

INEQUITABLE CONDUCT AND WALKER PROCESS CLAIMS AFTER *THERASENSE* AND THE AMERICA INVENTS ACT

By

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*This Article examines the dramatic constriction of the inequitable conduct defense to patent infringement accomplished in 2011 by the issuance of the Federal Circuit's decision in *Therasense, Inc. v. Becton, Dickinson & Co.* and the enactment of the America Invents Act (AIA). The Article argues that *Therasense* and the AIA have unduly narrowed the inequitable conduct defense and thus undermined core goals of United States patent law. The Article concludes that *Therasense* and specific features of the AIA, particularly its adoption of new post-issuance review proceedings and a new best mode amendment, will operate in tandem to sharply curtail the availability of the inequitable conduct defense and impair the operation of the U.S. patent system. Simultaneously, *Therasense* will operate to overly constrict the opportunity for parties to assert Walker Process antitrust claims. In short, the cure has been worse than the plague on the patent system that critics have commonly attributed to the inequitable conduct doctrine.*

This Article examines the severe constriction of the inequitable conduct defense to patent infringement accomplished in 2011 by the issuance of the Federal Circuit's decision in *Therasense, Inc. v. Becton, Dickinson & Co. (Therasense)*¹ and the enactment of the America Invents Act (AIA).² The Article argues that *Therasense* and the AIA have unduly narrowed the inequitable conduct doctrine and thus undermined core functions of United States patent law. Those core functions include (1) fostering and rewarding innovation, (2) promoting full and early disclosure of inventions, to promote further innovation and to permit the public to practice the inventions once the patents expires, (3) avoiding monopolies that unnecessarily stifle competition, and (4) assuring that ideas in the public domain remain there for free use by the public.³ The Article concludes that *Therasense* and specific features of the AIA, particularly its adoption of new post-issuance review proceedings and a new best mode amendment, will operate in tandem to sharply curtail the availability of the inequitable conduct defense and thereby impair the operation of the U.S. patent system. Simultaneously, *Therasense* will unduly limit the opportunity for parties to assert *Walker Process* antitrust claims. In short, the cure has been worse than the plague on the patent system that critics have commonly attributed to the inequitable conduct doctrine.

I. THE ORIGIN AND DEVELOPMENT OF INEQUITABLE CONDUCT

Inequitable conduct in procuring a patent before the U.S. Patent and Trademark Office (PTO) is a judicially created defense to patent infringement that has been described as the key gatekeeper policing the integrity of the U.S. patent system.⁴ No federal statute expressly provides for the defense, although 35 U.S.C. § 282 does mandate the availability of a defense of unenforceability in any action involving the validity or infringement of a patent.⁵ The 1952 Patent Act (the last major revision of U.S. patent law prior to the AIA)⁶ and its legislative history are both silent concerning the grounds and standard of proof for an inequitable conduct defense.⁷

Instead, the non-statutory doctrine evolved from the equitable defense of unclean hands,⁸ which is based on the equitable maxim that he who comes into equity must come with clean hands.⁹ The defense of unclean hands was applied in a trilogy of pre-1950 Supreme Court patent cases -- *Precision Instrument Mfg. Co. v. Auto. Maint. Mach. Co. (Precision)*,¹⁰ *Hazel-Atlas Glass Co. v. Hartford Empire Co.*,¹¹ and *Keystone Driller Co. v. Gen. Excavator Co.*¹² -- involving clear-cut scenarios of perjury, the manufacture of false evidence, and the suppression of evidence. The doctrine of inequitable conduct was first clearly articulated by the Supreme Court in *Precision*, which held that courts could dismiss patent infringement suits based on inequitable conduct committed during the patent's prosecution.¹³

The Supreme Court in *Precision* and the Federal Circuit in *Therasense* confirmed that the inequitable conduct doctrine serves multiple important policy objectives, and scholars are in accord. These objectives include protecting the integrity of the patent system by ensuring applicant candor, encouraging patent applicants to internalize costs of the patent system, avoiding patent monopolies that stem from inequitable conduct, and punishing patentees who behave inequitably toward the public during the patent acquisition process.¹⁴

A. Elements of the Inequitable Conduct Defense

Traditional inequitable conduct analysis in patent cases involves two elements. The accused patent infringer must show by clear and convincing evidence that: (1) an individual associated with the filing and prosecution of a patent application made

an affirmative misrepresentation of a material fact, failed to disclose material information, or submitted false material information to the PTO; and (2) did so with the intent to deceive the PTO.¹⁵ If both showings are made, the trial judge has the discretion to declare the subject patent unenforceable. An unenforceable patent is effectively useless to the patentee. Because only the patent holder possesses the right to enforce a patent against infringement,¹⁶ the inequitable conduct doctrine operates solely against the patent holder.¹⁷

The defense of inequitable conduct is entirely equitable in nature and thus a matter for the court to decide.¹⁸ Prior to *Therasense* the Federal Circuit commonly followed PTO Rule 56,¹⁹ which was originally adopted as part of the Rules of Practice in 1949 and then substantially reformulated in 1977 and 1992, in determining whether information was material.²⁰ Rule 56 imposes on each individual associated with the filing and prosecution of a patent application a duty of candor to the PTO, including a duty to disclose to the PTO all information known to that individual to be material to patentability.²¹

While courts typically followed Rule 56, five different standards of materiality emerged²² and the judiciary vacillated on which standard to use.²³ As noted in *Therasense*, the proliferation of materiality standards produced uncertainty and inconsistency in the development of the inequitable conduct doctrine.²⁴ But in recent years the choice of standards often narrowed to those reflected in the 1977 and 1992 amendments. The remaining three standards were reflected in case law developed before the Federal Circuit, the near-exclusive appellate court for patent cases,²⁵ was formed in 1982 primarily to instill uniformity in patent law and permit more expert review of patent appeals by a specialized court.²⁶

Rule 56 as originally adopted prohibited fraud but said nothing about inequitable conduct. The original version, adopted in 1949 (several years after the Supreme Court decided *Precision*), stated that “any application fraudulently filed or in connection with which any fraud is practiced or attempted on the PTO, may be stricken.”²⁷ The definition of fraud in this context was unclear.²⁸

The 1977 amendment transformed Rule 56 from a provision enabling the PTO to strike applications for fraud to one that formally established a duty of candor and good faith by patent applicants and their attorneys to disclose information they were aware of that was material to the examination of the application. The 1977 amendment adopted a “reasonable examiner” standard by defining information as “material” if there was a substantial likelihood that a reasonable examiner would consider it important in deciding whether to allow the application to issue as a patent.²⁹ In making this change the PTO stated that the amendment “codifie[d] the existing Office policy on fraud and inequitable conduct, which is believed consistent with the prevailing case law in the federal courts.”³⁰ In the ensuing years the Federal Circuit regularly referred to this standard as the one to use in cases raising claims of inequitable conduct.³¹ Pursuant to the 1977 amendment a false statement or nondisclosure could be material for purposes of an inequitable conduct determination even if the invention in question would otherwise be patentable.³²

The PTO amended Rule 56 in 1992 in response to criticism that the reasonable examiner standard was vague and bore no relation to any concept applied in other areas of patent law.³³ The 1992 amendment continued to impose a duty to disclose material information, but it provided a more refined definition of materiality. The amended Rule 56, which remained in effect for the next two decades, imposed a duty on individuals³⁴ associated with the filing and prosecution of an application to disclose to the PTO all information known to be material to patentability as defined in the rule. Information was material if it was not cumulative to information already of record or made of record in the patent application and it either established, by itself or in combination with other information, a prima facie case of unpatentability of a claim or refuted, or was inconsistent with, a position the applicant took in opposing an argument of unpatentability relied upon by the PTO or asserting an argument of patentability.³⁵

When it adopted the 1992 amendment the PTO considered and rejected the adoption of a but-for test of materiality. It did so because it concluded that use of such a narrow standard would not enable the PTO to obtain the information it required to properly evaluate patentability.³⁶ Rule 56’s materiality standard, as adopted in 1977 and refined in 1992, also was consistent with the materiality standard applied in a range of analogous contexts. As the *Therasense* dissent noted,³⁷ the use of a but-for standard has been rejected in the context of, *inter alia*, fraudulent registration of copyrights and trademarks,³⁸ proxy solicitations regulated under section 14(a) of the Securities Exchange Act of 1934,³⁹ criminal prosecutions under the federal mail and fraud statutes,⁴⁰ and the element of materiality in common law fraud.⁴¹

The amended Rule 56, consistent with the 1949 and 1977 versions, continued to omit use of the term “inequitable conduct.” The PTO has justified this continuing omission on the ground that inequitable conduct covers too broad a spectrum of conduct to be subject to mandatory striking of a patent application.⁴² The 1992 version of Rule 56 was never fully embraced by federal courts,⁴³ and until *Therasense* was decided the Federal Circuit continued to cite the reasonable examiner standard for materiality that was set forth in the 1977 version.⁴⁴ Indeed, post-*Therasense* federal courts continue to cite the reasonable examiner standard.⁴⁵

The other element of inequitable conduct is intent. In *Precision*, the Supreme Court’s only major discussion of inequitable conduct, the Court failed to delineate the requisite level of intent, although it did refer to, *inter alia*, willful conduct.⁴⁶ The requisite level of intent has varied considerably since *Precision*, ranging on the spectrum from negligence to gross negligence to recklessness to specific intent.⁴⁷ Because direct evidence of intent to deceive is rare, a finding of intent pre-*Therasense* was often based on the totality of the circumstances, including circumstantial evidence.⁴⁸

B. Effects of the Inequitable Conduct Defense

The inequitable conduct defense has been described as a “critical part of the complicated system of checks and balances that constitutes U.S. patent law.”⁴⁹ Specifically, the defense can help correct for: (1) the PTO’s limited ability to carefully review all material potentially relevant to patentability; (2) the strong incentive for deception provided by an issued patent’s presumption of validity in litigation, and (3) the absence of procedures to challenge the validity of patent rights that are as robust as those found in Japan and the European Union.⁵⁰ The defense is especially important because patent prosecution in the U.S. is generally *ex parte*.

But the defense has an army of critics. It has frequently been referred to as the “atomic bomb” of patent law⁵¹ because its success renders the entire patent permanently unenforceable, even if the undisclosed information was material to only a single claim,⁵² and may also render related patents unenforceable.⁵³ Inequitable conduct may also generate claims under the antitrust and securities laws,⁵⁴ either as counterclaims or in follow-on cases, such as antitrust class actions filed by direct and indirect purchasers.⁵⁵ The defense, insofar as it focuses on the moral turpitude of the patentee, can have ruinous consequences for the prosecuting attorney and thereby deter settlements.⁵⁶ In other cases assertion of the defense can multiply the cost of litigation,⁵⁷ particularly by expanding discovery, and thereby have a coercive effect on settlements.⁵⁸

The draconian nature of the defense, in combination with its pre-*Therasense* low threshold of proof, made it appealing to accused patent infringers. One study, cited by *Therasense*,⁵⁹ estimated that 80% of patent infringement suits contain an allegation of inequitable conduct.⁶⁰ But other estimates of the frequency with which the defense is asserted are considerably lower, ranging from less than 20%⁶¹ to approximately 25%⁶² to 16–35%⁶³ to 40%,⁶⁴ and appeals involving inequitable conduct are not frequent. One survey found that the annual number of cases appealed on inequitable conduct rose from thirteen to thirty between 2004 and 2007, and then declined to twenty-six in 2008.⁶⁵ Inequitable conduct is rarely a successful defense,⁶⁶ but the common perception that the doctrine is asserted to excess in patent litigation is “empirically unverified.”⁶⁷

Patent applicants often attempt to negate the defense by providing the PTO with voluminous prior art⁶⁸ references—many of which are trivial or useless⁶⁹—and concurrent patent applications for the same technology in other countries.⁷⁰ This purported deluge may have contributed to the PTO’s backlog of pending patent applications. Approximately 500,000 patent applications are filed every year with the PTO,⁷¹ and in September 2012 approximately 608,000 applications were awaiting their first action.⁷² This backlog shows few signs of abating. The average pendency of U.S. patent applications exceeded three years each year during the period 2009-2013.⁷³

Notwithstanding the foregoing, the oft-criticized deluge of prior art references is suspect for multiple reasons. First, there is remarkably little empirical evidence supporting the rote argument -- highly persuasive to the *Therasense* majority⁷⁴ -- that a deluge has occurred.⁷⁵ What evidence does exist tends to rebut the point by demonstrating that a small sliver of patents accounts for the bulk of voluminous prior art references. In 2012 the average patent cited 43 references and only 8% of patents cited more than 100 references.⁷⁶ The median submission was a mere eight references⁷⁷ and more than two-thirds of the seven million prior art citations in the data set were associated with just 10% of the patents.⁷⁸ Moreover, there is no significant upward trend in recent years. During the period 2005-2011 the median number of references increased from 13 to just 17.⁷⁹

Second, recent empirical research indicates that the inequitable conduct defense is working in practice as it is supposed to work in theory. Those patents found unenforceable have statistically significantly fewer citations to prior art than patents in other similarly tested groups.⁸⁰ The authors conclude: “The doctrine seems to be working as expected. . . . [E]liminating the doctrine of inequitable conduct may be a mistake.”⁸¹ Third, while patent examiners have a duty to consider all prior art references,⁸² evidence suggests that examiners use the results of their own prior art searches, rather than the purportedly voluminous references provided by applicants.⁸³ Such evidence weakens the link between preemption of the inequitable conduct defense and delay at the PTO.

In short, the negative and unintended consequences of the inequitable conduct doctrine have been exaggerated – perhaps significantly so. But a dearth of damning empirical evidence has not discouraged critics from frequently describing the doctrine as an absolute plague on the courts and the United States patent system.⁸⁴

To date the plague has not moved the Supreme Court, which has provided no guidance concerning inequitable conduct since it issued its opinion in *Precision* almost 70 years ago. The lower courts have grappled with the contours of the defense in this vacuum. *Therasense* represented the Federal Circuit’s second attempt in two decades to reduce inequitable conduct claims in patent cases. The court’s prior attempt to reduce inequitable conduct claims occurred in *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*⁸⁵ In that case the court did not address materiality, but it overturned precedent⁸⁶ which held that a showing of gross negligence was sufficient to establish the intent prong of the defense. *Kingsdown* held that the patentee’s conduct must indicate sufficient culpability to require a finding of intent to deceive.⁸⁷ In subsequent years, however, Federal Circuit panels routinely ignored the case⁸⁸ and the requisite culpability was watered down to a “should have known” standard, which was tantamount to gross negligence.

Until *Therasense*, some courts also employed a sliding scale approach to materiality and intent that allowed a lesser showing of either element based on a stronger showing of the other.⁸⁹ In theory, use of a sliding scale was restricted to

situations in which there was clear and convincing proof of both materiality and intent. But in practice, use of the scale sometimes produced findings of inequitable conduct with little or no independent support for a finding of intent.⁹⁰ As noted by the Federal Circuit, use of a sliding scale conflated and diluted the standards for both intent and materiality.⁹¹ The foregoing factors prompted the Federal Circuit to consider *Therasense en banc*.

II. *THERASENSE*

The Federal Circuit's decision in *Therasense* imposed significant limitations on potential use of the inequitable conduct defense. These limitations included, but were not restricted to, the adoption of elevated standards for intent and materiality.

A. Procedural History of *Therasense*

Therasense owned U.S. Patent No. 5,820,551 (the '551 patent), which involves disposable blood-glucose test strips for diabetes management. Therasense had prosecuted the original application for the patent for more than 13 years, beginning in 1984, during which time it was repeatedly rejected over U.S. patent No. 4,454,382 (the '382 patent), also owned by Therasense. Following amendment of the claim, the examiner finally allowed the '551 patent to issue. In March 2004, Therasense sued several defendants, including Becton, Dickinson & Company, alleging infringement of the '551 patent. Following trial, the federal district court held that the '551 patent was unenforceable due to inequitable conduct because Therasense did not disclose to the PTO allegedly inconsistent statements that had previously been made to the European Patent Office regarding the European counterpart to the '382 patent.⁹²

Therasense appealed to the Federal Circuit, where a three-judge panel affirmed the holding of unenforceability due to inequitable conduct.⁹³ Therasense then successfully petitioned for rehearing *en banc*. Eleven judges participated in the decision, which was 6–1–4 (four dissenting votes and one concurrence). The majority opinion, which vacated the judgment and remanded for further proceedings⁹⁴ noted that the court granted *en banc* review because it recognized the problems created by the expansion and overuse of the inequitable conduct doctrine.⁹⁵

B. Majority Opinion

The majority opinion highlighted four key points. First, to prevail on its inequitable conduct defense, an accused infringer must show by clear and convincing evidence a specific intent to deceive, which requires proof that the applicant knew of the reference, knew that it was material, and made a deliberate decision to withhold it.⁹⁶ There is no requirement that intent be shown by direct evidence,⁹⁷ but in the absence of such direct evidence a specific intent to deceive must be the single most reasonable inference able to be drawn from the circumstantial evidence.⁹⁸ The intent requirement is not satisfied by a finding that a misrepresentation or omission constitutes negligence or even gross negligence.⁹⁹ All eleven judges agreed on this last point.

Second, as a general rule, the materiality required to establish inequitable conduct is “but-for” materiality.¹⁰⁰ In making this materiality determination courts must apply the preponderance of evidence standard and give claims their broadest reasonable construction.¹⁰¹ An undisclosed reference is material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art.¹⁰² This new but-for standard set a higher bar for establishing materiality than the PTO's own definition under Rule 56.¹⁰³ Indeed, the Federal Circuit specifically declined to adopt the then-current version of Rule 56 in defining inequitable conduct because, according to the court, reliance on that standard had resulted in the precise problems the court sought to address by taking the case *en banc*.¹⁰⁴ Only six of the eleven judges coalesced behind this new but-for standard. The Federal Circuit noted that materiality is often congruent with a validity determination – if a claim is invalidated based on prior art that was intentionally withheld, then that reference is necessarily material. This is because a finding of invalidity requires clear and convincing evidence, a more onerous evidentiary burden than that used in patent prosecution at the PTO.¹⁰⁵ Post-*Therasense* the Federal Circuit has reinforced the idea that but-for materiality is intertwined with invalidity. A finding of invalidity based on withheld references renders them material¹⁰⁶ and conversely a finding of validity ordinarily precludes a finding of materiality.¹⁰⁷

Third, there is an exception to but-for materiality in cases of affirmative acts of egregious misconduct, such as the filing of an unmistakably false affidavit.¹⁰⁸ In these cases the misconduct is material regardless of the effect it had had on the PTO. It is effectively *per se* material,¹⁰⁹ possibly regardless of the triviality of the misrepresentation.¹¹⁰ The *Therasense* majority noted that this exception to the but-for requirement is consistent with the Supreme Court's early trio of unclean hands cases (*Precision*, *Hazel-Atlas*, and *Keystone*).¹¹¹

Fourth, intent and materiality are distinct requirements and district courts should not use a sliding scale to determine the existence of inequitable conduct. Instead, courts should assess the evidence of materiality independent of their analysis of intent.¹¹² All eleven judges also agreed on this fourth point.¹¹³

Therasense also reaffirmed that a district court's factual findings concerning materiality and intent are subject to appellate review for clear error, and a district court's ultimate determination as to inequitable is reviewable on appeal for abuse of discretion, and subsequent cases have agreed.¹¹⁴

C. PTO Proposed Rulemaking

Two months after the Federal Circuit issued its decision in *Therasense* the PTO, which had opposed a but-for materiality standard in the en banc proceeding,¹¹⁵ issued a notice of proposed rulemaking with respect to Rule 56. The proposed amended rule modified the duty of disclosure by limiting the scope of materiality in a manner consistent with the but-for standard announced in *Therasense*. The proposed amended rule provided that information is material to patentability if it is material under the standard set forth in *Therasense*, and information is material to patentability under *Therasense* if: (1) the PTO would not allow a claim if it were aware of the information, applying the preponderance of the evidence standard and giving the claim its broadest reasonable construction; or (2) the applicant engages in affirmative egregious misconduct before the PTO as to the information.¹¹⁶ The PTO noted that it was not required to harmonize the materiality standards underlying Rule 56's duty of disclosure and the inequitable conduct doctrine, and then identified harmony and simplicity within the U.S. patent system as the primary justifications for its proposed revision.¹¹⁷ The proposed amended rule, like *Therasense* itself, gives patentees additional leeway to withhold information from the PTO during the examination process.¹¹⁸

D. Negative Impact of *Therasense*

Therasense and amended Rule 56 are likely to restrict the availability of the inequitable conduct defense in patent infringement actions to a degree that undermines the goals of the U.S. patent system. The most significant aspect of the case is the elevation of materiality to a but-for standard. As indicated, the new standard means that prior art is but-for material only if the PTO would not have allowed the claim if it had been aware of the undisclosed art. This rejection of Rule 56 constituted the critical disagreement between the *Therasense* majority of six judges and the dissent of four. As noted by the dissent, the majority's adoption of a "[d]raconian"¹¹⁹ new materiality standard departed from both principles of materiality commonly applied by courts in other contexts and the line of Supreme Court precedent set forth in the trilogy of *Precision*, *Hazel-Atlas* and *Keystone*.¹²⁰ In that trilogy the Supreme Court recognized the importance of both uncompromising candor to the PTO by patent applicants and a flexible approach to equitable claims¹²¹—something that is wholly lacking in but-for materiality.

The Supreme Court has emphasized equity's flexible nature in numerous other cases as well,¹²² and it has repeatedly emphasized the importance of discretionary standards in patent law. It reversed the Federal Circuit for adopting an absolute bar to the application of the doctrine of equivalents,¹²³ for adopting a rule that patentees were automatically entitled to injunctive relief,¹²⁴ for establishing an exclusive test for declaratory judgment jurisdiction,¹²⁵ for holding that method patents could never be exhausted,¹²⁶ for relying exclusively on a single test for proving obviousness,¹²⁷ and for utilizing a bright-line test for patentable subject matter.¹²⁸ The Federal Circuit's adoption of but-for materiality in *Therasense* as a response to doctrinal uncertainty regarding inequitable conduct eschews both the Supreme Court's heavy emphasis on the use of discretionary standards in patent law and traditional notions of equitable flexibility.¹²⁹

The "egregious misconduct" exception was designed by the *Therasense* majority to mitigate the harshness of its new materiality standard. The court explained that by creating an exception to punish affirmative egregious acts without penalizing the failure to disclose information that would not have changed the patent issuance decision, it was striking the necessary balance between encouraging honesty before the PTO and preventing unfounded accusations of inequitable conduct.¹³⁰ But the exception has no clear definition and applies only to affirmative misrepresentations.¹³¹ It does not apply in cases of nondisclosure or failure to mention prior art references in an affidavit.¹³² Neither of these events renders an affidavit unmistakably false—the one specific example of egregious misconduct that the court provided.¹³³ In short, the exception will be rare,¹³⁴ and will do little to mitigate the rigidity of the new but-for standard.

Moreover, the exception, similar to the general standard, eschews both traditional notions of equity and the Supreme Court's endorsement of the use of discretionary standards in patent law. The carve-out to but-for materiality only applies if the rigid threshold of egregious affirmative misconduct is met. Such rigidity permits no opportunity for courts to exercise their equitable discretion.

Difficulty in establishing materiality post-*Therasense* is not the only obstacle confronted by accused patent infringers seeking to utilize the inequitable conduct defense. Another obstacle is presented by *Therasense*'s holding about intent. Direct evidence of intent to deceive the PTO is scarce,¹³⁵ primarily because the decision to refrain from disclosure is rarely documented. In the absence of direct evidence a court may find specific intent to deceive the PTO only if it is the single most reasonable inference to be drawn from the circumstantial evidence. If multiple reasonable inferences can be drawn, intent to deceive cannot be found.¹³⁶

The foregoing requirements have at least two negative effects. First, they bar numerous potentially meritorious claims. Post-*Therasense* courts have been very reluctant to infer intent based on circumstantial evidence. In the first six months after

the *en banc Therasense* decision was issued, district courts rendered final decisions in fourteen cases involving inequitable conduct. These courts found the specific intent required by *Therasense* in only one of the cases, and they found inequitable conduct in none of them.¹³⁷

Second, they create a roadmap to success for dishonest patent applicants and thus encourage misconduct. Post-*Therasense* a dishonest patent applicant is less likely to be found to have engaged in inequitable conduct if it makes no disclosure of prior art than if it makes selective disclosure. If it makes no disclosure then there is likely to be no written evidence of intent to deceive and therefore immunization of inaction. Conversely, if the applicant makes selective disclosure there is some written evidence that it made the deliberate decision to disclose some art while withholding other references. *Therasense* thus creates a perverse incentive to withhold material information from the PTO.

Therasense's elevated standards concerning materiality and intent do not apply only at trial. The standards also apply at the summary judgment stage,¹³⁸ where the burden of proving inequitable conduct is particularly onerous.¹³⁹ The standards also operate to effectively raise the standard for pleading inequitable conduct. The current strict pleading standard was established by the Federal Circuit two years prior to *Therasense*, when it held in *Exergen Corp. v. Wal-Mart Stores, Inc.*¹⁴⁰ that inequitable conduct must be pleaded with particularity under Rule 9(b) of the Federal Rules of Civil Procedure¹⁴¹ by identifying the specific who, what, when, where, and how of the material misrepresentation or omission committed before the PTO.¹⁴²

The Federal Circuit applied its own law to determine the appropriate standard, but it adopted the approach for pleading fraud previously articulated by the Seventh Circuit.¹⁴³ This adoption disregarded both the text of Rule 9(b), which expressly requires particularity only when pleading fraud or mistake,¹⁴⁴ and the law of inequitable conduct, which does not include reliance as an element and thus is broader than common law fraud.¹⁴⁵ Prior to *Exergen* the Federal Circuit underscored that inequitable conduct is a lesser offense than common law fraud.¹⁴⁶ In *Exergen* the court substantially raised the standard for pleading inequitable conduct, whether as a counterclaim or as an affirmative defense,¹⁴⁷ by importing the inapposite standard for pleading fraud.¹⁴⁸

Exergen's "who" requirement requires identification of the specific individual(s) alleged to have engaged in inequitable conduct. General references to categories of persons, such as inventors or corporate entities, do not suffice.¹⁴⁹ The "what" requirement involves both the nature of the inequitable conduct (for example, whether there was a material omission or material misrepresentation) and the relevance of that conduct to specific patent claims.¹⁵⁰

Compliance with *Exergen's* "where" requirement is a function of the nature of the alleged inequitable misconduct. If the conduct involves a failure to disclose prior art, then defendant is required to specifically identify the location of the material information within the reference.¹⁵¹ If the conduct involves a failure to disclose relevant sales, offers for sales, or litigation, then defendant is required to specifically identify the location of the activity. A general identification is insufficient.¹⁵² Compliance with *Exergen's* "when" requirement similarly is a function of the nature of the alleged conduct. A simple allegation that inequitable conduct occurred during patent prosecution may suffice in some cases, but in many other cases defendants may be required to identify the publication dates of references, press release issue dates, and contract execution dates.¹⁵³

Compliance with the "how" requirement entails an explanation of how an examiner would have used the withheld information in assessing the patentability of the claims.¹⁵⁴ The pleading must explain the manner in which the information is material and not cumulative. The controlling inquiry is whether the allegations put plaintiffs on notice as to what information defendants contend should have been provided to the examiner but was not, and how that information would have changed the examiner's decision.¹⁵⁵ *Exergen* also imposes a separate "why" requirement, but it is not clear that Rule 9(b), which provides the basis for *Exergen's* holding, mandates such a showing. In any event, a pleading which satisfies the "how" element likely also satisfies the "why" element.¹⁵⁶ As in the case of "how," satisfaction of the "why" element requires pleading with particularity that the withheld information is not cumulative of the information actually disclosed during prosecution.¹⁵⁷

Technical compliance with the foregoing stringent requirements does not end the inquiry. The facts must also permit at least a reasonable inference of knowledge and an intent to deceive.¹⁵⁸ An inference is reasonable if it is plausible and flows logically from the facts alleged, including any objective indications of candor and good faith.¹⁵⁹ Post-*Therasense* some district courts have applied *Exergen* even more rigidly. These courts have held that *Therasense* tightened the standard for pleading such that specific intent to deceive must be the single most reasonable inference able to be drawn from the evidence.¹⁶⁰

The foregoing combination of pleading requirements has often proved insurmountable. In the last six months of 2011, 17 of 19 district court rulings on the pleadings resulted in the dismissal of inequitable conduct claims,¹⁶¹ although claimants fared somewhat better in the first half of 2012.¹⁶²

Therasense did not specifically address the pleading requirements for an inequitable conduct defense,¹⁶³ and by March 2013 no federal decision pre- or post-*Therasense* held that facts in a pleading alleging inequitable conduct must meet the clear and convincing standard.¹⁶⁴ But *Therasense* did raise the hurdle in substance insofar as all of the elements of the new inequitable conduct standard now must be pled with particularity,¹⁶⁵ and if they are not an inequitable conduct counterclaim must be dismissed and an inequitable conduct defense stricken.¹⁶⁶ Accordingly, while *Exergen* alone had no significant

downward impact on the number of cases alleging inequitable conduct,¹⁶⁷ *Exergen* in combination with *Therasense* will have a substantial chilling effect. The heightened pleading burden in tandem with the heightened substantive burden will operate to deter and foreclose many assertions of the inequitable conduct defense, particularly because Federal Circuit law controls with respect to both the pleading¹⁶⁸ and the proof¹⁶⁹ of inequitable conduct.

Moreover, there is no effective substitute for the defense. The doctrine of unclean hands, from which inequitable conduct derives, and which remains intact post-*Therasense*,¹⁷⁰ is a distinct doctrine with its own considerations.¹⁷¹ Unclean hands generally cannot be raised by a party who is foreign to the alleged unclean conduct at the time of its occurrence.¹⁷² And whereas application of the inequitable conduct doctrine results in the unenforceability of the entire patent, the unclean hands defense merely allows courts to dismiss complaints filed by plaintiffs suing in bad faith.¹⁷³

Until they are addressed by the Supreme Court, the Federal Circuit's harsh restrictions on use of the inequitable conduct defense will be operative for the foreseeable future. These restrictions, particularly *Therasense*'s adoption of but-for materiality, will have numerous negative effects. First, they will function to reduce the incentive for patent applicants to be candid with the PTO and thereby undermine one of the primary goals of the U.S. patent system.¹⁷⁴

Second, the restrictions will reduce patent quality,¹⁷⁵ insofar as the duty of candor owed by patent applicants to the PTO helps ensure quality patents. Critics have long complained that the PTO, which in 2011 granted 244,430 patents,¹⁷⁶ grants far too many low-quality patents.¹⁷⁷ According to one frequently-cited study, courts have found invalid 46% of patents litigated to judgment.¹⁷⁸ Patent quality is a function of multiple factors. One such factor is time – patent examiners average a mere 18 hours per patent application¹⁷⁹ and this short window has undermined the PTO's ability to provide adequate examinations.¹⁸⁰ A second factor is money. Some recent evidence suggests that the PTO, whose budget is largely derived from patent examination and post-allowance fees,¹⁸¹ is biased toward granting patents. Specifically, the PTO preferentially grants patents on technologies with high renewal rates and patent applications filed by large entities, because such patents generate the most revenue.¹⁸²

A third critical factor is the scope of disclosure to the PTO. Rule 56 underscores the point: “[T]he most effective patent examination occurs when . . . the [PTO] is aware of and evaluates the teachings of all information material to patentability.”¹⁸³ Pre-*Therasense*, the inequitable conduct doctrine addressed the patent-quality problem by increasing the flow of information to examiners.¹⁸⁴ Post-*Therasense*, with the incentive for candor diminished by the Federal Circuit and the corresponding revision of Rule 56, the PTO will tend to become even more poorly informed about inventions and relevant art than it is already.¹⁸⁵ This cannot help but to further erode patent quality, with predictable negative consequences. Society benefits when the PTO grants high-quality patents, and it suffers when the PTO grants low-quality patents. The issuance of valid patents creates incentives for innovation and promotes the commercialization of beneficial technical advances,¹⁸⁶ whereas bad patents (with their presumption of validity) tend to block innovation.

As will be shown below, the adoption of the AIA will serve to exacerbate the foregoing negative effects of the *Therasense* decision. The combination of *Therasense* and AIA will substantially limit the use of the inequitable conduct defense. There will be a significant reduction in both the assertion of the defense¹⁸⁷ and the successful assertion of the defense. In the first year after *Therasense* was decided, federal district courts granted 11 motions for summary judgment seeking a finding of no inequitable conduct, while denying only three such motions. In the same time period federal district courts issued 13 post-trial opinions finding no inequitable conduct and only three opinions finding such conduct.¹⁸⁸ More recently, district court dismissals of inequitable conduct claims continue to rise.¹⁸⁹

E. Walker Process Antitrust Claims

Beyond its negative impact on the use of the inequitable conduct defense, *Therasense* also will significantly limit the opportunity for alleged patent infringers to assert *Walker Process* antitrust claims. A patent is a monopoly by nature¹⁹⁰ and a patent-holder can generally enforce its rights under an unexpired patent without fear of antitrust liability under an exception to antitrust law.¹⁹¹ However, the Supreme Court held in *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*¹⁹² that if a patent-holder obtained its patent by knowingly and willfully misrepresenting facts to the PTO, such behavior may be sufficient to strip it of its exemption from the antitrust laws.¹⁹³ The Supreme Court cited the same early unclean hands cases that are the foundation of inequitable conduct law – *Keystone*, *Hazel-Atlas*, and *Precision*.¹⁹⁴

Walker Process claims are increasingly common.¹⁹⁵ Such a claim, which has been described as a more egregious version of inequitable conduct,¹⁹⁶ is typically, but not always, asserted as a counterclaim by a defendant in a patent infringement suit.¹⁹⁷ Direct purchasers of patented products also have standing to bring *Walker Process* claims, even if they lack standing to bring declaratory judgment actions to invalidate the patents.¹⁹⁸ In order to succeed, the complaining party must show the patent-holder both (1) procured its patent by knowingly and willfully misrepresenting facts to the PTO or (in the case of an assignee) maintained and enforced the patent with knowledge of the fraudulent manner in which it was procured, and (2) monopolized or attempted to monopolize the relevant market, in violation of the Sherman Act.¹⁹⁹ If the party can make both showings, it can establish antitrust liability and obtain treble damages under section four of the Clayton Act,²⁰⁰ equitable relief under section 16 of the Clayton Act, or both.²⁰¹ Whether conduct in procuring or enforcing a patent suffices to strip a patentee of its immunity from antitrust laws is decided under Federal Circuit law, whereas regional circuit law applies to the

other elements of antitrust law (for example, market power).²⁰² State antitrust law frequently closely tracks the language of the Sherman Act, so antitrust claims asserted under state statutes in patent infringement cases are typically analyzed under the same rules and case law applicable to Sherman Act claims.²⁰³ At least one federal court has held that plaintiffs may assert state law *Walker Process*-type antitrust claims predicated on fraudulent conduct before the PTO.²⁰⁴

Walker Process fraud must be pled with particularity under Rule 9(b).²⁰⁵ To plead and prove the first prong (fraud on the PTO), a party asserting a *Walker Process* claim must establish each of the following elements: (1) the patentee obtained a patent by knowingly and willfully misrepresenting material facts to the PTO (or omitting to state material facts), (2) the patentee acted with intent to deceive the PTO, (3) the PTO justifiably relied on the misrepresentation or omission, and (4) the patent would not have issued but-for the misrepresentation or omission.²⁰⁶

A principal distinction between inequitable conduct and *Walker Process* claims is temporal. Whereas inequitable conduct generally refers to actions and states of mind that occur during the patent prosecution process, *Walker Process* refers to actions and states of mind at the time a patent infringement action is commenced, which can be many years post-issuance.²⁰⁷

A more important distinction concerns proof. Prior to *Therasense* a party seeking to establish *Walker Process* fraud confronted a more onerous burden than a party seeking to establish inequitable conduct, insofar as *Walker Process* fraud required a higher showing of both intent and materiality.²⁰⁸ Under *Walker Process*, there must be clear and convincing evidence of intent to deceive the examiner and thereby cause the PTO to issue an invalid patent.²⁰⁹ With respect to fraudulent omissions, there must be evidence of intent separable from the simple fact of the omission.²¹⁰ The intent element, which apparently requires specific intent,²¹¹ sets a high bar that often results in summary judgment in favor of *Walker Process* defendants.²¹² *Walker Process* fraud also requires but-for materiality,²¹³ whereas inequitable conduct pre-*Therasense* did not. Finally, use of a sliding scale to balance materiality and intent was authorized by the Federal Circuit pre-*Therasense* in inequitable conduct cases,²¹⁴ whereas no such scale has been approved for use in *Walker Process* cases.²¹⁵

The differing burdens meant that pre-*Therasense* a finding of inequitable conduct did not by itself suffice to support a finding of *Walker Process* fraud,²¹⁶ and, conversely, a finding that the patentee did not engage in inequitable conduct mooted a *Walker Process* claim.²¹⁷ In short, *Walker Process* fraud could not be found in the absence of inequitable conduct.²¹⁸ The Federal Circuit has explained the proposition this way: parties in patent infringement litigation seeking unenforceability on the ground of inequitable conduct raise a shield, parties seeking antitrust damages raise a sword,²¹⁹ and parties break their *Walker Process* swords when they fail to first establish inequitable conduct.²²⁰

Given the opportunity to moot antitrust claims, courts often conclude that the goals of convenience, efficiency, judicial economy, and the avoidance of juror confusion are best served by bifurcating under Rule 42(b) of the Federal Rules of Civil Procedure²²¹ and deciding the inequitable conduct defense first, before the antitrust claim is presented to a jury.²²² The Federal Circuit has described the bifurcation for trial of patent issues and *Walker Process* issues as “now-standard practice.”²²³ Bifurcation also has occurred at the discovery stage,²²⁴ in recognition of the substantial expense and burden associated with discovery in antitrust cases.²²⁵

In *Therasense* the Federal Circuit provided no indication that the elements of *Walker Process* fraud have changed.²²⁶ None of the opinions in the en banc decision even considers the implications of the decision for *Walker Process* litigation. But the court’s dramatic revision in *Therasense* of the standard for proving inequitable conduct has realigned the doctrine to make it “virtually congruent with intentional fraud under *Walker Process*.”²²⁷ This realignment has major implications for *Walker Process* claims. Even prior to *Therasense* successful *Walker Process* claims were “few and far between,”²²⁸ with many such claims being dismissed on summary judgment motions.²²⁹ Successful antitrust claims post-*Therasense* will be even rarer. As noted, *Walker Process* claims cannot proceed in the absence of inequitable conduct. Because the combination of *Exergen* and *Therasense* has made it so difficult to plead and prove inequitable conduct, many defendants who in the past might have been able to prosecute *Walker Process* claims will be barred from doing so, at the same time that inequitable conduct claims are more likely to provide a sound basis for *Walker Process* claims than ever before.²³⁰ The *Walker Process* standard has not changed, but the high hurdles to advancing to the antitrust phase of bifurcated patent litigation have been raised even higher.²³¹

The expected reduction in *Walker Process* litigation is likely to further reduce the incentive for patent applicants to make full disclosure to the PTO and may invite fraud. The minimized prospect of facing an award of treble damages under the Clayton Act may encourage applicant fraud by rendering misconduct before the PTO cost-beneficial.²³²

The virtual alignment of inequitable conduct and *Walker Process* fraud that was accomplished by *Therasense* also increases the likelihood that the Seventh Amendment²³³ right of *Walker Process* claimants to have their antitrust claims tried by a jury will be infringed. Parties asserting antitrust claims have an undisputed right to a jury trial,²³⁴ but parties asserting a defense or affirmative claim of inequitable conduct have no Seventh Amendment right, because the latter assertions seek relief pursuant to the court’s equitable powers.²³⁵ Complications arise when bifurcation occurs. Rule 42(b) expressly instructs that a court considering bifurcation must “always preserv[e] inviolate the right of trial by jury as declared by the Seventh Amendment to the Constitution or as given by a statute of the United States.”²³⁶ If inequitable conduct and antitrust issues are bifurcated an initial bench determination that inequitable conduct did not occur may operate to preclude a subsequent jury trial on a *Walker Process* antitrust claim and thus violate the Seventh Amendment.

Prior to *Therasense* at least one federal district court acknowledged the Seventh Amendment issue and refused to bifurcate inequitable conduct and *Walker Process* claims.²³⁷ But many other pre-*Therasense* courts chose to ignore the issue and granted bifurcation requests.²³⁸ Although it is unclear why the issue was routinely ignored, courts (and litigators) may have assumed that a bench determination that no inequitable conduct occurred necessarily meant that no reasonable jury could find that *Walker Process* fraud occurred, given the more stringent requirements of the antitrust claim.²³⁹

The Seventh Amendment issue is likely to loom even larger post-*Therasense*, following the virtual alignment of the standards for proving inequitable conduct and *Walker Process* fraud.²⁴⁰ This realignment makes it increasingly likely that *Walker Process* claimants will be deprived of trials, because significantly fewer inequitable conduct claims will survive. The court explained in *Metris U.S.A., Inc. v. Faro Tech., Inc.*²⁴¹ in 2011: “If a judge’s determination of no inequitable conduct precluded a jury from later finding *Walker Process* fraud as a matter of law, then a viable argument could be made that the doctrines would collide with the protections afforded *Walker Process* claimants by the Seventh Amendment.”²⁴²

In summary, *Therasense* will constrict the availability of the inequitable conduct defense, and the new congruence of the standards for inequitable conduct and *Walker Process* fraud is likely to simultaneously constrict the availability of the antitrust claim and infringe the Seventh Amendment jury trial rights of *Walker Process* litigants.

III. AMERICA INVENTS ACT

Congress enacted the AIA several months after the Federal Circuit issued its en banc decision in *Therasense*. The AIA, signed into law on September 16, 2011 and fully in effect in March 2013, is the most significant revision to the U.S. patent regime since the 1952 enactment of the Patent Act, which recodified the entirety of U.S. patent law.²⁴³ The AIA may be the most significant change to U.S. patent laws since the 1836 Patent Act, which established the modern American system of patent examination.

The AIA was the culmination of efforts to reform the U.S. patent system that had been under way since the early 2000s. The first version of what became the AIA was introduced in June 2005 and subsequent versions were introduced in the following years.²⁴⁴ The failure of these early efforts resulted in frequent intervention by the Federal Circuit and Supreme Court to resolve significant patent issues. In addition to *Exergen* in 2009 and *Therasense* in 2011, the intervention encompassed the Federal Circuit decision in *In re Seagate Technology, LLC* in 2007 (raising the standard for finding willful patent infringement),²⁴⁵ as well as Supreme Court decisions reformulating the standards of non-obviousness,²⁴⁶ injunctive relief,²⁴⁷ patent exhaustion,²⁴⁸ and damages.²⁴⁹

While the AIA does not expressly address inequitable conduct, several of the statute’s provisions may operate to significantly restrict use of the defense. These provisions relate to post-issuance review and the best mode of using the invention. Both changes are discussed below, along with their adverse implications for the inequitable conduct defense.

A. Post-Issuance Review

The first set of AIA provisions affecting inequitable conduct pertains to post-issuance review. These provisions include post-grant review (PGR), *inter partes* review (IPR), and supplemental examination.

1. Background

The proceedings available after the grant of a patent are conducted through the PTO to reconsider issued patents and can result in confirmation, cancellation, withdrawal, or modification of patent claims. Prior to passage of the AIA the only post-issuance review options were *ex parte* reexamination (adopted in 1980)²⁵⁰ and *inter partes* reexamination (adopted in 1999).²⁵¹ Prior to 1980, there was no non-judicial proceeding that enabled a third party to challenge the validity of a patent.²⁵² *Ex parte* reexamination is available for any patent during the period of its enforceability, which is typically the term of the patent plus six years.²⁵³ In both *ex parte* reexamination and *inter partes* reexamination the PTO Director could order a reexamination after a requester raised a substantial new question (SNQ) of patentability for any of the claims of the patent for which it sought reexamination.²⁵⁴ This amorphous standard borrowed from the reasonable examiner standard used intermittently for many years to determine materiality under Rule 56.²⁵⁵ The ambiguity contributed to rubber-stamping of requests. Approximately 92% of *ex parte* reexamination requests and 94% of *inter partes* reexamination requests were granted through June 2012.²⁵⁶ The Director’s determination of a SNQ was final and non-appealable.²⁵⁷

The two review options have been criticized on multiple grounds. One ground is lack of timeliness and resulting uncertainty. *Ex parte* reexaminations take an average of two years and pre-AIA the average pendency of an *inter partes* reexamination was more than three years.²⁵⁸ A second ground is perceived bias.²⁵⁹ Patent owners had no right to initiate *inter partes* examination, whereas both owners and third-parties can request *ex parte* reexamination. In recent years approximately 90% of *ex parte* reexamination requests were filed by third-parties,²⁶⁰ but the requester does not participate in such proceedings unless she is the patentee. The third party’s nominal role is restricted to presenting a substantial new question of patentability to the PTO for resolution. If reexamination is granted the third-party has no further involvement.

This defect is magnified by the PTO's susceptibility to "well-recognized externalities that favor sustaining patent claims."²⁶¹ An additional relevant factor is that until a few years ago it was common practice for the same examiner who originally issued the patent to be assigned to the *ex parte* reexamination.²⁶² Not surprisingly then, during the period July 1981–June 2012 all claims were canceled in *ex parte* reexaminations only 11% of the time.²⁶³ By comparison, during the period November 1999–June 2012 all claims were canceled (or disclaimed) in *inter partes* reexaminations 42% of the time.²⁶⁴

A third ground is that both options had limited scope. *Inter partes* reexamination allowed challenges only on grounds of novelty or non-obviousness,²⁶⁵ and in both proceedings only patents and printed publications could be used to contest the patent.²⁶⁶ This is a limiting factor because an argument of invalidity often is based on unprinted prior art.²⁶⁷ Fourth, *inter partes* reexaminations were subject to strong estoppel provisions that operated as a major disincentive to use the proceedings, especially when coupled with the inability of a third-party requester to cross-examine the patentee.²⁶⁸

The foregoing disadvantages, primarily imposed on third-party challengers, combine to explain the limited use of the proceedings.²⁶⁹ Nearly 4,500 patents are issued every week, whereas *ex parte* reexamination has applied, on average, to only 380 patents per year²⁷⁰ and the PTO received only 1,659 requests for *inter partes* reexamination during the period November 1999 to June 2012.²⁷¹

The pre-AIA regime of post-issuance review has been substantially modified with the introduction of a series of new procedures designed to minimize litigation costs and increase certainty. The new procedures took effect on September 16, 2012, one year from the date of enactment of the AIA. *Ex parte* reexamination procedures remain almost entirely unchanged, notwithstanding their various defects,²⁷² but they have become much less important compared to the new post-issuance patent review proceedings (post-grant review and supplemental examination) described below. In addition, *inter partes* reexamination has been substantially altered and re-designated as "*inter partes* review." PGR and IPR have become the primary vehicles for litigating patentability at the PTO. Each of the foregoing proceedings is examined below.

2. Post-Grant Review

Post-grant review can be requested no later than nine months following the grant of a patent or re-issuance of a patent issued from applications filed after March 16, 2013 under the AIA's new first-to-file rules.²⁷³ Given that in fiscal year 2012 it took an average of 32.4 months for a patent application to issue as a patent or be abandoned,²⁷⁴ PGR might not be commonly used before 2016 or 2017.

A petitioner may request to cancel as unpatentable one or more claims of a patent on any ground for invalidity under 35 U.S.C. § 282, any requirement of 35 U.S.C. § 112 (except for failure to disclose the best mode), and any requirement of 35 U.S.C. § 251. PGR thus permits attacks based on, *inter alia*, invalidating prior art, prior public use, lack of enablement, lack of written description, lack of utility, lack of obviousness, lack of novelty, or prior sale or offer for sale.²⁷⁵ This is a considerably broader array of grounds than is available to challenge patents in reexaminations.

Formerly, a party seeking *inter partes* reexamination was required to show that cited prior art raised a SNQ of patentability. Under the AIA, a petition for PGR may be granted if (1) the information therein, if unrebutted, makes it more likely than not that at least one of the claims challenged in the petition is unpatentable,²⁷⁶ or (2) the petition raises novel or unsettled legal questions that are important to other patents or applications.²⁷⁷ It is unclear what constitutes such a question and whether petitioner must establish that at least one claim is unpatentable if such a question exists.

On its face the new PGR standard is higher than the SNQ previously required for initiating an *inter partes* reexamination. But once initiated, the preponderance of evidence standard will be used to determine the patentability of claims, as it is in *ex parte* reexaminations. Accordingly, a petitioner seeking PGR will ultimately confront the same burden to prove that a claim is invalid as petitioners previously did in *inter partes* reexaminations.

A party may seek PGR (or IPR) or instead opt to sue in district court, but neither PTO proceeding may be instituted by a party or a party's real party in interest if that entity previously contested the validity of a claim of the patent in civil litigation.²⁷⁸ The PTO's decision whether to open a PGR is final and non-appealable. PGRs are adjudicated by three-judge panels of the new Patent Trial and Appeal Board (PTAB), which replaces the back-logged Board of Patent Appeals and Interferences (BPAI) within the PTO.²⁷⁹

Inter partes reexamination had no discovery component,²⁸⁰ but PGR and IPR both permit limited discovery with poorly defined boundaries. Discovery in both PGR and IPR will be narrower than discovery in federal district court, and discovery in IPR will be narrower than it is in PGR. In post-grant review the parties may take discovery directly related to factual assertions advanced by either party,²⁸¹ whereas discovery in *inter partes* review is limited to depositions of witnesses who submitted affidavits or declarations and what is "otherwise necessary in the interest of justice."²⁸² PGR's broader discovery is appropriate, because the grounds for challenging a patent are more substantial in PGR than in IPR.

The new materiality standard established in *Therasense* may affect inequitable conduct allegations that a patent challenger considers asserting in an infringement action filed after a post-grant review (or IPR). For example, a PGR that invalidates some but not all claims may be used to prove the materiality of a reference that a patentee failed to cite in the original prosecution of her patent.²⁸³ How often will this occur? Pre-AIA approximately 1% of patents were litigated²⁸⁴ and litigation often proceeded concurrently with PTO proceedings. Approximately 70% of patents in *inter partes* reexamination

and 33% of patents in *ex parte* reexaminations also were in district court litigation,²⁸⁵ even though the proceedings were designed to be an alternative to litigation. Post-grant review presents the potential to shift numerous patent validity disputes from the federal courts to the PTO, given the opportunity to challenge a patent based on any invalidity theory, a lower standard of proof, the absence of any presumption of validity, and the fact that PGR may be much quicker than litigation. Whereas the AIA provides for PGRs (and IPRs) to be decided by the PTAB within 12 months from institution of the proceedings (with the possibility of an additional six-month extension for good cause),²⁸⁶ the median time to trial in patent litigation remained steady at approximately 2.5 years during the period 2005-2011.²⁸⁷

Notwithstanding the foregoing, PGR is unlikely to be widely used, given the high cost of analyzing potential threats from thousands of patents.²⁸⁸ More likely, such review will be used in targeted fashion by companies focusing on emerging patent portfolios of strategic competitors. The nine-month window for seeking PGR also is likely to restrict the use of review as a non-litigation option, particularly for small and medium-size businesses that lack the infrastructure necessary to monitor the issuance of competitors' patents.²⁸⁹

Perhaps the greatest disincentive to frequent use of post-grant review may be provided by its robust estoppel effect. The AIA requires the PTAB to issue a final written decision concerning the patentability of any patent claim challenged by the petitioner and any new claim added during PGR.²⁹⁰ Issuance by the PTAB triggers PGR's estoppel effect. If the decision is adverse to the petitioner, she is estopped from asserting invalidity before the PTO, International Trade Commission (ITC), or a federal court on any basis that was raised or reasonably could have been raised during the PGR.²⁹¹ This differs considerably from the estoppel effect attaching to *inter partes* reexamination pre-AIA, which followed exhaustion of all appeals. Under the AIA estoppel is attainable within 12 to 18 months, in contrast to the roughly six years an appeal from an *inter partes* reexamination took to navigate the PTO and obtain a final decision from the Federal Circuit.²⁹² No doubt the speed with which estoppel takes effect will weigh heavily in the decision calculus concerning pursuit of PGR (or IPR). Adverse final PGR decisions estop petitioners, real parties in interest, or privies of the petitioner. They do not estop patent owners. This lop-sided estoppel is likely to dissuade prospective petitioners from regarding PGR as an attractive substitute for litigation.²⁹³

The AIA's robust estoppel effect also is present in IPR, but it could be particularly acute in PGR²⁹⁴ where the grounds on which a petitioner may assert invalidity are unrestricted and there is no exemption from the scope of estoppel for newly discovered prior art. The lack of restriction offers significant opportunities to find that a basis for invalidity either was raised or reasonably could have been raised, thereby triggering the estoppel effect. This broad estoppel is likely to operate as a significant deterrent to the use of PGR by petitioners, except where the facts supporting invalidity are very strong.

As discussed below, the AIA's new supplemental examination procedure offers a major opportunity for patentees to prevent prior art references or other information from being used as the basis for subsequent allegations of inequitable conduct. This opportunity makes it likely that patent owners will seek supplemental examination of patents for prior art references cited in PGR or IPR, in order to immunize the patents from exposure to later charges of inequitable conduct if that information was used by the PTAB to invalidate.²⁹⁵

3. *Inter Partes* Review

The AIA's new *inter partes* reviews will permit few if any occasions to bolster or assert an inequitable conduct defense. IPR replaced *inter partes* reexamination on September 16, 2012 and applies to patents issued before, on or after that date—not merely those patents issued on or after November 29, 1999, as in the case of *inter partes* reexamination. There are other important differences between the two procedures. IPR allows the patentee to respond to the petition and explain why the review should not proceed, whereas in *inter partes* reexamination a response by the patentee was only allowed after the examiner instituted reexamination. Further, unlike *inter partes* reexamination, a petition for IPR may not be filed until nine months after the grant of a patent or issuance of a reissue patent²⁹⁶ or after termination of a PGR, whichever happens later.²⁹⁷ *Inter partes* review thus is available to requesters seeking to challenge the validity of a patent after the nine-month window for filing post-grant review has closed.

Inter partes review introduces a new standard to commence review that replaces the former SNQ standard. This standard also differs from the new test applicable in PGRs. The presentation of a novel or unsettled legal question is not a valid ground for granting IPR. Rather, the petitioner must show that the information presented in her petition, together with any response from the patentee, establishes that there is a reasonable likelihood that the petitioner would prevail with respect to at least one of the claims challenged in the petition.²⁹⁸ Another difference between IPR and PGR is that in the former, a patent may only be challenged on the ground that it lacks novelty in violation of 35 U.S.C. § 102 or that it was obvious in violation of 35 U.S.C. § 103, and only on the basis of prior art patents and printed publications.²⁹⁹

As in the case of PGR, the PTO's decision whether to open an *inter partes* review is final and non-appealable. It is unclear whether the petitioner can request that the Director review the PTO's denial of an IPR, and what recourse, if any, the petitioner has if IPR is granted for some but not all claims. IPRs are adjudicated by three-judge panels of the new PTAB. As noted, discovery is available,³⁰⁰ but it tends to significantly favor patentees, insofar as they generally receive priority and are able to conduct discovery even before they file their responses to petitioners. This serves to make the strong estoppel

provisions of IPR even stronger. Estoppel is triggered by the final written decision of the PTAB³⁰¹ and applies to all issues that were raised or reasonably could have been raised in the review.³⁰² Given the availability of discovery, it is easy to successfully argue that a wide range of issues could have been raised.³⁰³ As with PGR, the robust estoppel effect applies to other proceedings in the PTO, as well as civil actions and proceedings before the ITC.³⁰⁴

PTAB decisions are appealable directly to the Federal Circuit. A party that loses an IPR is barred from returning to the PTO for any proceeding, including *ex parte* reexamination and PGR.³⁰⁵ Prior to enactment of the AIA, litigation did not preclude *inter partes* reexamination and, absent a discretionary stay, the proceedings could advance in tandem. *Inter partes* reexaminations were used by parties to create a record to bolster their positions in ongoing litigation. For example, litigants would use the process to support an inequitable conduct defense.³⁰⁶ The situation is different now. It may be more difficult to obtain IPR than it was to obtain *inter partes* reexamination pre-AIA, because the standard for obtaining review has changed. The prior SNQ standard was met in 95% of *inter partes* reexamination requests. The new standard may yield a lower percentage.

There are at least two other limiting factors. First, IPR is unavailable where there is litigation concerning the patent and either more than one year has passed since the petitioner (or someone in privity with the petitioner) was served with the patent infringement complaint³⁰⁷ or the petitioner filed a civil action challenging the validity of a claim of the patent before filing the petition for IPR.³⁰⁸ Second, the PTO Director has the authority to impose a limit on the number of IPRs that may be instituted during each of the first four years of implementation. This limit has been projected at 270.³⁰⁹ *Inter partes* reexamination was rare pre-AIA. IPR is apt to be even rarer,³¹⁰ thus further restricting the option to litigants to bolster their inequitable conduct defenses.

4. Supplemental Examination

The AIA's new supplemental examination provisions are very likely to restrict the inequitable conduct defense as well. Under the new procedures, a patent owner may request supplemental examination of a patent any time after its issuance to consider, reconsider or correct information believed to be relevant to the patent.³¹¹ The new provisions, set forth in amended 35 U.S.C. § 257 (Section 12 of the AIA), took effect in September 2012,³¹² apply to any patent regardless of issue date, and provide for reexamination if the Director concludes that the reference presented in the request presents a SNQ of patentability.³¹³

If he so concludes, then reexamination proceeds primarily according to the current *ex parte* reexamination rules, with some differences. The most important difference is that the current restriction limiting *ex parte* reexaminations to consideration of prior art patents and printed publications is inapplicable in supplemental examinations and "information" is not limited or defined by the AIA. Supplemental examinations can be based on any information believed relevant to the patent. Accordingly, a patent owner can utilize supplemental examinations to call to the attention of the PTO prior art patents and printed publications, as well as non-print prior art and non-prior art information held by the Federal Circuit to be material in inequitable conduct cases prior to *Therasense*.³¹⁴ This is a much broader scope of information than the "patent and printed publications" limitation of *ex parte* reexamination.

Supplemental examination is not available if allegations of inequitable conduct have been pled with particularity in a civil action.³¹⁵ If defendant alleges in court that certain conduct constitutes inequitable conduct, the patentee loses the ability to cure the defect through supplemental examination. But this exception is likely to have very limited application, because evidence of inequitable conduct is frequently unavailable until discovery occurs and typically the timing of the onset of litigation is within the patentee's control. In most cases patentees can be expected to exercise such control by filing an absolving request for supplemental examination prior to taking any action that might trigger a declaratory judgment action.³¹⁶ Moreover, the requirement that inequitable conduct be pled with particularity in order to trigger the exception likely entails compliance with *Exergen*. For all of the reasons described *supra*, it is very difficult to satisfy *Exergen's* pleading standard.

In the absence of the rare exception supplemental examination will permit a patentee to effectively inoculate a patent against all but the most egregious forms of inequitable conduct, by resubmitting the patent for reexamination based on corrected information. Once that corrected information is considered, the patent cannot later be held unenforceable on the basis of conduct relating to such information. This is true even if a reexamination is not conducted.³¹⁷ The legislative history of the AIA indicates that supplemental examination can serve to prevent a patent from subsequently being held invalid,³¹⁸ and the PTO has publicly stated that "[a] patent owner may use supplemental examination to forestall a subsequent inequitable conduct challenge to the enforceability of the patent during litigation."³¹⁹ This signaling effect alone may be sufficient to ensure that inoculation occurs.

The proceeding is available only to patent owners,³²⁰ who will be able to cure intentional failures to disclose prior art that would otherwise be grounds for a finding of inequitable conduct. The AIA requires patentees to request and conclude supplemental examination before attempting enforcement.³²¹ Where that occurs, examinations can be used as free passes by patent owners who deceive the PTO. As such, supplemental examinations create a patent amnesty program.³²² Amnesty is created not merely for issued patents. It also is created for any other patent that, if it had been examined in light of information relevant to the patentability of the claimed invention reasonably available during the initial examination, might

not have been issued or might have been issued in a much narrower form.³²³ This differs considerably from pre-AIA post-grant procedures, wherein the submission of information for consideration by the PTO was an effective admission of its materiality.³²⁴ The Federal Circuit has held that the submission of information during reexamination does not bar the subsequent assertion of an inequitable conduct defense based on such information, and in fact can provide a basis for the defense.³²⁵

Post-grant review is unlikely to negate the powerful impact of supplemental examinations, because such examinations are likely to affect a much broader body of patents.³²⁶ Likewise, while the potential impact of the amnesty is reduced because the Director must make a confidential referral to the U.S. Attorney General for possible prosecution if the Director becomes aware during the course of a supplemental examination or related reexamination that material fraud may have been committed on the PTO,³²⁷ this reduction in impact is liable to be extremely limited. The AIA does not identify the differences between inequitable conduct (which can be corrected) and fraud (which apparently cannot). Subsequent to *Therasense*, the two are closer than they have ever been. The Director had the power to encourage prosecution of those who engage in material misconduct long before the AIA was enacted, but the power was almost never exercised.³²⁸ There is no reason to assume the situation will change following enactment. Moreover, the AIA's legislative history indicates that Section 12 was not intended to expand the PTO's investigatory duties, and even if the PTO makes a referral to the Attorney General it must conclude the supplemental examination.³²⁹

Finally, insofar as the statute of limitations for the criminal law most likely applicable (18 U.S.C. § 1001, which establishes liability for false statements in matters involving the U.S. government)³³⁰ is five years,³³¹ measured from the date each element of the crime has occurred,³³² prosecution for most material misconduct would be time-barred by the time a patent is scrutinized in a supplemental examination or *ex parte* reexamination. In fiscal year 2012 it took an average of 32.4 months for a patent application to issue as a patent or be abandoned, even longer than the 32.2 months it took in fiscal year 2009.³³³ Given this almost three-year lag, which shows no major signs of improvement,³³⁴ it is likely that supplemental examinations will not be requested until after five years has expired.³³⁵

Supplemental examinations are overtly designed to reduce patentees' exposure to inequitable conduct claims,³³⁶ unnecessarily replicate the effect of *Therasense*,³³⁷ and thereby threaten to make the inequitable conduct defense an historic relic.³³⁸ The overall outcome is likely to be more fraud before the PTO,³³⁹ accompanied by a net increase in the cost of competition, higher barriers to market entry, decreased innovation, lower-quality patents, and a decline in the economic competitiveness of the U.S.³⁴⁰

In summary, the AIA's new provisions for supplemental examination and post-grant review, together with its modification of *inter partes* review, will substantially constrict the inequitable conduct defense.

B. Best Mode

Similar to the AIA's post-issuance review provisions, the AIA's new best mode provision also will operate to constrain the use of the inequitable conduct defense. At least since the 1800s U.S. patent law has required an inventor to disclose the best mode associated with application of the principle of her invention.³⁴¹ This best mode requirement has applied to all classes of inventions beginning with the 1952 Patent Act,³⁴² which in 35 U.S.C. § 112 requires the inventor seeking a patent to disclose the "best mode . . . of carrying out her invention."³⁴³ The requirement does not require actual disclosure of the best mode, but instead only adequate disclosure to enable someone of ordinary skill in the art to practice the best mode without undue experimentation.³⁴⁴ Under the 1952 Patent Act the failure to disclose best mode during patent prosecution could result in rejection by the patent examiner.³⁴⁵

Determining compliance with the best mode requirement is a two-prong inquiry. First, it must be determined whether, at the time the patent application was filed, the inventor possessed a best mode for practicing the invention. This is a subjective inquiry which focuses on the inventor's state of mind at the time of filing. Second, if the inventor did possess a best mode, it must be determined whether the written description disclosed the mode such that a person skilled in the art could practice it. This is an objective inquiry which focuses on the scope of the claimed invention and the level of skill in the art.³⁴⁶

There is some confusion as to whether invalidation based on a best mode violation requires that the inventor knew of and intentionally concealed a better mode than was disclosed. The Federal Circuit has not been clear about this issue. In some cases it seems to have required concealment,³⁴⁷ but in other cases it has stated that intent to conceal is not an element.³⁴⁸ In still other cases the court has explained that it uses the term "concealment" as a shorthand way of inquiring about the adequacy of the disclosure.³⁴⁹ Section 112 does not on its face impose a concealment requirement.³⁵⁰

Failure to disclose the best mode has furnished grounds for rejecting patent applications in the PTO and, more commonly, for declaring the patents invalid or unenforceable in subsequent litigation.³⁵¹ Invalidity for failure to satisfy the best mode requirement must be proven by clear and convincing evidence,³⁵² and compliance with the requirement is both a question of fact³⁵³ and often highly factual.³⁵⁴ The Federal Circuit reviews findings of best mode disclosure violations for clear error.³⁵⁵

The best mode requirement has several related justifications. The first justification is to ensure that the public is placed on a level playing field with the patentee upon expiration of the patent.³⁵⁶ The second is to compensate the public for the cost of the monopoly created by a patent.³⁵⁷ A third is to realize basic notions of fairness.³⁵⁸

Best mode has endured in the U.S. despite being subject to criticism on several grounds. First, best mode has failed to level the field because it is subjective—only the best mode contemplated by the inventor must be disclosed, even if the best mode, in an objective sense, is not revealed to the public.³⁵⁹ Second, best mode also fails to meet its goal because the rapid pace of technological change may negate the best mode before the patent term ends. Third, best mode increases litigation costs³⁶⁰ while providing modest benefits, and, because the rule is virtually unique to the U.S.³⁶¹ it places at a disadvantage foreign applicants who apply for patents in their home countries and then must amend their U.S. applications to comply with the best mode requirement.³⁶² Finally, it has been argued that the best mode requirement has been applied inconsistently by the courts.³⁶³

Most of the foregoing points can be rebutted. First, while best mode is subjective, the inventor's subjective intent may be proven by inference from objective evidence, such as performance data for various embodiments of the invention.³⁶⁴ Second, there is little or no evidence definitively linking best mode to an increase in patent litigation costs,³⁶⁵ and the AIA's abolition of failure to disclose best mode as a basis for finding invalidity or unenforceability will result in only modest savings and may even increase costs, because the volume of discovery is not expected to decline.³⁶⁶ Third, the notion that best mode is unique to the U.S. is untrue. According to one survey, by 2005 at least twenty-four countries required best mode disclosure,³⁶⁷ and the global trend has reflected adoption.³⁶⁸

The AIA did not substantively change the best mode requirement (except insofar as the requirement now encompasses the best mode contemplated by the inventor *or joint inventor*). Amended Section 35 U.S.C. § 112 still requires patent applicants to disclose a best mode if they know of one.³⁶⁹ However, courts will no longer enforce this requirement, insofar as the AIA amended 35 U.S.C. § 282 to eliminate failure to disclose the best mode as a ground for asserting invalidity of the patent, unenforceability or cancellation of any or all claims in a patent.³⁷⁰ Thus, under the AIA, patent applicants must disclose the best mode to receive a patent, but if a patent is obtained despite a failure to so disclose, no challenge to the patent rights can be made based on such a failure. The prohibition on invalidating a patent claim for failure to disclose best mode encompasses *ex parte* reexamination and post-grant review. The foregoing mixed outcome appears to represent a compromise between critics of best mode who wanted to abolish it entirely and proponents who wanted to preserve it in some fashion.³⁷¹

Prior to adoption of the AIA intentional best mode violations could be deemed inequitable conduct.³⁷² It is not entirely clear whether inequitable conduct based on intentional concealment of the best mode remains a viable defense in civil litigation post-AIA. Nothing in the statute explicitly excludes such a defense. The AIA only excludes failure to disclose the best mode as a direct basis for invalidity or unenforceability, but defendants generally did not assert such a failure in pre-AIA litigation. Rather, they asserted inequitable conduct before the PTO as the direct basis for a finding of unenforceability. However, the foregoing distinction is unlikely to prevail, because the AIA does not distinguish between direct and indirect bases for validity and unenforceability. Congress, when it enacted the AIA, was aware that best mode violations were frequently styled as inequitable conduct claims, and this probably explains why the AIA excludes failure to disclose the best mode as a basis for both invalidity and unenforceability.³⁷³ The failure to disclose best mode almost certainly has been eliminated as a direct and indirect basis for asserting invalidity or unenforceability.³⁷⁴

Prior to enactment of the AIA, best mode was not a primary defense and it was rarely successful.³⁷⁵ Now it has been eliminated as a defense altogether. While the best mode requirement has been nominally retained, it has been rendered a virtual nullity in any proceeding in which the issue of compliance with the requirement might arise.³⁷⁶

It has been suggested that best mode retains some utility under the AIA, for a couple of reasons. First, even if evidence supporting the defense has become inadmissible at trial, a patent applicant's knowledge of a best mode may be reasonably calculated to lead to the discovery of admissible evidence relevant to a claim of inequitable conduct or unclean hands.³⁷⁷ Second, if discovery reveals an undisclosed best mode, the doctrine of unclean hands may provide a remedy.³⁷⁸ As to the first point, however, the combination of *Exergen*, *Therasense*, and the AIA's new post-issuance proceedings has essentially eviscerated the inequitable conduct defense. As to the second point, the doctrine of unclean hands has never been an effective substitute for inequitable conduct for the reasons discussed *supra*. As noted, unclean hands generally cannot be raised by a party who is foreign to the alleged unclean conduct at the time of its occurrence. And whereas application of the inequitable conduct doctrine results in the unenforceability of the entire patent, the unclean hands defense merely allows courts to dismiss complaints filed by plaintiffs suing in bad faith.

The AIA's revision of best mode may create an incentive for inventors to actively conceal the best mode,³⁷⁹ as long as the risk of detection by the PTO is sufficiently low. In fact, the risk of detection by the PTO is virtually nonexistent, because the patent examiner will almost never have evidence sufficient to permit her to conclude that the inventor, at the time of filing the application, knew of a better mode of practicing the claimed invention.³⁸⁰ The PTO acknowledges this point in the Manual of Patent Examining Procedure.³⁸¹

The effective elimination of best mode and its concomitant constriction of the inequitable conduct defense undermine the quid pro quo basis of patent law, which is that the patent applicant should play fair and square with the patent system. It is unfair if the applicant can receive from the public the right to exclude, while at the same time maintaining part of the invention as a trade secret by concealing from the public the preferred embodiment of the invention.³⁸² Prior to the AIA, best mode also played a critical role in establishing the level of inventiveness necessary for a patent to issue. As explained by Professors Petherbridge and Rantanen, "the best mode requirement cooperates with nonobviousness doctrine to protect the

balance between incentive and access in the patent system.”³⁸³ The effective elimination of the best mode requirement terminates that protection. In short, the AIA limits the inequitable conduct defense at cross-purposes with fundamental objectives of the U.S. patent system.

IV. CONCLUSION

Through a combination of judicial and political action, *Therasense* and the AIA have unduly narrowed the inequitable conduct defense. The Federal Circuit limited the defense explicitly and in substance by restricting its elements and establishing a more lenient disclosure obligation. Congress constrained the defense implicitly and largely through procedures. The AIA removed best mode violations as a basis for inequitable conduct, and it established provisions for post-issuance review that provide patentees with a safe harbor from allegations of inequitable conduct while estopping patent challengers from asserting the defense. The restrictions imposed collectively by *Therasense* and the AIA will tend to undermine fundamental objectives of patent law. At a minimum, the undue contraction of the inequitable conduct defense will substantially reduce the incentive for patent applicants to make full and early disclosure to the overall detriment of the U.S. patent system. At the same time, *Therasense* will operate to substantially reduce the opportunity for parties to assert *Walker Process* antitrust claims. Overall, the cure has been worse than the plague.

Footnotes

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¹ 649 F.3d 1276 (Fed. Cir. 2011) (en banc). See also *Metris U.S.A., Inc. v. Faro Tech., Inc.*, Civil Action No. 08-CV-11187-PBS, 2011 WL 4346852, at *1 (D. Mass. Sept. 19, 2011) (“In *Therasense*, the Federal Circuit signaled the dramatic constriction of the inequitable conduct doctrine. . .”).

² Pub. L. 112-29, 125 Stat. 284 (2011), codified in scattered sections of 35 U.S.C.

³ See, e.g., *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) (observing that U.S. patent system seeks to balance promotion of innovation with avoidance of monopolies that unnecessarily stifle competition); *Aronson v. Quick Point Pencil Co.*, 440 U.S. 257, 262 (1979) (identifying primary purposes of federal patent system).

⁴ See Katherine E. White, “*There’s a Hole in the Bucket: The Effective Elimination of the Inequitable Conduct Doctrine*,” 11 J. MARSHALL REV. INTELL. PROP. L. 716, 717 (2012).

⁵ 35 U.S.C. § 282(b) (2000). Cf. John M. Golden, *Patent Law’s Falstaff: Inequitable Conduct, the Federal Circuit, and Therasense*, 7 WASH. J.L., TECH. & ARTS 353, 356 (2012) (“Arguably, the defense is implicit in statutory law.”); David Hricik & Seth Trimble, *Congratulations on Your Hallucinations: Why the PTO’s 1992 Amendment to § 1.56 is Irrelevant to Inequitable Conduct*, 38 AIPLA Q.J. 1, 4 (2010) (“[I]n 1952 Congress codified the defense of inequitable conduct at 35 U.S.C. § 282.”).

⁶ David S. Abrams & R. Polk Wagner, *Poisoning the Next Apple? The America Invents Act and Individual Inventors*, 65 STAN. L. REV. 517, 519 n.6 (2013).

⁷ B.D. Daniel, *Heightened Standards of Proof in Patent Infringement Litigation: A Critique*, 36 AIPLA Q.J. 369, 382 (2008).

⁸ See *General Electro Musical Corp. v. Samick Music Corp.*, 19 F.3d 1405, 1408 (Fed. Cir. 1994) (“The concept of inequitable conduct in patent procurement derives from the equitable doctrine of unclean hands: that a person who obtains a patent by intentionally misleading the PTO cannot enforce the patent.”); *Shieldmark, Inc. v. Creative Safety Supply, LLC*, No. 1:12CV221, 2013 WL 123567, at *3 (S.D. Ohio Jan. 9, 2013) (same).

⁹ See, e.g., *Nordock v. Sys., Inc.*, No. 11-C-118, 2013 WL 694702, at *27 (E.D. Wis. Feb. 26, 2013). To prove the defense of unclean hands in patent cases a defendant must show that the patentee “conducted itself as to shock the moral sensibilities of the judge, or stated otherwise, that the patentee’s conduct was offensive to the dictates of natural justice.” *Multimedia Patent Trust v. Apple Inc.*, No. 10-CV-2618-H (KSC), 2012 WL 6863471, at *22 (S.D. Cal. Nov. 9, 2012). *Accord Honeywell Int’l, Inc. v. Universal Avionics Sys. Corp.*, 398 F. Supp. 2d 305, 310 (D. Del. 2004).

¹⁰ 324 U.S. 806 (1945) (finding unclean hands where patentee suppressed evidence of perjury before the PTO and attempted to enforce perjury-tainted patent).

¹¹ 322 U.S. 238 (1944) (finding unclean hands where patentee manufactured false article in support of its patent application and later suppressed the article), *overruled on other grounds by Standard Oil Co. v. United States*, 429 U.S. 17 (1976).

¹² 290 U.S. 244 (1933) (finding unclean hands where patentee submitted false affidavit to PTO to overcome a prior use).

¹³ 324 U.S. at 819 (concluding that “inequitable conduct impregnated Automotive’s entire cause of action and justified dismissal”).

¹⁴ See *Precision*, 324 U.S. at 816 (noting that the public maintains “a paramount interest in seeing that patent monopolies spring from backgrounds free from fraud or other inequitable conduct”); *Therasense*, 649 F.3d at 1292 (noting that “[a]s an equitable doctrine, inequitable conduct hinges on basic fairness”); Lee Petherbridge, Jason Rantanen & A. Mojibi, *The Federal Circuit and Inequitable Conduct: An Empirical Assessment*, 84 S. CAL. L. REV. 1293, 1295 (2011) (noting punishment function of inequitable conduct doctrine).

¹⁵ *Astrazeneca Pharms. LP v. Teva Pharms. USA, Inc.*, 583 F.3d 766, 770 (Fed. Cir. 2009) (citing *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 872 (Fed. Cir. 1988)).

¹⁶ 35 U.S.C. § 281.

¹⁷ *Shieldmark, Inc. v. Creative Safety Supply, LLC*, No. 1:12CV221, 2013 WL 123567, at *3 (S.D. Ohio Jan. 9, 2013).

¹⁸ *Perspective Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1318 (Fed. Cir. 2000); *ABT Sys., LLC v. Emerson Elec. Co.*, No. 4:11CV00374 AGF, 2013 WL 425399, at *1 (E.D. Mo. Feb. 4, 2013).

¹⁹ 37 C.F.R. § 1.56.

²⁰ See *Avid Ident. Sys., Inc. v. Crystal Import Corp.*, 603 F.3d 967, 972 (Fed. Cir. 2010) (“In evaluating materiality, this court typically refers to the definition provided in 37 C.F.R. § 1.56, by which the PTO promulgated the duty of disclosure.”).

²¹ 37 C.F.R. § 1.56(a). This duty applies to (1) each named inventor, (2) each attorney or agent who prepares or prosecutes the application, and (3) to anyone who is substantively involved in the patent prosecution. 37 C.F.R. § 1.56(c); *Avid Ident. Sys., Inc. v. Crystal Import Corp.*, 603 F.3d 967, 973 (Fed. Cir. 2010). A person is substantively involved if the involvement relates to the content of the application or decisions related thereto and is not wholly administrative or secretarial in nature. *Id.* at 974.

²² See Thomas F. Cotter, *An Economic Analysis of Patent Law’s Inequitable Conduct Doctrine*, 53 ARIZ. L. REV. 735, 744 (2011); Katherine E. White, “*There’s a Hole in the Bucket: The Effective Elimination of the Inequitable Conduct Doctrine*,” 11 J. MARSHALL REV. INTELL. PROP. L. 716, 724-25 (2012).

²³ See generally David Hricik & Seth Trimble, *Congratulations on Your Hallucinations: Why the PTO’s 1992 Amendment to § 1.56 is Irrelevant to Inequitable Conduct*, 38 AIPLA Q.J. 1 (2010).

²⁴ 649 F.3d at 1294.

²⁵ Paul R. Gugliuzza, *Rethinking Federal Circuit Jurisdiction*, 100 GEO. L.J. 1437, 1453 (2012).

²⁶ David Olson & Stefania Fusco, *Rules Versus Standards: Competing Notions of Inconsistency Robustness in Patent Law*, 64 ALA. L. REV. 647, 681 (2013); James R. Barney, *A Guide to Appealing Patent Cases to the US Court of Appeals for the Federal Circuit*, ASPATORE, 2013 WL 574526, at *11 (Mar. 2013).

²⁷ 37 C.F.R. § 1.56 (1949).

²⁸ Dashiell Milliman-Jarvis, *The State of Ethical Duties After Therasense*, 25 GEO. J. LEGAL ETHICS 695, 699 (2012).

²⁹ 37 C.F.R. § 1.56(a) (1977).

³⁰ Duty of Disclosure, 42 Fed. Reg. 5588, 5589 (Jan. 28, 1977).

³¹ *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358 (Fed. Cir. 2003).

³² *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309 (Fed. Cir. 2006).

³³ Donald S. Chisum, *Best Mode Concealment and Inequitable Conduct in Patent Procurement: A Nutshell, a Review of Recent Federal Circuit Cases and a Plea for Modest Reform*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 277, 296 (1997).

³⁴ Only individuals owe a duty of candor to the PTO under Rule 56. Corporations do not. *Avid Ident. Sys., Inc. v. Crystal Import Corp.*, 603 F.3d 967, 974 n.1 (Fed. Cir. 2010); *Aevoe Corp. v. AE Tech. Co.*, No. 2:12-cv-00053-GMN-NJK, 2013 WL 876036, at *6 (D. Nev. Mar. 7, 2013).

³⁵ 37 C.F.R. § 1.56(b) (1992).

³⁶ *Therasense*, 649 F.3d at 1312 (Bryson, J., dissenting).

³⁷ *Id.* at 1315-16 (Bryson, J., dissenting).

³⁸ *Eckes v. Card Prices Update*, 736 F.2d 859, 861-62 (2d Cir. 1984); 2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 7.20[B][1] at 7-212, 4(1) & n.21 (rev. ed. 2010).

³⁹ *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438, 449 (1976).

⁴⁰ 18 U.S.C. §§ 1341, 1343 (2006).

⁴¹ Restatement (Second) of Torts § 538 (1977).

⁴² 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 (2010).

⁴³ See George G. Gordon & Stephen A. Stack, *Aligning Antitrust and Patent Law: Side Effects from the Federal Circuit’s Cure for the Inequitable Conduct “Plague” in Therasense*, 26 ANTITRUST 88, 89 (2011) (observing that before *Therasense* the Federal Circuit vacillated and failed to choose a single materiality standard to use from among the competing versions).

- ⁴⁴ See, e.g., *Golden Hour Data Sys., Inc. v. emsCharts Inc.*, 614 F.3d 1367, 1373-74 (Fed. Cir. 2010); *Avid Ident. Sys., Inc. v. Crystal Import Corp.*, 603 F.3d 967, 972 (Fed. Cir. 2010); *Astra-Zeneca Pharm. LP v. Teva Pharm.USA Inc.*, 583 F.3d 766, 773 (Fed. Cir. 2009).
- ⁴⁵ See, e.g., *Seiko Epson Corp. v. E-Babylon, Inc.*, No. 3:07-CV-896-BR, 2011 WL 5554447, at *2 (D. Or. Nov. 15, 2011) (holding that a material reference is one that a reasonable examiner would consider important in considering the patent application).
- ⁴⁶ *Precision*, 324 U.S. at 997-98.
- ⁴⁷ Thomas L. Irving, L.L. Stevens, S.M.K. Lee & A.N. Simpson, *The Evolution of Intent: A Review of Patent Law Cases Invoking the Doctrine of Inequitable Conduct from Precision to Exergen*, 35 U. DAYTON L. REV. 303 (2010); Robert J. Goldman, *Evolution of the Inequitable Conduct Defense in Patent Litigation*, 7 HARV. J.L. & TECH. 37 (1993).
- ⁴⁸ See *Paragon Podiatry Lab., Inc. v. KLM Labs., Inc.*, 984 F.2d 1182, 1189 (Fed. Cir. 1993) (noting that in inequitable conduct cases, intent “must generally be inferred from the facts and circumstances surrounding the applicant’s overall conduct”); Dorothy Auth & Jason M. Rockman, *Federal Circuit Considers Inequitable Conduct En Banc*, N.Y.L.J., Aug. 16, 2010, available at <http://www.cadwalader.com/assets/article/081610AuthRockmanNYLJ.pdf>.
- ⁴⁹ John M. Golden, *Patent Law’s Falstaff: Inequitable Conduct, the Federal Circuit, and Therasense*, 7 WASH. J.L.,TECH. & ARTS 353, 359 (2012).
- ⁵⁰ *Id.* at 359-60. Accord Jason Rantanen & Lee Petherbridge, *Toward a System of Invention Registration: The Leahy-Smith America Invents Act*, 110 MICH. L. REV. FIRST IMPRESSIONS 24, 30 (2011) (describing the inequitable conduct defense as “[t]he clearest tool of pre-[AIA] patent law to discourage” nondisclosure of relevant information to the PTO).
- ⁵¹ See, e.g., *Therasense*, 649 F.3d at 1288 (quoting *Aventis Pharma S.A. v. Amphastar Pharm., Inc.*, 525 F.3d 1334, 1349 (Fed. Cir. 2008)) (Rader, J., dissenting).
- ⁵² *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 877 (Fed. Cir. 1988) (en banc) (“When a court has finally determined that inequitable conduct occurred in relation to one or more claims during prosecution of the patent application, the entire patent is rendered unenforceable.”)
- ⁵³ See *Therasense*, 649 F.3d at 1288 (“[T]he 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.”); *Fox Indus., Inc. v. Structural Pres. Sys., Inc.*, 922 F.2d 801, 803-04 (Fed. Cir. 1990) (stating that inequitable conduct “may render unenforceable all claims which eventually issue from the same or a related application”).
- ⁵⁴ Lawrence T. Kass & Nathaniel T. Browand, “Therasense”: *Vaccine for a Plague*, NAT’L L.J., June 6, 2011, available at <http://www.milbank.com/images/content/5/3/5305/LKass-NBrowand-NLJ-06-06-2011.pdf>.
- ⁵⁵ George G. Gordon & Stephen A. Stack, *Aligning Antitrust and Patent Law: Side Effects from the Federal Circuit’s Cure for the Inequitable Conduct “Plague” in Therasense*, 26 ANTITRUST 88, 91 (2011).
- ⁵⁶ *Therasense*, 649 F.3d at 1288; Ian G. McFarland, Comment, *In the Wake of Therasense & Nisus Corp., How Can Patent Attorneys Defend Themselves Against Allegations of Inequitable Conduct?*, 78 TENN. L. REV. 487, 499 (2011) (observing that patent attorneys who are the subject of inequitable conduct findings confront both threat of formal discipline from PTO and public ridicule).
- ⁵⁷ See Christopher A. Cotropia, *Modernizing Patent Law’s Inequitable Conduct Doctrine*, 24 BERKELEY TECH. L.J. 723, 740 (2009) (noting that “litigation of inequitable conduct claims is particularly costly”).
- ⁵⁸ In a survey by the American Bar Association, 69.4% of approximately 3,300 responding attorneys agreed or strongly agreed that discovery is commonly used as a tool to force settlement in civil litigation. See Am. Bar Ass’n Section of Litig., *Member Survey on Civil Practice: Detailed Report* 69 (Dec. 11, 2009), <http://www.abanet.org/litigation/survey/docs/report-aba-report.pdf>. In a separate survey, 71% of approximately 1,400 responding Fellows of the American College of Trial Lawyers agreed that discovery is used as a tool to force settlement. Am. College of Trial Lawyers & Inst. for the Advancement of the Am. Legal Sys., *Final Report on the Joint Project of the American College of Trial Lawyers Task Force on Discovery and the Institute for the Advancement of the American Legal System* 9 (rev. ed. Apr. 15, 2009), <http://www.actl.com/AM/Template.cfm?Section=Home&template=/CM/ContentDisplay.cfm&ContentID=4008>.
- ⁵⁹ 649 F.3d at 1289.
- ⁶⁰ *Position Paper: The Doctrine of Inequitable Conduct and the Duty of Candor in Patent Procurement: Its Current Adverse Impact on the Operation of the United States Patent System*, 16 AIPLA Q.J. 74 (1988).
- ⁶¹ Benjamin Brown, Comment, *Inequitable Conduct: A Standard in Motion*, 19 FORDHAM INTELL. PROP., MEDIA & ENT. L.J. 593 (2009).
- ⁶² Christopher A. Cotropia, *Modernizing Patent Law’s Inequitable Conduct Doctrine*, 24 BERKELEY TECH. L.J. 723 (2009).
- ⁶³ Kevin Mack, Note, *Reforming Inequitable Conduct to Improve Patent Quality: Cleansing Unclean Hands*, 21 BERKELEY TECH. L.J. 147 (2006).
- ⁶⁴ Christian E. Mamman, *Controlling the “Plague”: Reforming the Doctrine of Inequitable Conduct*, 24 BERKELEY TECH. L.J. 1329 (2009).

⁶⁵ See The Honorable Randall R. Rader, *Always at the Margin: Inequitable Conduct in Flux*, 59 AM. U. L. REV. 777, 779 (2010). The number of cases appealed on inequitable conduct has not kept pace with the number of new patent lawsuits, which has continued to rise in recent years. For example, the total number of new patent lawsuits jumped 22% in 2011, totaling more than 4,000 new cases. Robert Harkins, *How the Leahy-Smith America Invents Act (AIA) is Changing Patent Protection and Litigation*, ASPATORE, 2013 WL 571334, at *1 (Jan. 2013).

⁶⁶ See Steve Carlson, *Changes in the Law of Inequitable Conduct: New Pleading and Proof Standards* 5 (May 10, 2012), available at <http://www.fr.com/files/Uploads/Documents/6%20-%20Changes%20in%20the%20Law%20of%20Inequitable%20Conduct%20-%20Carlson.pdf> (noting that inequitable conduct is “[p]led routinely, tried frequently, and occasionally won”); *Inequitable Conduct: 2005-2010*, LEX MACHINA, <https://lexmachina.com/files/Inequitable%20Conduct%20Study.pdf> (reporting 41 instances of inequitable conduct findings by federal courts in 13,786 total patent cases during the period January 2005-May 2010). Historically, an inequitable conduct defense has succeeded on appeal to the Federal Circuit no more than five times a year. See Christian Mammen, *Controlling the ‘Plague’: Reforming the Doctrine of Inequitable Conduct*, 24 BERKELEY TECH. L.J. 1329 (2010).

⁶⁷ Lee Petherbridge, Jason Rantanen & R. Polk Wager, *Unenforceability* 26 (Feb. 21, 2013), Univ. of Penn. Law School, Public Law Research Paper No. 12-28; Univ. of Penn. Inst. for Law & Econ. Research Paper No. 12-15; Univ. of Iowa Legal Studies Research Paper No. 12-10; Loyola-LA Legal Studies Paper No. 2012-28; available at <http://ssrn.com/abstract=216417>.

⁶⁸ “Prior art” refers to preexisting knowledge and technology already available to the public. See 35 U.S.C. § 102 (2006) (defining the documents and activities that can function as prior art); *Kimberley-Clark Corp. v. Johnson & Johnson*, 745 F.2d 1437, 1453 (Fed. Cir. 1984) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 6 (1966)).

⁶⁹ *Therasense*, 649 F.3d at 1289; Robert C. Scheinfeld & Parker H. Bagley, *Inequitable Conductors: All Aboard the ‘Therasense’ Train*, N.Y.L.J., July 27, 2011, available at http://www.goodwinprocter.com/~media/Files/Publications/Attorney%20Articles/2011/Bagley_NYJLJ_7_27_2011.pdf.

⁷⁰ Sheri Qualters, *‘Therasense’ a Strong Candidate for High Court Review, Patent Lawyers Say; Decision Raising the Bar for Inequitable Conduct Defense Departs from Position of PTO, DOJ*, NAT’L L.J., May 26, 2011. Some portion of this deluge may be attributable to efforts by patent applicants to “bury” examiners with hundreds of references so as to distract them from highly relevant references. Such efforts, even if they do take place, do not constitute the intent element of inequitable conduct. See *ParkerVision, Inc. v. Qualcomm, Inc.*, No. 3:11-cv-719-J-37TEM, 2013 WL 230179, at *3 (M.D. Fla. Jan. 22, 2013).

⁷¹ Mark A. Lemley, *The Myth of the Sole Inventor*, 110 MICH. L. REV. 709, 746 (2012).

⁷² United States Patent and Trademark Office, *Performance and Accountability Report FY 2012*, at 25, (Nov. 7, 2012), <http://www.uspto.gov/about/stratplan/ar/USPTOFY2012PAR.pdf>. This number was significantly lower than the backlog of approximately 750,000 applications in 2008. See *id.*

⁷³ Dennis Crouch, *Average Pendency of US Patent Applications*, PATENTLY-O (Mar. 20, 2013; 9:05 AM), <http://www.patentlyo.com/patent/2013/03/average-pendency-of-us-patent-applications.html>.

⁷⁴ *Therasense*, 649 F.3d at 1289.

⁷⁵ Jason Rantanen & Lee Petherbridge, *Therasense v. Becton Dickinson: A First Impression*, 14 YALE J.L. & TECH. 226, 257-58 (2011-12).

⁷⁶ Dennis Crouch, *Citing Patent References*, PATENTLY-O (Jan. 24, 2013; 7:24 AM), <http://www.patentlyo.com/patent/2013/01/citingreferences.html>.

⁷⁷ Dennis Crouch, *Citing References at the PTO*, PATENTLY-O (Oct. 23, 2012; 8:05 AM), <http://www.patentlyo.com/patent/2012/10/citing-references-at-the-pto.html>.

⁷⁸ *Id.*

⁷⁹ Dennis Crouch, *Average Number of References Cited Per Patent*, PATENTLY-O (July 22, 2011; 9:03 AM), <http://www.patentlyo.com/patent/2011/07/average-number-of-references-cited-per-patent.html>.

⁸⁰ See Lee Petherbridge, Jason Rantanen & R. Polk Wager, *Unenforceability* 22, 28 (Feb. 21, 2013), Univ. of Penn. Law School, Public Law Research Paper No. 12-28; Univ. of Penn. Inst. for Law & Econ. Research Paper No. 12-15; Univ. of Iowa Legal Studies Research Paper No. 12-10; Loyola-LA Legal Studies Paper No. 2012-28; available at <http://ssrn.com/abstract=216417>.

⁸¹ *Id.* at 25.

⁸² *TouchTunes Music Corp. v. Rowe Int’l Corp.*, 847 F. Supp. 2d 606, 623 (S.D.N.Y. 2012).

⁸³ See Robert Brendan Taylor, *Burying*, 19 MICH. TELECOMM. & TECH. L. REV. 99, 115-16 (2012).

⁸⁴ See, e.g., *Kingsdown Med. Consultants, Ltd. v. Hollister, Inc.*, 863 F.2d 867, 876 n.15 (Fed. Cir. 1988) (en banc); *Burlington Indus., Inc. v. Dayco Corp.*, 849 F.2d 1418, 1422 (Fed. Cir. 1988) (“[T]he habit of charging inequitable conduct in almost every major patent case has become an absolute plague.”).

⁸⁵ 863 F.2d 867 (Fed. Cir. 1988) (en banc).

⁸⁶ *Driscoll v. Cebalo*, 731 F.2d 878 (Fed. Cir. 1984).

⁸⁷ *Kingsdown*, 863 F.2d at 876.

⁸⁸ Zhe (Amy) Peng, Stacy Lewis, Deborah Herzfeld, Jill McAlpine & Tom Irving, *A Panacea for Inequitable Conduct Problems or Kingsdown Version 2.0? The Therasense Decision and a Look into the Future of U.S. Patent Law Reform*, 16 VA. J.L. & TECH. 373, 390 (2011) (hereafter “Panacea”).

⁸⁹ See, e.g., *Bristol-Myers Squibb Co. v. Rhone-Poulenc Rorer, Inc.*, 326 F.3d 1226, 1234 (Fed. Cir. 2003) (“[W]hen balanced against high materiality, the showing of intent can be proportionately less.”); *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1363 (Fed. Cir. 1984); *Digital Equip. Corp. v. Diamond*, 653 F.2d 701, 716 (1st Cir. 1981).

⁹⁰ Lawrence T. Kass & Nathaniel T. Browand, “Therasense”: *Vaccine for a Plague*, NAT’L L.J., June 6, 2011. See also Jeffrey J. Oelke, *Inequitable Conduct, Willful Infringement, and Antitrust Law: Navigating New Challenges in Patent Litigation*, ASPATORE, 2012 WL 6636454, at *4 (Nov. 2012) (attributing adoption of sliding scale in part to “the fact that direct evidence that a patentee intended to deceive the PTO is rarely available”).

⁹¹ *Therasense*, 649 F.3d at 1288.

⁹² *Therasense, Inc. v. Becton, Dickinson & Co.*, 565 F. Supp. 2d 1088 (N.D. Cal. 2008), *aff’d in part and vacated in part*, 649 F.3d 1276 (Fed. Cir. 2011) (en banc).

⁹³ *Therasense, Inc. v. Becton, Dickinson & Co.*, 593 F.3d 1289, 1308 (Fed. Cir. 2010), *vacated*, 374 Fed. Appx. 35 (Fed. Cir. 2010).

⁹⁴ The outcome of the further proceeding is reflected in the district court decision in *Therasense, Inc. v. Becton, Dickinson & Co.*, 864 F. Supp. 2d 856 (N.D. Cal. 2012). In that decision the court again held that the ‘551 patent was unenforceable due to inequitable conduct. *Id.* at *12.

⁹⁵ *Therasense*, 649 F.3d at 1285.

⁹⁶ *Id.* at 1290.

⁹⁷ See *American Calcar, Inc. v. American Honda Motor Co.*, No. 06cv2433 DMS (KSC), 2012 WL 1328640, at *9 (S.D. Cal. Apr. 17, 2012) (“[T]here is no requirement that intent be shown by direct evidence. Indeed, the Federal Circuit has repeatedly recognized that ‘deceptive intent can be inferred from direct and circumstantial evidence.’”) (quoting *Therasense*, 649 F.3d at 1289).

⁹⁸ *American Calcar, supra*, 2012 WL 1328640, at *9. *Accord* *In re Rosuvastatin Calcium Patent Litig.*, Nos. 2010-1460, etc., 2012 WL 6217356, at *6 (Fed. Cir. Dec. 14, 2012).

⁹⁹ *Therasense*, 649 F.3d at 1290. *Accord* *Outside the Box Innovations, LLC v. Travel Caddy, Inc.*, 695 F.3d 1285, 1292 (Fed. Cir. 2012); *1st Media, LLC v. Electronic Arts, Inc.*, 694 F.3d 1367, 1374-75 (Fed. Cir. 2012) (“[I]t is not enough to argue carelessness, lack of attention, poor docketing or cross-referencing, or anything else that might be considered negligent or even grossly negligent.”).

¹⁰⁰ *Therasense*, 649 F.3d at 1291.

¹⁰¹ *Id.* at 1291-92. *Accord* *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1334 (Fed. Cir. 2012); *Avocent Redmond Corp. v. Raritan Americas, Inc.*, No. 10 Civ.61000(PKC), 2013 WL 454352, at *13 (S.D.N.Y. Feb. 7, 2013); *Morningware, Inc. v. Heathware Home Products, Inc.*, No. 09 C 4348, 2012 WL 4482670, at *20 (N.D. Ill. Sept. 26, 2012) (“[T]he standard for establishing but-for materiality in the inequitable conduct context only requires a preponderance of the evidence. . . .”); *Ohio Willow Wood Co. v. ALPS South, LLC*, No. 2:04-cv-1223, 2012 WL 3283437, at *15 (S.D. Ohio Aug. 10, 2012) (“Unlike the burden of proof in the intent prong, the materiality prong carries a preponderance of the evidence standard when assessing the ‘but-for’ materiality of a withheld reference.”).

¹⁰² *Therasense*, 649 F.3d at 1291. *Accord* *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1334 (Fed. Cir. 2012); *ParkerVision, Inc. v. Qualcomm, Inc.*, No. 3:11-cv-719-J-37TEM, 2013 WL 230179, at *2 (M.D. Fla. Jan. 22, 2013).

¹⁰³ The Federal Circuit was not bound by the definition of materiality set forth in Rule 56. *Therasense*, 649 F.3d at 1293-94. The PTO has no rulemaking authority over the substantive questions that it addresses. Arti K. Rai, *Who’s Afraid of the Federal Circuit?*, 121 YALE L.J. ONLINE 335, 336-37 (2011).

¹⁰⁴ *Therasense*, 649 F.3d at 1293-94.

¹⁰⁵ *Id.* at 1292.

¹⁰⁶ See, e.g., *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1334 (Fed. Cir. 2012) (but-for materiality established because the two references withheld from the PTO were also used to invalidate the claims at issue).

¹⁰⁷ See, e.g., *Triangle Software LLC v. Garmin Int’l, Inc.*, No. 1:10-cv-1457, 2012 WL 527223, at *4 (E.D. Va. Feb. 14, 2012) (holding that, after a bifurcated trial, withheld prior art could not be material because the jury determined that the same reference did not invalidate the patent). *Accord* Courtney B. Casp & Sanya Sukduang, *Assessing Materiality and Intent in a Post-Therasense World*, 85 (No. 23) PATENT, TRADEMARK & COPYRIGHT J. (Feb. 15, 2013).

¹⁰⁸ *Therasense*, 649 F.3d at 1292-93.

¹⁰⁹ See *Caron v. QuicKutz, Inc.*, No. CV-09-02600-PHX-NVW, 2012 WL 5497869, at *4 (D. Ariz. Nov. 13, 2012) (“[A] false affidavit or declaration is *per se* material. . .”).

¹¹⁰ See George G. Gordon & Stephen A. Stack, *Aligning Antitrust and Patent Law: Side Effects from the Federal Circuit's Cure for the Inequitable Conduct "Plague" in Therasense*, 26 ANTITRUST 88, 90 (2011).

¹¹¹ *Therasense*, 649 F.3d at 1293.

¹¹² *Therasense*, 649 F.3d at 1290. *Accord* American Calcar, Inc. v. American Honda Motor Co., 651 F.3d 1318 (Fed. Cir. 2011). *But see* B-K Lighting, Inc. v. Vision3 Lighting, No. CV 06-02825 MMM (PLAx), 2013 WL 941839, at *21 (C.D. Cal. Mar. 11, 2013) (noting sliding scale approvingly, post-*Therasense*).

¹¹³ *Therasense*, 649 F.3d at 1290 (majority opinion) ("Intent and materiality are separate requirements."); *Id.* at 1297 (O'Malley, J., concurring in part and dissenting in part) ("[I]ntent to deceive and materiality must be found separately."); *Id.* at 1304 (Bryson, J., dissenting) ("Intent to mislead and materiality must be separately proved.").

¹¹⁴ See *Therasense*, 649 F.3d at 1291; 1st Media, LLC v. Electronic Arts, Inc., 694 F.3d 1367, 1372 (Fed. Cir. 2012); *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1334 (Fed. Cir. 2012). A factual finding is clearly erroneous if, despite some supporting evidence, the appellate court is left with the definite and firm conviction that a mistake has been committed. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1359 (Fed. Cir. 2007). A district court abuses its discretion when its decision is based on clearly erroneous findings of fact, is based on erroneous interpretations of the law, or is clearly unreasonable, arbitrary or fanciful. 1st Media, *supra*, 694 F.3d at 1372; *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1460 (Fed. Cir. 1998) (en banc).

¹¹⁵ See *Therasense*, 649 F.3d at 1305 (Bryson, J., dissenting) (noting that the PTO had persuasively argued in its amicus brief that the but-for standard for materiality is too restrictive).

¹¹⁶ Revision of the Materiality to Patentability Standard for the Duty to Disclose Information in Patent Applications, 76 Fed. Reg. 43,631 (July 21, 2011).

¹¹⁷ *Id.* at 43,633.

¹¹⁸ Sona De, *The Inequitable Conduct Defense: Before and After Therasense*, 24 No. 9 INTELL. PROP. & TECH. L.J. 15, 17 (2012).

¹¹⁹ *Therasense*, 649 F.3d at 1304 (Bryson, J., dissenting).

¹²⁰ *Therasense*, 649 F.3d at 1317 (Bryson, J., dissenting). Many commentators agree. See, e.g., James J. Schneider, *Therasense-Less: How the Federal Circuit Let Policy Overtake Precedent in Therasense, Inc. v. Becton, Dickinson & Co.*, 53 B.C. L. REV. E-SUPPLEMENT 223, 232 (2012).

¹²¹ See, e.g., *Hazel-Atlas*, 322 U.S. at 248 ("[T]his equitable procedure has always been characterized by flexibility which enables it to meet new situations which demand equitable intervention, and to accord all the relief necessary to correct the particular injustices involved in these situations."); *Keystone*, 290 U.S. at 245-46 (noting that courts applying unclean hands "are not bound by formula or restrained by any limitation that tends to trammel the free and just exercise of discretion.").

¹²² See, e.g., *Weinberger v. Romero-Barcelo*, 456 U.S. 305, 312 (1982) (noting that flexibility rather than rigidity has distinguished equitable jurisdiction); *Holmberg v. Armbrrecht*, 327 U.S. 392, 396 (1945) ("Equity eschews mechanical rules; it depends on flexibility.").

¹²³ *Festo Corp. v. Shoketzu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 738 (2002).

¹²⁴ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 394 (2006).

¹²⁵ *MedImmune, Inc. v. Genentech, Inc.*, 549 U.S. 118, 127 (2007).

¹²⁶ *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617 (2008).

¹²⁷ *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 401-02 (2007). The Supreme Court noted that "[r]igid preventative rules that deny factfinders recourse to common sense . . . are neither necessary under our case law nor consistent with it". *Id.* at 421.

¹²⁸ *Bilski v. Kappos*, 130 S. Ct. 3218 (2010).

¹²⁹ The failure of the Federal Circuit in *Therasense* to adhere to inequitable conduct's equitable tradition is critiqued in T. Leigh Anenson & Gideon Mark, *Inequitable Conduct in Retrospective: Understanding Unclean Hands in Patent Remedies*, 62 AM. U. L. REV. (2013) (forthcoming).

¹³⁰ *Therasense*, 649 F.3d. at 1293.

¹³¹ *Therasense*, 649 F.3d at 1293; Thomas F. Cotter, *An Economic Analysis of Patent Law's Inequitable Conduct Doctrine*, 53 ARIZ. L. REV. 735, 745 (2011).

¹³² *Therasense*, 649 F.3d at 1292-93.

¹³³ See *TV Interactive Data Corp. v. Sony Corp.*, No. C 10-0475 PJH, 2012 WL 6020113, at *27 (N.D. Cal. Dec. 3, 2012) (observing that filing a false affidavit is the sole type of egregious affirmative act identified by the Federal Circuit as providing an exception to the requirement of but-for materiality).

¹³⁴ See Gino Cheng, Robert M. Isackson & Thomas J. Gray, *Inequitable Conduct: Rethinking 'Egregious Misconduct'*, LAW360, Jan. 9, 2013 ("Far from the inside track to leapfrog over the "but-for" materiality test set forth by the bare majority in *Therasense*. . . the defense tactic of alleging egregious misconduct appears to be a detour—at least for now."). Post-*Therasense* courts have been very reluctant to apply the egregious misconduct exception. See, e.g., *Galderma Labs., L.P. v.*

Tolmar, Inc., C.A. No. 10-45-LPS, 2012 WL 4169686, at *56 (D. Del. Sept. 11, 2012) (rejecting application of exception because statements to PTO “were merely a statement of the hypothesis to be tested during the regulatory approval process”).

¹³⁵ *Therasense*, 649 F.3d at 1290.

¹³⁶ *TV Interactive Data Corp. v. Sony Corp.*, No. C 10-0475 PJH, 2012 WL 6020113, at *23 (N.D. Cal. Dec. 3, 2012).

¹³⁷ Peter G. Thurlow & Maya Elbert, *Inequitable Conduct: Analysis of Post-Therasense Decisions and the Supplemental Examination Provision of the America Invents Act*, 5 BLOOMBERG LAW REPORTS – INTELLECTUAL PROPERTY 48 (Nov. 16, 2011). The authors conclude: “As difficult as it may be for a patent challenger to establish materiality, it may be even more difficult to establish the requisite level of intent.” *Id.*

¹³⁸ *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, No. 1:10cv910 LMB/TRJ, 2013 WL 265602, at *30 (E.D. Va. Jan. 22, 2013).

¹³⁹ *See Leviton Mfg. Co. v. Universal Sec. Instr., Inc.*, 606 F.3d 1353, 1363 (Fed. Cir. 2010 (“We rarely affirm a grant of summary judgment of inequitable conduct. . . .”); *Morningware, Inc. v. Heathware Home Products, Inc.*, No. 09 C 4348, 2012 WL 4482670, at *20 (N.D. Ill. Sept. 26, 2012) (“[The] burden of proving inequitable conduct at the summary judgment stage is particularly onerous. . . .”); *TecSec, Inc. v. Int’l Business Mach. Corp.*, 763 F. Supp. 2d 800, 809 (E.D. Va. 2011) (“The Federal Circuit has repeatedly indicated that inequitable conduct defenses are disfavored, particularly at the summary judgment stage.”).

¹⁴⁰ 575 F.3d 1312 (Fed. Cir. 2009).

¹⁴¹ Rule 9(b), Fed. R. Civ. P.

¹⁴² *Exergen*, 575 F.3d at 1326-27.

¹⁴³ *Exergen*, 575 F.3d at 1326-27. The earlier Seventh Circuit decision is *DiLeo v. Ernst & Young*, 901 F.2d 624, 627 (7th Cir. 1990).

¹⁴⁴ Rule 9(b), Fed. R. Civ. P.

¹⁴⁵ *Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1346 (Fed. Cir. 2007) (noting that inequitable conduct “is a broader, more inclusive concept” than common law fraud).

¹⁴⁶ *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1069 (Fed. Cir. 1999). *See also* David Hricik, *Wrong About Everything: The Application by the District Courts of Rule 9(b) to Inequitable Conduct*, 86 MARQ. L. REV. 895, 913 (2003).

¹⁴⁷ *See Senju Pharm. Co. v. Apotex, Inc.*, Civ. No. 12-159-SLR, 2013 WL 444928, at *7 (D. Del. Feb. 6, 2013) (“Apotex’s counterclaim and affirmative defense for inequitable conduct rise or fall together.”); *XpertUniverse, Inc. v. Cisco Sys., Inc.*, 868 F. Supp.2d 376, 379-83 (D. Del. 2012) (assessing the sufficiency of counterclaims and affirmative defenses of inequitable conduct together); *Southco, Inc. v. Penn Eng’g & Mfg. Co.*, 768 F. Supp.2d 715, 721-24 (D. Del. 2011) (same). *Cf. ParkerVision, Inc. v. Qualcomm, Inc.*, No. 3:11-cv-719-J-37TEM, 2013 WL 230179, at *5 (M.D. Fla. Jan. 22, 2013) (construing affirmative defense of inequitable conduct as a counterclaim and then striking it as redundant of existing counterclaim for inequitable conduct).

¹⁴⁸ *See, e.g.*, Adam R. Andrea, Case Note and Comment, *Exergen v. Wal-Mart: A Costly Cure for the Plague of Inequitable Conduct Claims*, 20 DEPAUL J. ART, TECH. & INTELL. PROP. L. 449, 462 (2010) (“[T]he court provided virtually no justification for its application of Rule 9(b) to inequitable conduct.”). *See also* David O. Taylor, *Patent Fraud*, 83 TEMPLE L. REV. 49, 72 (2010) (“*Exergen* may represent the first foray into the adoption of principles from the law of fraud into the law of inequitable conduct.”).

¹⁴⁹ *See, e.g.*, *Sepracor, Inc. v. Teva Pharm. USA, Inc.*, Civil Action No. 09-cv-01302 (DMC)(MF), 2010 WL 2326262, at *6 (D.N.J. June 7, 2010) (general reference to “patent applicants and “Sepracor” insufficient).

¹⁵⁰ *Exergen*, 575 F.3d at 1329 (“The pleading fails to identify which claims, and which limitations in those claims, the withheld references are relevant to.”).

¹⁵¹ Bruce D. DeRenzi & Sean E. Jackson, *A Procedural Remedy for the ‘Plague’? Pleading Inequitable Conduct after Exergen Corp. v. Wal-Mart Stores, Inc.*, NYIPLA BULLETIN 9, 11 (Aug./Sept. 2010).

¹⁵² *See, e.g.*, *Halo Elecs., Inc. v. Bel Fuse Inc.*, No. C-07-06222 RMW, 2010 WL 246811, at *2 (N.D. Cal. June 14, 2010) (allegation of product sales “in the United States” held to be insufficient).

¹⁵³ DeRenzi & Jackson, *supra* note 151, at 11.

¹⁵⁴ *Aevoe Corp. v. AE tech. Co.*, No. 2:12-cv-00053-GMN-NJK, 2013 WL 876036, at *8 (D. Nev. Mar. 7, 2013).

¹⁵⁵ *Lincoln Nat’l Life v. Jackson Nat’l Life Ins. Co.*, 1:07-cv-265, 2010 WL 1781013, at *8 (N.D. Ind. May 3, 2010).

¹⁵⁶ *See* DeRenzi & Jackson, *supra* note 151, at 12.

¹⁵⁷ *Aevoe Corp. v. AE tech. Co.*, No. 2:12-cv-00053-GMN-NJK, 2013 WL 876036, at *8 (D. Nev. Mar. 7, 2013); *Oracle Corp. v. DrugLogic, Inc.*, 807 F. Supp.2d 885, 899 (N.D. Cal. 2011) (dismissing inequitable conduct defense and counterclaim in part for failure to allege facts to support inference that withheld information was not cumulative).

¹⁵⁸ *Delano Farms Co. v. California Table Grapes Comm’n*, 655 F.3d 1337, 1350 (Fed. Cir. 2011); *Exergen*, 575 F.3d at 1328-29.

¹⁵⁹ *Exergen*, 575 F.3d at 1329 n.5.

¹⁶⁰ See, e.g., Hansen Mfg. Corp. v. Enduro Sys., Inc., No. 11-cv-4030, 2011 WL 5526627, at *4 (D.S.D. Nov. 14, 2011); Quest Software, Inc. v. Centrifry Corp., No. 2:10-cv-859-TS, 2011 WL 5508820, at *2-3 (D. Utah Nov. 9, 2011).

¹⁶¹ See Steve Carlson, *Changes in the Law of Inequitable Conduct: New Pleading and Proof Standards* 10 (May 10, 2012), available at <http://www.fr.com/files/Uploads/Documents/6%20-%20Changes%20in%20the%20Law%20of%20Inequitable%20Conduct%20-%20Carlson.pdf>

¹⁶² *Id.* Where inequitable conduct pleadings have been found insufficient, courts have not infrequently granted leave to amend. But leave is neither assured nor a guarantee of success. See, e.g., Semiconductor Energy Lab. Co. v. Samsung Elecs. Co., 749 F. Supp. 2d 892, 904 (W.D. Wis. 2010) (denying in part and granting in part request for leave to amend inequitable conduct counterclaims).

¹⁶³ Waters Indus., Inc. v. JJI Int'l, Inc., No. 11 C 3791, 2012 WL 5966534, at *4 (N.D. Ill. Nov. 28, 2012) (“*Therasense* did not address inequitable conduct claims at the pleading stage nor did it override *Exergen’s* pleading requirements.”); Bayer Cropscience AG v. Dow Agrosciences LLC, Civil No. 10-1045 (RMB/JS), 2012 WL 1253047, at *2 (D. Del. Apr. 12, 2012).

¹⁶⁴ See Milwaukee Elec. Tool Corp. v. Hitachi Koki Co., No. 09-948, 2012 WL 1952977, at *6 (E.D. Wis. May 29, 2012) (holding that *Therasense* does not apply to the pleading stage, and applying *Exergen*); W.L. Gore & Assocs., Inc. v. Medtronics, Inc., No. 10-441, 2012 WL 36872, at *3 (E.D. Va. Feb. 3, 2012) (“Although the facts alleged in [defendant’s] counterclaim may not be enough to satisfy the *Therasense* elements by clear and convincing evidence, the alleged facts are sufficient to satisfy *Exergen’s* pleading requirements.”); Human Genome Sciences, Inc. v. Genentech, Inc., No. 2:11-cv-6519-MRP (JEMx), Order at 5 (C.D. Cal. Dec. 9, 2011) (“[N]o Federal Circuit decision, before *Therasense* or after *Therasense*, has stated that facts in a pleading for inequitable conduct must meet the clear and convincing standard.”).

¹⁶⁵ Evonik Degussa GmbH v. Materia Inc., Civil Action No. 09-cv-636 (NLH-JS), 2012 WL 4503771, at *4 (D. Del. Oct. 1, 2012) (“[T]he proper standard to apply at his stage in the proceedings is the standard set forth in *Exergen*. As stated in *Exergen*, a claim for inequitable conduct must be plead with particularity under Rule 9(b).”); Peter G. Thurlow & Maya Elbert, *Inequitable Conduct: Analysis of Post-Therasense Decisions and the Supplemental Examination Provision of the America Invents Act*, 5 BLOOMBERG LAW REPORTS – INTELLECTUAL PROPERTY 48 (Nov. 16, 2011) (“*Therasense*, without changing the *Exergen* standard for pleading inequitable conduct in form, heightens it in substance since all of the elements of the new inequitable conduct standard, including ‘but-for’ materiality and specific intent, must be supported with particularized allegations.”). Cf. *Butamax v. Gevo, Inc.*, Civ. No. 11-54-SLR, 2013 WEL 571801, at *2 (D. Del. Feb. 13, 2013) (“[T]he standard for proving inequitable conduct is a more rigorous one than the standard for pleading inequitable conduct; apparently, even the Federal Circuit has been tempted to confuse the same.”);

¹⁶⁶ *B-K Lighting, Inc. v. Vision3 Lighting*, No. CV 06-02825 MMM (PLAx), 2013 WL 941839, at *21 (C.D. Cal. Mar. 11, 2013); *Multimedia Patent Trust v. Microsoft Corp.*, 525 F. Supp.2d 1200, 1211 (S.D. Cal. 2007).

¹⁶⁷ *Panacea*, *supra* note 88, at 396 (concluding that *Exergen* “has not appeared to stem the tide of inequitable conduct allegations”). *But cf.* Adam R. Andrea, Case Note and Comment, *Exergen v. Wal-Mart: A Costly Cure for the Plague of Inequitable Conduct Claims*, 20 DEPAUL J. ART, TECH. & INTELL. PROP. L. 449, 469 (2010) (concluding that *Exergen* will hinder the assertion of many legitimate inequitable conduct claims, thereby creating “incentives for unscrupulous applicants and attorneys to conceal material information from the PTO.”); Allan Bullwinkel, Comment, *Specifically Fighting Inequitable Conduct*, 48 HOUS. L. REV. 349, 372 (2011) (noting that in the first eighteen months after the *Exergen* decision was issued, inequitable conduct allegations were eliminated in nearly half of the 51 decisions addressing such allegations); Lisa A. Dolak, *Beware the Inequitable Conduct Charge! (Why Practitioners Submit What They Submit)*, 91 J. PAT. & TRADEMARK OFF. SOC’Y 558, 568 (2009) (observing that *Exergen* “has the potential to dramatically alter the inequitable conduct landscape by curbing misconduct allegations at their source – the pleadings”); Benjamin Johnson, Note, *The Federal Circuit’s Inequitable Conduct Standard After Exergen v. Wal-Mart: A Step in the Right Direction, but Will it Really Change Anything?*, 8 NW. J. TECH. & INTELL. PROP. 360, 370 (2010) (predicting that post-*Exergen*, defendants in patent infringement cases “will be considerably more conservative in their use” of the inequitable conduct defense).

¹⁶⁸ *Exergen*, 575 F.3d at 1318, 1326. *Accord* *Cumberland Pharm., Inc. v. Mylan Institut., LLC*, No. 12 C 3846, 2012 WL 6567922, at *3 (N.D. Ill. Dec. 14, 2012).

¹⁶⁹ *Exergen*, 575 F.3d at 1327 n.3; *Zep Solar, Inc. v. Westinghouse Solar, Inc.*, No. C 11-06493 JSW, 2012 WL 1293873, at *2 (N.D. Cal. Apr. 16, 2012).

¹⁷⁰ See *Therasense*, 649 F.3d at 1287 (noting that “the unclean hands doctrine remains available to supply a remedy for egregious misconduct.”). Egregious misconduct might provide a basis for equitable relief other than patent unenforceability where it falls short of inequitable conduct.

¹⁷¹ See, e.g., *Nordock Inc. v. Sys. Inc.*, No. 11-C-118, 2013 WL 694702, at *27 n.12 (E.D. Wis. Feb. 26, 2013).

¹⁷² Nicole M. Murphy, Note, *Inequitable Conduct Doctrine Reform: Is the Death Penalty for Patents Still Appropriate?*, 93 MINN. L. REV. 2274, 2286 (2009).

¹⁷³ *Metris U.S.A., Inc. v. Faro Tech., Inc.*, Civil Action No. 08-CV-11187-PBS, 2011 WL 4346852, at n.2 (D. Mass. Sept. 19, 2011).

¹⁷⁴ See Robert Brendan Taylor, *Burying*, 19 MICH. TELECOMM. & TECH. L. REV. 99, 125 (2012) (observing that adoption by PTO of *Therasense* materiality standard “may encourage applicants to withhold relevant prior art.”). See also Elizabeth Peters, Note, *Are We Living in a Material World?: An Analysis of the Federal Circuit’s Materiality Standard under the Patent Doctrine of Inequitable Conduct*, 93 IOWA L. REV. 1519, 1522 (2008) (noting vital role that doctrine of inequitable conduct plays in preserving fairness of U.S. patent system).

¹⁷⁵ “Patent quality” has been defined as “the capacity of a granted patent to meet (or exceed) the statutory standards of patentability—most importantly, to [cover inventions which are] novel, nonobvious, and clearly and sufficiently described.” R. Polk Wagner, *Understanding Patent-Quality Mechanisms*, 157 U. PA. L. REV. 2135, 2138 (2009). Accord Sean B. Seymour, *The Presumption of Patentability*, 97 MINN. L. REV. 990, 990-91 (2013). A high-quality patent is “one that covers an invention that would not otherwise be made [but for the incentive of a patent] or one that ensures that a good idea is commercialized. . . .” Bronwyn H. Hall & Dietmar Harhoff, *Post-Grant Reviews in the U.S. Patent System—Design Choices and Expected Impact*, 19 BERKELEY TECH. L.J. 989, 991 (2004). Accord Seymour, *supra*, 97 MINN. L. REV. at 991 n.3.

¹⁷⁶ PricewaterhouseCoopers, *2012 Patent Litigation Study* 6 (2012), http://www.pwc.com/en_US/us/forensic-services/publications/assets/2012-patent-litigation-study.pdf.

¹⁷⁷ See, e.g., Beth Simone Noveck, “Peer to Patent”: *Collective Intelligence, Open Review, and Patent Reform*, 20 HARV. J.L. & TECH. 123, 123 (2006) (“There is a crisis of patent quality. Patents are being issued that are vague and overbroad, lack novelty, and fail the constitutional mandate ‘[t]o promote the progress of Science and useful Arts.’”); R. Polk Wagner, *Understanding Patent-Quality Mechanisms*, 157 U. PA. L. REV. 2135, 2136 (2009) (“[T]he need to improve patent quality is essentially undisputed.”); Sean B. Seymour, *The Presumption of Patentability*, 97 MINN. L. REV. 990, 1046 (2013) (noting that it is far too easy to procure a bad patent).

¹⁷⁸ See John A. Allison & Mark A. Lemley, *Empirical Evidence on the Validity of Litigated Patents*, 26 AIPLA Q.J. 185, 205 (1998). This figure excludes settled cases, which could involve a greater frequency of valid patents. *Id.* Other older studies also have found high rates of invalidity. See, e.g., Kimberley A. Moore, *Judges, Juries, and Patent Cases—An Empirical Peek Inside the Black Box*, 99 MICH. L. REV. 365, 392 (2000) (noting that judges upheld validity of patents in only 64% of cases during the period 1983-1999). An unpublished 2012 study found much higher invalidity rates. This study examined 283 cases where patent validity was determined by a federal district court during the period 2007-2011. It concluded that cases in which claims in a patent were held valid decreased from 20% in 2007 to 6% in 2011, and averaged only 14% during the study period. See Morgan, Lewis & Bockius, *United States Patent Invalidation Study 2012*, at 2 (2012), available at https://www.morganlewis.com/pubs/Smyth_USPatentInvalidity_Sept12.pdf. The same study also found that when the district court invalidated a patent, the Federal Circuit affirmed that decision more than 70% of the time during the period 2002-2012. *Id.* at 8.

¹⁷⁹ Mark A. Lemley, *Rational Ignorance at the Patent Office*, 95 NW. U. L. REV. 1495, 1500 (2001).

¹⁸⁰ See Doug Lichtman & Mark Lemley, *Rethinking Patent Law’s Presumption of Validity*, 60 STAN. L. REV. 45, 46-47 (2007).

¹⁸¹ Michael D. Frakes & Melissa F. Wasserman, *Does Agency Funding Affect Decisionmaking?: An Empirical Assessment of the PTO’s Granting Patterns*, 66 VAND. L. REV. 67, 69 & n.2 (2013).

¹⁸² *Id.* at 70.

¹⁸³ 37 C.F.R. § 1.56(a) (2009). Numerous courts and commentators agree. See, e.g., *Avocent Redmond Corp. v. Raritan Americas, Inc.*, No. 10 Civ.61000(PKC), 2013 WL 454352, at *12 (S.D.N.Y. Feb. 7, 2013) (“The public interest is best served when the USPTO is aware of all information material to patentability.”); Sean B. Seymour, *The Presumption of Patentability*, 97 MINN. L. REV. 990, 1038 (2013) (“The quality of an issued patent depends on the quality of the underlying Patent Office examination. To a large extent the assurance of a good Patent Office examination is all about information.”).

¹⁸⁴ See Christopher A. Cotropia, *Modernizing Patent Law’s Inequitable Conduct Doctrine*, 24 BERKELEY TECH. L.J. 723, 755 (2009) (noting that historically, the inequitable conduct doctrine helped address the patent quality problem).

¹⁸⁵ Jason Rantanen & Lee Petherbridge, *Therasense v. Becton Dickinson: A First Impression*, 14 YALE J.L. & TECH. 226, 241 (2011-12) (concluding that the PTO “will be even more in the dark when conducting patent examinations after *Therasense* than it was before”).

¹⁸⁶ See, e.g., Mark A. Lemley, *Ex Ante versus Ex Post Justifications for Intellectual Property*, 71 U. CHI. L. REV. 129, 129-30 (2004).

¹⁸⁷ See Daniel J. Schwartz, *Leveraging Strategies and Scheduling Complexities in Patent Cases to Design Successful Infringement Defenses*, ASPATORE, 2013 WL 574400, at *5 (Jan. 2013) (noting that post-*Therasense* “there have been far fewer inequitable conduct decisions”); Jeffrey J. Oelke, *Inequitable Conduct, Willful Infringement, and Antitrust Law: Navigating New Challenges in Patent Litigation*, ASPATORE, 2012 WL 6636454, at *5 (Nov. 2012) (noting that the inequitable conduct defense is pled less frequently “given that the defense is far less likely to prevail following *Therasense*”).

¹⁸⁸ See Steve Carlson, *Changes in the Law of Inequitable Conduct: New Pleading and Proof Standards* 17 (May 10, 2012), available at <http://www.fr.com/files/Uploads/Documents/6%20-%20Changes%20in%20the%20Law%20of%20Inequitable%20Conduct%20-%20Carlson.pdf> See also Katherine E. White,

“*There’s a Hole in the Bucket: The Effective Elimination of the Inequitable Conduct Doctrine*, 11 J. MARSHALL REV. INTELL. PROP. L. 716, 717 (2012) (observing that combination of *Therasense* and AIA “effectively eliminated” the inequitable conduct doctrine); Gino Cheng, Robert M. Isackson & Thomas J. Gray, *Inequitable Conduct: Rethinking ‘Egregious Misconduct,’* LAW360, Jan. 9, 2013 (noting scarcity of post-*Therasense* cases finding inequitable conduct). For a rare example of a post-*Therasense* court granting a motion for summary judgment of unenforceability due to inequitable conduct, see *Caron v. QuicKutz, Inc.*, No. CV-09-02600-PHX-NVW, 2012 WL 5497869, at *14 (D. Ariz. Nov. 13, 2012).

¹⁸⁹ David A. Kelly, *The Impact of the America Invents Act and Recent Court Decisions on Patent Law Practitioners and Their Clients*, ASPATORE, 2012 WL 663449, at *11 (Nov. 2012).

¹⁹⁰ See *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 135 (1969) (referring to patent as a “lawful monopoly”); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 229 (1964) (“The grant of a patent is the grant of a statutory monopoly.”).

¹⁹¹ *Precision*, *supra*, 324 U.S. at 816 (“[A patent] is an exception to the general rule against monopolies and to the right to access to a free and open market.”).

¹⁹² 382 U.S. 172 (1965). Subsequent case law permits the plaintiff to make an alternative showing – that, whether or not the patent-holder obtained the patent by fraud, the infringement suit was a mere sham to cover what is nothing more than an attempt to interfere directly with the business relationships of a competitor. See *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1071 (Fed. Cir. 1998). This alternative showing is a separate theory of relief that, although sometimes conflated with *Walker Process* fraud, is governed by different standards. Under *Professional Real Estate Investors, Inv. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49 (1993), a party asserting a claim of sham litigation must show (1) the lawsuit must be objectively meritless such that no reasonable litigant could expect success on the merits, and (2) the baseless lawsuit conceals an attempt to interfere directly with the business relationships of a competitor. *Id.* at 60-61. In patent litigation, a sham suit (sometimes referred to as a “*PRE* claim”) must be both subjectively brought in bad faith and based on a theory of infringement or invalidity that is objectively baseless. *Cornucopia Products, LLC v. Dyson, Inc.*, Nos. CV 12-00234-PHX-NVW, CV 12-00924-PHX-NVW, 2012 WL 3067603, at *9 (D. Ariz. July 27, 2012) (dismissing *PRE* claim because it was not objectively baseless); *TransWeb LLC v. 3M Innovative Prop. Co.*, Civil Action No. 10-4413 (FSH), 2011 WL 2181189, at *15 (D.N.J. June 1, 2011). See also *Nobelpharma*, *supra*, 141 F.3d at 1071 (noting that *PRE* and *Walker Process* provide alternative legal theories on which a patentee may lose its antitrust immunity, and both theories may be applied to the same conduct); S.W. O’Donnell, *Unified Theory of Antitrust Counterclaims in Patent Litigation*, 9 VA. J.L. & TECH. 1, 3 n.8 (2004) (observing that prior to *Nobelpharma*, the Federal Circuit was “on a path of congruence” between *Walker Process* and *PRE*).

¹⁹³ *Walker Process*, 382 U.S. at 177.

¹⁹⁴ *Id.*

¹⁹⁵ See Jeffrey J. Oelke, *Inequitable Conduct, Willful Infringement, and Antitrust Law: Navigating New Challenges in Patent Litigation*, ASPATORE, 2012 WL 6636454, at *8-9 (Nov. 2012) (observing a recent uptick in the litigation of hybrid cases that assert a mixture of patent and *Walker Process* claims).

¹⁹⁶ See *SanDisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 JF (RS), 2008 WL 4615605, at *5 n.5 (N.D. Cal. Oct. 17, 2008). Cf. *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1069 (Fed. Cir. 1998) (noting that inequitable conduct is “a broader, more inclusive concept than the common law fraud needed to support a *Walker Process* counterclaim”).

¹⁹⁷ See *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1067 (Fed. Cir. 1998); *Cornucopia Products, LLC v. Dyson, Inc.*, Nos. CV 12-00234-PHX-NVW, CV 12-00924-PHX-NVW, 2012 WL 3067603, at *9-10 (D. Ariz. July 27, 2012) (permitting limited offensive use of *Walker Process* claim where it was substantively indistinguishable from a typical *Walker Process* counterclaim); *Kroger Co. v. Sanofi-Aventis*, 701 F. Supp. 2d 938, 960 (S.D. Ohio 2010) (“Typically, *Walker Process* claims are brought as counterclaims in patent infringement lawsuits. . .”).

¹⁹⁸ See *Ritz Camera & Image, LLC v. SanDisk Corp.*, 700 F.3d 503, 508 (Fed. Cir. 2012). *Ritz Camera*, decided in late 2012, arguably expands the universe of potential *Walker Process* claims, because patent holders can now be sued by a wide range of parties who allege that they paid inflated prices for goods protected by patents. However, the long-term impact of the case is minimized by the high bar to proving fraud before the PTO. Indeed, in *Ritz Camera* the Federal Circuit specifically rejected the argument that its holding would trigger a flood of litigation and stem innovation, especially given the demanding proof requirements of a *Walker Process* claim. *Id.* The Federal Circuit noted that the Supreme Court had rejected the same flooding argument in *Walker Process*. *Id.*

¹⁹⁹ *Walker Process*, 382 U.S. at 174, 176-77. The first prong makes clear that invalidity of the patent is insufficient and a showing of intentional fraud in its procurement is required. The second prong incorporates the rules of antitrust law generally. *Ritz Camera & Image, LLC v. SanDisk Corp.*, 700 F.3d 503, 506 (Fed. Cir. 2012). The Sherman Act provides, in relevant part, that “[e]very person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony.” 15 U.S.C. § 2. A monopolization claim has two elements: (1) the possession of monopoly

power in the relevant market and (2) the willful acquisition or maintenance of that power, as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident. *United States v. Grinnell Corp.*, 384 U.S. 563, 570-71 (1966). The relevant market is the field in which meaningful competition exists. *IGT v. Alliance Gaming Corp.*, 702 F.3d 1338, 1344 (Fed. Cir. 2012). Many *Walker Process* claims fail because the claimant cannot define a relevant market or prove market power. Christopher R. Leslie, *Antitrust, Inequitable Conduct, and the Intent to Deceive the Patent Office*, 1 UC IRVINE L. REV. 323, 344 (2011).

²⁰⁰ 15 U.S.C. § 15.

²⁰¹ *Walker Process*, 382 U.S. at 177-78; 15 U.S.C. § 26. In *Southern Snow Mfg. Co. v. SnoWizard Holdings, Inc.*, Civil Action Nos. 06-9170, 09-3394, 10-0791, 11-1499, 2013 WL 620266, at *4-5 (E.D. La. Feb. 19, 2013), the federal district court extended *Walker Process* and held that the attempted enforcement of a trademark registration obtained by fraud can constitute an antitrust violation.

²⁰² *Nobelpharma, supra*, 141 F.3d at 1068; *Cornucopia Products, LLC v. Dyson, Inc.*, Nos. CV 12-00234-PHX-NVW, CV 12-00924-PHX-NVW, 2012 WL 3067603, at *9 (D. Ariz. July 27, 2012) (“Federal Circuit law now governs the patent-specific portions of [a *Walker Process*] claim, while regional circuit law governs the antitrust-specific portion of the claim.”).

²⁰³ *See, e.g.*, *TransWeb LLC v. 3M Innovative Prop. Co.*, Civil Action No. 10-4413 (FSH), 2011 WL 2181189, at *12 (D.N.J. June 1, 2011) (“Because New Jersey’s antitrust statutes are construed in harmony with federal antitrust statutes, the Court need not separately analyze the state law claims.”); *Kimberley-Clark Worldwide, Inc. v. First Quality Baby Products, LLC*, Civil No. 1:CV-09-1685, 2011 WL 1883815, at *2 n.1 (M.D. Pa. May 17, 2011) (noting that requirements under New York’s Donnelly Act are identical to a monopolization claim under the Sherman Act); *Correct Craft IP Holdings, LLC v. Malibu Boats, LLC*, No. 6:09-cv-813-Orl-28KRS, 2010 WL 598693, at *8 (M.D. Fla. Feb. 17, 2010) (noting that Florida Antitrust Statutes “closely track the language of the Sherman Act and are analyzed under the same rules and case law”).

²⁰⁴ *See DDAVP Indirect Purchaser Antitrust Litig.*, No. 05-CV-2237 (CS), 2012 WL 4932158, at *10-13 (S.D.N.Y. Oct. 17, 2012).

²⁰⁵ *TransWeb LLC v. 3M Innovative Prop. Co.*, Civil Action No. 10-4413 (FSH), 2011 WL 2181189, at *12 (D.N.J. June 1, 2011).

²⁰⁶ *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1364 (Fed. Cir. 1998). *Accord Nobelpharma*, 141 F.3d at 1069-70.

²⁰⁷ Herbert Hovenkamp, *Competition for Innovation*, 2012 COLUM. BUS. L. REV. 799, 828.

²⁰⁸ *Dippin’ Dots*, 476 F.3d at 1346 (“To demonstrate *Walker Process* fraud, a claimant must make higher threshold showings of both materiality and intent than are required to show inequitable conduct.”); *SanDisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 JF (RS), 2008 WL 4615605, at *7 n.8 (N.D. Cal. Oct. 17, 2008) (noting that the scienter requirement for inequitable conduct is “much lower” than for *Walker Process* fraud); and Jeffrey J. Oelke, *Inequitable Conduct, Willful Infringement, and Antitrust Law: Navigating New Challenges in Patent Litigation*, ASPATORE, 2012 WL 6636454, at *9 (Nov. 2012) (noting the significant difference pre-*Therasense* between the levels of materiality and intent required to prove inequitable conduct and *Walker Process* fraud).

²⁰⁹ *Nobelpharma*, 141 F.3d at 1070; *Cornucopia Products, LLC v. Dyson, Inc.*, Nos. CV 12-00234-PHX-NVW, CV 12-00924-PHX-NVW, 2012 WL 3067603, *10 (D. Ariz. July 27, 2012).

²¹⁰ *Dippin’ Dots, Inc. v. Mosey*, 476 F.3d 1337, 1347 (Fed. Cir. 2007).

²¹¹ *See American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1368 (Fed. Cir. 1984) (stating that in a *Walker Process* claim of attempting to monopolize, “a specific intent, greater than an intent evidenced by gross negligence or recklessness, is an indispensable element.”). *Accord Argus Chem. Corp. v. Fibre Glass-Evercoat Co.*, 812 F.2d 1381, 1385 (Fed. Cir. 1987). *But cf. Hydril Co. LP v. Grant Prideco LP*, 474 F.3d 1344, 1349 (Fed. Cir. 2007) (holding that *Walker Process* fraud “requires 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)”).

²¹² *SanDisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 JF (RS), 2008 WL 4615605, at *7 (N.D. Cal. Oct. 17, 2008).

²¹³ *Dippin’ Dots*, 476 F.3d at 1347. *Accord Nobelpharma*, 141 F.3d at 1071 (holding that a party making a *Walker Process* claim must make “a clear showing of reliance, *i.e.*, that the patent would not have issued but for the misrepresentation or omission”); *SanDisk Corp., v. STMicroelectronics, Inc.*, No. C 04-4379 JF (RS), 2008 WL 4615605, at *5 (N.D. Cal. Oct. 17, 2008).

²¹⁴ *See, e.g.*, *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1363 (Fed. Cir. 1984). *See also Digital Equip. Corp. v. Diamond*, 653 F.2d 701, 716 (1st Cir. 1981).

²¹⁵ *Nobelpharma*, 141 F.3d at 1071.

²¹⁶ *Nobelpharma*, 141 F.3d at 1069; *In re Wellbutrin SR Antitrust Litig.*, Civil Action Nos. 04-5525, 05-396, 2010 WL 8425187, at *8 (E.D. Pa. Mar. 31, 2010) (“A showing of inequitable conduct is therefore insufficient to proceed with a *Walker Process* fraud claim.”).

²¹⁷ *Sandisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 ZJF (RS), 2009 WL 1404689, at *2 (N.D. Cal. May 19, 2009) (“[J]ust as a finding of inequitable conduct may moot SanDisk’s patent infringement claim, a finding that SanDisk did not engage in equitable conduct may moot ST’s *Walker Process* claim. . . .”); *Hewlett-Packard Co. v. Genrad, Inc.*, 882 F. Supp.

1141, 1157 (D. Mass. 1995) (“A failure to prove inequitable conduct may eliminate the need to determine the antitrust counterclaim.”).

²¹⁸ FMC Corp. v. Manitowac Co., 835 F.2d 1411, 1417 (Fed. Cir. 1987) (“[A] failure to establish inequitable conduct precludes a determination that [plaintiff] had borne its greater burden of establishing the fraud required to support its *Walker Process* claim.”); *Metris U.S.A., Inc. v. Faro Tech., Inc.*, Civil Action No. 08-CV-11187-PBS, 2011 WL 4346852, at *1 (D. Mass. Sept. 19, 2011) (“[A] finding of inequitable conduct [is] a prerequisite for a showing of *Walker Process* fraud.”); *Avery Dennison Corp. v. Continental Datalabel, Inc.*, No. 10 C 2744, 2010 WL 4932666, at * 4 (N.D. Ill. Nov. 30, 2010) (“[A] party that fails to prove inequitable conduct cannot establish a *Walker Process* violation that is premised on such conduct.”); *Daiichi Sankyo, Inc. v. Apotex, Inc.*, Civil Action No. 030937 (SDW-MCA), 2009 WL 1437815, at *6 (D.N.J. May 19, 2009) (“If a finding of inequitable conduct may be insufficient to meet the more rigorous standard for *Walker Process* fraud, it logically follows that *Walker Process* fraud cannot be found in the absence of inequitable conduct.”). See also Christopher R. Leslie, *Antitrust, Inequitable Conduct, and the Intent to Deceive the Patent Office*, 1 UC IRVINE L. REV. 323, 336 (2011) (noting that the Federal Circuit “makes it impossible to prove *Walker Process* fraud in the absence of inequitable conduct”).

²¹⁹ *Nobelpharma*, 141 F.3d at 1070 (“Inequitable conduct is thus an equitable defense in a patent infringement action and serves as a shield, while a more serious finding of fraud potentially exposes a patentee to antitrust liability and thus serves as a sword.”); *Korody-Colyer Corp. v. General Motors Corp.*, 828 F.2d 1572, 1578 (Fed. Cir. 1987).

²²⁰ FMC Corp. v. Manitowac Co., 835 F.2d 1411, 1418 (Fed. Cir. 1987).

²²¹ Rule 42(b), Fed. R. Civ. P. This rule permits a court to order separate trials “in furtherance of convenience or to avoid prejudice, or when separate trials will be conducive to expedition and economy.” *Id.*

²²² See, e.g., *Hewlett-Packard Co. v. Genrad, Inc.*, 882 F. Supp. 1141, 1157 (D. Mass. 1995) (“[C]ourts often separate patent issues from antitrust counterclaim issues.”); *Seiko Epson Corp. v. E-Babylon, Inc.*, No. 3:07-CV-896-BR, 2011 WL 5554447, at *2 n.3 (D. Or. Nov. 15, 2011) (staying and bifurcating antitrust aspects of *Walker Process* claim pending resolution of inequitable conduct claim); *Seiko Epson Corp. v. Glory South Software Mfg., Inc.*, No. 06-CV-477-BR, 2010 WL 256505, at *5 (D. Or. Jan. 19, 2010) (bifurcating and staying trial of *Walker Process* claim in interest of efficiency); *Sandisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 ZJF (RS), 2009 WL 1404689, at *2 (N.D. Cal. May 19, 2009) (“[A] finding that SanDisk did not engage in inequitable conduct may moot ST’s *Walker Process* claim Accordingly, the Court concludes that convenience and judicial economy would be best served by trying the inequitable conduct defense first.”); *Squared D Co. v. E.I. Elecs.*, No. 06 C 5079, 2009 WL 136177, at *2 (N.D. Ill. Jan. 15, 2009) (bifurcating inequitable conduct and *Walker Process* claims).

²²³ *In re Innotron Diagnostics*, 800 F.2d 1077, 1084 (Fed. Cir. 1986). Accord *United States Gypsum Co. v. Nat’l Gypsum Co.*, No. 89 C 7533, 1994 WL 74989, at *2 (N.D. Ill. Mar. 10, 1994) (noting “common practice” to bifurcate patent infringement and antitrust issues).

²²⁴ See, e.g., *Square D Co. v. E.I. Elec., Inc.*, No. 06 C 5079, 2009 WL 136177, at *2 (N.D. Ill. Jan. 19, 2009); *Chip-Mender, Inc. v. Sherwin Williams Co.*, No. C 05-3465 PJH, 2006 WL 13058, at *13 (N.D. Cal. Jan. 3, 2006); *Implant Innovations, Inc. v. Nobelpharma AB*, No. 93 C 7489, 1996 WL 568791, at *3 (N.D. Ill. Oct. 2, 1996).

²²⁵ See *DSM Desotech Inc.*, No. 08 CV 1531, 2008 WL 4812440, at *2 (N.D. Ill. Oct. 28, 2008) (“[D]iscovery in any antitrust case can quickly become enormously expensive and burdensome to defendants.”); Roy W. Breitenbach & Alicia M. Wilson, *Managing the Fact Discovery Tsunami: Tips When Defending a Federal Antitrust Case*, N.Y.L.J., Jan. 18, 2011, at S8 (“In complex antitrust disputes, the amount of [electronically- stored information] often is so vast, and the preservation and production issues so complex, that e-discovery issues quickly spin out of control and destroy the entire defense budget.”). But cf. Mark Anderson & Max Huffman, *Iqbal, Twombly, and the Expected Cost of False Positive Error*, 20 CORNELL J.L. & PUB. POL’Y 1, 18 & n.84 (2010) (noting that a quantitative analysis of discovery expense in antitrust suits “does not appear to exist in current literature”).

²²⁶ *TransWeb LLC v. 3M Innovative Prop. Co.*, Civil Action No. 10-4413 (FSH), 2011 WL 2181189, at *12 (D.N.J. June 1, 2011).

²²⁷ J. Thomas Rosch, *Patent Law and Antitrust Law: Neither Friend nor Foe, but Business Partners*, 13 SEDONA CONF. J. 95, 100 (2012). Accord *Metris U.S.A., Inc. v. Faro Tech., Inc.*, Civil Action No. 08-CV-11187-PBS, 2011 WL 4346852, at *1 (D. Mass. Sept. 19, 2011) (“[I]t appears that *Walker Process* fraud is now largely coextensive with the new inequitable conduct doctrine.”). One respect in which the doctrines are not entirely congruent concerns the adoption in *Therasense* of the egregious misconduct exception to but-for materiality. See Christopher R. Leslie, *Antitrust, Inequitable Conduct, and the Intent to Deceive the Patent Office*, 1 UC IRVINE L. REV. 323, 344 (2011) (“Although *Therasense* has narrowed the definition of materiality for inequitable conduct, the definition remains broader than materiality for *Walker Process* purposes. *Walker Process* uses true but-for materiality, while *Therasense* adopted what may be termed ‘but-for plus’ since ‘affirmative egregious misconduct’ can be material even if the patent would have otherwise issued.”).

²²⁸ J. Thomas Rosch, *Patent Law and Antitrust Law: Neither Friend nor Foe, but Business Partners*, 13 SEDONA CONF. J. 95, 99 (2012). See also David R. Steinman & Danielle S. Fitzpatrick, *Antitrust Counterclaims in Patent Infringement Cases: A*

Guide to Walker Process and Sham-Litigation Claims, 10 TEX. INTELL. PROP. L.J. 95, 99 (2001) (noting that *Walker Process* claims have been “extremely unsuccessful”). Rare examples of evidence sufficient to show *Walker Process* fraud include (1) deleting references to on-point prior art from a patent application with no adequate explanation (*Nobelpharma*, 141 F.3d at 1062, 1072); (2) failing to include prior art known to the patent applicant through multiple personal demonstrations of that art (*Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc.*, 375 F.3d 1341, 1360-61 (Fed. Cir. 2004), *rev’d on other grounds*, 546 U.S. 394 (2006)); and (3) failing to include a full translation of a foreign patent where that patent was the only document in the initial application that, if fully understood by the patent examiner, would have resulted in a denial of the application (*Kaiser Found. Health Plan, Inc. v. Abbott Labs, Inc.*, 552 F.3d 1033, 1051 (9th Cir. 2009)).

²²⁹ Paul D. Swanson, *The Patent Legal Malpractice Implications of ‘Walker Process’ Antitrust Claims*, PATENT PRACTICE PROFESSIONAL LIAB. REP. (Mar. 5, 2013), available at <http://www.jdsupra.com/legalnews/the-patent-legal-malpractice-implication-94471/>.

²³⁰ Jason Rantanen & Lee Petherbridge, *Therasense v. Becton Dickinson: A First Impression*, 14 YALE J.L. & TECH. 226, 250 (2011-12).

²³¹ Cf. Herbert J. Hovenkamp, *Patent Exclusions and Antitrust After Therasense*, University of Iowa Legal Studies Research Paper No. 11-39, at 29 (Dec. 2011), available at <http://ssrn.com/abstract=1916074> (arguing that *Walker Process* actions should be permitted to proceed where there is no inequitable conduct as *Therasense* defines it, but evidence of prior art later emerges).

²³² Stijepko Tokic, *Enforcing the Duty of Disclosure after Therasense: Antitrust Implications*, 40 AIPLA Q.J. 221, 258 (2012).

²³³ The Seventh Amendment to the United States Constitution provides: “In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.” U.S. Const. amend. VII.

²³⁴ See *Beacon Theaters, Inc. v. Westover*, 359 U.S. 500, 509 (1959) (“[T]he right to a trial by jury applies to treble damages under the antitrust laws.”).

²³⁵ *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1333 (Fed. Cir. 2011) (“Inequitable conduct is equitable in nature, with no right to a jury. . . .”); *Cabinet Vision v. Cabnetware*, 129 F.3d 595, 599 n.4 (Fed. Cir. 1997); *Duhn Oil Tool, Inc. v. Cooper Cameron Corp.*, 818 F. Supp. 2d 1193, 1204 (E.D. Cal. 2011) (“The Seventh Amendment jury trial right does not attach to claims based in equity, such as the defense of inequitable conduct.”).

²³⁶ Rule 42(b), Fed. R. Civ. P.

²³⁷ See *Celgene Corp. v. Barr Labs., Inc.*, Civil Action No. 07-286 (SDW), 2008 WL 2447354, at *3 (D.N.J. June 13, 2008). Cf. *Implant Innovations, Inc. v. Nobelpharma AB*, No. 93 C 7489, 1996 WL 568791, at *3 (N.D. Ill. Oct. 2, 1996) (court concludes that its prior determination of the inequitable conduct aspect of the patent claim would violate the Seventh Amendment, and orders jury trial for both inequitable conduct and antitrust issues).

²³⁸ Asim M. Bhansali & William S. Hicks, *Trial Management after Therasense: Inequitable Conduct, Walker Process Fraud, and the Seventh Amendment*, 21 (No. 2) COMPETITION 1, 6 (Summer 2012) (“[R]equests to bifurcate and stay *Walker Process* claims were often granted in the pre-*Therasense* era without any consideration of Seventh Amendment issues.”). Some courts have ordered trifurcation. See, e.g., *Hunter Douglas, Inc. v. Comfortex Corp.*, 44 F. Supp.2d 145, 155 (N.D.N.Y. 1999).

²³⁹ Asim M. Bhansali & William S. Hicks, *Trial Management after Therasense: Inequitable Conduct, Walker Process Fraud, and the Seventh Amendment*, 21 (No. 2) COMPETITION 1, 6-7 (Summer 2012).

²⁴⁰ *Id.* at 8 (noting that alignment of inequitable conduct and *Walker Process* standards “has highlighted Seventh Amendment concerns arising from bifurcation that existed even before *Therasense*”).

²⁴¹ *Metris U.S.A., Inc. v. Faro Tech., Inc.*, Civil Action No. 08-CV-11187-PBS, 2011 WL 4346852 (D. Mass. Sept. 19, 2011).

²⁴² *Id.* at *10. See also *Sandisk Corp. v. STMicroelectronics, Inc.*, No. C 04-4379 ZJF (RS), 2009 WL 1404689, at *2 (N.D. Cal. May 19, 2009) (“When a jury decides the *Walker Process* fraud, the Seventh Amendment constrains a court’s determination of inequitable conduct.”); George G. Gordon & Stephen A. Stack, *Aligning Antitrust and Patent Law: Side Effects from the Federal Circuit’s Cure for the Inequitable Conduct ‘Plague’ in Therasense*, 26 ANTITRUST 88, 91 (2011) (“*Therasense* may also bolster the argument that infringement defendants have a constitutional right to a jury trial on factual issues that are common to an inequitable conduct defense and a *Walker Process* claim. . . . To the extent that the underlying elements of proof are now identical, *Therasense* may strengthen the argument. . . .”).

²⁴³ See Lee Petherbridge & Jason Rantanen, *In Memoriam Best Mode*, 64 STAN. L. REV. ONLINE 125, 125 (2012) (describing the AIA as “the most substantial legislative overhaul of patent law and practice in more than half a century.”); PricewaterhouseCoopers, *2012 Patent Litigation Study* 3 (2012), http://www.pwc.com/en_US/us/forensic-services/publications/assets/2012-patent-litigation-study.pdf (“Last year marked the most significant change to the US patent system in almost 60 years.”).

- ²⁴⁴ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435 (2011-12).
- ²⁴⁵ 497 F.3d 1360 (Fed. Cir. 2007) (en banc).
- ²⁴⁶ KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 419-22 (2007).
- ²⁴⁷ eBay, Inc. v. MercExchange, L.L.C., 547 U.S. 388 (2006).
- ²⁴⁸ Quanta Computer, Inc. v. LG Elecs., Inc., 553 U.S. 617 (2008).
- ²⁴⁹ Microsoft Corp. v. i4i Ltd. Partnership, 131 S. Ct. 2238 (2011).
- ²⁵⁰ Act of Dec. 12, 1980, Pub. L. 96-517, ch. 30, § 302, 94 Stat. 3015.
- ²⁵¹ American Inventors Protection Act of 1999, Pub. L. No. 106-113, tit. IV, 113 Stat. 1501A-0552, at sec. 4601.
- ²⁵² Jeffrey P. Kushan, *The Fruits of the Convolution Road to Patent Reform: The New Invalidity Proceedings of the Patent and Trademark Office*, 30 YALE L. & POL'Y REV. 385, 391 (2012).
- ²⁵³ See 37 C.F.R. §1.501(a).
- ²⁵⁴ 35 U.S.C. §§ 303(a), 312(a).
- ²⁵⁵ Mark D. Janis, *Rethinking Reexamination: Toward a Viable Administrative Revocation System for U.S. Patent Laws*, 11 HARV. J.L. & TECH. 1, 48 (1997).
- ²⁵⁶ United States Patent and Trademark Office, Ex Parte Reexamination Filing Data – June 30, 2012, http://www.uspto.gov/patents/stats/EP_quarterly_report_June_30_2012.pdf; United States Patent and Trademark Office, Inter Partes Reexamination Filing Data – June 30, 2012, http://www.uspto.gov/patents/stats/IP_quarterly_report_June_30_2012.pdf.
- ²⁵⁷ 35 U.S.C. §§ 302, 312; Heil v. Godici, 143 F. Supp. 2d 593, 596-98 (E.D. Va. 2011).
- ²⁵⁸ Andrei Iancu & Ben Haber, *Post-Issuance Proceedings in the America Invents Act*, 93 J. PAT. & TRADEMARK OFF. SOC'Y 476 (2011). Cf. Robert Harkins, *How the Leahy-Smith America Invents Act (AIA) is Changing Patent Protection and Litigation*, ASPATORE, 2013 WL 571334, at *6 (Jan. 2013) (“[I]nter partes reexaminations typically took three to five years.”); Eric J. Rogers, *Ten Years of Inter Partes Patent Reexamination Appeals: An Empirical View*, 29 SANTA CLARA COMPUTER & HIGH TECH. L.J. 305, 352 (2013) (noting that the mean pendency of completed *inter partes* reexaminations is 4.9 years). Even these statistics are not a true reflection of the average pendency of *inter partes* reexaminations, because they only include those that were completed.
- ²⁵⁹ See Jeffrey P. Kushan, *The Fruits of the Convolution Road to Patent Reform: The New Invalidity Proceedings of the Patent and Trademark Office*, 30 YALE L. & POL'Y REV. 385, 391 (2012) (“[F]rom its inception, the ex parte reexamination proceeding has been seen as biased in favor of the patent owner.”). Accord Sherry M. Knowles, Thomas E. Vanderbloemen & Charles E. Peeler, *Inter Partes Patent Reexamination in the United States*, 86 J. PAT. & TRADEMARK OFF. SOC'Y 611, 612 (2004).
- ²⁶⁰ Dennis Crouch, *A Rush to File Ex Parte Reexaminations and Now a Lull*, PATENTLY-O (Nov. 4, 2012; 7:03 PM), <http://www.patentlyo.com/patent/2012/11/a-rush-to-file-ex-parte-reexaminations-and-now-a-lull.html>. Patentees initiate some reexaminations, primarily to strengthen and confirm the validity of their own patents prior to commencing enforcement litigation. See Joseph R. Re, “*Parallel Prosecution*”: *Effect of Patent Prosecution on Concurrent Litigation*, 73 J. Pat. & Trademark Off. Soc’y 965, 967-68 (1991).
- ²⁶¹ Jason Rantanen, Lee Petherbridge & Jason P. Kesan, *America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229 (2012). See also Jonathan Masur, *Patent Inflation*, 121 YALE L.J. 470, 478 (2011) (“[T]he PTO’s salary and bonus system is structured in such a way as to incentivize examiners to grant rather than deny patents.”).
- ²⁶² NANCY J. LINCK, BRUCE H. STONER, LEE E. BARRETT & CAROL A. SPIEGEL, POST-GRANT PATENT PRACTICE 6 (2012).
- ²⁶³ United States Patent and Trademark Office, Ex Parte Reexamination Filing Data – June 30, 2012, http://www.uspto.gov/patents/stats/EP_quarterly_report_June_30_2012.pdf.
- ²⁶⁴ United States Patent and Trademark Office, Inter Partes Reexamination Filing Data – June 30, 2012, http://www.uspto.gov/patents/stats/IP_quarterly_report_June_30_2012.pdf. This percentage, while high, does not necessarily reveal success by third-party requesters, because the cancellation of patent claims might be irrelevant to infringement accusations against the requester. Rogers, *supra* note 258, at 347. See also NANCY J. LINCK, BRUCE H. STONER, LEE E. BARRETT & CAROL A. SPIEGEL, POST-GRANT PATENT PRACTICE 7 (2012) (“Based on these statistics, one may reasonably conclude that the patent owner fares better in ex parte reexamination than in inter partes reexamination, at least in part due to the lack of third party participation.”).
- ²⁶⁵ Michael A. Carrier, *Post-Grant Opposition: A Proposal and a Comparison to the America Invents Act*, 45 U.C. DAVIS L. REV. 103, 113-14 (2011).
- ²⁶⁶ Jeffrey P. Kushan, *The Fruits of the Convolution Road to Patent Reform: The New Invalidity Proceedings of the Patent and Trademark Office*, 30 YALE L. & POL'Y REV. 385, 392, 394 (2012).
- ²⁶⁷ Rogers, *supra* note 258, at 350.
- ²⁶⁸ See *id.* at 394; Michael A. Carrier, *Post-Grant Opposition: A Proposal and a Comparison to the America Invents Act*, 45 U.C. DAVIS L. REV. 103, 114 (2011); United States Patent and Trademark Office; Report to Congress on Inter Partes

Reexamination (2004), http://www.uspto.gov/web/offices/dcom/olia/reports/reexam_report.htm. *Ex parte* reexaminations are not subject to these strong estoppel effects. Rogers, *supra* note 258, at 322.

²⁶⁹ See Jonathan Masur, *Patent Inflation*, 121 YALE L.J. 470, 481 (2011) (noting that *inter partes* reexamination “imposes such disadvantages on third-party challengers that it is almost never used”).

²⁷⁰ Michael A. Carrier, *Post-Grant Opposition: A Proposal and a Comparison to the America Invents Act*, 45 U.C. DAVIS L. REV. 103, 113 (2011).

²⁷¹ United States Patent and Trademark Office, *Inter Partes Reexamination Filing Data – June 30, 2012*, http://www.uspto.gov/patents/stats/IP_quarterly_report_June_30_2012.pdf. The use of *inter partes* reexamination accelerated in recent years. During the fiscal years 2000-2004 the PTO received a total of 53 *inter partes* reexamination filings. During the fiscal years 2008-2012 the PTO received more than 1,350 such filings. *Id.*

²⁷² See Stefan Blum, Note, *Ex Parte Reexamination: A Wolf in Sheep’s Clothing*, 73 OHIO STATE L.J. 395, 433 (2012) (noting that *ex parte* reexamination is “essentially intact” under the AIA). The major change was a substantial increase in fees in September 2012. Dennis Crouch, *A Rush to File Ex Parte Reexaminations and Now a Lull*, PATENTLY-O (Nov. 4, 2012; 7:03 PM), <http://www.patentlyo.com/patent/2012/11/a-rush-to-file-ex-parte-reexaminations-and-now-a-lull.html>. Fees were later reduced in March 2013. The fee for requesting an *ex parte* reexamination decreased from \$17,750 to \$12,000. Fees for supplemental examinations, petitioning for IPR, and petitioning for PGR also declined, as did standard fees for micro-entities. See Dennis Crouch, *USPTO Fee Changes on March 19*, PATENTLY-O (Mar. 18, 2013; 9:15 AM), <http://www.patentlyo.com/patent/2013/03/uspto-fee-change-on-march-19.html>.

²⁷³ For more than 200 years the United States gave priority of right to those who were first in time to an invention. The AIA changed that tradition and replaced it with a general rule under which patent rights are awarded to the first inventor to file a patent application. See 35 U.S.C. § 100 (West 2011).

²⁷⁴ United States Patent and Trademark Office, *Performance and Accountability Report FY 2012*, at 14 (Nov. 7, 2012), <http://www.uspto.gov/about/stratplan/ar/USPTOFY2012PAR.pdf>.

²⁷⁵ Robert Greene Sterne, et al., *America Invents Act: The 5 New Post-Issuance Procedures*, 13 SEDONA CONF. L.J. 27, 32 (2012) (hereafter “5 Procedures”).

²⁷⁶ 35 U.S.C. § 324(a).

²⁷⁷ 35 U.S.C. § 324(b).

²⁷⁸ 35 U.S.C. § 315(a)(1), 35 U.S.C. § 325(a)(1). The filing of a counterclaim of invalidity in an action commenced by the patent owner does not constitute a civil action challenging the validity of a claim of a patent. 35 U.S.C. § 315(a)(3), 35 U.S.C. § 325(a)(3).

²⁷⁹ The BPAI’s backlog of pending appeals increased from 1,357 in 2006 to 22,356 in 2011, an increase of more than 1,500% in five years. Rogers, *supra* note 258, at 351.

²⁸⁰ See *Abbott Labs. v. Cordis Corp.*, No. 2012-1244, 2013 WL 1136627, at *8 (Fed. Cir. Mar. 20, 2013) (affirming grant of motion to quash two subpoenas duces tecum for use in *inter partes* reexamination proceeding).

²⁸¹ 35 U.S.C. § 326(a)(5).

²⁸² 35 U.S.C. § 316(a)(5). The PTAB has outlined a five-factor analysis that it will use to determine whether to allow additional discovery that is otherwise necessary in the interest of justice. See Dennis Crouch, *Discovery Process in Post-Grant Proceedings*, PATENTLY-O (Mar. 22, 2013, 11:48 AM), <http://www.patentlyo.com/patent/2013/03/abbott-cordis-pgr.html>. See also *5 Procedures*, *supra* note 275 at 41 (predicting, on the basis of historical interference practice, that the “otherwise necessary” option “will provide little, if any, avenue to obtain discovery”).

²⁸³ Eric S. Walter & Colette R. Verkuil, *Patent Litigation Strategy: The Impact of the America Invents Act and the New Post-Grant Patent Procedures* 6 (2012), available at <http://www.mofo.com/files/Uploads/Images/120307-Patent-Litigation-Strategy.pdf>.

²⁸⁴ Jason Rantanen, Lee Petherbridge & Jay P. Kesan, *America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229 (2012). The number of patent actions commenced in federal district court reached 4,015 in 2011 – the highest number of annual filings ever recorded. PricewaterhouseCoopers, *2012 Patent Litigation Study* 6 (2012), http://www.pwc.com/en_US/us/forensic-services/publications/assets/2012-patent-litigation-study.pdf.

²⁸⁵ NANCY J. LINCK, BRUCE H. STONER, LEE E. BARRETT & CAROL A. SPIEGEL, *POST-GRANT PATENT PRACTICE* ix (2012); Rogers, *supra* note 258, at 319 (noting that reexamination “has become an integral part of patent litigation strategy”).

²⁸⁶ 35 U.S.C. § 326(a)(11) and (c).

²⁸⁷ PricewaterhouseCoopers, *2012 Patent Litigation Study* 21 (2012), http://www.pwc.com/en_US/us/forensic-services/publications/assets/2012-patent-litigation-study.pdf.

Cf. James R. Barney, *A Guide to Appealing Patent Cases to the US Court of Appeals for the Federal Circuit*, ASPATORE, 2013 WL 574526, at *1 (Mar. 2013) (predicting that AIA will result in “many more post-grant review challenges” in the PTO, but not necessarily a corresponding reduction in federal court litigation).

²⁸⁸ One projection of the average cost for PGR/IPR is \$150,000 to \$300,000 per party, “an order of magnitude less expensive than district court litigation.” Matthew Cutler, *Inter Partes Review and Post Grant Review are Game-Changers*, IP LAW360,

Jan. 8, 2013, <http://www.law360.com/articles/402322/why-inter-partes-and-post-grant-review-are-game-changers>. See also Rogers, *supra* note 258, at 355-56 (comparing predicted cost of IPR of \$600,000 to average cost of patent litigation of \$6 million per side); Megan M. La Belle, *Patent Law as Public Law*, 20 GEO. MASON L. REV. 41, 57 (2012) (observing that *inter partes* reexamination costs substantially less than litigation).

²⁸⁹ See Jason Rantanen, Lee Petherbridge & Jay P. Kesan, *America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229 (2012) (arguing that for many small businesses and inventors, PGR “will operate more as a patent system-use tax, adding to the cost and complexity of obtaining an enforceable patent”); Hung H. Bui, *An Overview of Patent Reform Act of 2011: Navigating the Leahy-Smith America Invents Act Including Effective Dates for Patent Reform*, 93 J. PAT. & TRADEMARK OFF. SOC’Y 441 (2011) (predicting that nine-month window will operate to limit use of PGR).

²⁹⁰ 35 U.S.C. § 328(a).

²⁹¹ 35 U.S.C. § 325(a).

²⁹² Phillippe Signore, Steve Kunin & Jonathan Parthum, *Practice Implications of the Leahy-Smith America Invents Act*, in Westlaw Journal Expert Commentary Series, *Patents in the 21st Century: The Leahy-Smith America Invents Act* 28, 30 (2012), available at <http://www.mofo.com/files/Uploads/Images/120206-Patents-21st-Century.pdf>.

²⁹³ Sandip H. Patel, *A Lop-Sided Estoppel in Post-Grant Review*, Law360 (Dec. 21, 2011; 12:28 PM), available at <http://www.marshallip.com/media/pnc/2/media.502.pdf>.

²⁹⁴ See Eric S. Walters & Colette R. Verkuil, *Patent Litigation Strategy: The Impact of the America Invents Act and the New Post-Grant Patent Procedures* 4 (2012), available at <http://www.mofo.com/files/Uploads/Images/120307-Patent-Litigation-Strategy.pdf> (“Post-grant review carries a greater potential likelihood for estoppel than *inter partes* review.”); Kayla Fossen, Note, *The Post-Grant Problem: America Invents Falling Short*, 14 MINN. J.L. SCI. & TECH. 573, 593 (2013) (noting that robust estoppel effect of PGR may reduce overall use of the procedure).

²⁹⁵ Eric S. Walters & Colette R. Verkuil, *Patent Litigation Strategy: The Impact of the America Invents Act and the New Post-Grant Patent Procedures* 6 (2012), available at <http://www.mofo.com/files/Uploads/Images/120307-Patent-Litigation-Strategy.pdf>.

²⁹⁶ Reissue provides a second opportunity for a patentee to have the PTO examine a patent on all the same statutory bases that were or might have been employed during the original examination. A reissue application is the vehicle for conducting this second examination. NANCY J. LINCK, BRUCE H. STONER, LEE E. BARRETT & CAROL A. SPIEGEL, *POST-GRANT PATENT PRACTICE* 22 (2012).

²⁹⁷ 35 U.S.C. § 311(c).

²⁹⁸ 35 U.S.C. § 314(a). It is unclear what it means to “prevail” in this context. It could mean that at least one claim is rejected. Alternatively, it could refer to cancellation or substantial amendment.

²⁹⁹ 35 U.S.C. § 311(b).

³⁰⁰ 35 U.S.C. § 316(a)(5).

³⁰¹ 35 U.S.C. § 318(a).

³⁰² 35 U.S.C. § 315(e).

³⁰³ Andrei Iancu, Ben Haber & Elizabeth Iglesias, *Challenging Validity of Issued Patents before the PTO: Inter Partes Reexam Now or Inter Partes Review Later?*, 94 J. PAT. & TRADEMARK OFF. SOC’Y 148 (2012) (hereafter “Now or Later”).

³⁰⁴ 35 U.S.C. § 315(e).

³⁰⁵ *Now or Later*, *supra* note 303.

³⁰⁶ Ben M. Davidson, *Reexamining Reexaminations*, 34 LOS ANGELES LAW. 26, 29 (2011).

³⁰⁷ 35 U.S.C. § 315(b).

³⁰⁸ 35 U.S.C. § 315(a)(1); Andrei Iancu & Ben Haber, *Post-Issuance Proceedings in the America Invents Act*, 93 J. PAT. & TRADEMARK OFF. SOC’Y 476 (2011).

³⁰⁹ *5 Procedures*, *supra* note 275, at 37.

³¹⁰ Between September 2012 and February 2013 the PTO received 150 filings under the AIA’s new IPR provisions. See United States Patent and Trademark Office, *AIA Statistics: Inter Partes Review*, http://www.uspto.gov/aia_implementation/statistics.jsp.

³¹¹ 35 U.S.C. § 257(a).

³¹² The PTO has projected that all of the approximately 110 requests it received annually from patent owners for *ex parte* reexaminations pre-AIA will be filed as requests for supplemental examinations post-AIA, and that it will receive approximately 1,430 requests for supplemental examinations annually. These projections appear to be inflated. Between September 2012 and February 2013 the PTO received nine such filings. See Jason Rantanen, *Supplemental Examination Final Rules*, PATENTLY-O (Aug. 13, 2012; 3:48 PM), <http://www.patentlyo.com/patent/2012/08/supplemental-examination-final-rules.html> (predicting that the actual number would be “much, much smaller” than the PTO’s projection of 1,430); United States Patent and Trademark Office, *AIA Statistics: Supplemental Examination*, http://www.uspto.gov/aia_implementation/statistics.jsp (reporting nine filings) (last visited April 1, 2013); *Changes to*

Implement the Supplemental Examination Provisions of the Leahy-Smith America Invents Act and to Revise Reexamination Fees; Final Rule, 77 Fed. Reg. 48827 (2012) (projecting 100% conversion of *ex parte* reexamination requests by patentees).

³¹³ 35 U.S.C. § 257(a).

³¹⁴ Lisa A. Dolak, *America Invents the Supplemental Examination, but Retains the Duty of Candor: Questions and Implications*, 6 AKRON INTELL. PROP. J. 147, 151 (2012).

³¹⁵ 35 U.S.C. § 257(c)(2)(A).

³¹⁶ See Stijepko Tokic, *Enforcing the Duty of Disclosure after Therasense: Antitrust Implications*, 40 AIPLA Q.J. 221, 262 (2012) (“Thus, it appears unlikely the exception will preclude patent holders from strategically manipulating the supplemental examination rules to escape inequitable conduct claims.”). There is a second exception, set forth in 35 U.S.C. § 257(c)(2)(B), but it too will be rarely used. It relates to patent infringement actions under Section 281 of the Patent Act or actions in the ITC for unfair competition or importation under Section 337(a) of the Tariff Act of 1930 (19 U.S.C. § 1337(a)). Under the second exception the effect of supplemental examination shall not apply unless the examination and any reexamination resulting from it are concluded prior to the date on which the action is brought. 35 U.S.C. § 257(c)(2)(B).

³¹⁷ NANCY J. LINCK, BRUCE H. STONER, LEE E. BARRETT & CAROL A. SPIEGEL, *POST-GRANT PATENT PRACTICE* 120 (2012).

³¹⁸ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. BAR J. 539 (2012).

³¹⁹ See United States Patent and Trademark Office, Press Release, 12-51, *USPTO Publishes Final Rules for Supplemental Examination and Inventor’s Oath or Declaration* (Aug. 13, 2012), <http://www.uspto.gov/news/pr/2012/12-51.jsp>.

³²⁰ 35 U.S.C. § 257(a).

³²¹ 35 U.S.C. § 257.

³²² Jason Rantanen, Lee Petherbridge & Jay P. Kesan, *America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229 (2012) (concluding that supplemental examinations provide the opportunity “to immunize all but the most egregious misconduct before a competitor ever has an opportunity to learn of it”).

³²³ Jason Rantanen & Lee Petherbridge, *Toward a System of Invention Registration: The Leahy-Smith America Invents Act*, 110 MICH. L. REV. FIRST IMPRESSIONS 24, 26-27 (2011).

³²⁴ 5 *Procedures*, *supra* note 275, at 58.

³²⁵ See, e.g., *Therasense*, 649 F.3d at 1288 (noting that inequitable conduct cannot be cured by reexamination).

³²⁶ Jason Rantanen, Lee Petherbridge & Jay P. Kesan, *America Invents, More or Less?*, 160 U. PA. L. REV. PENNUMBRA 229 (2012).

³²⁷ 35 U.S.C. § 257(e).

³²⁸ Jason Rantanen & Lee Petherbridge, *Toward a System of Invention Registration: The Leahy-Smith America Invents Act*, 110 MICH. L. REV. FIRST IMPRESSIONS 24, 26 (2011).

³²⁹ Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539 (2012).

³³⁰ 18 U.S.C. § 1001(a)(1) (2006) makes it a crime to knowingly and willfully falsify, conceal or cover up by any trick, scheme or device a material fact in any matter within the jurisdiction of the executive, legislative, or judicial branch of the federal government. *Id.*

³³¹ 18 U.S.C. § 1001.

³³² See *United States v. Smith*, 740 F.2d 734, 736 (9th Cir. 1984).

³³³ United States Patent and Trademark Office, *Performance and Accountability Report FY 2012*, at 14 (Nov. 7, 2012), <http://www.uspto.gov/about/stratplan/ar/USPTOFY2012PAR.pdf>.

³³⁴ The fiscal year 2012 average total pendency of 32.2 months did reflect a decline from the 33.7 months in fiscal year 2011 and also topped the PTO’s fiscal year 2012 target of 34.7 months. See *id.*

³³⁵ Katherine E. White, “*There’s a Hole in the Bucket:*” *The Effective Elimination of the Inequitable Conduct Doctrine*, 11 J. MARSHALL REV. INTELL. PROP. L. 716, 731 (2012).

³³⁶ Sarah Tran, *Patent Powers*, 25 HARV. J.L. & TECH. 595 (2012). *But cf.* Angie M. Hankins & Juliana Tanase, *Inequitable Conduct—Still a Viable Defense?*, IP LAW 360, Nov. 22, 2011 (“[S]upplemental examination appears to be directed toward close calls or error, rather than permitting the curing of intentional and egregious misconduct before the PTO.”).

³³⁷ See David A. Kelly, *The Impact of the America Invents Act and Recent Court Decisions on Patent Law Practitioners and Their Clients*, ASPATORE, 2012 WL 663449, at *3 (Nov. 2012) (observing that the incentive to use supplemental examination “seems greatly diminished” after *Therasense*); Kevin B. Laurence & Matthew C. Phillips, *Supplemental Examination and the Proposed Rules*, INTELLECTUAL PROPERTY TODAY 7, 8 (Mar. 2012) (“*Therasense* significantly diminished the need for supplemental examination. . .”).

³³⁸ See Peter E. Strand, *Disarming an ‘Atomic Bomb’: Federal Circuit Clips Wires for Inequitable Conduct*, 24 No. 8 INTELL. PROP. & TECH. L.J. 20, 22 (2012) (concluding that supplemental examinations may make the inequitable conduct defense “a dinosaur”).

³³⁹ See Maurice Ross, *A Year of Dramatic Change in Intellectual Property Law: Who are the Winners and Losers?*, ASPATORE, 2013 WL 571327, at *8 (Jan. 2013) (“This new ‘get out of jail free’ law, together with recent Federal Circuit jurisprudence making it almost impossible to prove inequitable conduct, conveys exactly the wrong message and provides

perverse incentives for cheating and fraud.”). *Accord* Priscilla G. Taylor, *Bringing Equity Back to the Inequitable Conduct Doctrine?*, 27 BERKELEY TECH. L.J. 349, 372 (2012) (concluding that supplemental examinations could lead to increased incidence of inequitable conduct before the PTO).

³⁴⁰ See, e.g., Jason Rantanen & Lee Petherbridge, *Toward a System of Invention Registration: The Leahy-Smith America Invents Act*, 110 MICH. L. REV. FIRST IMPRESSIONS 24 (2011) (noting that AIA “presents a very real risk of increasing the number of low-quality patents”).

³⁴¹ The Patent Act of 1836 required a patent applicant to explain the principle of her invention and the “several modes” associated with application of that principle, as contemplated by the inventor. Patent Act of 1836, ch. 357, § 6, 5 Stat. 117 (repealed 1870). The Patent Act of 1870 required a patent applicant to explain the principle of her invention and the best mode associated with application of that principle, as contemplated by the inventor, but this requirement applied only to machine patents. Patent Act of July 8, 1870, ch. 230, § 26, 16 Stat. 198, amended by Patent Act of 1952, Pub. L. No. 593, 66 Stat. 792 (1952).

³⁴² Patent Act of 1952, ch. 950, § 112, 66 Stat. 792 (1952), codified as amended at 35 U.S.C. § 112 (2006).

³⁴³ 35 U.S.C. § 112 (2006).

³⁴⁴ *Joy MM Delaware, Inc. v. Cincinnati Mine Mach., Co.*, No. 2012-1153, 2012 WL 5439885, at *4 (Fed. Cir. Nov. 8, 2012); *Ajinomoto Co. v. Int’l Trade Comm’n*, 597 F.3d 1267, 1273 (Fed. Cir. 2010). Routine details apparent to someone of ordinary skill in the art need not be disclosed to satisfy the best mode requirement. *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1086 (Fed. Cir. 2012).

³⁴⁵ Ryan G. Vacca, *Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?*, 75 ALB. L. REV. 279, 293 (2012).

³⁴⁶ *Pfizer, Inc. v. Teva Pharms. USA, Inc.*, 518 F.3d 1353, 1364 (Fed. Cir. 2008); *Eli Lilly & Co. v. Barr Labs. Inc.*, 251 F.3d 955, 963 (Fed. Cir. 2001); *Responsive Innovations, LLC v. Holtzbrinck Pub., LLC*, No. 4:08CV1184, 2012 WL 5948701, at *12 (N.D. Ohio Nov. 28, 2012).

³⁴⁷ *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1365 (Fed. Cir. 2011) (“Invalidation based on a best mode violation requires that the inventor knew of and intentionally concealed a better mode than was disclosed.”). *See also* *Joy MM Delaware, Inc. v. Cincinnati Mine Mach., Co.*, No. 2012-1153, 2012 WL 5439885, at *4 n.2 (Fed. Cir. Nov. 8, 2012) (“At its heart, the best mode requirement is concerned with preventing inventors from concealing the best mode of their inventions while being rewarded with the right to exclude others from making or using it.”); Donald S. Chisum, *Best Mode Concealment and Inequitable Conduct in Patent Procurement: A Nutshell, a Review of Recent Federal Circuit Cases and a Plea for Modest Reform*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 277, 280 (1997) (“The purpose of the best mode requirement is to prevent inventors from obtaining patent protection while concealing from the public the preferred embodiments of their inventions.”).

³⁴⁸ *See In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1086 (Fed. Cir. 2012). *See also* *Multimedia Patent Trust v. Apple Inc.*, No. 10-CV-2618-H (KSDC), 2012 WL 6863471, at *9 (S.D. Cal. Nov. 9, 2012) (“The Court agrees with the *Cyclobenzaprine Hydrochloride* opinion. Therefore, Apple and LG do not need to present evidence showing that the inventors intentionally concealed the better mode.”).

³⁴⁹ *See In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1085-86 (Fed. Cir. 2012); *U.S. Gypsum Co. v. Nat’l Gypsum Co.*, 74 F.3d 1209, 1215-16 (Fed. Cir. 1996).

³⁵⁰ *See* 35 U.S.C. § 112.

³⁵¹ Lee Petherbridge & Jason Rantanen, *The Pseudo-Elimination of Best Mode: Worst Possible Choice?*, 59 UCLA L. REV. DISCOURSE 170, 171 (2012) (noting that pre-AIA, courts were required to declare patents invalid where applicants knew of best mode and failed to disclose it); Brian J. Love & Christopher B. Seaman, *Best Mode Trade Secrets*, 15 YALE J.L. & TECH. 1, 7 (2012) (noting that “the primary means of enforcing best mode was in litigation”).

³⁵² *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1087 (Fed. Cir. 2012); *AllVoice Computing PLC v. Nuance Commc’ns, Inc.*, 504 F.3d 1236, 1240 (Fed. Cir. 2007).

³⁵³ *Bayer AG v. Schein Pharms., Inc.*, 301 F.3d 1306, 1312 (Fed. Cir. 2002).

³⁵⁴ *See Anvik Corp. v. Nikon Precision, Inc.*, Nos. 2012-1320, 2012-1321, 2012-1322, 2012-1323, 2012-1324, 2012-1325, 2012-1326, 2012-1327, 2012-1328, 2012-1329, 2013 WL 1165292, at *1 (Fed. Cir. Mar. 22, 2013).

³⁵⁵ *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1084 (Fed. Cir. 2012); *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563, 1566-67 (Fed. Cir. 1996).

³⁵⁶ *Christianson v. Colt Indus. Operating Corp.*, 870 F.2d 1292, 1302 n.8 (7th Cir. 1989) (“[T]he best mode requirement is intended to allow the public to compete fairly with the patentee following the expiration of the patents.”).

³⁵⁷ Matthew H. Solomson, *Patently Confusing: The Federal Circuit’s Inconsistent Treatment of Claim Scope as a Limit on the Best Mode Disclosure Requirement*, 45 IDEA 383, 384 (2005) (“The purpose of the statutory disclosure requirements, in general, and the best mode requirement, in particular, is to compensate the public for the cost of the monopoly conferred on a patentee.”); *Eli Lilly & Co. v. Barr Labs. Inc.*, 251 F.3d 955, 963 (Fed. Cir. 2011) (“The best mode requirement creates a bargained-for exchange by which a patentee obtains the right to exclude others from practicing the claimed invention for a

certain time period, and the public receives knowledge of the preferred embodiments for practicing the claimed invention.”). Cf. Lee Petherbridge & Jason Rantanen, *In Memoriam Best Mode*, 64 STAN. L. REV. ONLINE 125, 126 (2012) (describing the policy purpose of the best mode requirement as “something of an enigma”).

³⁵⁸ Wesley D. Markham, *Is Best Mode the Worst?: Dueling Arguments, Empirical Analysis, and Recommendations for Reform*, 51 IDEA 129, 131 (2011).

³⁵⁹ Ryan Vacca, *Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?*, 75 ALB. L. REV. 279, 288 (2011-12).

³⁶⁰ Before the AIA was enacted, members of Congress and testifying witnesses repeatedly complained about the high cost associated with best mode determinations. See Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 582 (2012).

³⁶¹ Lisa Larrimore Ouellette, *Do Patents Disclose Useful Information?*, 25 HARV. J.L. & TECH. 531, 553 (2012) (noting that best mode is not imposed in Europe); Donald S. Chisum, *Best Mode Concealment and Inequitable Conduct in Patent Procurement: A Nutshell, a Review of Recent Federal Circuit Cases and a Plea for Modest Reform*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 277, 279 (1997).

³⁶² NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES, *A PATENT SYSTEM FOR THE 21ST CENTURY* 121 (Stephen A. Merrill et al. eds., 2004) (noting that only the U.S. has a best mode requirement and characterizing it as an “unusual additional requirement”); Lee Petherbridge & Jason Rantanen, *The Pseudo-Elimination of Best Mode: Worst Possible Choice?*, 59 UCLA L. REV. DISCOURSE 170, 171 (2012) (“Perhaps the most common argument for eliminating best mode was that it disadvantaged foreign inventors.”).

³⁶³ See Matthew H. Solomson, *Patently Confusing: The Federal Circuit’s Inconsistent Treatment of Claim Scope as a Limit on the Best Mode Disclosure Requirement*, 45 IDEA 383, 420 (2005) (“[T]he Federal Circuit’s best mode decisions cannot be explained by a consistent set of principles.”); Steven B. Walmsley, *Best Mode: A Plea to Repair or Sacrifice this Broken Requirement of United States Patent Law*, 9 MICH. J. TELECOMM. & TECH. L. REV. 125, 153 (2002) (criticizing best mode on basis that courts have used seven different standards for assessing the disclosure required to comply with the obligation).

³⁶⁴ Brian J. Love & Christopher B. Seaman, *Best Mode Trade Secrets*, 15 YALE J.L. & TECH. 1, 19 (2012).

³⁶⁵ Wesley D. Markham, *Is Best Mode the Worst?: Dueling Arguments, Empirical Analysis, and Recommendations for Reform*, 51 IDEA 129, 142-43 (2011) (noting that the hypothesized incremental cost of best mode cannot be disentangled from other variables that affect the same cost).

³⁶⁶ Brian J. Love & Christopher B. Seaman, *Best Mode Trade Secrets*, 15 YALE J.L. & TECH. 1, 16 (2012).

³⁶⁷ Dale L. Carlson, Katarzyna Przychodzen & Petra Scamborova, *Patent Linchpin for the 21st Century?—Best Mode Revisited*, 45 IDEA 267, 283-85 (2005). The authors refer to the assertion that only the U.S. imposes a best mode requirement as a “common misconception.” *Id.* at 281.

³⁶⁸ Andrew R. Shores, Comment, *Changes to the Best Mode Requirement in the Leahy-Smith America Invents Act: Why Congress Got it Right*, 34 CAMPBELL L. REV. 733, 745 (2012).

³⁶⁹ 35 U.S.C. § 112(a), amended by Leahy-Smith America Invents Act § 4.

³⁷⁰ 35 U.S.C. § 282(b)(3)(A).

³⁷¹ Brian J. Love & Christopher B. Seaman, *Best Mode Trade Secrets*, 15 YALE J.L. & TECH. 1, 8 (2012). Cf. Joe Matal, *A Guide to the Legislative History of the America Invents Act: Part II of II*, 21 FED. CIR. B.J. 539, 584 (2012) (“The legislative history provides no explanation for Congress’s failure to simply repeal the best-mode requirement entirely. Nor is one apparent.”).

³⁷² See *Consolidated Alum. Corp. v. Foseco Int’l, Inc.*, 910 F.2d 804, 808 (Fed. Cir. 1990) (holding that failure to disclose best mode is inherently material and “reaches the minimum level of materiality necessary for a finding of inequitable conduct.”); Donald S. Chisum, *Best Mode Concealment and Inequitable Conduct in Patent Procurement: A Nutshell, a Review of Recent Federal Circuit Cases and a Plea for Modest Reform*, 13 SANTA CLARA COMPUTER & HIGH TECH. L.J. 277, 281 (1997). See also *Responsive Innovations, LLC v. Holtzbrinck Pub., LLC*, No. 4:08CV1184, 2012 WL 5948701, at *15 (N.D. Ohio Nov. 28, 2012) (noting that the failure to disclose best mode will not constitute inequitable conduct in every case); *Old Town Canoe Co. v. Confluence Holdings Corp.*, 448 F.3d 1309, 1322 (Fed. Cir. 2006) (confirming that failure to disclose best mode is inherently material, but finding no intent to deceive PTO and therefore no inequitable conduct).

³⁷³ Ryan Vacca, *Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?*, 75 ALB. L. REV. 279, 293 & n.108 (2011-12).

³⁷⁴ See Lee Petherbridge & Jason Rantanen, *In Memoriam Best Mode*, 64 STAN. L. REV. ONLINE 125, 126-27 (2012) (concluding that the AIA “has, as a practical matter, effectively eliminated the best mode requirement from patent law”). But cf. Robert Harkins, *How the Leahy-Smith America Invents Act (AIA) is Changing Patent Protection and Litigation*, ASPATORE, 2013 WL 571334, at *10 (Jan. 2013) (“At least theoretically, because it is still a requirement for patentability, if a defendant can show that the patent applicant intentionally withheld the best mode, that may constitute inequitable conduct. It remains to be seen how courts will handle that argument, since failing to disclose best mode is not a typical fraud on the USPTO.”); Wesley D. Markham, *Is Best Mode the Worst?: Dueling Arguments, Empirical Analysis, and Recommendations*

for Reform, 51 IDEA 129, 156 (2011) (“In effect, eliminating best mode as a defense in patent litigation would fold any best mode related issues that arise into a court’s general inequitable conduct analysis.”)

³⁷⁵ See *Bayer A.G. v. Schein Pharms.*, 301 F.3d 1306, 1316 (Fed. Cir. 2002) (“In the history of this court and our predecessor courts we have held claims invalid for failure to satisfy the best mode requirement on only seven occasions.”); David A. Kelly, *The Impact of the America Invents Act and Recent Court Decisions on Patent Law Practitioners and Their Clients*, ASPATORE, 2012 WL 663449, at *3 (Nov. 2012) (“[F]ew patents over the past twenty years have been invalidated on best mode grounds.”); Wesley D. Markham, *Is Best Mode the Worst?: Dueling Arguments, Empirical Analysis, and Recommendations for Reform*, 51 IDEA 129, 149-52 (2011) (concluding that (a) the best mode defense succeeded in district court only 18% of the time during the period 2005-2009; (b) the Federal Circuit affirmed a district court’s holding that there was a best mode violation only once during the period 2002-2009); and (c) the BPAI never affirmed in a published decision an examiner’s best mode rejection during the period 1981-2009).

³⁷⁶ Robert A. Armitage, *Understanding the America Invents Act and its Implications for Patenting*, 40 AIPLA Q.J. 1 (2012).

³⁷⁷ Brian J. Love & Christopher B. Seaman, *Best Mode Trade Secrets*, 15 YALE J.L. & TECH. 1, 21 (2012).

³⁷⁸ *Id.*

³⁷⁹ John Villasenor, *The Comprehensive Patent Reform of 2011: Navigating the Leahy-Smith America Invents Act*, 184 BROOKINGS POLICY BRIEF 1, 4 (Sept. 2011); available at http://www.brookings.edu/~media/research/files/papers/2011/9/patents%20villasenor/09_patents_villasenor.pdf.

³⁸⁰ Ryan Vacca, *Patent Reform and Best Mode: A Signal to the Patent Office or a Step Toward Elimination?*, 75 ALB. L. REV. 279, 294 (2011-12); Andrew R. Shores, Comment, *Changes to the Best Mode Requirement in the Leahy-Smith America Invents Act: Why Congress Got it Right*, 34 CAMPBELL L. REV. 733, 738-39 (2012) (“[T]he PTO’s current examination procedures make enforcement of the best mode requirement during the examination virtually impossible.”).

³⁸¹ See MANUAL OF PATENT EXAMINING PROCEDURE § 2165.03 (8th ed. 2001, 9th rev. 2012), available at <http://www.uspto.gov/web/offices/pac/mpep/mpep-2100.pdf> (“The information that is necessary to form the basis for a rejection based on the failure to set forth the best mode is rarely accessible to the examiner. . .”).

³⁸² *Wahl Instru., Inc. v. Acvious, Inc.*, 950 F.2d 1575 (Fed. Cir. 1991); *Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200 (Fed. Cir. 1991).

³⁸³ Lee Petherbridge & Jason Rantanen, *In Memoriam Best Mode*, 64 STAN. L. REV. ONLINE 125, 129 (2012).