A. CARRIER, *INNOVATION FOR THE 21ST CENTURY* 323 (2009) [hereinafter CARRIER, *INNOVATION*].

153. Mark A. Lemley, *Intellectual Property Rights in Standard-Setting Organizations*, 90 CALIF. L. REV. 1889, 1892 (2002) [hereinafter Lemley, *Intellectual Property Rights*].

154. *Id.* at 1897; see Thomas A. Hemphill, *Technology Standards Development, Patent Ambush and U.S. Antitrust Policy*, 27 TECH. SOC’Y 55, 56 (2005); Janice M. Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 BERKELEY TECH. L.J. 623, 632 (2002) [hereinafter Mueller, *Patent Misuse*].

155. See CARRIER, *INNOVATION*, *supra* note 152, at 325; Lemley, *Intellectual Property Rights*, *supra* note 153, at 1896.

156. See Mueller, *Patent Misuse*, *supra* note 154, at 635 (providing examples).

patents or pending patent applications related to the subject matter of a proposed standard.¹⁵⁷ If a participant breaches the disclosure duty and allows the SSO to adopt a standard that incorporates the participant's patented technology, the participant can "capture" the industry standard.¹⁵⁸ Then, the patentee could anticipate that (1) the resulting standard would infringe the relevant patents and (2) it would become "an indispensable licensor to anyone in the world seeking to produce [a standard]-compliant product."¹⁵⁹

To successfully assert implied waiver as an affirmative defense, the accused infringer must show that "the patentee had a duty of disclosure to the [SSO], and the patentee breached that duty."¹⁶⁰ A disclosure duty arises when clear and convincing evidence shows that the undisclosed patents "reasonably might be necessary"¹⁶¹ to practice the standard, which means that a reasonable competitor wouldn't expect to practice the standard without obtaining a license.¹⁶² Breach is the intentional shielding of relevant patents or patent applications from the SSO during development of the standard.¹⁶³

Even if breach is proven, the doctrine "should only be applied in instances where the patentee's misconduct resulted in [an] unfair benefit"¹⁶⁴ or an unjust competitive advantage.¹⁶⁵ The requirement "hinges on basic fairness"¹⁶⁶ and takes into account the harshness of the

157. See *id.* at 635–36; CARRIER, INNOVATION, *supra* note 152, at 327.

158. Mueller, *Patent Misuse*, *supra* note 154, at 628. Capture gives the patent owner significant power, including a demand for excessively high royalties. See CARRIER, INNOVATION, *supra* note 152, at 327–28 ("[P]atentees whose patents have been incorporated into the standard tend to have higher conceptions of what constitutes a reasonable royalty than licensees.").

159. Qualcomm Inc. v. Broadcom Corp., 548 F.3d 1004, 1021 n.7 (Fed. Cir. 2008) (internal quotation omitted); see also M. Sean Royall, Amanda Tessar & Adam Di Vincenzo, *Deterring "Patent Ambush" in Standard Setting: Lessons from Rambus and Qualcomm*, 23 ANTITRUST 34 (2009) (explaining that participants who successfully get or allow an SSO to adopt their patented technology acquire "considerable economic leverage"); Hemphill, *supra* note 154, at 56–57 ("This 'patent ambush' strategy enables patent holders to acquire market power and exercise it to suppress competition . . .").

160. Hynix Semiconductor Inc. v. Rambus Inc., 645 F.3d 1336, 1348 (Fed. Cir. 2011).

161. *Qualcomm*, 548 F.3d at 1017 (quoting Rambus Inc. v. Infineon Techs. AG, 318 F.3d 1081, 1100 (Fed. Cir. 2003)).

162. *Hynix*, 645 F.3d at 1348 (citing *Rambus*, 318 F.3d at 1101).

163. *Qualcomm*, 548 F.3d at 1020–21.

164. Core Wireless Licensing S.A.R.L. v. Apple Inc., 899 F.3d 1356, 1368 (Fed. Cir. 2018) (quoting *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1292 (Fed. Cir. 2011) (en banc)).

165. *Id.*

166. *Id.* (quoting *Therasense*, 649 F.3d at 1292).

unenforceability remedy.¹⁶⁷ Whether a benefit has been conferred isn't always clear and may require specific factfinding.¹⁶⁸ But there's an exception: in cases involving "egregious misconduct,"¹⁶⁹ a finding of implied waiver might be appropriate regardless of any benefit to the patentee.¹⁷⁰ What constitutes egregious misconduct is left to the district court's discretion.¹⁷¹

The remaining issue is the scope of the remedy—should it be universal unenforceability, relational enforceability, or something else? The Federal Circuit considered this question in *Qualcomm Inc. v. Broadcom Corp.*¹⁷² Having found that the patentee's intentional nondisclosure of a patent to a SSO resulted in an implied waiver, the district court rendered the patent unenforceable against the world.¹⁷³ Although the district court properly recognized that the remedy for waiver in the SSO context "should be fashioned to give a fair, just, and equitable response reflective of the offending conduct,"¹⁷⁴ the Federal Circuit determined that it erred by not limiting the scope of the unenforceability remedy to the (scope of the) underlying breach.¹⁷⁵ The court held the broadest possible remedy in the SSO context would be to render the patent unenforceable against all current and future standard-compliant products.¹⁷⁶

4. *Unclean Hands*. The Supreme Court has stated that the doctrine of unclean hands comes from the principle that the plaintiff, in addition to asserting a meritorious claim, must also "come into court

167. *See id.*

168. For instance, in *Core Wireless*, the SSO required participants to disclose patents that may become essential to the standard. *Id.* at 1365–66. When the SSO was accepting proposals for the standard, the patentee submitted one covering its invention and contemporaneously filed an undisclosed patent application. *Id.* at 1365. The SSO rejected the patentee's proposal in favor of a similar one that permitted, rather than required, use of the patentee's invention. *Id.* The accused infringer argued that the patentee's failure to disclose the patent application—notwithstanding the rejection of the proposal—constituted an implied waiver. *Id.* The district court rejected this argument and left the patent enforceable. *Id.* at 1366. Vacating, the Federal Circuit explained that the adopted standard *could* provide the patentee with an undeserved competitive advantage—an issue that required further consideration by the district court. *Id.* at 1368–69.

169. *Id.* at 1368 (quoting *Therasense*, 649 F.3d at 1292).

170. *Id.* at 1369.

171. *Id.*

172. *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1005 (Fed. Cir. 2008).

173. *Id.* at 1009.

174. *Id.* at 1026.

175. *Id.*

176. *Id.*

with clean hands.”¹⁷⁷ When the plaintiff attempts “to set the judicial machinery in motion and obtain some remedy, has violated conscience, or good faith, or any other equitable principle, in his prior conduct, then the doors of the court will be shut [T]he court will refuse . . . him any remedy.”¹⁷⁸

In *Keystone Driller* and *Precision Instrument*, the Supreme Court articulated the legal standard for the unclean hands defense in patent suits. Unclean hands is appropriate when the plaintiff’s alleged misconduct “has immediate and necessary relation” to the relief sought.¹⁷⁹ The alleged misconduct “need not necessarily have been of such a nature as to be punishable as a crime or as to justify legal proceedings of any character.”¹⁸⁰ However, just being a bad actor isn’t enough¹⁸¹ because the doctrine isn’t applied as a generalized punishment.¹⁸² Courts aren’t “bound by formula” and have “wide . . . use of discretion in refusing to aid the unclean litigant.”¹⁸³ An accused infringer asserting unclean hands must prove it with clear and convincing evidence.¹⁸⁴ A court’s conclusion of unclean hands leads to dismissal of the lawsuit, thereby preventing the patentee from enforcing the patent against the defendant.¹⁸⁵

177. *Keystone Driller Co. v. Gen. Excavator Co.*, 290 U.S. 240, 244 (1933) (quoting 1 JOSEPH STORY, COMMENTARIES ON EQUITY JURISPRUDENCE § 98, at 98 (W.H. Lyon, Jr. ed., 14th ed. 1918)).

178. *Id.* at 245 (quoting 1 POMEROY & POMEROY, *supra* note 7, § 397); *accord* *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 814 (1945) (“The guiding doctrine in this case is the equitable maxim that ‘he who comes into equity must come with clean hands.’”).

179. *Keystone Driller*, 290 U.S. at 245; *cf.* DOUGLAS LAYCOCK & RICHARD L. HASEN, MODERN AMERICAN REMEDIES 992 (5th ed. 2019) (“The bare minimum requirement is that ‘plaintiff’s improper conduct relates in some significant way to the claim he now asserts.’” (quoting *Salzman v. Bachrach*, 996 P.2d 1263, 1269 (Colo. 2001))).

180. *Precision Instrument*, 324 U.S. at 815.

181. *Keystone Driller*, 290 U.S. at 245; *see also* JAMES M. FISCHER, UNDERSTANDING REMEDIES 452 (3d ed. 2014) (noting that the unclean hands doctrine doesn’t bar recovery for “morally repugnant persons in general”).

182. *Keystone Driller*, 290 U.S. at 245 (“They apply the maxim, not by way of punishment for extraneous transgressions, but upon considerations that make for the advancement of . . . justice.”).

183. *Precision Instrument*, 324 U.S. at 815 (quoting *Keystone Driller*, 290 U.S. at 245–46).

184. *See In re Omeprazole Patent Litig.*, 483 F.3d 1364, 1374 (Fed. Cir. 2007); *Aptix Corp. v. Quickturn Design Sys., Inc.*, 269 F.3d 1369, 1374 (Fed. Cir. 2001).

185. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1287 (Fed. Cir. 2011) (en banc); *see also Precision Instrument*, 324 U.S. at 819 (holding that patentee’s failure to act to uproot and destroy effects of perjury was misconduct that “impregnated [its] entire cause of action and justified dismissal by resort to the unclean hands doctrine”); *Keystone Driller*, 290 U.S. at 247 (affirming dismissal of patentee’s cause of action due to litigation misconduct).

In *Therasense*, the Federal Circuit noted that “the unclean hands doctrine remains available to supply a remedy for egregious misconduct” in patent cases.¹⁸⁶ Because most appellate opinions involving unclean hands in patent law deal with litigation misconduct,¹⁸⁷ the potential reach of the doctrine for other types of misconduct had been uncertain. This changed in 2018 when the Federal Circuit issued its opinion in *Gilead Sciences, Inc. v. Merck and Co.*¹⁸⁸

To fully understand the impact of *Gilead*, it’s necessary to look briefly at the facts of this complex case. Merck and Gilead began a technology collaboration in the early 2000s to explore opportunities related to hepatitis C.¹⁸⁹ Gilead offered to share sofosbuvir, its lead compound,¹⁹⁰ with Merck under a nondisclosure agreement as long as Merck didn’t try to discern sofosbuvir’s chemical structure.¹⁹¹ Gilead agreed to share sofosbuvir’s structural information subject to a confidential “firewall” agreement in which the Merck chemist receiving the proprietary information wouldn’t be involved with Merck’s own internal hepatitis C research team.¹⁹² But Merck didn’t prevent an in-house lawyer-chemist involved in prosecuting Merck’s own hepatitis C patent applications from participating in a teleconference with Gilead.¹⁹³ During the call, this Merck attorney falsely stated that he was a firewalled employee and subsequently learned sofosbuvir’s chemical structure despite his involvement with

186. *Therasense*, 649 F.3d at 1287.

187. See, e.g., *Aptix*, 269 F.3d at 1375–78.

188. See *Gilead Scis. II*, 888 F.3d 1231, 1234 (Fed. Cir. 2018).

189. *Id.* at 1241.

190. “A ‘lead’ compound is [a new chemical entity] with sought for bioactivity but which requires further optimization, for example to improve its bioavailability or reduce certain side reactions, in order to become a useful drug.” RATIONAL DRUG DESIGN, at vii (Donald G. Truhlar, W. Jeffrey Howe, Anthony J. Hopfinger, Jeff Blaney & Richard A. Dammkoehler eds., 1999).

191. *Gilead Scis. II*, 888 F.3d at 1241.

192. See *id.* “A firewall is a key method to protect a confidential compound’s structural information, because it limits that confidential information to only individuals not involved with the project at hand, therefore maintaining confidentiality.” *Gilead Scis., Inc. v. Merck & Co.* (*Gilead Scis. I*), No. 13-CV-04057, 2016 WL 3143943, at *7 (N.D. Cal. June 6, 2016). For commentary on the role of firewalls in this context, see Robert Graham Gibbons & Bryan J. Vogel, *The Increasing Importance of Trade Secret Protection in the Biotechnology, Pharmaceutical and Medical Device Fields*, 89 J. PAT. & TRADEMARK OFF. SOC’Y 261, 273–77 (2007).

193. *Gilead Scis. II*, 888 F.3d at 1233 (“Dr. Phillipe Durette, a Merck chemist who had become a patent attorney, was central to their initial patenting efforts.”); *id.* at 1240–41 (noting that “Durette learned of” the chemical structure when joining a conference call “at Merck’s behest,” which violated the companies’ agreement “that call participants not be involved in related Merck patent prosecutions”).

Merck's hepatitis C research team.¹⁹⁴ The in-house attorney then proceeded to amend Merck's pending patent applications to focus on sofosbuvir.¹⁹⁵ Eventually, Merck's patents issued.¹⁹⁶ Meanwhile, Gilead began selling its hepatitis C drugs based on sofosbuvir.

In the ensuing litigation, Merck alleged that Gilead infringed its hepatitis C patents.¹⁹⁷ Gilead asserted invalidity and unenforceability due to unclean hands.¹⁹⁸ In a bench trial on the equitable unclean hands issue,¹⁹⁹ the district court found unclean hands due to litigation misconduct based on false testimony given by Merck's in-house lawyer-chemist,²⁰⁰ and prelitigation business misconduct involving the teleconference and patent application amendment activities, including the in-house attorney's failure to recuse himself after the firewall breach.²⁰¹ As a consequence, the court barred Merck from asserting its patents against Gilead.²⁰²

On appeal, the Federal Circuit affirmed.²⁰³ Focusing on the business misconduct, the court determined that the in-house attorney's improper acquisition of knowledge about sofosbuvir and subsequent application amendments "held the potential for expediting patent issuance and for lowering certain invalidity risks" in litigation.²⁰⁴ Together, these activities provide a "direct connection" to the relief

194. See *id.* at 1241–42.

195. See *id.* at 1242.

196. *Id.* at 1237–38, 1242.

197. See *id.* at 1233 (noting that after Merck researched hepatitis C treatments and obtained related patents, Gilead claimed that Merck's patents were invalid, so Gilead's related activities were not infringing. In response, "Merck counter-claimed for infringement").

198. See *id.* at 1233. Gilead raised several grounds of invalidity including inadequate written description, lack of enablement, derivation of the invention from another, and prior invention by another, § 102(g). See Gilead Scis., Inc.'s Renewed Motion for Judgment at 1, *Gilead Scis. I*, No. 13-CV-04057, 2016 WL 3143943 (N.D. Cal. June 6, 2016).

199. See *Pei-Herng Hor v. Ching-Wu Chu*, 699 F.3d 1331, 1337 (Fed. Cir. 2012).

200. See *Gilead Scis. II*, 888 F.3d at 1244.

201. See *id.* at 1240–41.

202. *Id.* at 1233.

203. *Id.* at 1248.

204. *Id.* at 1241. In affirming the district court's balancing of the equities, the Federal Circuit reasoned,

"[L]imiting the scope" of the claims would mean "fewer opportunities for prior art to . . . present an issue of patentability" under 35 U.S.C. §§ 102 and 103. That would be so during prosecution and also in a litigation challenge. And a narrowing amendment can reduce a patentee's risk on other invalidity issues, such as the risk that breadth can create under the requirement that the "full scope" of a claim be enabled. Such risks can be reduced even if, as here, the resulting claim still covers a large, though less large, number of compounds."

Id. at 1243–44, 1247.

sought (patent enforcement),²⁰⁵ thereby satisfying the Supreme Court's "immediate and necessary relation" standard.²⁰⁶

Gilead is a game-changer for equitable remedies in patent law. First, by broadening the types of misconduct that might be deemed unclean, *Gilead* shows the unclean hands doctrine's flexibility and breadth in patent law.²⁰⁷ Now the defense can reach back to prelitigation misconduct as long as there is a "direct connection" to the relief sought.²⁰⁸ Second and relatedly, *Gilead* shows that unclean hands isn't an antiquated defense; rather, it's a potent one that shouldn't be taken lightly.

II. FORFEITING THE RIGHT TO ENFORCE A PATENT

The preceding discussion explored how the defenses of inequitable conduct, patent misuse, implied waiver, and unclean hands address patentee misconduct in dealings with the Patent Office, licensing, standard setting, and litigation, respectively. But what about *other* types of patentee misconduct? As things now stand, a patentee who engages in egregious misconduct that doesn't fit into one of the extant buckets can avoid an unenforceability defense. This Part seeks to fill the unenforceability gap.

A. *Introducing the Defense of Patent Forfeiture*

To fill this unenforceability gap, this Article proposes a new general unenforceability defense called *patent forfeiture*. If a patentee engages in egregious pre- or post-issuance misconduct involving the patent and gains an inequitable benefit from it or harms a third party, the patentee may forfeit the right to enforce the patent until the misconduct has been abandoned and its ill effects have dissipated.²⁰⁹ Abandonment and dissipation are questions of fact to be resolved on a

205. *Id.* at 1241.

206. *See id.* at 1239, 1247.

207. Ned Snow explains the potential breadth of *Gilead*:

Gilead does not specifically hold that *any* unlawful conduct that is part of the process of creating an invention, or involved in the exercise of rights, would be reason to apply the unclean hands defense. But it is consistent with that understanding. All that *Gilead* requires is some sort of misconduct that would provide a claimant a legal advantage in the lawsuit, either with respect to his creation or enforcement of legal rights.

NED SNOW, INTELLECTUAL PROPERTY AND IMMORALITY 144 (2022).

208. *See supra* notes 205–206 and accompanying text.

209. *Cf. Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 493 (1942) (holding that a patent rendered unenforceable for misuse can be enforced again when "the improper practice has been abandoned and that the consequences of the misuse of the patent have been dissipated").

case-by-case basis.²¹⁰ If the patentee seeks remedies for infringement, they're only recoverable for infringement *after* the abandonment or dissipation.²¹¹ An accused infringer asserting patent forfeiture must prove the defense with clear and convincing evidence.²¹² The scope of the judicial remedy can range from a temporary suspension of the right to enforce the patent to universal unenforceability. As with the other affirmative defenses,²¹³ patent forfeiture must be raised in a responsive pleading. Applying patent forfeiture is left to the sound discretion of the district court.²¹⁴

Let me elaborate a bit on the elements of the defense. First, why the name patent *forfeiture*? Although forfeiture has various meanings in law²¹⁵ (including patent law),²¹⁶ for the purposes of this Article, it

210. See, e.g., *U.S. Gypsum Co. v. Nat'l Gypsum Co.*, 352 U.S. 457, 474–75 (1957) (applying a factual analysis in evaluating patent misuse).

211. See *B.B. Chem. Co. v. Ellis*, 314 U.S. 495, 498 (1942) (“It will be appropriate to consider petitioner’s right to relief when it is able to show that it has fully abandoned its present method of restraining competition in the sale of unpatented articles and that the consequences of that practice have been fully dissipated.”).

212. The extant defenses of inequitable conduct, implied waiver and unclean hands must each be proven by clear and convincing evidence. See *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc) (stating that a claim of inequitable conduct requires clear and convincing evidence); *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1348 (Fed. Cir. 2011) (stating that a finding of implied waiver requires clear and convincing evidence); *Aptix Corp. v. Quickturn Design Sys., Inc.*, 269 F.3d 1369, 1374 (Fed. Cir. 2001) (noting that the trial court required clear and convincing evidence to find unclean hands). The Federal Circuit hasn’t articulated a standard of proof for patent misuse; however, federal district courts have applied a preponderance standard. See, e.g., *Rohm & Hass Co. v. Owens-Corning Fiberglass Corp.*, 196 U.S.P.Q. 726, 742–43 (N.D. Ala. 1977) (“[Defendant’s] burden is then to prove misuse by a preponderance of the evidence.”); *Watson Packer, Inc. v. Dresser Indus.*, 193 U.S.P.Q. 552, 559 (N.D. Tex. 1977) (same).

213. See 35 U.S.C. § 282(b) (“The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded: (1) Noninfringement, absence of liability for infringement or unenforceability.”).

214. Unenforceability is “an equitable decision committed to the discretion of the district court.” *eSpeed, Inc. v. BrokerTec USA, L.L.C.*, 480 F.3d 1129, 1135 (Fed. Cir. 2007); see *supra* note 3 and accompanying text. Other equitable defenses, including laches and equitable estoppel, are similarly left to the trial court’s discretion. *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992) (en banc).

215. See, e.g., *United States v. Olano*, 507 U.S. 725, 733 (1993) (“[F]orfeiture is the failure to make the timely assertion of a right . . .”); *Forfeiture*, BLACK’S LAW DICTIONARY (11th ed. 2019) (defining forfeiture as “[t]he loss of a right, privilege, or property because of a crime, breach of obligation, or neglect of duty”).

216. For example, the inventor’s pre-filing non-informing public use of the invention or secret commercial exploitation of it beyond the statutory grace period can “forfeit[] his right [to patent] regardless of how little the public may have learned about the invention.” *Metallizing Eng’g Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516, 520 (2d Cir. 1946) (opinion of Hand, J.). But a third party engaging in the same activities doesn’t forfeit the right to patent the invention. See

occurs when a party “loses some right, property, privilege or benefit in consequence of having done or omitted to do a certain act.”²¹⁷ As proposed herein, the patentee may lose the right to enforce the patent if each element of the defense is proven. Again, the loss of right may be temporary or universal.

Second, egregious misconduct must be an unmistakable, “unequivocal act.”²¹⁸ It doesn’t apply to behavior that’s merely misleading or “where the patentee only committed minor missteps or acted with minimal culpability or in good faith.”²¹⁹ Thus, the egregious misconduct standard, while “sensitive to varied facts and equitable considerations,” is reserved for “captur[ing] extraordinary circumstances.”²²⁰ The proscribed act, as I illustrate below, can be an affirmative undertaking or an omission by the patentee.

Third, a showing of inequitable benefit to the patentee or third-party harm is an essential element of the defense. This reveals a critical difference between patent forfeiture and the extant defenses of inequitable conduct and implied waiver. For inequitable conduct, recall that the information that the patentee intentionally withheld from the Patent Office must be material to patentability.²²¹ The inequitable benefit is the issuance of a patent that otherwise wouldn’t have issued.²²² But *Therasense* created an exception to the materiality requirement if the patentee engaged in “affirmative acts of egregious misconduct.”²²³ Similarly for implied waiver, a showing of inequitable benefit is unnecessary if the patentee engaged in egregious misconduct.²²⁴ By contrast, patent forfeiture is unavailable if the patentee didn’t harm a third party or gain an inequitable benefit from

W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1550 (Fed. Cir. 1983) (holding that “secret commercialization of a process” by a third party cannot prevent the grant of a patent).

217. *Affiliated Cap. Corp. v. Sw., Inc.*, 862 S.W.2d 30, 33 (Tex. App. 1993) (quoting *State v. Compton*, 179 S.W.2d 501, 503 (Tex. 1944)).

218. *Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1235 (Fed. Cir. 2011).

219. *Star Sci., Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1366 (Fed. Cir. 2008).

220. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1293 (Fed. Cir. 2011) (en banc).

221. *See id.* at 1290; *supra* note 110 and accompanying text.

222. *See Therasense*, 649 F.3d at 1291 (“[I]n assessing the materiality of a withheld reference, the court must determine whether the PTO would have allowed the claim if it had been aware of the undisclosed reference.”); *supra* notes 110–112 and accompanying text.

223. *Therasense*, 649 F.3d at 1292; *see supra* notes 117–119 and accompanying text.

224. *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1368 (Fed. Cir. 2018) (holding that a showing of either prejudice or egregious misconduct may justify patent unenforceability in implied waiver cases).

the misconduct. What constitutes third-party harm or an inequitable benefit will depend on the facts of the case.²²⁵

Fourth, patent forfeiture has a relatedness requirement.²²⁶ There must be a nexus between the patentee's alleged misconduct and the resulting inequitable benefit or third-party harm for a court to render a patent unenforceable.²²⁷ Whether a sufficient nexus has been established will necessarily depend on the facts of each case. But there's a limiting principle. *Collateral misconduct*—affirmative acts or omissions that are too attenuated or otherwise insufficient to show this nexus—should be ignored.²²⁸

Fifth, like patent misuse, the party asserting patent forfeiture need not be a direct victim of the patentee's egregious misconduct.²²⁹ Deterrence and redress are the key policy rationales for this lack-of-injury requirement.²³⁰

225. Cf. *id.* at 1369 (holding that inequitable benefit must be determined at the district court level for implied waiver).

226. Most of the extant unenforceability defenses have a nexus requirement—the patentee's misconduct must relate in some significant way to the claim that's the subject matter of the dispute or be material to the patent's enforcement. For example, inequitable conduct typically requires proof that the patentee intentionally withheld information from the Patent Office that was material to patentability. See *Therasense*, 649 F.3d at 1290. *Gilead* explains that applying unclean hands is only appropriate when the plaintiff's alleged misconduct “has immediate and necessary relation” to the relief sought. *Gilead Scis. II*, 888 F.3d 1231, 1239 (Fed. Cir. 2018) (quoting *Keystone Driller Co. v. Gen. Excavator Co.*, 290 U.S. 240, 245). This includes “the potential for expediting patent issuance and for lowering certain invalidity risks” in litigation. *Id.* at 1241.

227. Cf. *In re Uwimana*, 274 F.3d 806, 810 (4th Cir. 2001) (“A court can deny relief under the doctrine of unclean hands only when there is a close nexus between a party's unethical conduct and the transactions on which that party seeks relief.”); *Mantek Div. of NCH Corp. v. Share Corp.*, 780 F.2d 702, 707 (7th Cir. 1986) (adopting the “sufficient nexus” requirement from *Precision Instrument*).

228. As explained in the Second Restatement of Torts,

The plaintiff's relief will not be jeopardized . . . unless his misconduct relates directly to the controversy immediately involved in this . . . suit. Collateral misdeeds, no matter how indicative of general unworthiness, are not presently material. Since the rationale of the doctrine of unclean hands is that equity will not aid a person to reap the benefits of his own misconduct, a misdeed is regarded as “collateral” in this context when the right for which the plaintiff seeks protection . . . did not accrue to him because of the misdeed.

RESTATEMENT (SECOND) OF TORTS § 940 cmt. c (AM. LAW. INST. 1979); cf. *Republic Molding Corp. v. B.W. Photo Util.*, 319 F.2d 347, 349 (9th Cir. 1963) (explaining in a patent infringement suit that “misconduct in the abstract, unrelated to the claim to which it is asserted as a defense, does not constitute unclean hands” because “[t]he concept invoking the denial of relief is not intended to serve as punishment for extraneous transgressions”).

229. See *supra* note 146 and accompanying text.

230. See *infra* Part III.A.

Sixth, patent forfeiture renders the patent unenforceable against all infringers while the misconduct or its ill effects persist.²³¹ But the patentee can reestablish enforceability by purging,²³² which is justified (as with patent misuse) because the alleged egregious misconduct doesn't taint the patent right *ab initio*.²³³ Giving the patentee the ability to purge reduces the potential harshness of the defense²³⁴ and strikes a balance between the countervailing policies of the need to preserve the incentive to invent and the necessity to restrain patentees from engaging in egregious misconduct involving the patent.²³⁵

B. Exemplary Scenarios

Below I illustrate a range of factual scenarios where an accused infringer could plausibly assert patent forfeiture. These illustrations will also show where asserting patent forfeiture may fail.

1. *Using a Patent to Promote Falsities About Health and Safety.* Americans have become more concerned over time with physical health.²³⁶ The Food and Drug Administration ("FDA") reports that three out of every four Americans—including four out of five older adults and one in three children—regularly take dietary supplements²³⁷

231. See *supra* note 209 and accompanying text.

232. See *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488, 493 (1942) (holding that a patent rendered unenforceable for misuse can be enforced again when "the improper practice has been abandoned and that the consequences of the misuse of the patent have been dissipated"); *supra* note 209 and accompanying text.

233. The opposite is true for inequitable conduct. See *supra* Part I.C.1.

234. Cf. William J. Nicoson, *Misuse of the Misuse Doctrine*, 9 UCLA L. REV. 76, 99 (1962) (exploring the criticism that the patent misuse doctrine is "a harsh and repelling rule . . . because it involves the assertion of power to decree the forfeiture of private property [during the period of misuse] wholly as a matter of judicial prerogative").

235. Cf. Alan J. Statman, *Purging the Misuse - Suggestions for a Reasonable Balance of Conflicting Policies*, 21 WM. & MARY L. REV. 475, 481 (1979) (making a similar argument for purging patent misuse).

236. See generally, e.g., ANUSCHKA REES, *BEYOND BEAUTIFUL: A PRACTICAL GUIDE TO BEING HAPPY, CONFIDENT, AND YOU IN A LOOKS-OBSSESSED WORLD* (2019) (discussing how body image and beauty narrative discussions in the media have been shifting toward a healthier direction).

237. The U.S. Code defines a "dietary supplement" as

a product (other than tobacco) intended to supplement the diet that bears or contains one or more of the following dietary ingredients: (A) a vitamin; (B) a mineral; (C) an herb or other botanical; (D) an amino acid; (E) a dietary substance for use by man to supplement the diet by increasing the total dietary intake; or (F) a concentrate, metabolite, constituent, extract, or combination of any [of the aforementioned ingredients].

21 U.S.C. § 321(ff).

to achieve their health goals.²³⁸ To be sure, dietary supplements are big business—Americans spend over \$40 billion on as many as eighty thousand different products annually.²³⁹

Unlike with prescription drugs, the FDA doesn't require dietary supplements to be proven safe and effective before they're marketed.²⁴⁰ The burden of proving that a dietary supplement doesn't do what it purports to do rests with the federal government.²⁴¹ And while a dietary supplement label must contain a disclaimer that statements regarding safety and efficacy "[have] not been evaluated by the [FDA]" and that the product "is not intended to diagnose, treat, cure, or prevent any disease,"²⁴² many consumers believe otherwise.²⁴³ Consumers *want* to believe that a dietary supplement will make them look and feel better,²⁴⁴ and do believe that dietary supplements are safer or more natural than prescription drugs.²⁴⁵ Nevertheless, paid

238. Press Release, FDA, Statement from FDA Commissioner Scott Gottlieb, M.D., on the Agency's New Efforts To Strengthen Regulation of Dietary Supplements by Modernizing and Reforming FDA's Oversight (Feb. 11, 2019), <https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-agencys-new-efforts-strengthen-regulation-dietary> [<https://perma.cc/7KBH-JT9S>].

239. *Id.*; see also Jo Craven McGinty, *The Fine Print of Dietary Supplements*, WALL ST. J. (June 25, 2021, 5:30 AM), <https://www.wsj.com/articles/the-fine-print-of-dietary-supplements-11624613402> [<https://perma.cc/9URK-38BP>] ("[D]ietary supplements are more popular than ever.").

240. See Dietary Supplement Health and Education Act of 1994, Pub. L. No. 103-417, § 2(13)–(14), 108 Stat. 4325, 4326. In passing the legislation, Congress found that "although the Federal Government should take swift action against products that are unsafe or adulterated, the Federal Government should not take any actions to impose unreasonable regulatory barriers limiting or slowing the flow of safe products and accurate information to consumers." *Id.* § 2(13). Further, "dietary supplements are safe within a broad range of intake, and safety problems with the supplements are relatively rare." *Id.* § 2(14).

241. 21 U.S.C. § 342(f)(1).

242. *Id.* § 343(r)(6)(C).

243. See Karen Russo France & Paula Fitzgerald Bone, *Policy Makers' Paradigms and Evidence from Consumer Interpretations of Dietary Supplement Labels*, 39 J. CONSUMER AFFS. 27, 47 (2005) (finding that certain classes of consumers are predisposed to a potentially baseless belief in the efficacy of supplements); see also Laura A.W. Khatcheressian, *Regulation of Dietary Supplements: Five Years of DSHEA*, 54 FOOD & DRUG L.J. 623, 637–38 (1999) (noting that the FDA regulatory scheme allows supplement manufacturers to suggest the presence of unverified curative benefits to consumers).

244. See Sapna Maheshwari, *Tricky Ads from a Vitamin Company That Talks Up Openness*, N.Y. TIMES (Sept. 2, 2018), <https://www.nytimes.com/2018/09/02/business/media/tricky-ads-from-a-vitamin-company-that-talks-up-openness.html> [<https://perma.cc/UMS3-76DA>].

245. Christie Aschwanden, *Prohibited, Unlisted, Even Dangerous Ingredients Turn up in Dietary Supplements*, WASH. POST (June 30, 2021, 3:57 PM), https://www.washingtonpost.com/health/contaminated-supplements-unexpected-ingredients/2021/06/25/5d2227ec-bd62-11eb-83e3-0ca705a96ba4_story.html [<https://perma.cc/UNY3-LZTR>].

advertisements and testimonials²⁴⁶ allow manufacturers to get away with making dubious claims—even if science shows that the products provide little or no health benefits.²⁴⁷

If a dietary supplement is *patented*, this can fuel dubious claims and exacerbate a consumer's confusion about safety and efficacy.²⁴⁸ The problem is a belief among consumers that the federal government never issues patents on products that don't work as described.²⁴⁹ In 1962, Judge Arthur Smith²⁵⁰ tried to dispel this myth:

[T]he issuance of a patent is not in fact an "imprimatur" as to the safety and effectiveness of any . . . product for any purpose [A patent] is no guarantee of anything The public, therefore, is in no way protected either by the granting or withholding of a patent.²⁵¹

Nonetheless, an unscrupulous patentee "may advertise its patent to convince gullible consumers that a patent represents the government's endorsement or imprimatur that the advertised product is actually effective."²⁵² This isn't unlike the common nineteenth-

246. Maheshwari, *supra* note 244.

247. See Pieter A. Cohen, *The Supplement Paradox: Negligible Benefits, Robust Consumption*, 316 JAMA 1453, 1453 (2016) (discussing a study showing that many supplements are no more effective than placebos); Jane E. Brody, *Studies Show Little Benefit in Supplements*, N.Y. TIMES, Nov. 15, 2016, at D5 (discussing the Cohen article and other studies); Tamar Haspel, *Most Supplements Don't Have a Milligram of Benefit*, WASH. POST, Jan. 29, 2020, at E1 (discussing interviews with National Institute of Health personnel who explain that few dietary supplements have well-established benefits).

248. This raises the interesting question of patent law's audience—specifically, do consumers actually read patents? See, e.g., Mark D. Janis & Timothy R. Holbrook, *Patent Law's Audience*, 97 MINN. L. REV. 72, 73–75 (2012) (discussing the potential remoteness of patent law from those who may be expected to interact with it).

249. Daniel C. Rislove, Comment, *A Case Study of Inoperable Inventions: Why Is the USPTO Patenting Pseudoscience?*, 2006 WIS. L. REV. 1275, 1280; see also *Isenstein v. Watson*, 157 F. Supp. 7, 9 (D.D.C. 1957) (contending that the patent grant "gives a kind of official imprimatur to the [invention] in question on which as a moral matter some members of the public are likely to rely"); Cynthia M. Ho, *Splicing Morality and Patent Law: Issues Arising from Mixing Mice and Men*, 2 WASH. U. J.L. & POL'Y 247, 253 n.29 (2000) (noting that issuing patents covering controversial technologies might be viewed as governmental endorsement).

250. Judge Smith was regarded as one of the nation's preeminent patent attorneys before joining the C.C.P.A. See Lynn E. Eccleston & Harold C. Wegner, *The Rich-Smith Years of the U.S. Court of Customs and Patent Appeals*, 3 J. FED. CIR. HIST. SOC'Y 49, 50 (2009).

251. *In re Hartop*, 311 F.2d 249, 263 (C.C.P.A. 1962) (Smith, J., concurring).

252. Christopher R. Leslie, *Patents of Damocles*, 83 IND. L.J. 133, 144 (2008); see also Timothy R. Holbrook, *The Expressive Impact of Patents*, 84 WASH. U. L. REV. 573, 577 (2006) ("The government imprimatur attending the patent grant can confirm the technical . . . legitimacy of a technology.").

century practice to emphasize a product's "patented" status, like the phrase "patent medicine," to mislead the public.²⁵³

In the not-too-distant past, courts relied on substantive patent law to avoid this problem. Recall that 35 U.S.C. § 101 requires that an invention be useful.²⁵⁴ The courts have interpreted the statute to require, among other things, that the invention be able to achieve its intended result.²⁵⁵ In the mid-twentieth century, the courts ratcheted up the utility standard for therapeutic inventions that seemed incredible or dubious.²⁵⁶ Good public policy demanded the strict policing of these inventions to protect the public from potentially harmful products,²⁵⁷ derail unscrupulous patentees,²⁵⁸ and to send the right signal.²⁵⁹ This has changed: the courts now make clear that safety and efficacy are no longer prerequisites for patenting.²⁶⁰ So under the

253. CHISUM, *supra* note 50, § 4.04[2][a].

254. 35 U.S.C. § 101 ("Whoever invents or discovers any new and *useful* process, machine, manufacture, or composition of matter . . . may obtain a patent" (emphasis added)). Utility is regarded as an essential condition for patentability. *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966) (identifying the "three explicit conditions" for patentability as novelty, utility, and nonobviousness); *Stiftung v. Renishaw PLC*, 945 F.2d 1173, 1180 (Fed. Cir. 1991) ("[Utility is] a fundamental requirement of American patent law, dating back some two-hundred years . . .").

255. This is the "operability" prong of the utility requirement. *See Mitchell v. Tilghman*, 86 U.S. (19 Wall.) 287, 396 (1873) (explaining that utility is lacking "where it appears that [the invention] is not capable of being used to effect the object proposed"); *In re Perrigo*, 48 F.2d 965, 966 (C.C.P.A. 1931) ("It is fundamental in patent law that an alleged invention . . . must appear capable of doing the things claimed . . .").

256. *See In re Citron*, 325 F.2d 248, 253 (C.C.P.A. 1963) (holding that clear and convincing proof of utility is required when the invention purports to have a publicly important therapeutic utility, and that utility appears to be either incredible in light of current knowledge or factually misleading); *In re Ferens*, 417 F.2d 1072, 1074 (C.C.P.A. 1969) (describing the need for usefulness evidence that "would be clear and convincing to one of ordinary skill" in the field). Ordinarily the burden is on the Patent Office to prove inoperability. *See In re Brana*, 51 F.3d 1560, 1566 (Fed. Cir. 1995).

257. As recognized by the Patent Office:

The Office is particularly bound to take notice of the question of utility, because . . . a [patent] grant is an assurance to the public of the conclusions of the Office Cases are not unknown where patents have been secured . . . and then used simply to impose on a public not disposed to scrutinize closely the merits of a matter upon which the Patent Office has set the seal of its approval.

Ex parte Moore, 128 U.S.P.Q. 8, 9 (Bd. Pat. App. 1960) (quoting *Ex parte De Bausset*, 43 Off. Gaz. Pat. Office 1583, 1585 (1888)), *cited with approval in In re Citron*, 325 F.2d 248 at 253.

258. *See supra* note 252 and accompanying text.

259. *See Holbrook*, *supra* note 252, at 599–600 (explaining that governments may choose to deny patents on certain inventions in order to eliminate the signal of perceived endorsement or encouragement).

260. *Scott v. Finney*, 34 F.3d 1058, 1063–64 (Fed. Cir. 1994) (explaining that these determinations are best left to the FDA); *cf. In re Krimmel*, 292 F.2d 948, 954 (C.C.P.A. 1961) (holding that as to whether the claimed drug was safe and effective for humans, "[i]t is not for us

status quo, an unscrupulous patentee can exploit the patented status of a dietary supplement to bolster dubious therapeutic claims on unwitting consumers with no patent law repercussions.

The defense of patent forfeiture, however, could dramatically change this calculus. To illustrate, consider the following hypothetical. Inventor seeks to treat colorectal cancer, the third most common cancer diagnosed in the United States.²⁶¹ Recognizing that dietary factors are likely responsible for 70–90 percent of colorectal cancer,²⁶² Inventor knows that broccoli contains an enzyme, *A*, that's involved in the human body's mechanism for detoxifying potential colorectal carcinogens.²⁶³ Inventor also recognizes that many consumers don't like broccoli's bitter taste.²⁶⁴ So Inventor develops a genetically-modified broccoli plant that lacks the bitter taste and contains novel enzyme *A'*, which is nearly identical in structure and function to *A*. Inventor obtains a patent that claims a method for making the genetically-modified broccoli plant, a tablet of broccoli extract that contains high levels of *A'*, and a method of reducing the level of colorectal carcinogens in a human by eating the genetically-modified broccoli plant or consuming the tablet.²⁶⁵ Soon after issuance, Inventor learns about epidemiologic studies showing (1) a *weak* inverse

or the Patent Office to legislate and if the Congress desires to give this responsibility to the Patent Office, it should do so by statute"); *see also In re Sichert*, 566 F.2d 1154, 1160 (C.C.P.A. 1977) (noting that a minimal level of safety will satisfy § 101).

261. *Key Statistics for Colorectal Cancer*, AM. CANCER SOC'Y, <https://www.cancer.org/cancer/colon-rectal-cancer/about/key-statistics.html> [<https://perma.cc/X8GH-9KLM>], (last updated Jan. 12, 2022).

262. Marinos Pericleous, Dalvinder Mandair & Martyn E. Caplin, *Diet and Supplements and Their Impact on Colorectal Cancer*, 4 J. GASTROINTESTINAL ONCOLOGY 409, 409 (2013).

263. *See* Elizabeth H. Jeffery & Marcela Araya, *Physiological Effects of Broccoli Consumption*, 8 PHYTOCHEMICAL REV. 283, 283 (2009) (affirming that studies suggest that consumption of broccoli can mitigate the risk of cancer); Debasish Das, Nadir Arber & Janusz A. Jankowski, *Chemoprevention of Colorectal Cancer*, 76 DIGESTION 51, 59 (2007) (discussing studies that examine the relationship between fruit and vegetable intake and colorectal cancer).

264. *See* Yuchi Shen, Orla B. Kennedy & Lisa Methven, *Exploring the Effects of Genotypical and Phenotypical Variations in Bitter Taste Sensitivity on Perception, Liking and Intake of Brassica Vegetables in the UK*, 50 FOOD QUALITY & PREFERENCE 71, 71 (2016) (highlighting that taste impacts food perception and often leads consumers to reject broccoli's family of vegetables).

265. Note that trying to patent a method for using enzyme *A*, present in regular broccoli, would be unsuccessful for a lack of novelty under 35 U.S.C. § 102(a). *See In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1351–52 (Fed. Cir. 2002). Novelty would be lacking because humans have been eating broccoli and, consequently, receiving the cancer-preventative benefits of *A* long before the scientific discoveries. *See id.* at 1346 (explaining that “broccoli sprouts . . . [cannot] be patented merely on the basis of a recent realization that the plant has always had some heretofore unknown but naturally occurring beneficial feature” (quoting *In re Cruciferous Sprout Litig.*, 168 F. Supp. 2d 534, 537 (D. Md. 2001)) (parentheses omitted)).

association between broccoli consumption and the risk of colorectal cancer;²⁶⁶ and (2) genetics matter: there are substantial, individualized differences in colorectal cancer risk and the preventive effect of A-type enzymes.²⁶⁷ Inventor nonetheless begins selling the patented tablet as a dietary supplement with a product label that reads:

Are you fearful of colonoscopies? The U.S. government has awarded the inventors a patent for their groundbreaking research in developing a new broccoli plant containing a novel enzyme that prevents colorectal cancer. Consuming a tablet once a day is a safe and effective way to prevent colorectal cancer.

Inventor markets the product by posting the label on its social media sites. Consumers quickly buy the product in large amounts, which marketing research shows is due to the label's assertions.

Inventor subsequently sues Competitor for the unlicensed use of the patented method in Competitor's cruciferous plant research. Competitor could plausibly raise *two* unenforceability defenses based on Inventor's alleged misstatements on the product label.²⁶⁸ That is, this is a scenario where two defenses overlap. First, Competitor could assert unclean hands under the theory that the alleged misstatements constitute prelitigation business misconduct akin to *Gilead*.²⁶⁹ Second, Competitor could assert patent forfeiture. Importantly for both defenses, Competitor argues that the label clearly shows egregious misconduct—Inventor is using the tablet's patented status to suggest to an unwitting public that the product can prevent colorectal cancer and dispense with the need for colonoscopy screenings. Aside from jeopardizing public health, Inventor knows from the epidemiologic studies that the asserted efficacy claims are weak. Thus, Competitor

266. See Q.J. Wu, Y. Yang, E. Vogtmann, J. Wang, L.H. Han, H.L. Li & Y.B. Xiang, *Cruciferous Vegetables Intake and the Risk of Colorectal Cancer: A Meta-Analysis of Observational Studies*, 24 ANN. ONCOLOGY 1079, 1081 (2013).

267. See Johanna W. Lampe & Sabrina Peterson, *Brassica, Biotransformation and Cancer Risk: Genetic Polymorphisms Alter the Preventive Effects of Cruciferous Vegetables*, 132 J. NUTRITION 2991, 2992 (2002).

268. One might ask if Competitor could seek relief from the FDA. Unlike "conventional" food and drug products, the FDA has limited authority to act against allegedly misbranded or falsely marketed dietary supplements. *Dietary Supplements*, FDA, <https://www.fda.gov/food/dietary-supplements> [<https://perma.cc/RF3H-GTHB>], (last updated June 2, 2022). It also has the burden of proving that a dietary supplement doesn't do what it purports to do. 21 U.S.C. § 342(f)(1). Regardless, pursuing relief with the FDA isn't a defense to patent infringement. Asserting and proving common law fraud has similar complexities, including the burden of proving five elements. See *supra* note 102 and accompanying text.

269. See *supra* Part I.C.4.

argues, Inventor's conduct constitutes an intentional, unequivocal act of misconduct that, by jeopardizing public health, constitutes third-party harm—a necessary element for patent forfeiture. Moreover, the marketing data shows that Inventor obtained an inequitable benefit—revenue from product sales—traceable to the misconduct. This also establishes the requisite nexus.

Even if both unclean hands and patent forfeiture are plausible defenses, only patent forfeiture allows the patentee to cure the misconduct. So given the option, a court sitting in equity might prefer (curable) patent forfeiture over unclean hands.²⁷⁰ Recall that patent forfeiture would allow a district court to render the patent-in-suit unenforceable against all infringers until the misconduct ceases or its ill effects dissipate.²⁷¹ Perhaps the most straightforward way for Inventor to cease the misconduct would be to revise the product label by omitting the misleading information. Dissipation couldn't happen until Inventor purges the market of products with the misleading label.

2. *Plagiarism in Patent Documents.* Plagiarism is “[t]he deliberate and knowing presentation of another person's original ideas or creative expressions as one's own”²⁷² or, more simply stated, “unacknowledged copying.”²⁷³ In patent law, most attention has been paid to plagiarism where either: the patent attorney or agent preparing an application incorporates unattributed portions of another's patent into the application,²⁷⁴ or the inventor copies someone's else work into the inventor's own application, and the copied work is material to patentability.²⁷⁵ Disciplinary rules, copyright law, malpractice liability, and inequitable conduct can be used to police these activities.²⁷⁶

270. Recall that the America Invent Act's supplemental examination process allows a patentee to cure potential inequitable conduct. See *supra* notes 126–131 and accompanying text.

271. See *supra* Part II.A.

272. *Plagiarism*, BLACK'S LAW DICTIONARY (11th ed. 2019).

273. Richard A. Posner, *On Plagiarism*, THE ATLANTIC (Apr. 2002) [hereinafter Posner, *On Plagiarism*], <https://www.theatlantic.com/magazine/archive/2002/04/on-plagiarism/302469> [<https://perma.cc/AA2K-RL4B>].

274. See, e.g., *Cold Spring Harbor Lab'y v. Ropes & Gray LLP*, 840 F. Supp. 2d 473, 477–78 (D. Mass. 2012) (discussing the practice of copying text in patent applications).

275. See, e.g., *Junker v. Med. Components, Inc.*, No. 13-4606, 2016 WL 7427767, at *7 (E.D. Pa. Dec. 21, 2016) (discussing the practice of including a true inventor's work in a patent application without proper attribution).

276. David Hricik, *The Same Thing Twice: Copying Text from One Client's Patent into Another's Application*, LANDSLIDE, May/June 2013, at 23–24; *Junker*, 2016 WL 7427767, at *7 (determining that incorporating the plagiarized drawing in the application suggested that the

Here, I focus on a different type of misconduct relating to when an inventor plagiarizes another's work for a pecuniary benefit unrelated to patentability. For example, an inventor with an unproven product or track record seeks to bolster the "Background" section of the patent document to favorably impress potential investors or licensees about quality, while simultaneously signaling the value of the resulting patent.²⁷⁷

To explore whether fabricated expertise could result in patent forfeiture, consider the following hypothetical. Inventor develops a consumer inkjet printer that touts 100 pages per minute.²⁷⁸ Recognizing that potential licensees might doubt Inventor's assertions, Inventor obtains technical documents from Xerox about its high-speed commercial inkjet printer and incorporates that information in the "Brief Summary of the Invention" of its patent application.²⁷⁹ Inventor asserts that 100 pages per minute improves upon the state of inkjet printing, where low printing speeds have been a notable shortcoming (which Inventor described in the "Background of the Invention").²⁸⁰ Because Inventor doesn't *claim* the plagiarized information, the Patent Office ignores it.²⁸¹ Inventor successfully licenses the invention upon patent issuance. At the negotiation, Licensee states that Inventor's

applicant intentionally submitted materially false information to the Patent Office about inventorship).

277. See WILLIAM J. MURPHY, JOHN L. ORCUTT & PAUL C. REMUS, *PATENT VALUATION: IMPROVING DECISION MAKING THROUGH ANALYSIS* 115–16 (2012) (describing how firms signal their strength); see also Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1505–06 (2001) ("Venture capitalists use client patents (or more likely, patent applications) as evidence that the company is well managed, is at a certain stage in development, and has defined and carved out a market niche.").

278. Cf. Means for Higher Speed Inkjet Printing, U.S. Patent No. 10,166,765 (filed Aug. 7, 2017) (describing a method and apparatus that "substantially decreases printing time").

279. This part of the patent application "apprise[s] the public, and more especially those interested in the particular art to which the invention relates, of . . . the exact nature, operation, and purpose of the invention." U.S. PAT. & TRADEMARK OFF., *MANUAL OF PATENT EXAMINING PROCEDURE* § 608.01(d) (9th ed. 10th rev. 2020) [hereinafter MPEP]. The MPEP provides guidance to patent examiners and is entitled to judicial notice as the Patent Office's official interpretation of statutes and regulations. See *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1180 n.10 (Fed. Cir. 1995). The MPEP "is also made available to patent applicants and their lawyers as well as to the general public . . . [and] is used frequently by patent lawyers and agents in advising applicants and in preparing their various papers for filing in the Patent Office." *In re Kaghan*, 387 F.2d 398, 401 (C.C.P.A. 1967).

280. This part of a patent describes, *inter alia*, "the problems involved in the prior art or other information disclosed which are solved by the applicant's invention." MPEP, *supra* note 279, § 608.01(c).

281. See *In re Antor Media Corp.*, 689 F.3d 1282, 1288 (Fed. Cir. 2012) ("Unlike claimed disclosures in a patent, unclaimed disclosures are . . . not examined by the [Patent Office] at all.").

technical expertise, as revealed in the patent document, was a critical factor in reaching an agreement. Inventor learns about Competitor's unlicensed use of the patented technology and sues for infringement. During discovery, Competitor identifies Inventor's plagiarism and raises the defense of patent forfeiture.

The first analytical step is to determine if Inventor's plagiarism constitutes egregious misconduct. To meet this standard, the alleged act must be more than merely misleading and more than a minor misstep; it must've been done in bad faith; and must be unequivocal and extraordinary.²⁸² Here the answer is unclear. Inventor's misconduct is more than merely misleading and more than a minor misstep because it's a deliberate plan to deceive. Thus, Inventor acted in bad faith. But it's debatable if Inventor's misconduct is unequivocal and extraordinary. Anecdotal evidence suggests that another type of plagiarism—copying background information from another's patent document into one's own patent application—is an “accepted practice” among patent practitioners.²⁸³ The rationale is the same as Inventor's—unacknowledged copying is innocuous because *unclaimed* information is immaterial to patentability.²⁸⁴ And some might argue that copying

282. See *supra* notes 218–220 and accompanying text.

283. Defendant Ropes & Gray LLP's Memorandum of Law in Support of its Motion To Dismiss Plaintiff's First Amended Complaint at 4 n.3, *Cold Spring Harbor Lab. v. Ropes & Gray LLP*, 840 F. Supp. 2d 473 (D. Mass. 2012) (No. 11-CV-10128). In responding to its client's malpractice claim based on the attorney's alleged plagiarism of another patent document, the defendant law firm argued that the plaintiff “does not contend that there is anything inherently wrong with copying text into a patent application.” *Id.* at 4. For support, the defendant stated:

To the contrary, such copying is accepted practice. See DAVID PRESSMAN, *PATENT IT YOURSELF* 181 (13th ed. 2008) (sold in the [Patent Office's] store and relied on by many practitioners) (“If you see any prior-art patent whose specification contains words, descriptions, and/or drawing figures that you can use in your application, *feel free to plagiarize!* Patents are not covered by copyright and it's considered perfectly legal and ethical to make use of them.”).

Id. at 4 n.3. A newer edition of the book uses less emphatic language. See DAVID PRESSMAN & THOMAS J. TUYTSCHAEVERS, *PATENT IT YOURSELF: YOUR STEP-BY-STEP GUIDE TO FILING AT THE U.S. PATENT OFFICE* 195 (18th ed. 2016) (“As a general rule, if you see any prior-art patent whose specification contains words, descriptions, and/or drawing figures that you can use in your application[,] you can copy what you need.”).

284. See *infra* note 307 and accompanying text; see also 37 C.F.R. § 1.63(c) (2021) (“A person may not execute an oath or declaration for an application unless that person has reviewed and understands the contents of the application, including the claims, and is aware of the duty to disclose to the Office all information known to the person to be material to patentability”); Lawrence B. Ebert, *Ropes & Gray: Copying Patents Legal and Ethical?*, IPBIZ (Mar. 25, 2010), <http://ipbiz.blogspot.com/2010/03/ropes-gray-copying-patents-legal-and.html> [<https://perma.cc/LH9T-XTNG>] (distinguishing between copying information that's material to patentability and copying information “for the purpose of filling in background: that which is already known and clearly represented as such”).

information already in the public domain doesn't impede innovation or scientific progress.²⁸⁵

These views, however, are somewhat shortsighted. *All* information in a patent document becomes a part of the technical literature.²⁸⁶ Putting aside its teaching function, anyone reading Inventor's patent will rationally assume that everything disclosed is Inventor's own creation, which isn't true here. Inventor ultimately gets unfair credit for another's work, which is fraudulent.²⁸⁷

Obtaining unfair credit would be material to patent forfeiture, which requires an inequitable benefit or third-party harm and a sufficient nexus to the alleged misconduct.²⁸⁸ For Inventor, the inequitable benefit or third-party harm is an unjust competitive advantage.²⁸⁹ Potential licensees or venture capitalists evaluating high-speed inkjet printing inventions would consider Inventor's fabricated expertise in their decision-making. This is a particularly grave form of plagiarism because it "may lead the reader to take steps . . . that he would not take if he knew the truth."²⁹⁰ In the hypothetical, Licensee stated that the plagiarized information in Inventor's patent was a critical factor in its decision. This provides the requisite nexus between Inventor's misconduct and the benefit received.

So patent forfeiture could be successfully asserted for patent-document plagiarism. Although a finding of patent forfeiture can be set aside if the misconduct ceases or its ill effects dissipate, this might be one instance where purging isn't possible because it's unclear how to remedy a plagiarized patent document.²⁹¹

285. Dov Greenbaum, *Research Fraud: Methods for Dealing with an Issue That Negatively Impacts Society's View of Science*, 10 COLUM. SCI. & TECH. L. REV. 61, 87 (2009). But this conduct could constitute copyright infringement. See 17 U.S.C. § 501(a).

286. The technical information disclosed in the patent document "add[s] to the sum of useful knowledge" upon publication. *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966).

287. Judge Richard Posner believes that plagiarism should be narrowly defined; "confine[d] . . . to cases of genuine fraud—that is, harming a source, a competitor or an audience." Richard A. Posner, *In Defense of Plagiarism*, FORBES, Jan. 29, 2007, at 32.

288. See *supra* Part II.A.

289. Cf. *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1368 (Fed. Cir. 2018) (quoting *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1292 (Fed. Cir. 2011) (en banc)) (noting that implied waiver "should only be applied in instances where the patentee's misconduct resulted in [an] unfair benefit").

290. Posner, *On Plagiarism*, *supra* note 273, at 5.

291. Briefly, patent law has three mechanisms to correct a patent—reissue, a certificate of correction, and supplemental examination. *Reissue* allows the Patent Office to correct an error in a patent if the error renders the patent wholly inoperative or invalid. 35 U.S.C. § 251(a). This doesn't apply in this context because the plagiarized information has no bearing on operability or

3. *Affirmative Misstatements About the Patent's Subject Matter.* Patent documents, including issued patents and published patent applications,²⁹² perform several functions in the patent system. First, the application is the inventor's conduit into the patent system and the focal point of patent prosecution.²⁹³ To obtain a patent, an inventor must submit an application to the Patent Office describing the invention with the proposed claims.²⁹⁴ An examiner evaluates the application to determine if the claimed invention is useful, novel, nonobvious, and directed to patentable subject matter,²⁹⁵ and that the document adequately describes, enables, and sets forth the best mode for the invention and concludes with definite claims.²⁹⁶ Second, the patent document provides notice of the invention to the public and its claimed scope once the patent issues.²⁹⁷ Third, it discloses technical details about the invention to the public,²⁹⁸ thus making the patent document a form of technical literature.²⁹⁹

validity. The Patent Office can issue a *certificate of correction* when "a mistake of a clerical or typographical nature, or of minor character, which was not the fault of the [Patent Office], appears in a patent and a showing has been made that such mistake occurred in good faith." *Id.* § 255. This remedy is unavailable because the plagiarism was done in bad faith. Finally, *supplemental examination*, discussed *supra* Part I.C.1, allows a patentee to have the Patent Office review the patent "to consider, reconsider, or correct information believed to be relevant to the patent" to determine if the information "raises a substantial new question of patentability." *Id.* § 257(a). This too is unavailable to the patentee because the plagiarized information is unrelated to patentability.

292. Since 1999, most patent applications publish eighteen months after the earliest effective filing date. *See* 35 U.S.C. § 122(b)(1)(A). Once a patent application publishes, the information it discloses is considered publicly known. MUELLER, *supra* note 83, at 31; *see also* Christopher A. Cotropia & David L. Schwartz, *The Hidden Value of Abandoned Applications to the Patent System*, 61 B.C. L. REV. 2809, 2823–33 (2020) (explaining the use of published patent applications as prior art).

293. *See supra* note 83 and accompanying text.

294. *Return Mail, Inc. v. U.S. Postal Serv.*, 139 S. Ct. 1853, 1859 (2019).

295. 35 U.S.C. §§ 101–103.

296. *Id.* § 112(a)–(b).

297. *See PSC Comput. Prods., Inc. v. Foxconn Int'l, Inc.*, 355 F.3d 1353, 1358 (Fed. Cir. 2004) ("One important purpose of the written description is to provide notice to the public as to the subject matter of the patent, while the claim provides notice as to the scope of the invention.").

298. *See Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) ("[T]he patent system represents a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time.").

299. Seymore, *Teaching Function*, *supra* note 18, at 624 n.11 ("Like technical journals . . . patent[] [documents] show the state of technology, set forth what others have already achieved, and provide technical information that others can avoid repeating."); Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 333 (2008) ("[I]t seems quite clear that dissemination, not just invention, of new information is one of the goals of the patent system.").

It's clear that an affirmative misstatement in the patent document could impede all three functions. An affirmative misstatement could hinder, obstruct, or otherwise interfere with examination,³⁰⁰ provide inaccurate notice of the invention and claims, and disclose incorrect technical details about the invention. The important question for present purposes is whether such misconduct should result in patent forfeiture. The answer is no; affirmative misstatements about the patent's subject matter should be redressed by the doctrine of inequitable conduct.

To understand why, it's helpful to use a hypothetical illustration. Intentionally disclosing a *failed* invention as a working invention might be the ultimate type of affirmative misstatement in patent law.³⁰¹ Suppose the inventor develops a wood cleaner made from a solution of lemon oil, mineral oil, and white vinegar in a 1:1:4 ratio. Testing reveals that the solution cleans all wood surfaces including antiques, furniture, and kitchen cabinets without drying the wood finish. Based on these results, the inventor tries other citrus oils—specifically orange, lime, citron, kumquat, tangelo, tangerine, grapefruit, and yuzu. Unfortunately, grapefruit and yuzu oils don't work—mixing each of them with the other ingredients causes the respective solutions to immediately putrefy. Nonetheless, the inventor files a patent application, which, while only providing experimental details for the lemon oil embodiment,³⁰² *discloses* that “embodiments with other citrus oils—specifically orange, lime, citron, kumquat, tangelo, tangerine, grapefruit, and yuzu—have been made and work as described.” However, the inventor is careful to only *claim* the lemon, orange, lime, citron, kumquat, tangelo, and tangerine embodiments.

Here I must address two preliminary issues. First, one might ask why an inventor would *disclose* something in a patent application and not *claim* it. An innocuous reason is to create patentability hurdles for subsequent inventors.³⁰³ A strategic reason is so-called “continuation

300. In a section entitled “Aids to Compliance with Duty of Disclosure,” the Patent Office's *Manual of Patent Examining Procedure* cautions applicants that “[c]are should be taken to see that inaccurate statements, inaccurate evidence or inaccurate experiments are not introduced into the [patent document], either inadvertently or intentionally.” MPEP, *supra* note 279, § 2004(8).

301. For a discussion of an inventor's incentive to conceal failure and its ill-effects on the patent system, see Sean B. Seymore, *Patenting Around Failure*, 166 U. PA. L. REV. 1139, 1158–65 (2018).

302. An “embodiment” is a concrete, physical form of an invention described in a patent application or patent. MERGES & DUFFY, *supra* note 98, at 34.

303. See Sean B. Seymore, *Rethinking Novelty in Patent Law*, 60 DUKE L.J. 919, 945–46 (2011) (discussing “defensive disclosure” tactics).

practice,”³⁰⁴ which allows an inventor to use the initial patent application (with a broad disclosure) as a placeholder and subsequently claim previously disclosed-but-unclaimed subject matter in another application once the technology is further developed (for example, applying knowledge of what works and what doesn’t) or more is known about market value or a competitor’s products.³⁰⁵ Second, and more importantly, is the rule that *unclaimed* subject matter in a patent document isn’t subject to the enablement requirement of § 112(a).³⁰⁶ In fact, unclaimed subject matter isn’t examined by the Patent Office.³⁰⁷ This means that the inventor’s affirmative misstatement of the grapefruit and yuzu embodiments as working embodiments of the invention doesn’t constitute inequitable conduct because the misstatement is immaterial to patentability.³⁰⁸

Now suppose the patentee enforces its wood cleaner patent against an infringer. Could the accused infringer point to the affirmative misstatements in the patent document as the basis for a patent forfeiture defense? Recall that the defense requires: (1) egregious misconduct; (2) an inequitable benefit or third-party harm; and (3) a sufficient nexus. To begin, one must ask if intentionally disclosing a failed embodiment of an invention constitutes *egregious* misconduct. When the Federal Circuit has sanctioned patentees for failing to disclose experimental failure, the patent is rendered unenforceable for inequitable conduct involving claimed subject

304. A continuation application is a second application for the same invention disclosed in a parent (original) application that’s filed before the parent application either issues as a patent or becomes abandoned. 35 U.S.C. § 120. It has the identical disclosure as the parent and enjoys the benefit of the parent’s earlier filing date. *Id.*

305. For example, an inventor may decide to obtain an initial application with narrow claims (which will issue relatively quickly) and then seek broader claims in the continuation application. Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63, 86–87 (2004). This strategy allows inventors to gain advantages over a competitor by waiting to see what product the competitor will make, and then drafting patent claims specifically designed to cover the competitor’s product. *Id.* at 76–79.

306. *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1531 (Fed. Cir. 1991); *see also* MPEP, *supra* note 279, § 2164.08 (“All questions of enablement are evaluated against the claimed subject matter.”).

307. *In re Antor Media Corp.*, 689 F.3d 1282, 1288 (Fed. Cir. 2012) (“Unlike claimed disclosures in a patent, unclaimed disclosures are thus not examined by the [Patent Office] at all.”).

308. If the affirmative misstatement involves claimed subject matter, nondisclosure of the failed embodiments can raise an enablement issue under 35 U.S.C. § 112(a) that is material to patentability. *See Bristol-Myers Squibb Co. v. Rhone-Poulenc Rorer, Inc.*, 326 F.3d 1226, 1235–37, 1242 (Fed. Cir. 2003) (rendering a patent unenforceable due to nondisclosure of experimental failure relevant to enablement).

matter that's material to patentability.³⁰⁹ Thus, it would seem unfair to deem an *unexamined* affirmative misstatement as egregious misconduct. Moreover, because the misstated information isn't material to patentability, whatever benefit the patentee might gain—like creating prior art hurdles for subsequent inventors—seems too attenuated to provide a sufficient nexus.

As illustrated by these extreme facts, a patentee's affirmative misstatements about the patent's subject matter, if unclaimed, shouldn't be redressable with patent forfeiture. Again, if the misconduct involves claimed subject matter, the governing doctrine is inequitable conduct.

4. *Patent Puffery*. Puffery is the subjective, exaggerated, unquantifiable, and overly optimistic hype about a product.³¹⁰ The statement “is often intentionally misleading, is usually vivid and memorable, and induces many . . . to rely on it.”³¹¹ Prosser and Keeton define puffery more bluntly as “a seller's privilege to lie his head off, so long as he says nothing specific, on the theory that no reasonable man would believe him, or that no reasonable man would be influenced by such talk.”³¹² Whether a statement constitutes puffery or is instead an actionable statement of fact is a legal question for the court.³¹³

Puffery appears in numerous legal spheres, oftentimes when there's an allegation of fraud.³¹⁴ Yet, most puffery is deemed nonactionable (“mere puff”)³¹⁵ when the statement is “(1) an exaggerated, blustering, and boasting statement upon which no reasonable [person] would be justified in relying; or (2) a general claim of superiority over comparable products that is so vague that it can be

309. See *supra* note 308 and accompanying text.

310. David A. Hoffman, *The Best Puffery Article Ever*, 91 IOWA L. REV. 1395, 1400 & n.25 (2006).

311. *Id.* at 1396.

312. W. PAGE KEETON, DAN B. DOBBS, ROBERT E. KEETON & DAVID G. OWEN, PROSSER AND KEETON ON THE LAW OF TORTS § 109, at 757 (W. Page Keeton, ed., 5th ed. 1984).

313. *Cook, Perkiss & Liehe, Inc. v. N. Cal. Collection Serv. Inc.*, 911 F.2d 242, 245 (9th Cir. 1990).

314. These include “mail fraud, securities fraud, common-law fraud, legal ethics, common-law contracts, Uniform Commercial Code warranty cases, promissory misrepresentation, false advertising, and even law-review-publication decisions.” Hoffman, *supra* note 310, at 1396–97.

315. See *Carlill v. Carbolic Smoke Ball Co.* [1893] 1 Q.B. 256, 261 (C.A. 1892) (determining that a “mere puff” in advertising is innocuous because the statement shouldn't be taken literally).

understood as nothing more than a mere expression of opinion.”³¹⁶ Typical examples are statements that a product is the “best”³¹⁷ or “most advanced.”³¹⁸

Patentees use puffery to cast the invention in the most positive light.³¹⁹ This Article divides patent puffery into three types: inconsequential, disparaging, and quasi-substantive.³²⁰ Below I define each type and explore whether it should trigger patent forfeiture.

I define *inconsequential puffery* as general, boastful statements about the invention’s superiority without direct comparisons to other products. These statements are immaterial to patentability and aren’t meant to be taken literally because they’re unquantifiable. If a court concludes that a statement is inconsequential puffery, the patent forfeiture defense can be summarily dismissed.

To illustrate, consider Inventor who seeks to patent an aerodynamic golf club head.³²¹ The patent document states that the invention “obtains *superior* aerodynamic properties *unseen* in other golf clubs due to its *unique* club head shape.”³²² Suppose Inventor enforces the patent against Competitor, another golf club manufacturer. Competitor asserts patent forfeiture as a defense, arguing that the claimed invention’s purported uniqueness and superiority are misleading, unverifiable statements. The court should conclude that Inventor’s statements are inconsequential puffery because they’re simply an exaggerated opinion about the invention that has no bearing on its patentability. In addition, the statements are vague, hard to measure, and not meant to be taken literally by a reasonable person.

316. *Pizza Hut, Inc. v. Papa John’s Int’l Inc.*, 227 F.3d 489, 496–97 (5th Cir. 2000) (summarizing the views of sister circuits and leading commentators).

317. *See, e.g., id.* at 498 n.8.

318. *See, e.g., id.* at 498 (quoting *Atari Corp. v. 3DO Co.*, No. C 94-20298, 1994 WL 723601, at *2 (N.D. Cal. May 16, 1994)).

319. *See* Gene Quinn, *Patent Drafting: Describing What Is Unique Without Puffing*, IP WATCHDOG (Aug. 27, 2016, 7:30 AM), <https://www.ipwatchdog.com/2016/08/27/patent-drafting-describing-without-puffing/id=72384> [<https://perma.cc/9B9P-8S6C>].

320. Here I exclude a patentee’s alleged misrepresentations about the health or safety of a specific product, discussed *supra* Part II.B.1, because misdescriptions of specific, absolute characteristics of a product aren’t puffery but rather actionable, verifiable statements of fact. *Cook, Perkiss & Liehe, Inc. v. N. Cal. Collection Serv. Inc.*, 911 F.2d 242, 246 (9th Cir. 1990); *Castrol Inc. v. Pennzoil Co.*, 987 F.2d 939, 945 (3d Cir. 1993) (“Puffery is distinguishable from misdescriptions or false representations of specific characteristics of a product. As such, it is not actionable.”).

321. *See* *Aerodynamic Golf Club Head*, U.S. Patent No. 11,045,694 (filed July 29, 2019).

322. *Cf. id.* at col. 4 ll. 28–39 (using similar language to describe an aerodynamic golf head).

Disparaging puffery also consists of general, boastful statements about the invention's superiority but include disparaging statements or opinions about other products.³²³ So it seeks to make the claimed invention look good by making others look bad. Nonetheless, the disparagement is immaterial to patentability and, without more, can't form the basis of patent forfeiture.³²⁴ But there's a twist: sometimes a court will use disparaging statements *against* the patentee to limit the patent's scope in an infringement suit.

The following hypothetical illustrates disparaging puffery and its risks. The patent-at-issue claims a dual-passageway balloon catheter useful for removing blockages in coronary arteries.³²⁵ The patent description explains that two dual-passageway configurations are possible: adjacent (side-by-side passageways) and coaxial (a smaller passageway inside a larger one).³²⁶ While the patent's claims don't limit the invention to a particular configuration, the patent disparages the adjacent configuration—explaining that it yields catheters that are larger than necessary, stiffer than would be desired, prone to leakage, and generally disfavored by the medical community.³²⁷ Patentee learns that Competitor is making an adjacent catheter that falls within the patent's scope and sues for infringement. Competitor moves for summary judgment of noninfringement. In determining the proper scope of the patent claims,³²⁸ the district court recognizes that Patentee “may disclaim an embodiment [of the invention] by repeatedly disparaging it.”³²⁹ It then issues an order that Patentee's disparaging statements disclaim the adjacent configuration.³³⁰ According to the court, the patent document “goes well beyond expressing the

323. For a discussion on how this type of disparagement could be an antitrust violation in the biosimilars context, see Michael A. Carrier & Carl J. Minniti III, *Biologics: The New Antitrust Frontier*, 2018 U. ILL. L. REV. 1, 60–66 and Michael A. Carrier, *Don't Die! How Biosimilar Disparagement Violates Antitrust Law*, 115 NW. U. L. REV. ONLINE 119, 139–45 (2020).

324. The analysis could possibly change if the patentee intentionally made a false statement.

325. This hypothetical is based on the facts in *SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337 (Fed. Cir. 2001).

326. *Cf. id.* at 1339 (similarly describing the two configurations).

327. *Cf. id.* at 1342–43 (describing a dual lumen catheter with an adjacent configuration as having several disadvantages, including being larger and stiffer than would be desired).

328. “An infringement analysis involves two steps. First, the court determines the scope and meaning of the patent claims asserted, and then the properly construed claims are compared to the allegedly infringing device.” *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc) (citation omitted). Claim construction is a question of law for the district judge. *Markman v. Westview Instruments*, 517 U.S. 370, 373 (1996).

329. *Indivior Inc. v. Dr. Reddy's Lab's, S.A.*, 930 F.3d 1325, 1337 (Fed. Cir. 2019).

330. *Cf. SciMed*, 242 F.3d at 1343–44 (doing so).

patentee's preference ... [such that] its repeated derogatory statements about [the adjacent configuration] reasonably may be viewed as a disavowal."³³¹ Based on this dispositive claim construction, the court grants Competitor's motion.³³² So here there's no need for patent forfeiture as the patentee's puffery led to an unfavorable claim construction.

Finally, I define *quasi-substantive puffery* as statements about the invention's superiority or uniqueness in the prosecution history³³³ or the patent document that are material to patentability. Thus, these statements have both a subjective and an objective component. Perhaps the best example is an assertion that the invention exhibits "unexpected results" to rebut a prima facie case of obviousness.³³⁴ This statement is puffery to the extent that it's the patentee's opinion of the invention's superiority or uniqueness relative to what's already known. In other words, the invention simply exceeds the patentee's *subjective* expectations from what's predicted or expected.³³⁵ Yet, the statement is also a factual assertion³³⁶ made "to show that the claimed invention exhibits some superior property or advantage that a person of ordinary skill in the relevant art [(“PHOSITA”)]³³⁷ would have found surprising

331. *Openwave Sys., Inc. v. Apple Inc.*, 808 F.3d 509, 513 (Fed. Cir. 2015) (alterations in original) (quoting *Chi. Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1372 (Fed. Cir. 2012)).

332. The district court's claim construction order is often case-dispositive. See Robert C. Weiss & Todd R. Miller, *Practical Tips on Enforcing and Defending Patents*, 85 J. PAT. & TRADEMARK OFF. SOC'Y 791, 793 (2003).

333. Recall that patent prosecution is the *ex parte* process for obtaining a patent which involves the inventor and the Patent Office. See *supra* note 83 and accompanying text. The prosecution history "is the written record of an applicant's dealings with the Patent Office, including any actions taken by the examiner and any statements, arguments, or modifications of the claims made by the applicant." ALAN L. DURHAM, *PATENT LAW ESSENTIALS* 196 (4th ed. 2013). The prosecution history contains the record of exchanges between the applicant and the examiner. This includes any information submitted by the applicant or found by the examiner. *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985).

334. See *In re Soni*, 54 F.3d 746, 750 (Fed. Cir. 1995).

335. See Michael O'Brien & Idonah Molina, *Using Signal Theory To Determine Non-Obviousness of Inventions*, 23 J. INTELL. PROP. L. 241, 251 (2016).

336. *In re Soni*, 54 F.3d at 749 ("The question whether an applicant made a showing of unexpected results is one of fact, subject to the clearly erroneous standard of review.").

337. The PHOSITA is a hypothetical construct of patent law akin to the reasonably prudent person in torts. See *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1566 (Fed. Cir. 1987). Factors relevant to constructing the PHOSITA in a particular technical field include "(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field." *Env't Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983).

or unexpected.”³³⁸ Because the latter is material to patentability, dual-purpose statements should be policed with inequitable conduct rather than patent forfeiture.

To illustrate, consider the following hypothetical. Suppose Patentee invented an instant glue, *Y*, that’s ten times stickier than SuperGlue.³³⁹ To make *Y*, Patentee replaced a methyl group (one carbon) on SuperGlue’s core chemical structure with an ethyl group (two carbons).³⁴⁰ The patent states that *Y* “is *superior* to SuperGlue because of its *unique* and *unexpected* ability to dry ten times faster.” When Patentee sues Competitor for infringement, Competitor asserts the defenses of invalidity for obviousness and inequitable conduct. Competitor argues that it would’ve been obvious for a PHOSITA to make *Y* because (1) it is a “straightforward, one-carbon extension”³⁴¹ of a carbon chain—a standard structural modification in organic chemistry; and (2) the book *Organic Reactions* and a PHOSITA’s knowledge “would have suggested making the specific molecular modifications necessary to achieve the claimed invention”³⁴² because in organic chemistry, ethyl derivatives are known and *expected* to react faster than the methyl derivatives.³⁴³ Thus, Competitor contends Patentee’s description of *Y* is inequitable conduct because it was an attempt to mislead the Patent Office to establish nonobviousness. In response, Patentee argues that notwithstanding Patentee’s scientific *opinion* that a ten-fold increase is unexpected, whether it’s unexpected

338. *In re Soni*, 54 F.3d at 750.

339. *Cf. generally* Alcohol-Catalyzed-Cyanoacrylate Adhesive Compositions, U.S. Patent No. 2,768,109 (filed June 2, 1954) (describing an existing patent for adhesive compositions that have advantages over other adhesives).

340. A methyl group (Me or $-\text{CH}_3$) is the simplest carbon-containing function group in organic chemistry. An ethyl group (Et or $-\text{CH}_2\text{H}_3$) is the next simplest. ROBERT J. OUELLETTE & J. DAVID RAWN, *PRINCIPLES OF ORGANIC CHEMISTRY* 66, 68–69 (2015).

341. *See* K. PETER C. VOLLHARDT & NEIL E. SCHORE, *ORGANIC CHEMISTRY: STRUCTURE AND FUNCTION* 305 (7th ed. 2014) (describing “homologation”).

342. *See* *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356 (Fed. Cir. 2007) (quoting *In re Deuel*, 51 F.3d 1552, 1558 (Fed. Cir. 1995)); *see also* *Altana Pharma AG v. Teva Pharms. USA, Inc.*, 566 F.3d 999, 1007 (Fed. Cir. 2009) (“[T]o establish a prima facie case of obviousness in cases involving new chemical compounds, the accused infringer must identify some reason that would have led a chemist to modify a known compound in a particular manner.”).

343. *See, e.g.*, THOMAS N. SORRELL, *ORGANIC CHEMISTRY* 148–49 (2006) (illustrating how the variation in reactivity of homologous compounds can be attributed to “inductive effect[s]”—the differing ability of methyl and ethyl groups to release electrons); Paul von Ragué Schleyer & Curtis W. Woodworth, *Substituents and Bridgehead Carbonium Ion Reactivities. Inductive and Steric Effects of Alkyl Groups in Saturated Systems*, 90 J. AM. CHEM. SOC’Y 6528, 6528–30 (1968) (exploring the increased rate of reactivity across a homologous series).

for nonobviousness purposes is a question of fact.³⁴⁴ Agreeing with Patentee, the court dismisses the inequitable conduct claim and makes the factual findings necessary to answer the *legal* question of whether *Y* is obvious.³⁴⁵

In sum, whether puffery could trigger patent forfeiture depends on the nature of the statement—which can vary from inconsequential to quasi-substantive.

III. POLICY CONSIDERATIONS

Proposing the new remedial defense of patent forfeiture raises several broad, policy-based questions. Does patent forfeiture have a firm normative basis? Would the defense give judges too much equitable discretion? How does patent forfeiture align with the broad policy norms and objectives of patent law? This Part answers these questions.

A. *Normative Justifications*

1. *Filling the Unenforceability Gap.* The extant affirmative defenses of inequitable conduct, patent misuse, implied waiver, and unclean hands redress patentee misconduct in dealings with the Patent Office, licensing, standard setting, and litigation, respectively. But as things now stand, a patentee who engages in *other* types of egregious misconduct that doesn't fit neatly into one of the extant buckets can avoid an unenforceability defense. This unenforceability gap raises significant concerns from a normative perspective that should give one considerable pause. In particular, certain types of egregious misconduct currently go unredressed and patentees have little incentive to change their behavior.

The proposed patent forfeiture defense seeks to resolve this normative problem. As discussed above, the defense is flexible enough to fill the specific contours of a variety of patentee misconduct that's currently unredressable. No longer will courts and accused infringers need to shoehorn alleged patentee misconduct into an extant

344. See *supra* note 336 and accompanying text.

345. See 35 U.S.C. § 103 (describing the nonobviousness requirement for patents). Nonobviousness is a question of law based on the following pertinent underlying facts: (1) the scope and content of the relevant prior art; (2) the differences between the prior art and the claimed invention; (3) the PHOSITA's level of skill; and (4) secondary considerations which provide objective proof of nonobviousness, such as unexpected results. See *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966).

unenforceability doctrine never intended to redress such misconduct. Adding patent forfeiture to the remedial toolkit would also allow the Federal Circuit and lower courts to be more precise when deciding which unenforceability defense should apply to a particular factual scenario. The corollary is that patent forfeiture doesn't overlap with the extant unclean-hands-based defenses—it's its own bucket.³⁴⁶

2. *Deterrence of Egregious Misconduct.* Patent forfeiture can also be justified for its deterrence function. Potential plaintiffs who envision enforcing the patent will avoid conduct that might deny relief. Admittedly, deterrence only works if the patentee is aware of the patent forfeiture defense and its detrimental implications. For example, a patentee who's tempted to plagiarize a third party's technical document in its patent application might think twice if the patentee knows that the resulting patent could be rendered universally unenforceable.

Of course, introducing a new remedial defense raises an overdeterrence problem. Patentees might take excessive precautions to avoid misconduct—especially if there's uncertainty about how the doctrine will be applied.³⁴⁷ This makes intuitive sense because: (1) a court could take the patentee's precautionary measures into account as an equitable consideration when adjudicating patent forfeiture, and (2) the possibility of universal unenforceability is a harsh result.³⁴⁸ It's

346. To illustrate, consider inequitable conduct—which occurs when a patent applicant misrepresents or omits information material to patentability with the specific intent to mislead or deceive the Patent Office. *See* *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1287 (Fed. Cir. 2011) (en banc); *supra* Part I.C.1. Patent forfeiture involves misconduct that's immaterial to patentability. Thus, a defendant can't successfully plead and prove both inequitable conduct and patent forfeiture for a given act of putative misconduct. So an alleged infringer armed with facts that tend to show the patentee's material misconduct before the Patent Office—but less than clear and convincing proof of deceptive intent required for inequitable conduct—can't allege patent forfeiture. *Cf. Laird v. Nelms*, 406 U.S. 797, 802 (1972) (explaining that a litigant shouldn't be allowed to “dress[] up the substance” of one claim in the “garment” of another).

347. John E. Calfee & Richard Craswell, *Some Effects of Uncertainty on Compliance with Legal Standards*, 70 VA. L. REV. 965, 965–66 (1984); *see also* T. LEIGH ANENSON, JUDGING EQUITY: THE FUSION OF UNCLEAR HANDS IN U.S. LAW 100 (2018) [hereinafter ANENSON, JUDGING EQUITY] (“With any discretionary decision, there is the possibility of uncertain and inconsistent outcomes.”); *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co.*, 324 U.S. 806, 815 (1945) (explaining that unclean hands “necessarily gives wide range to the equity court's use of discretion in refusing to aid the unclean litigant”). But shadowy rules can induce compliance with normative standards. *See infra* note 371 and accompanying text.

348. *See supra* note 49 and accompanying text. David Olson has expressed concerns about unenforceability as a remedy, which he argues “create[s] large self-policing and transaction costs” for patentees, who “worry that a minor mistake could forfeit the patent” and may “result in patent

probably true that introducing patent forfeiture could “deter [some] would-be inventors from [patenting] altogether”³⁴⁹ or push them to opt for trade secrecy in lieu of patenting³⁵⁰—either of which might “rob[] society of the next great invention or hid[e] the details of that invention from the general public.”³⁵¹ However, the requisite *egregious* act and inequitable benefit or third-party harm, combined with the clear and convincing evidence standard, make patent forfeiture somewhat difficult to plead and prove.³⁵² It’s worth noting that allegations of inequitable conduct dropped dramatically after *Therasense* imposed a heightened standard.³⁵³

B. Tensions

1. *Should Forfeiture Run With the Patent?* I’ve argued that if a patentee engages in egregious pre- or post-issuance misconduct involving the patent and gains an inequitable benefit from it or harms a third party, the patentee may forfeit the right to enforce the patent

defendants spending inordinate time, money, and court resources making assertions” of patentee misconduct in infringement litigation. David S. Olson, *Removing the Troll from the Thicket: The Case for Enhancing Patent Maintenance Fees in Relation to the Size of a Patent Owner’s Patent Portfolio*, 68 FLA. L. REV. 519, 557 (2016). However, the patentee’s ability to purge softens the potential harshness of the defense. See *supra* notes 231–235 and accompanying text.

349. Christopher A. Cotropia, *Modernizing Patent Law’s Inequitable Conduct Doctrine*, 24 BERKELEY TECH. L.J. 723, 773 (2009).

350. See J. Jonas Anderson, *Nontechnical Disclosure*, 69 VAND. L. REV. 1573, 1585 (2016) (noting that if patenting were impossible, many inventors would resort to trade secrecy). Without the patent system, inventors would monetize their inventions through trade secrecy, thereby depriving the public of the benefit of a disclosure. *Id.*; see Katherine J. Strandburg, *What Does the Public Get? Experimental Use and the Patent Bargain*, 2004 WIS. L. REV. 81, 105–06 (“[T]he disclosure of the invention in the patent [document] is valuable to society . . . because it adds something the inventor could have kept secret to the store of public technical knowledge.”). Unlike patents, trade secrets can last forever, as long as secrecy is maintained. See Michael Abramowicz & John F. Duffy, *The Inducement Standard of Patentability*, 120 YALE L.J. 1590, 1622 (2011) (“[T]rade secrecy protection can theoretically provide even more powerful incentives than patents because trade secrecy rights are potentially infinite in duration.”).

351. Cotropia, *supra* note 349.

352. See *supra* note 184 and accompanying text.

353. See Robert D. Swanson, Comment, *The Exergen and Therasense Effects*, 66 STAN. L. REV. 695, 717–18 (2014); see also *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1289 (Fed. Cir. 2011) (en banc) (explaining that “charging inequitable conduct has become a common litigation tactic” and noting its assertion in eighty percent of patent infringement suits). But see Eric E. Johnson, *The Case for Eliminating Patent Law’s Inequitable Conduct Defense*, 117 COLUM. L. REV. ONLINE 1, 16 (2017) (“Although *Therasense* . . . make[s] the defense harder to win on the merits, . . . [t]he defense may still help many defendants achieve an off-the-merits victory, either by getting a plaintiff to accept a less favorable settlement . . . or by tilting the factfinder against the plaintiff at trial . . .”).

until the misconduct has been abandoned and its ill effects have dissipated. This argument raises two objections. First, it seemingly contradicts the historical principle that “equity acts *in personam*, and not *in rem*.”³⁵⁴ A theoretical rationale for this principle is that

[O]nly *personae*, not *res* have consciences. A person can be guilty; an object cannot. Imparting a taint to an inanimate object . . . is inconsistent with the basic nature of equity. Similarly, our commonly shared moral and legal sense cautions that we can only hold a person accountable for his own actions³⁵⁵

Second, one might ask if forfeiture *should* be tied to the patent.³⁵⁶ For example, consider a patentee who promoted falsities about a nutritional supplement’s health and safety who assigns or sells the patent to an innocent third party. If the innocent third party seeks to enforce the patent, could the accused infringer assert that the right to enforce it has been forfeited due to the original owner’s egregious misconduct?

Regarding the first objection, it’s clear that equity could always act *in rem* (even if rarely exercised long ago).³⁵⁷ The principle has loosened³⁵⁸; equity will act in the fullest sense “in any case in which relief *in rem* may be more effective to accomplish the results which justice demands.”³⁵⁹

The second objection is somewhat more compelling. It gives rise to the bona fide purchaser defense—namely that a bona fide purchaser for value without notice of any antecedent fraud can take title to

354. 1 POMEROY & POMEROY, *supra* note 7, § 428, at 797 (capitals removed) (italics added); see also *Hart v. Sansom*, 110 U.S. 151, 154 (1884) (noting in a suit to remove a cloud upon the plaintiff’s title that “[g]enerally, if not universally, equity jurisdiction is exercised *in personam*, and not *in rem*, and depends upon the control of the court over the parties, by reason of their presence or residence, and not upon the place where the land lies in regard to which relief is sought”).

355. Adam J. Levitin, *Finding Nemo: Rediscovering the Virtues of Negotiability in the Wake of Enron*, 2007 COLUM. BUS. L. REV. 83, 123 n.122.

356. For a discussion of encumbrances that should run with a patent, see generally Andrew C. Michaels, *Patent Transfer and the Bundle of Rights*, 83 BROOK. L. REV. 933 (2018).

357. William F. Walsh, *Development of Equity of the Power To Act in Rem*, 6 N.Y.U. L. REV. 1, 14 (1928).

358. Henry E. Smith, *An Economic Analysis of Law Versus Equity* 22 (Oct. 22, 2010) (unpublished manuscript), https://law.yale.edu/sites/default/files/area/workshop/leo/document/H_Smith_LawVersusEquity7.pdf [https://perma.cc/8X6G-Q383].

359. Walsh, *supra* note 357; see also Walter Wheeler Cook, *Powers of the Courts of Equity (Pt. II)*, 15 COLUM. L. REV. 106, 112–13 (1915) (explaining that modern courts sitting in equity enforce decrees both *in personam* and *in rem* to make them effective).

property purged of the taint of the antecedent fraud affecting it.³⁶⁰ While this defense aligns with the notion that equity should avoid punishing the innocent,³⁶¹ in patent law it doesn't work with inequitable conduct.³⁶² A theoretical reason is that inequitable conduct taints the patent right *ab initio*—meaning that the misconduct can't be purged.³⁶³ Forfeiture is different because it's curable: a patentee *can* regain the right to enforce the patent if the egregious misconduct is abandoned and its ill effects dissipate. If this doesn't happen, then the patent is incurably corrupted and rendered universally unenforceable. In this latter circumstance, a bona fide purchaser might be able to bring a tort or contract claim against the original patentee.³⁶⁴

2. *Judicial Discretion.* As an unclean-hands-based defense, patent forfeiture raises questions about judicial discretion.³⁶⁵ A court considering the defense must resolve two discretionary issues: whether the patentee engaged in egregious misconduct and whether the patentee harmed a third party or received an inequitable benefit as a result. What a judge views as egregious or inequitable might be idiosyncratic.³⁶⁶ This idiosyncrasy is one of the major criticisms of the unclean hands doctrine, which has been described as having an “amorphous[] and open-ended quality.”³⁶⁷

360. See RESTATEMENT (THIRD) OF RESTITUTION AND UNJUST ENRICHMENT §§ 66, 68 (AM. L. INST. 2011).

361. Levitin, *supra* note 355, at 123 & n.122.

362. See *supra* Part I.C.1.

363. See *supra* notes 122–124 and accompanying text.

364. Michaels, *supra* note 356, at 938.

365. See Doug Rendleman, *The Triumph of Equity Revisited: The Stages of Equitable Discretion*, 15 NEV. L.J. 1397, 1419 (2015) (“The risk of unconfined equitable discretion emerges when the judge’s broad personal version of unclean doesn’t coincide with positive law.”). This criticism aligns with broader concerns about the inability to cabin equity, as noted long ago:

Equity is a Roguish thing: for Law we have a measure, know what to trust to, Equity is according to the Conscience of him that is Chancellor, and as that is larger or narrower, so is Equity. ‘Tis all one as if they should make the Standard for the measure, we call a Chancellor’s Foot; what an uncertain measure would this be? One Chancellor has a long Foot, another a short Foot, a Third an indifferent Foot: ‘Tis the same thing in the Chancellors [sic] Conscience.

JOHN SELDEN, *Equity*, in TABLE-TALK: BEING THE DISCOURSES OF JOHN SELDEN, ESQ. 18 (London, J.M. Dent & Co. 2d ed. 1689).

366. DOUG RENDLEMAN & CAPRICE L. ROBERTS, REMEDIES: CASES AND MATERIALS 429 (9th ed. 2018).

367. *Id.*

But this critique is overblown.³⁶⁸ Professor Henry Smith argues that “inherent vagueness” is a feature of equity.³⁶⁹ So patent forfeiture must be resolved, like other equitable remedies, in a way that’s “flexible, discretionary, and individualized.”³⁷⁰ Flexibility also prevents wrongdoers from figuring out how to evade the defense.³⁷¹

Nonetheless, a court resolving patent forfeiture wouldn’t have unfettered discretion. First, as explained earlier, what constitutes egregious misconduct and qualifies as an inequitable benefit or third-party harm would be shaped by the extant defenses.³⁷² Second, judges must find a sufficient nexus between the alleged misconduct and inequitable benefit or third-party harm before applying patent forfeiture.³⁷³ These limiting measures should derail trivial assertions of the defense. Courts can also rely on motions to strike, dismissal, and summary judgment to dispose of dubious or baseless claims.

3. *When Reaching the Merits Matters.* Judges shouldn’t allow a patent forfeiture defense to divert attention from the merits of the dispute—the infringement and potential invalidity of the patent-in-

368. See John L. Garvey, *Some Aspects of the Merger of Law and Equity*, 10 CATH. U. L. REV. 59, 64 (1961) (rejecting the free-wheeling critique because equitable decision-making is “[n]ot a personal discretion of the individual judge, not caprice, not sympathy, but a judicial discretion . . . which enable[s] the court to consider a variety of factors that might be involved in the particular case and evaluate them, weighing one against the other, before coming to its conclusion”); *Grupo Mexicano de Desarrollo, S.A. v. All. Bond Fund, Inc.*, 527 U.S. 308, 322 (1999) (Scalia, J.) (“We do not question the proposition that equity is flexible; but in the federal system, at least, that flexibility is confined within the broad boundaries of traditional equitable relief.”); *Shondel v. McDermott*, 775 F.2d 859, 868 (7th Cir. 1985) (Posner, J.) (arguing that unclean hands has evolved from being a matter of the court’s conscience and “free-wheeling ethical discretion” to a more practical question of “what if any remedy the plaintiff is entitled to”).

369. Smith, *supra* note 358, at 4.

370. See Stephen N. Subrin, *How Equity Conquered Common Law: The Federal Rules of Civil Procedure in Historical Perspective*, 135 U. PA. L. REV. 909, 920 (1987); see also *Holmberg v. Armbrrecht*, 327 U.S. 392, 396 (1946) (“Equity eschews mechanical rules; it depends on flexibility.”).

371. ANENSON, *supra* note 347, at 154; see also Lionel Smith, *Fusion and Tradition*, in *EQUITY IN COMMERCIAL LAW* 19, 38 (James Edelman & Simone Degeling eds., 2005) (“Complexity is not always worse than simplicity, if the complexity adds analytical power or permits the enforcement of additional normative standards.”).

372. See *supra* Part II.A.

373. This is a basic limiting principle of the proposal. Cf. ANENSON, *JUDGING EQUITY*, *supra* note 347, at 50 (“[T]he connection component of unclean hands has been the method by which courts typically constrain the defense.”); see also *Shondel*, 775 F.2d at 869 (“[Some] may shudder at ‘nexus,’ that hideously overworked legal cliché, but there can be no quarrel with the principle.”).

suit.³⁷⁴ Because the alleged egregious misconduct is immaterial to patentability, the substantive issue of patent validity³⁷⁵ is irrelevant to patent forfeiture.³⁷⁶ So judges should manage the litigation to ensure that the time and energy spent on the defense don't detract from or thwart correct resolution on the merits.³⁷⁷ Relatedly, the patentee's alleged misconduct shouldn't "cast a dark cloud" over the patent's validity (which could be the defendant's litigation strategy).³⁷⁸ Validity doesn't depend on the patentee's good conduct or lack thereof—to be sure, "an old, useless, or obvious invention is invalid whether the patentee acted honestly or not."³⁷⁹

Relatedly, judges must recognize that sometimes public policy warrants reaching the merits—thereby overriding an assertion of patent forfeiture.³⁸⁰ In patent cases, there are times when "legislative policy and public interest demand that the action be heard" despite the patentee's misconduct.³⁸¹ For example, it might serve the public interest to reach the merits of a case involving the validity of a patent covering a COVID-19 vaccine—notwithstanding the patentee's egregious misconduct. This would give the patentee a fortuitous reprieve from a court rendering the tainted patent unenforceable. Such cases will inevitably require judicial balancing.³⁸²

374. Cf. Cotropia, *supra* note 349, at 740 (making this argument for inequitable conduct); Chiang, *supra* note 43, at 1258 (discussing the "smear effect" of dishonesty in which "a judge who hears about a patentee's dishonesty might thereby become prejudiced against the patentee, and this might make the judge more likely to find the patent invalid rather than waiting to find it unenforceable").

375. See *supra* note 48 and accompanying text.

376. Cf. Cotropia, *supra* note 349, at 740 ("[T]he actual validity of the patent is irrelevant to the [inequitable conduct] doctrine.").

377. Cf. *id.* (noting that "[t]he time and energy spend on the [inequitable conduct] defense may detract from the core issues and hamper their complete and correct resolution").

378. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc).

379. Chiang, *supra* note 43, at 1258 n.59.

380. Cf. Howard W. Brill, *The Maxims of Equity*, 1993 ARK. L. NOTES 29, 37 (applying the argument to unclean hands in general); see also ANENSON, JUDGING EQUITY, *supra* note 347, at 55–57 (explaining the importance of public policy in unclean hands cases).

381. Brill, *supra* note 380, at 36.

382. See, e.g., *Republic Molding Corp. v. B.W. Photo Util.*, 319 F.2d 347, 350 (9th Cir. 1963) (explaining that when unclean hands is raised in a patent infringement suit, "[t]he relative extent of each party's wrong upon the other and upon the public should be taken into account, and an equitable balance struck").

4. *Patent Law's Conscience.* As an unclean-hands-based doctrine, patent forfeiture has a basis in conscience and morality.³⁸³ This raises the normative question of the extent to which the patentee's moral failings should affect the patent's enforcement. Interestingly, in earlier times, morality played a substantive role in patentability. This occurred through the aforementioned utility requirement of the patent statute.³⁸⁴ Throughout most of the history of U.S. patent law, utility was viewed as a de minimis requirement—*some* beneficial use of the invention was sufficient.³⁸⁵ But in the 1817 case *Bedford v. Hunt*,³⁸⁶ Justice Joseph Story wrote that an invention's asserted utility couldn't be "injurious to the morals, the health, or the good order of society."³⁸⁷ During the early part of the twentieth century, the Patent Office and the courts relied on Justice Story's language to craft what came to be known as the "moral utility" doctrine.³⁸⁸ It allowed courts to exercise moral discretion under this interpretation of *useful* to make "subjective decisions about whether inventions were good for society."³⁸⁹ Inventions had to meet certain court-identified standards of morality. This was done, at least in part, to protect the public and potential investors from unscrupulous patentees.³⁹⁰

The moral utility doctrine has been squarely rejected.³⁹¹ It took a devastating blow in *Ex Parte Murphy*,³⁹² a 1977 case in which the Board of Patent Appeals and Interferences³⁹³ reversed the examiner's lack-

383. See 1 POMEROY & POMEROY, *supra* note 7, § 385, at 714 ("[I]t is undeniable that courts of equity do not recognize and protect the equitable rights of litigant parties, unless such rights are, in pursuance of the settled juridical notions of morality, based upon conscience and good faith."); *id.* § 404, at 761 (explaining that coming to equity with clean hands means that "any really unconscientious conduct, connected with the controversy to which [the plaintiff] is a party, will repel [the plaintiff] from the forum whose very foundation is good conscience").

384. See *supra* note 254 and accompanying text.

385. See Seymore, *Making Patents Useful*, *supra* note 19, at 1051.

386. *Bedford v. Hunt*, 3 F. Cas. 37 (C.C.D. Mass. 1817) (No. 1217) (opinion of Story, J.).

387. *Id.* at 37.

388. Margo A. Bagley, *Patent First, Ask Questions Later: Morality and Biotechnology in Patent Law*, 45 WM. & MARY L. REV. 469, 489 (2003); see also CHISUM, *supra* note 50, § 4.02 ("For many years, the Story view of utility . . . was generally accepted by the courts.").

389. SNOW, *supra* note 207, at 141.

390. See *supra* notes 252–256 and accompanying text.

391. See Bagley, *supra* note 388, at 490; CHISUM, *supra* note 50, § 4.02. For a detailed discussion, see Laura A. Keay, *Morality's Move Within U.S. Patent Law: From Moral Utility to Subject Matter*, 40 AIPLA Q.J. 409, 411–19 (2012).

392. *Ex Parte Murphy*, 200 U.S.P.Q. (BL) 801 (B.P.A.I. 1977).

393. An applicant whose claims have been twice rejected by the examiner can appeal to an intra-office tribunal—known as the Board of Patent Appeals and Interferences at the time of *Murphy*—which, among other things, reviewed adverse decisions of examiners. 35 U.S.C. §§ 6(b),

of-utility rejection for a slot machine.³⁹⁴ The final blow came nearly two decades later in *Juicy Whip, Inc. v. Orange Bang, Inc.*,³⁹⁵ where the Federal Circuit decided that an invention with a deceptive purpose—designed to appear to be something that it isn’t—could satisfy utility.³⁹⁶ The court explained that Justice Story’s forbidden class of inventions isn’t a part of modern utility doctrine.³⁹⁷ Now the Patent Office and the courts “apply the statutory standards without regard to the moral implications of the underlying invention.”³⁹⁸

The demise of moral utility means that morality and conscience no longer play a role in *substantive* patent law. This aligns with patent law’s disclosure function³⁹⁹ and the extent to which it should encourage research in controversial technologies.⁴⁰⁰ Relatedly, moral norms change,⁴⁰¹ and predictions about the ill effects of patenting a particular

134(a). The Board could affirm a rejection or reverse and remand to the examining corps. 37 C.F.R. § 1.197(a) (2021). Since the passage of the America Invents Act in 2011, the tribunal is now known as the Patent Trial and Appeal Board. See Leahy-Smith America Invents Act, Pub. L. No. 112-29, § 7, 125 Stat. 284, 313–93 (2011) (codified at 35 U.S.C. § 6).

394. *Ex Parte Murphy*, 200 U.S.P.Q. (BL) at 802.

395. *Juicy Whip, Inc. v. Orange Bang, Inc.*, 185 F.3d 1364 (Fed. Cir. 1999).

396. *Id.* at 1365.

397. *Id.* at 1366–68. The court explained that imposing a moral component to § 101 should be left to Congress. *Id.* at 1368.

398. Holbrook, *supra* note 252, at 602.

399. As explained by one commentator:

[S]ince inventors need not seek patents for their inventions, they may keep their research private so the public will not scrutinize their work or benefit from its disclosure [S]uppose that the PTO revives the moral utility doctrine. A scientist knows that her purportedly immoral invention will be unpatentable and, therefore, does not even seek a patent [I]f this inventor chooses to patent this device and the PTO invalidates it on moral grounds, the public cannot benefit from disclosure of the invention and subsequently cannot scrutinize her research and its possible effects If the PTO grants a patent for the controversial invention because it meets the criteria for patentability, then the patent is disclosed to the public [who] may scrutinize the work

Benjamin D. Enerson, Note, *Protecting Society from Patently Offensive Inventions: The Risk of Reviving the Moral Utility Doctrine*, 89 CORNELL L. REV. 685, 716 (2004).

400. See *id.* at 715 (“[I]mplementing morality standards may deter inventors from filing patents in controversial areas and initiate a chain reaction of negative effects . . . [such as] diminish[ing] the growth in a particular field of research, ultimately prohibiting inventors from creating alternative inventions”). David Taylor argues that “the best approach to dealing with the patentability of controversial technologies—technologies some may deem immoral or unethical—is to have the President and Congress determine eligible subject matter through legislation.” David O. Taylor, *Immoral Patents*, 90 MISS. L.J. 271, 309 (2021).

401. See Robert P. Merges, *Intellectual Property in Higher Life Forms: The Patent System and Controversial Technologies*, 47 MD. L. REV. 1051, 1064–65 (1987).

technology can be wrong.⁴⁰² But even if patent law “need not evaluate inventions at any level beyond the technological,”⁴⁰³ egregious patentee misconduct not directly related to patentability still raises equitable concerns. Should a court enforce a patent enveloped in unpurged egregious misconduct?

One theme of recent Supreme Court patent cases is they aren’t exceptional.⁴⁰⁴ So traditional features of equity like “discretionary decision making, the emphasis on good faith and . . . the employment of moral standards,”⁴⁰⁵ that apply to other areas of law, should also apply to patent law.⁴⁰⁶ Viewed in this light, *Gilead’s* revival of unclean hands and the patent forfeiture defense proposed herein both awaken patent law’s conscience.

CONCLUSION

The existing affirmative defenses of inequitable conduct, patent misuse, implied waiver, and unclean hands redress patentee misconduct in dealings with the Patent Office, licensing, standard setting, and litigation, respectively. But as things now stand, a patentee who engages in other types of egregious misconduct that do not fit neatly into one of these buckets can avoid an unenforceability defense. From a normative perspective, this doesn’t seem right. Egregious misconduct involving the patent currently goes unredressed, and the patentee has no reason to avoid or correct the wrongdoing.

402. *Id.* at 1065. Consider *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), the landmark case where the Supreme Court had to determine whether a genetically engineered bacterium was patent-eligible. *Id.* at 305. The Patent Office and several amici argued against eligibility because patenting genetic research would lead to a “parade of horrors” that could “pose a serious threat to the human race,” including “[the] spread [of] pollution and disease, . . . a loss of genetic diversity, and . . . [a] practice [that] may tend to depreciate the value of human life.” *Id.* at 316. The *Chakrabarty* Court declined the invitation to bring fear of the unknown into the patentability calculus: “Whether respondent’s claims are patentable may determine whether research efforts are accelerated by the hope of reward or slowed by want of incentives, but that is all.” *Id.* at 317. The fears were *not* realized; indeed, *Chakrabarty* spawned the then-nascent biotechnology industry by making the fruits of research patent-eligible. MERGES & DUFFY, *supra* note 98, at 547–48.

403. John R. Thomas, *The Question Concerning Patent Law and Pioneer Inventions*, 10 HIGH TECH. L.J. 35, 64 (1995). This aligns with the view that technology is “essentially amoral, a thing apart from values, an instrument which can be used for good or ill.” *Id.* (quoting ROBERT A. BUCHANAN, *TECHNOLOGY AND SOCIAL PROGRESS* 163 (1965)).

404. See *supra* notes 39–40 and accompanying text.

405. Smith, *supra* note 358, at 4.

406. See *supra* note 42 and accompanying text.

This Article describes how patent forfeiture can redress and deter wrongful conduct while being shaped and cabined by other policy objectives of the patent system. Following the Federal Circuit's reinvigoration of the unclean hands defense in *Gilead*, patent forfeiture would further chip away at exceptionalism and help reestablish equitable principles in patent law. Adding the defense of patent forfeiture to the remedial toolkit would fill the unenforceability gap and resolve the normative problem.