

have someone pay him. It may be and probably is true that Walter Sr. wanted Orlando dead because he "knew too much." That does not help his case, because in the murder-for-hire context of § 1958 it is the motive of the murderers that is relevant to whether the murder occurred in return for a promise to pay something of pecuniary value. Because there was sufficient evidence for the jury to infer that Antonio Sr. and Antonio Jr. killed Orlando for money which Walter Sr. agreed to pay them from the OMC insurance proceeds, the murder-for-hire convictions of Antonio Sr., Antonio Jr., and Walter Sr. are due to be affirmed.

V. CONCLUSION

We AFFIRM all the convictions of all the defendants. We VACATE Walter Jr.'s sentence and REMAND to the district court for resentencing consistent with this opinion.



**NOBELPHARMA AB,
Plaintiff/Counterclaim Defendant-
Appellant,**

and

**Nobelpharma USA, Inc., Counterclaim
Defendant-Appellant,**

and

**Per Ingvar Branemark and Institute for
Applied Biotechnology, Counterclaim
Defendants,**

v.

**IMPLANT INNOVATIONS, INC.,
Defendant Counterclaimant-
Appellee.**

No. 96-1463.

**United States Court of Appeals,
Federal Circuit.**

March 20, 1998.

**Rehearing Denied; Suggestion for
Rehearing In Banc Declined
April 29, 1998.**

Patent assignee brought action for infringement of dental implant patent, and al-

leged infringer counterclaimed for antitrust violations. The United States District Court for the Northern District of Illinois, Brian Barnett Duff, J., 930 F.Supp. 1241, held that patent was invalid, defendant did not infringe patent, and assignee was not entitled to judgment as matter of law (JMOL) or new trial following jury verdict in favor of defendant on counterclaim. Assignee appealed. The Court of Appeals initially affirmed in part and reversed in part, but, on reconsideration, and after submitting "choice of circuit" law issue to in banc court, the Court of Appeals, Lourie, Circuit Judge, held that: (1) patent was invalid for failure to disclose best mode of practicing invention; (2) grant of JMOL on invalidity issue did not violate due process; (3) whether conduct in procuring or enforcing patent is sufficient to strip patentee of its immunity from antitrust laws is issue to be decided as question of Federal Circuit law, overruling *Cygnus*, 92 F.3d 1153; *Loctite*, 781 F.2d 861; *Atari*, 747 F.2d 1422; (4) finding of fraud that exposes patentee to antitrust liability requires clear intent to deceive patent examiner and thereby cause Patent and Trademark Office (PTO) to grant invalid patent; (5) antitrust liability may be based on either fraud or claim that patentee's suit is "sham"; and (6) assignee was not immune from antitrust liability.

Affirmed.

Opinion, 129 F.3d 1463, withdrawn.

1. Patents ⇌98

Patent on dental implant was invalid for failure to disclose best mode of practicing invention, where inventor possessed preferred method of making claimed invention at time of application and failed to disclose it sufficiently to enable those skilled in the art to practice that method. 35 U.S.C.A. § 112.

2. Patents ⇌312(1.2)

Alleged patent infringer who asserts that patent is invalid has burden of establishing by clear and convincing evidence facts supporting conclusion that patent is invalid.

3. Patents ⇐98

Determining whether patent fails to comply with best mode requirement and is thus invalid involves two factual inquiries: first, fact-finder must determine whether at time applicant filed patent, he or she had best mode of practicing invention, which is subjective determination, and, second, if inventor had best mode of practicing invention, fact-finder must determine whether best mode was disclosed in sufficient detail to allow skilled artisan to practice it without undue experimentation, which is objective determination. 35 U.S.C.A. § 112.

4. Federal Civil Procedure ⇐2142.1, 2152

Grant of judgment as matter of law (JMOL) in favor of party bearing burden of proof may be granted only where movant has established its case by evidence that jury would not be at liberty to disbelieve, and only reasonable conclusion is in movant's favor. Fed.Rules Civ.Proc.Rule 50(a), 28 U.S.C.A.

5. Federal Civil Procedure ⇐2142.1

In unusual cases, admission made by plaintiff's witness can be sufficient to support entry of judgment as matter of law (JMOL) in favor of defendant after close of plaintiff's case-in-chief, even where defendant bears burden of proof on decided issue. Fed.Rules Civ.Proc.Rule 50(a), 28 U.S.C.A.

6. Patents ⇐314(6)

Grant of alleged patent infringer's motion for judgment as matter of law (JMOL) on issue of patent invalidity, at close of patent assignee's case-in-chief in infringement action, was not violation of assignee's due process rights, as assignee was not unfairly surprised by motion and had ample opportunity to oppose motion. U.S.C.A. Const. Amend. 5; Fed.Rules Civ.Proc.Rule 50(a), 28 U.S.C.A.

7. Federal Courts ⇐776, 798, 801

Court of Appeals reviews de novo district court's denial of posttrial motion for judgment as matter of law (JMOL) by reapplying standard applicable at district court and viewing evidence in light most favorable to nonmoving party. Fed.Rules Civ.Proc. Rule 50(b), 28 U.S.C.A.

8. Federal Courts ⇐825.1, 891

Court of Appeals reviews district court's denial of motion for a new trial for abuse of discretion and may reverse district court if, among other things, district court prejudiced movant's substantive rights by abusing its discretion in admitting or excluding evidence or by giving legally erroneous jury instructions.

9. Courts ⇐96(5)

When reviewing district court's judgment involving federal antitrust law, Court of Appeals for the Federal Circuit is guided by law of regional circuit in which district court sits, although Court applies its own law, not regional circuit law, to resolve issues that clearly involve its exclusive jurisdiction.

10. Monopolies ⇐12(15)

Whether conduct in procuring or enforcing patent is sufficient to strip patentee of its immunity from antitrust laws, along with all antitrust claims premised on bringing of patent infringement suit, are within exclusive jurisdiction of Court of Appeals for the Federal Circuit and are to be decided as question of Federal Circuit law; overruling *Cygnus*, 92 F.3d 1153; *Loctite*, 781 F.2d 861; *Atari*, 747 F.2d 1422.

11. Monopolies ⇐12(15)

Patentee who brings infringement suit may be subject to antitrust liability for anti-competitive effects of that suit if alleged infringer who asserts antitrust counterclaim proves (1) that asserted patent was obtained through knowing and willful fraud or (2) that infringement suit was mere sham to cover what was actually nothing more than attempt to interfere directly with business relationships of competitor.

12. Patents ⇐97

Inequitable conduct before Patent and Trademark Office (PTO) is lesser offense than common law fraud, and includes types of conduct less serious than "knowing and willful" fraud.

13. Patents ⇐97

Inequitable conduct is equitable defense in patent infringement action and serves as shield, while more serious finding of fraud

potentially exposes patentee to antitrust liability and thus serves as sword.

antitrust defendant's subjective motivation is immaterial.

14. Monopolies ⇐12(15)

If evidence shows that asserted patent was acquired by means of either fraudulent misrepresentation or fraudulent omission and that party asserting patent was aware of fraud when bringing suit, such conduct can expose patentee to liability under antitrust laws, so long as necessary additional elements of antitrust violation are established.

15. Monopolies ⇐12(15)

To find fraud that warrants exposing patentee to liability under antitrust laws, patentee's misrepresentation or omission must evidence clear intent to deceive patent examiner and thereby cause Patent and Trademark Office (PTO) to grant invalid patent, while conclusion of inequitable conduct may be based on evidence of lesser misrepresentation or omission, such as omission of reference that would merely have been considered important to patentability of claim by reasonable examiner.

16. Monopolies ⇐12(15)

Mere failure to cite reference to Patent and Trademark Office (PTO) will not suffice to establish fraud that exposes patentee to liability under antitrust laws.

17. Monopolies ⇐12(15)

If alleged patent infringer establishes fraud that warrants exposing patentee to liability under antitrust laws, such liability can be imposed without additional inquiry into whether patentee's infringement action is "sham."

18. Monopolies ⇐12(15)

Irrespective of patent applicant's conduct before Patent and Trademark Office (PTO), antitrust claim against patentee can be based on allegation that suit is baseless, and, to prove that suit is within *Noerr's* "sham" exception to immunity, antitrust plaintiff must prove that suit was both objectively baseless and subjectively motivated by desire to impose collateral, anticompetitive injury rather than to obtain justifiable legal remedy; if suit is not objectively baseless,

19. Monopolies ⇐12(15)

Assignee of patent for dental implant was not immune from antitrust liability for its act of bringing infringement action against alleged infringer, in view of substantial evidence that book which was material to subject matter of patent was fraudulently kept from Patent and Trademark Office (PTO) during patent prosecution and that assignee had knowledge of patent applicants' fraud.

Donald R. Dunner, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P., Washington, DC, argued, for plaintiff/counterclaim defendant-appellant and counterclaim defendant-appellant. With him on the brief were Robert D. Bajefsky and David A. Manspeizer. Of counsel on the brief were Robert A. Bourque, Kathleen M. Scanlon, and Lawrence M. Young, Simpson, Thacher & Bartlett, New York City, and Alan I. Becker, Burditt & Radzius, Chartered, Chicago, IL.

D. Dennis Allegretti, Burns & Levinson, LLP, Boston, MA, argued, for defendant counterclaimant-appellee. With him on the brief were Stephen G. Rudisill, Arnold, White & Durkee, and Edward L. Foote and Peter C. McCabe, III, Winston & Strawn, Chicago, IL.

Before RICH, PLAGER, and LOURIE,
Circuit Judges.

LOURIE, Circuit Judge.

Nobelpharma AB and Nobelpharma USA, Inc. (collectively, NP) appeal from the judgment of the United States District Court for the Northern District of Illinois holding that (1) U.S. Patent 4,330,891 is invalid under 35 U.S.C. § 112, ¶ 1 (1994), for failure to disclose the best mode of carrying out the invention, (2) Implant Innovations, Inc. (3I) did not infringe the '891 patent, and (3) NP was not entitled to JMOL or, in the alternative, a new trial following the jury verdict in favor of 3I on its antitrust counterclaim against NP, Dr. Per-Ingvar Branemark, and the Institute for Applied Biotechnology. *See No-*

belpharma AB v. Implant Innovations, Inc., 930 F.Supp. 1241 (N.D.Ill.1996). We conclude that the district court did not err in granting judgment that the patent is invalid as a matter of law at the close of NP's case-in-chief, and that it did not err in denying NP's motion for JMOL or a new trial on the antitrust counterclaim. Accordingly, the decision of the district court is affirmed.¹

BACKGROUND

Drs. Branemark and Bo-Thureson of Ekenstam are the named inventors on the '891 patent, the application for which was filed in 1980 and claimed priority from a Swedish patent application that was filed in 1979. The patent claims "an element intended for implantation into bone tissue." This "element," when used as part of a dental implant, is placed directly into the jawbone where it acts as a tooth root substitute. The implants described and claimed in the patent are preferably made of titanium and have a network of particularly-sized and particularly-spaced "micropits." These micropits, which have diameters in the range of about 10 to 1000 nanometers or, preferably, 10 to 300 nanometers, allow a secure connection to form between the implant and growing bone tissue through a process called "osseointegration."

Branemark is also one of the authors of a book published in 1977, entitled "Osseointegrated Implants in the Treatment of the Edentulous Jaw Experienced from a 10-Year Period" (hereinafter "the 1977 Book"). As its title suggests, this book describes a decade-long clinical evaluation of patients who had received dental implants. The 1977 Book includes a single page containing four scanning electron micrographs (SEMs) of titanium implants that exhibit micropits. The caption describing these SEMs reads, in part: "Irregularities are produced during manufacturing in order to increase the retention of the implants within the mineralized tissue." 3I determined, based on measure-

ments and calculations that it presented to the trial court, that the micropits shown in the 1977 Book have diameters within the range claimed in the '891 patent. However, the 1977 Book does not specifically refer to "micropits."

In preparing to file the Swedish patent application, af Ekenstam submitted a draft written description of the invention to the inventors' Swedish patent agent, Mr. Barnieske. This draft referred to the 1977 Book in the following translated passage:

In ten years of material pertaining to titanium jaw implants in man, Branemark *et al.* [in the 1977 Book] have shown that a very high frequency of healing, as stated above, can be achieved by utilizing a carefully developed surgical technique and adequately produced implants.

However, Barnieske deleted all reference to the 1977 Book from the patent application that was ultimately filed in Sweden. Similarly, the 1977 Book is not mentioned in the U.S. patent application filed by Barnieske on behalf of Branemark and af Ekenstam.

In June 1980, while the U.S. patent application was pending, Branemark entered into an exclusive license agreement with NP covering the claimed technology.² Barnieske kept NP informed of the prosecution of the U.S. patent application and received assistance from NP's U.S. patent agent. The '891 patent issued in 1982; NP has since asserted it in at least three patent infringement suits.

In July 1991, while Branemark was a member of NP's Board of Directors, NP brought this suit alleging that certain of 3I's dental implants infringed the '891 patent. 3I defended on the grounds of invalidity, unenforceability, and non-infringement. 3I also brought an antitrust counterclaim, based in part on the assertion that NP attempted to enforce a patent that it knew was invalid and unenforceable. Specifically, 3I alleged that when NP brought suit, NP was aware that the inventors' intentional failure to disclose

1. Following the filing of a combined petition for rehearing and suggestion for rehearing in banc, the panel has reconsidered and modified its decision in this case. Accordingly, the earlier-issued decision is hereby vacated and the opinion, reported at 129 F.3d 1463, is hereby withdrawn.

2. The district court indicated that Branemark and af Ekenstam assigned the '891 patent to NP prior to NP's bringing this suit. 3I has not challenged NP's standing to bring this patent infringement claim without joining Branemark and af Ekenstam.

the 1977 Book to the U.S. Patent and Trademark Office (PTO) would render the '891 patent unenforceable.

During its case-in-chief, NP introduced portions of a deposition of Branemark that apparently was conducted several years before this trial began in connection with a lawsuit involving neither NP nor 3I. NP also introduced into evidence portions of that deposition that were counter-designated for introduction by 3I. Branemark's deposition testimony included his admissions that one "could consider" the procedure used to manufacture the micropitted surface a trade secret, and "it might be" that there are details "important to making" the micropitted surface that are not disclosed in the patent. At the close of NP's case-in-chief, the district court granted 3I's motion for JMOL of invalidity and non-infringement. The court held that the patent was invalid under § 112, ¶ 1, for failure to disclose the best mode and that NP had failed to prove infringement. The court then denied NP's motion for JMOL on 3I's antitrust counterclaim, proceeded to inform the jury that the court had held the patent invalid, and allowed 3I to present the counterclaim to the jury.

After trial limited to the antitrust issue, the jury found in special verdicts, *inter alia*, that 3I had proven that (1) "the inventors or their agents or attorneys obtained the '891 patent through fraud," (2) NP "had knowledge that the '891 patent was obtained by fraud at the time this action was commenced against 3I," and (3) NP "brought this lawsuit against 3I knowing that the '891 patent was either invalid or unenforceable and with the intent of interfering directly with 3I's ability to compete in the relevant market." The jury awarded 3I approximately \$3.3 million in compensatory damages, an amount the court trebled pursuant to section 4 of the Clayton Act, 15 U.S.C. § 15 (1994). The court declined to rule on whether the patent was unenforceable for inequitable conduct, concluding that its judgment of invalidity rendered the issue of enforceability moot. *Nobelpharma AB v. Implant Innovations, Inc.*, 875 F.Supp. 481, 34 USPQ2d 1090 (N.D.Ill. 1995).

The court then denied NP's renewed motion for JMOL on the counterclaim or, in the alternative, for a new trial on both the counterclaim and the infringement claim. *Nobelpharma AB*, 930 F.Supp. at 1246. In denying NP's post-verdict motion for a new trial on the issue of infringement, the district court again concluded that the patent was invalid for failure to disclose the best mode. *Id.* at 1247-49. The court also concluded that NP was not entitled to JMOL on the counterclaim because, *inter alia*, "NP, as the assignee of the patent, maintained and enforced the patent with knowledge of the patent's fraudulent derivation." *Id.* at 1257. The court denied NP's motion for a new trial on the counterclaim, holding, *inter alia*, that it did not err in its evidentiary rulings or in refusing to instruct the jury that in order to impose antitrust liability against NP, it must find NP's lawsuit "objectively baseless." *Id.* at 1264.

NP appealed to this court, challenging the district court's grant of 3I's motion for JMOL of invalidity and non-infringement and its denial of the post-verdict motion for JMOL or a new trial. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1) (1994).

DISCUSSION

A. Invalidity

[1] At the close of NP's case-in-chief, the district court granted 3I's motion for judgment of invalidity under § 112, ¶ 1, as a matter of law for failure to disclose the best mode of practicing the invention. NP then filed a motion for reconsideration, which was denied, in order to reopen the evidence and offer proof regarding its compliance with § 112, ¶ 1. After the jury returned its verdict in favor of 3I on its antitrust counterclaim, NP moved for a new trial, again arguing that the court had erred in granting 3I's motion for JMOL. In reaffirming its decision to grant 3I's motion for JMOL, the district court held that Branemark's own testimony "demonstrates that when [he] filed his patent application, he contemplated a best mode of practicing his invention, but his disclosures were inadequate to enable one skilled in the art to practice that best mode." 930 F.Supp. at 1248. The district court also explicitly

noted that its decision was not based on Branemark's purported "non-disclosure" of NP's later-developed manufacturing procedure. *Id.*

On appeal, NP again argues that the district court erred in granting JMOL on the invalidity issue because in doing so the court drew improper, unsupported inferences against NP and erroneously imposed on NP the burden of proving validity. NP also argues that the grant of JMOL denied it due process because the court had mandated a "natural order of proof" at trial and thus had effectively barred NP from introducing any evidence to show that it had satisfied the best mode requirement during its case-in-chief.

In response, 3I argues that Branemark's own unequivocal admissions indicate that he had developed and tested a preferred method of making the claimed implants when the patent application was filed. 3I also argues that Branemark admitted that the patent does not contain a disclosure adequate to enable one of ordinary skill in the art to practice this method. Finally, 3I argues that NP was not denied due process because NP had sufficient opportunity to offer evidence in opposition to 3I's motion for JMOL of invalidity and failed to do so. We agree with 3I that the court did not err in its grant of the motion for JMOL and therefore that the court did not err in denying NP's motion for a new trial on its infringement claim.

We review a district court's grant of a motion for JMOL under Fed.R.Civ.P. 50(a)(1) *de novo* by reapplying the standard applicable at the district court. *See Allied Colloids Inc. v. American Cyanamid Co.*, 64 F.3d 1570, 1573, 35 USPQ2d 1840, 1841 (Fed. Cir.1995). Under that standard, we examine the record in the light most favorable to the non-movant, which in this case is NP, and afford it the benefit of all reasonable inferences. *Id.* Accordingly, "[w]e may affirm only if the judgment entered was the only one possible under the controlling law." *Burroughs Wellcome Co. v. Barr Lab., Inc.*, 40 F.3d 1223, 1227, 32 USPQ2d 1915, 1919 (Fed.Cir.1994), *cert. denied*, 516 U.S. 1070, 116 S.Ct. 771 (1996) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250, 106 S.Ct.

2505, 2511, 91 L.Ed.2d 202 (1986) (prohibiting JMOL "[i]f reasonable minds could differ as to the import of the evidence.")).

Rule 50(a)(1) provides, in relevant part, that if

a party has been fully heard on an issue and there is no legally sufficient evidentiary basis for a reasonable jury to find for that party on that issue, the court may determine the issue against that party and may grant a motion for judgment as a matter of law [JMOL] against that party with respect to a claim or defense that cannot under the controlling law be maintained or defeated without a favorable finding on that issue.

Fed.R.Civ.P. 50(a). "Thus, the verdict may be directed after the plaintiff's case is presented, when it is clear that completion of the trial is unnecessary in that the only sustainable verdict could be in favor of the defendant." *Allied Colloids*, 64 F.3d at 1573, 35 USPQ2d at 1841.

[2, 3] By statute, patents are presumed to be valid. 35 U.S.C. § 282 (1994). Thus, 3I had the burden of establishing by clear and convincing evidence facts supporting the conclusion that the '891 patent is invalid. *See Transco Prods. Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 560, 32 USPQ2d 1077, 1084 (Fed.Cir.1994). The patent statute requires that a patent specification "shall set forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C. § 112, ¶1 (1994). Determining whether a patent fails to comply with the best mode requirement and is thus invalid involves two factual inquiries. First, the fact-finder must determine whether at the time an applicant filed an application for patent, he or she had a best mode of practicing the invention, which is a subjective determination. Second, if the inventor had a best mode of practicing the invention, the fact-finder must determine whether the best mode was disclosed in sufficient detail to allow a skilled artisan to practice it without undue experimentation, which is an objective determination. *See United States Gypsum Co. v. National Gypsum Co.*, 74 F.3d 1209, 1212, 37 USPQ2d 1388, 1390 (Fed.Cir.1996).

For whatever reason, NP introduced as part of its own case-in-chief all of the portions of Branemark's deposition that were counter-designated by 3I.³ These included Branemark's statements, introduced by and unchallenged by NP, that (1) "there were some minor details that were not included [in the patent] and which proved to be quite important," (2) other skilled artisans would have to be "lucky" to obtain a suitable micropitted implant "by cutting a piece of titanium at a speed less than twenty meters per minute," the cutting speed disclosed in the patent, and (3) "any of the small detailed recipes that I discussed but did not specify" in the patent "can cause you to fail to get micropitting even though you were cutting the metal at less than twenty meters per minute." The record also unambiguously indicates that when he filed his patent application, Branemark was aware that a variety of undisclosed machining parameters were critical to the production of a functional implant, *i.e.*, one that would allow for osseointegration. Moreover, the research on which the 1977 Book was based also indicates that Branemark possessed a preferred mode of making the claimed implants by the time the U.S. patent application was filed in 1980. Thus, the evidence at trial leads to only one reasonable conclusion: Branemark possessed a preferred method of making the claimed invention and failed to disclose it sufficiently to enable those skilled in the art to practice that method.

[4, 5] Normally, evidence presented by a patentee-plaintiff will not support a grant of a JMOL invalidating a patent. That is because the burden is on an accused infringer to show by clear and convincing evidence facts supporting the conclusion that the patent is invalid. *See generally* 9A Charles Alan Wright & Arthur R. Miller, *Federal Practice and Procedure* § 2535, at 325 (2d ed. 1994) ("[C]ourts often caution that granting a [JMOL] for the party bearing the burden of proof is reserved for extreme cases."). Accordingly, grant of JMOL in favor of a party bearing the burden of proof

3. NP suggests that it introduced the portions counter-designated "as a matter of convenience and efficiency" during its own case-in-chief. At oral argument, NP also suggested that it intro-

duced these portions "as a courtesy" to 3I. While such motives are commendable, they do not change the significance and meaning of this evidence.

may be granted only where (1) the movant "has established [its] case by evidence that the jury would not be at liberty to disbelieve" and (2) "the only reasonable conclusion is in [the movant's] favor." *Hurd v. American Hoist & Derrick Co.*, 734 F.2d 495, 499 (10th Cir.1984). However, in unusual cases, an admission made by a plaintiff's witness can be sufficient to support entry of a JMOL in favor of a defendant after the close of the plaintiff's case-in-chief, even where the defendant bears the burden of proof on the decided issue. *See, e.g., Falco Lime, Inc. v. Tide Towing Co.*, 29 F.3d 362, 365-66 (8th Cir.1994) (holding that JMOL was properly granted after the close of plaintiff's case in view of the admissions of plaintiff's chief witness regarding a contract that established defendant's affirmative defense). Given Branemark's admissions, we conclude that this is one of those "extreme" cases in which it was not improper to grant JMOL in favor of a defendant on an issue regarding which it bore the burden of proof.

Contrary to NP's arguments, the district court did not draw adverse inferences against NP to support its judgment. Rather, it properly relied on a co-inventor's statements "that the jury would not be at liberty to disbelieve." *Hurd*, 734 F.2d at 499. Similarly, the district court did not place the burden of proving validity on NP; NP's own evidence was clear and convincing that the patent is invalid. This evidence led to "the only reasonable conclusion." *Id.*

[6] We also agree with 3I that NP was not denied due process. When NP was confronted with 3I's motion for JMOL, it was not unfairly surprised. 3I had consistently alleged that the '891 patent was invalid under § 112, ¶ 1. Moreover, NP had an opportunity to oppose 3I's motion, but it failed to do so adequately. After the court's grant of JMOL, NP responded by offering evidence and argument only concerning NP's later-developed manufacturing procedure. However, as noted above, the district court's ultimate decision did not rely on the "non-disclo-

duced these portions "as a courtesy" to 3I. While such motives are commendable, they do not change the significance and meaning of this evidence.

sure" of NP's later-developed manufacturing processes. Likewise, in affirming the decision of the district court, we do not rely on that evidence. Rather, we rely only on the clear and convincing evidence that Brane-mark failed to disclose his best mode of practicing the claimed invention when he filed his patent application. NP failed to present any evidence or argument to undermine the import of that evidence, even though it knew that the best mode issue was before the court; it thus had ample opportunity to prepare and present evidence and argument. Whatever disadvantage NP may have suffered when the JMOL was granted was rectified by the opportunity it had after the judgment was rendered. Any error was thus harmless. NP was therefore not denied due process.

Accordingly, we affirm the judgment that the '891 patent is invalid as a matter of law under § 112, ¶ 1, for failure to disclose the best mode of practicing the invention. Because we affirm the district court's decision holding the patent invalid, we need not consider NP's arguments concerning infringement. See *B.F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72 F.3d 1577, 1583, 37 USPQ2d 1314, 1319 (Fed.Cir.1996).

B. Antitrust Liability

I.

After the jury returned its verdict in favor of 3I on its counterclaim that NP violated the antitrust laws by bringing suit against 3I, the court denied NP's motion for JMOL or, in the alternative, for a new trial under Fed. R.Civ.P. 50(b). In denying NP's motion, the district court held that the verdict was supported, *inter alia*, by the jury's factual findings that the patent was obtained through "NP's knowing fraud upon, or intentional misrepresentations to, the [PTO]" and that "NP maintained and enforced the patent with knowledge of the patent's fraudulent derivation" and with the intent of interfering directly with 3I's ability to compete in the relevant market. 930 F.Supp. at 1257. The court further held, based on these findings, that the jury need not have considered whether NP's suit was "objectively baseless." *Id.* at 1264.

In support of its position that the court erred in denying its renewed motion for JMOL, NP argues that there was a lack of substantial evidence to support the jury's findings that the patent was obtained through "fraud" and that NP was aware of that conduct when it brought suit against 3I. NP also argues that these findings, even if supported by substantial evidence, do not provide a legal basis for the imposition of antitrust liability. Finally, NP argues that it is entitled to a new trial because the court failed to instruct the jury that bringing a lawsuit cannot be the basis for antitrust liability if that suit is not "objectively baseless."

3I responds that the jury's explicit findings that the patent was procured through fraudulent conduct and that NP knew of that conduct when it brought suit were supported by substantial evidence, and that these findings provide a sound basis for imposing antitrust liability on NP. Responding to NP's arguments for a new trial, 3I argues that an "objectively reasonable" or "objectively baseless" jury instruction was not necessary because the district court required that 3I prove that NP had actual knowledge of the fraud when it brought suit and that even if such an instruction had been necessary, NP waived this argument by failing to propose a jury instruction relating to an "objectively baseless" standard. We agree with 3I that the court did not err in denying NP's motion for JMOL because substantial evidence supports the jury's findings that the patent was fraudulently obtained and that NP sought to enforce the patent with knowledge of its fraudulent origin. Similarly, the court did not err in denying NP's motion for a new trial because NP was not prejudiced by any legally erroneous jury instruction.

[7] We review a district court's denial of a post-trial motion for JMOL under Fed. R.Civ.P. 50(b) *de novo* by reapplying the standard applicable at the district court. Thus, this court

must determine whether there exists evidence of record upon which a jury might properly have returned a verdict in [the non-movant's] favor when the correct legal standard is applied. If there is not, [the

Cite as 141 F.3d 1059 (Fed. Cir. 1998)

movant] was entitled to have the question removed from the jury and decided as a matter of law.

Markman v. Westview Instruments, Inc., 52 F.3d 967, 975, 34 USPQ2d 1321, 1326 (Fed. Cir.1995) (in banc) (quoting *Jamesbury Corp. v. Litton Indus. Prods., Inc.*, 756 F.2d 1556, 1560, 225 USPQ 253, 257 (Fed.Cir.1985)), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577, 38 USPQ2d 1461 (1996); *see also Deimer v. Cincinnati Sub-Zero Prods., Inc.*, 58 F.3d 341, 343 (7th Cir.1995); *Shearing v. Iolab Corp.*, 975 F.2d 1541, 1544, 24 USPQ2d 1133, 1136 (Fed.Cir.1992) ("On appeal after denial of a motion for JNOV, the appellant must prove that the record lacks substantial evidence to support the jury's verdict."). In applying this standard, we must also "view the evidence in the light most favorable to the nonmoving party," which in this case is 3I. *Deimer*, 58 F.3d at 343.

[8] We review a district court's denial of a motion for a new trial for an abuse of discretion. *Railroad Dynamics, Inc. v. A. Stucki Co.*, 727 F.2d 1506, 1512, 220 USPQ 929, 936 (Fed.Cir.1984). Accordingly, we may reverse the district court if, *inter alia*, the district court prejudiced NP's substantive rights by abusing its discretion in admitting or excluding evidence, *see Munoz v. Strahm Farms, Inc.*, 69 F.3d 501, 36 USPQ2d 1499, 1501 (Fed.Cir.1995), or by giving legally erroneous jury instructions, *see Jamesbury*, 756 F.2d at 1558, 225 USPQ at 255. *See generally* 12 *McLaughlin et al., Moore's Federal Practice* § 59.20 to 59.25, at 59-27 to 59-47 (3d ed.1997).

II.

[9] As a general proposition, when reviewing a district court's judgment involving federal antitrust law, we are guided by the law of the regional circuit in which that dis-

trict court sits. *See Loctite Corp. v. Ultra-seal Ltd.*, 781 F.2d 861, 875, 228 USPQ 90, 99 (Fed.Cir.1985) ("We must approach a federal antitrust claim as would a court of appeals in the circuit of the district court whose judgment we review.") (citing *Atari, Inc. v. JS & A Group, Inc.*, 747 F.2d 1422, 1438-40, 223 USPQ 1074, 1086-87 (Fed.Cir.1984) (in banc)); *see also Cygnus Therapeutics Sys. v. ALZA Corp.*, 92 F.3d 1153, 1161, 39 USPQ2d 1666, 1672 (Fed.Cir.1996) (citing *Loctite*). However, we apply our own law, not regional circuit law, to resolve issues that clearly involve our exclusive jurisdiction. *See Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1574-75, 37 USPQ2d 1626, 1631 (Fed.Cir.1996) (holding as a matter of Federal Circuit law that an allegation of inequitable conduct in the prosecution of a patent application cannot support a federal unfair competition claim) (citing *Chrysler Motors Corp. v. Auto Body Panels, Inc.*, 908 F.2d 951, 953 15 USPQ2d 1469, 1470 (Fed. Cir.1990)). *See generally Biodex Corp. v. Loredan Biomedical, Inc.*, 946 F.2d 850, 855-58, 20 USPQ2d 1252, 1256-59 (Fed.Cir.1991).

[10] Whether conduct in the prosecution of a patent is sufficient to strip a patentee of its immunity from the antitrust laws is one of those issues that clearly involves our exclusive jurisdiction over patent cases. It follows that whether a patent infringement suit is based on a fraudulently procured patent impacts our exclusive jurisdiction.

Moreover, an antitrust claim premised on stripping a patentee of its immunity from the antitrust laws is typically raised as a counterclaim by a defendant in a patent infringement suit. *See Argus Chem. Corp. v. Fibre Glass-Evercoat Co.*, 812 F.2d 1381, 1383, 1 USPQ2d 1971, 1973 (Fed.Cir.1987) ("*Walker Process*, like the present case, was a patent infringement suit in which an accused infringer filed an antitrust counterclaim.")⁴

4. *Compare Tank Insulation Int'l, Inc. v. Insult-herm, Inc.*, 104 F.3d 83, 88 & n. 5, 41 USPQ2d 1545, 1549 & n. 5 (5th Cir.), *cert. denied*, — U.S. —, 118 S.Ct. 265, 139 L.Ed.2d 191 (1997), and *Hydranautics v. FilmTec Corp.*, 70 F.3d 533, 536-37, 36 USPQ2d 1773, 1775 (9th Cir.1995) ("A claim that patent infringement litigation violated an antitrust statute is a permissive, not a mandatory, counterclaim in a patent infringement case,

and is not barred in a subsequent suit by failure to raise it in the infringement suit." (citing *Mercoïd Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661, 669-71, 64 S.Ct. 268, 273-74, 88 L.Ed. 376, 60 USPQ 21, 26-27 (1944))) with *Burlington Indus., Inc. v. Milliken & Co.*, 690 F.2d 380, 389, 217 USPQ 662, 668 (4th Cir.1982) (stating that *Mercoïd* "has been read narrowly in this respect, and its continuing validity is open to serious

Because most cases involving these issues will therefore be appealed to this court, we conclude that we should decide these issues as a matter of Federal Circuit law, rather than rely on various regional precedents. We arrive at this conclusion because we are in the best position to create a uniform body of federal law on this subject and thereby avoid the "danger of confusion [that] might be enhanced if this court were to embark on an effort to interpret the laws" of the regional circuits. *Forman v. United States*, 767 F.2d 875, 880 n. 6 (Fed.Cir.1985). Accordingly, we hereby change our precedent and hold that whether conduct in procuring or enforcing a patent is sufficient to strip a patentee of its immunity from the antitrust laws is to be decided as a question of Federal Circuit law.⁵ This conclusion applies equally to all antitrust claims premised on the bringing of a patent infringement suit. Therefore, *Cygnus*, 92 F.3d at 1161, 39 USPQ2d at 1672, *Loctite*, 781 F.2d at 875, 228 USPQ at 99, and *Atari*, 747 F.2d at 1438-40, 223 USPQ at 1086-87, are expressly overruled to the extent they hold otherwise. However, we will continue to apply the law of the appropriate regional circuit to issues involving other elements of antitrust law such as relevant market, market power, damages, etc., as those issues are not unique to patent law, which is subject to our exclusive jurisdiction. See, e.g., *Virginia Panel Corp. v. MAC Panel Co.*, 133 F.3d 860, 872-73, 45 USPQ2d 1225, 1234-35 (Fed.Cir.1997) (applying Fourth Circuit law on antitrust injury).

III.

[11] A patentee who brings an infringement suit may be subject to antitrust liability

question." (citing *United States v. Eastport S.S. Corp.*, 255 F.2d 795, 805 (2d Cir.1958); *Martino v. McDonald's Sys., Inc.*, 432 F.Supp. 499, 505 (N.D.Ill.1977), *aff'd*, 598 F.2d 1079 (7th Cir. 1979))), and *USM Corp. v. SPS Techs., Inc.*, 102 F.R.D. 167, 170-71, 225 USPQ 715, 717 (N.D.Ill. 1984) ("Notwithstanding *Mercoide*, the majority of courts, when faced with this issue, have held that antitrust claims are compulsory counterclaims under Rule 13(a) if the antitrust claim arises out of the same transaction or occurrence as the original claim. The Seventh Circuit has expressly refused to decide the issue." (citations omitted)).

5. Because precedent may not be changed by a panel, see *South Corp. v. United States*, 690 F.2d

for the anti-competitive effects of that suit if the alleged infringer (the antitrust plaintiff) proves (1) that the asserted patent was obtained through knowing and willful fraud within the meaning of *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172, 177, 86 S.Ct. at 350, 147 USPQ 404, 407 (1965), or (2) that the infringement suit was "a mere sham to cover what is actually nothing more than an attempt to interfere directly with the business relationships of a competitor," *Eastern R.R. Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 144, 81 S.Ct. 523, 533, 5 L.Ed.2d 464 (1961); *California Motor Transp. Co. v. Trucking Unlimited*, 404 U.S. 508, 510, 92 S.Ct. 609, 611-612, 30 L.Ed.2d 642 (1972) (holding that *Noerr* "governs the approach of citizens or groups of them . . . to courts, the third branch of Government"). See *Professional Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 62 n. 6, 113 S.Ct. 1920, 1929 n. 6, 123 L.Ed.2d 611, 26 USPQ2d 1641, 1646-47 n. 6 (1993) (*PRE*) (declining to decide "whether and, if so, to what extent *Noerr* permits the imposition of antitrust liability for a litigant's fraud or other misrepresentations").

In *Walker Process*, the Supreme Court held that in order "to strip [a patentee] of its exemption from the antitrust laws" because of its attempting to enforce its patent monopoly, an antitrust plaintiff is first required to prove that the patentee "obtained the patent by knowingly and willfully misrepresenting facts" to the [PTO]." 382 U.S. at 177, 86

1368, 1370 n. 2, 215 USPQ 657, 658 n. 2 (Fed. Cir.1982) (in banc), the issue of "choice of circuit" law set forth in this Section B.II. has been considered and decided unanimously by an *in banc* court consisting of MAYER, Chief Judge, RICH, NEWMAN, MICHEL, PLAGER, LOURIE, CLEVENGER, RADER, SCHALL, BRYSON, and GAJARSA, Circuit Judges.

6. The alleged misrepresentation in that case involved the patentee's sworn statement "that it neither knew nor believed that its invention had been in public use in the United States more than one year prior to filing its patent application when, in fact, [it] was a party to prior use within such time." *Walker Process*, 382 U.S. at 174, 86 S.Ct. at 349, 147 USPQ at 406. The PTO does

Cite as 141 F.3d 1059 (Fed. Cir. 1998)

S.Ct. at 350, 147 USPQ at 407. The plaintiff in the patent infringement suit must also have been aware of the fraud when bringing suit. *Id.* at 177 & n. 6, 86 S.Ct. at 350 & n. 6, 147 USPQ at 407 & n. 6. The Court cited prior decisions that involved the knowing and willful misrepresentation of specific facts to the Patent Office: *Precision Instrument Manufacturing v. Automotive Maintenance Machinery Co.*, 324 U.S. 806, 65 S.Ct. 993, 89 L.Ed. 1381, 65 USPQ 133 (1945) (misrepresenting that the inventor had conceived, disclosed, and reduced to practice the invention on certain dates); *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238, 64 S.Ct. 997, 88 L.Ed. 1250, 61 USPQ 241 (1944) (misrepresenting that a widely known expert had authored an article praising the invention); and *Keystone Driller Co. v. General Excavator Co.*, 290 U.S. 240, 54 S.Ct. 146, 78 L.Ed. 293 (1933) (involving an agreement to suppress evidence in the course of litigation). These cases indicate the context in which the Court established the knowing and willful misrepresentation test.

Justice Harlan, in a concurring opinion, emphasized that to "achiev[e] a suitable accommodation in this area between the differing policies of the patent and antitrust laws," a distinction must be maintained between patents procured by "deliberate fraud" and those rendered invalid or unenforceable for other reasons. *Walker Process*, 382 U.S. at 179-80, 86 S.Ct. at 351-52, 15 L.Ed.2d 247, 147 USPQ at 408. He then stated:

[T]o hold, as we do not, that private antitrust suits might also reach monopolies practiced under patents that for one reason or another may turn out to be voidable under one or more of the numerous technicalities attending the issuance of a patent, might well chill the disclosure of inventions through the obtaining of a patent because of fear of the vexations or punitive consequences of treble-damage suits. Hence, this private antitrust remedy should not be deemed available to reach [Sherman Act]

not currently require inventors to file a sworn statement regarding such knowledge or belief. See 35 U.S.C. § 115 (1994); 37 C.F.R. § 1.63 (1996).

§ 2 monopolies carried on under a non-fraudulently procured patent.

Id. at 180, 86 S.Ct. at 352, 147 USPQ at 408.

[12] Consistent with the Supreme Court's analysis in *Walker Process*, as well as Justice Harlan's concurring opinion, we have distinguished "inequitable conduct" from *Walker Process* fraud, noting that inequitable conduct is a broader, more inclusive concept than the common law fraud needed to support a *Walker Process* counterclaim. See, e.g., *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 882 F.2d 1556, 1563, 11 USPQ2d 1750, 1756 (Fed.Cir.1989); *FMC Corp. v. Manitowoc Co.*, 835 F.2d 1411, 1417-18, 5 USPQ2d 1112, 1117 (Fed.Cir.1987); *Argus Chem.*, 812 F.2d at 1384-85, 1 USPQ2d at 1973-74; *J.P. Stevens & Co. v. Lex Tex Ltd.*, 747 F.2d 1553, 1559, 223 USPQ 1089, 1092 (Fed.Cir.1984) ("Conduct before the PTO that may render a patent unenforceable is broader than common law fraud."). Inequitable conduct in fact is a lesser offense than common law fraud, and includes types of conduct less serious than "knowing and willful" fraud.

In *Norton v. Curtiss*, 57 C.C.P.A. 1384, 433 F.2d 779, 792-94 & n. 12, 167 USPQ 532, 543-45 & n. 12 (1970), our predecessor court explicitly distinguished inequitable conduct from "fraud," as that term was used by the Supreme Court in *Walker Process*. The court noted that

the concept of "fraud" has most often been used by the courts, in general, to refer to a type of conduct so reprehensible that it could alone form the basis of an actionable wrong (e.g., the common law action for deceit). . . . Because severe penalties are usually meted out to the party found guilty of such conduct, technical fraud⁷ is generally held *not* to exist unless the following indispensable elements are found to be present: (1) a representation of a material fact, (2) the falsity of that representation, (3) the intent to deceive or, at least, a state of mind so reckless as to the consequences that it is held to be the equivalent of intent (scienter), (4) a justifiable reliance upon

7. We understand from the enumeration of elements that the term "technical fraud" was used by the court to mean common law fraud.

the misrepresentation by the party deceived which induces him to act thereon, and (5) injury to the party deceived as a result of his reliance on the misrepresentation. See, e.g., W. Prosser, *Law of Torts*, §§ 100-05 (3d ed.1964); 37 C.J.S. *Fraud* § 3 (1943).

Id. at 792-93, 57 C.C.P.A. 1384, 167 USPQ at 543; see also *J.P. Stevens*, 747 F.2d at 1559, 223 USPQ at 1092 (citing *Norton*). The court then contrasted such independently actionable common law fraud with lesser misconduct, including what we now refer to as inequitable conduct, which "fail[s], for one reason or another, to satisfy all the elements of the technical offense." *Norton*, 433 F.2d at 793, 167 USPQ at 543. Regarding such misconduct, "the courts appear to look at the equities of the particular case and determine whether the conduct before them . . . was still so reprehensible as to justify the court's refusing to enforce the rights of the party guilty of such conduct." *Id.*

[13] 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. See *Korody-Colyer Corp. v. General Motors Corp.*, 828 F.2d 1572, 1578, 4 USPQ2d 1203, 1207 (Fed.Cir.1987); see also *Norton*, 433 F.2d at 796, 167 USPQ at 546 ("Where fraud is committed, injury to the public through a weakening of the Patent System is manifest."). Antitrust liability can include treble damages. See 15 U.S.C. § 15(a) (1994). In contrast, the remedies for inequitable conduct, while serious enough, only include unenforceability of the affected patent or patents and possible attorney fees. See 35 U.S.C. §§ 282, 285 (1994). Simply put, *Walker Process* fraud is a more serious offense than inequitable conduct.

[14] In this case, the jury was instructed that a finding of fraud could be premised on "a knowing, willful and intentional act, misrepresentation or omission before the [PTO]." This instruction was not inconsistent

with various opinions of the courts stating that omissions, as well as misrepresentations, may in limited circumstances support a finding of *Walker Process* fraud. See, e.g., *Rolite, Inc. v. Wheelabrator Env'tl. Sys., Inc.*, 958 F.Supp. 992, 1006 (E.D.Pa.1997) (finding an allegation of "fraud by omission" in a *Walker Process* claim sufficient to overcome defendant's motion to dismiss); *United States v. Ciba-Geigy Corp.*, 508 F.Supp. 1157, 1170, 211 USPQ 529, 542 (D.N.J.1979) (stating, in the context of *Walker Process*: "A misrepresentation is material if the patent would not have issued 'but for' the omission"). We agree that if the evidence shows that the asserted patent was acquired by means of either a fraudulent misrepresentation or a fraudulent omission and that the party asserting the patent was aware of the fraud when bringing suit, such conduct can expose a patentee to liability under the antitrust laws. We arrive at this conclusion because a fraudulent omission can be just as reprehensible as a fraudulent misrepresentation. In addition, of course, in order to find liability, the necessary additional elements of a violation of the antitrust laws must be established. See *Walker Process*, 382 U.S. at 178, 86 S.Ct. at 351, 147 USPQ at 407.

[15,16] Such a misrepresentation or omission must evidence a clear intent to deceive the examiner and thereby cause the PTO to grant an invalid patent. See *id.* at 794, 57 C.C.P.A. 1384, 167 USPQ at 544 ("[T]he fact misrepresented must be 'the efficient, inducing, and proximate cause, or the determining ground' of the action taken in reliance thereon.") (quoting 37 C.J.S. *Fraud* § 18 (1943)). In contrast, a conclusion of inequitable conduct may be based on evidence of a lesser misrepresentation or an omission, such as omission of a reference that would merely have been considered important to the patentability of a claim by a reasonable examiner. See *J.P. Stevens*, 747 F.2d at 1559, 223 USPQ at 1092.⁸ A finding of *Walker Process* fraud requires higher threshold showings of both intent and mate-

8. We recognize that this criterion reflects an older PTO rule in effect at the time the instant patent was prosecuted and that the current PTO rule defines materiality differently. See *Critikon*,

Inc. v. Becton Dickinson Vascular Access, Inc., 120 F.3d 1253, 1257, 43 USPQ2d 1666, 1669-70 (Fed.Cir.1997) (quoting 37 C.F.R. § 1.56(b)(2)(ii) (1996)).

riality than does a finding of inequitable conduct. Moreover, unlike a finding of inequitable conduct, *see, e.g., Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178–79, 33 USPQ2d 1823, 1826–27 (Fed.Cir.1995), a finding of *Walker Process* fraud may not be based upon an equitable balancing of lesser degrees of materiality and intent. Rather, it must be based on independent and clear evidence of deceptive intent together with a clear showing of reliance, *i.e.*, that the patent would not have issued but for the misrepresentation or omission. Therefore, for an omission such as a failure to cite a piece of prior art to support a finding of *Walker Process* fraud, the withholding of the reference must show evidence of fraudulent intent. A mere failure to cite a reference to the PTO will not suffice.

IV.

The district court observed that the Supreme Court, in footnote six of its *PRE* opinion, “left unresolved the issue of how ‘Noerr’ applies to the *ex parte* application process,” and in particular, how it applies to the *Walker Process* claim.” 930 F.Supp. at 1253 (quoting James B. Kobak, Jr., *Professional Real Estate Investors and the Future of Patent-Antitrust Litigation*, 63 Antitrust L.J. 185, 186 (1994)). The court also accurately pointed out that we have twice declined to resolve this issue. *See FilmTec Corp. v. Hydranautics*, 67 F.3d 931, 939 n. 2, 36 USPQ2d 1410, 1415 n. 2 (Fed.Cir.1995), *cert. denied*, — U.S. —, 117 S.Ct. 62, 136 L.Ed.2d 24 (1996); *Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.*, 15 F.3d 1573, 1583 n. 10, 27 USPQ2d 1836, 1845 n. 10 (Fed.Cir.1993). Therefore, after reviewing three opinions from the Ninth and District of Columbia Circuit Courts of Appeals, *see Hydranautics v. FilmTec Corp.*, 70 F.3d 533, 537–38, 36 USPQ2d 1773, 1777 (9th Cir.1995); *Whelan v. Abell*, 48 F.3d 1247, 1255 (D.C.Cir. 1995); *Liberty Lake Invs., Inc. v. Magnuson*, 12 F.3d 155, 158–60 (9th Cir.1993), the district court made its own determination that *PRE*’s two-part test for a sham is inapplicable to an antitrust claim based on the assertion of a patent obtained by knowing and willful fraud. *See* 930 F.Supp. at 1253. We do not agree with that determination. *PRE* and *Walker Process* provide alternative legal

grounds on which a patentee may be stripped of its immunity from the antitrust laws; both legal theories may be applied to the same conduct. Moreover, we need not find a way to merge these decisions. Each provides its own basis for depriving a patent owner of immunity from the antitrust laws; either or both may be applicable to a particular party’s conduct in obtaining and enforcing a patent. The Supreme Court saw no need to merge these separate lines of cases and neither do we.

[17, 18] Consequently, if the above-described elements of *Walker Process* fraud, as well as the other criteria for antitrust liability, are met, such liability can be imposed without the additional sham inquiry required under *PRE*. That is because *Walker Process* antitrust liability is based on the knowing assertion of a patent procured by fraud on the PTO, very specific conduct that is clearly reprehensible. On the other hand, irrespective of the patent applicant’s conduct before the PTO, an antitrust claim can also be based on a *PRE* allegation that a suit is baseless; in order to prove that a suit was within *Noerr*’s “sham” exception to immunity, an antitrust plaintiff must prove that the suit was both *objectively* baseless and *subjectively* motivated by a desire to impose collateral, anti-competitive injury rather than to obtain a justifiable legal remedy. *PRE*, 508 U.S. at 60–61, 113 S.Ct. at 1929, 26 USPQ2d at 1646. As the Supreme Court stated:

First, the lawsuit must be objectively baseless in the sense that no reasonable litigant could realistically expect success on the merits. If an objective litigant could conclude that the suit is reasonably calculated to elicit a favorable outcome, the suit is immunized under *Noerr*, and an antitrust claim premised on the sham exception must fail. Only if challenged litigation is objectively meritless may a court examine the litigant’s subjective motivation. Under this second part of our definition of sham, the court should focus on whether the baseless lawsuit conceals “an attempt to interfere *directly* with the business relationships of a competitor,” through the “use [of] the governmental *process*—as op-

posed to the *outcome* of that process—as an anticompetitive weapon.” . . . Of course, even a plaintiff who defeats the defendant’s claim to *Noerr* immunity by demonstrating both the objective and the subjective components of a sham must still prove a substantive antitrust violation. Proof of a sham merely deprives the defendant of immunity; it does not relieve the plaintiff of the obligation to establish all other elements of his claim.

Id. (footnotes and internal citations omitted). Thus, under *PRE*, a sham suit must be both subjectively brought in bad faith and based on a theory of either infringement or validity that is objectively baseless. Accordingly, if a suit is not objectively baseless, an antitrust defendant’s subjective motivation is immaterial. *Id.* In contrast with a *Walker Process* claim, a patentee’s activities in procuring the patent are not necessarily at issue. It is the bringing of the lawsuit that is subjectively and objectively baseless that must be proved.

V.

[19] As for the present case, we conclude that there exists substantial evidence upon which a reasonable fact finder could strip NP of its immunity from antitrust liability. In particular, there exists substantial evidence that the 1977 Book was fraudulently kept from the PTO during patent prosecution.⁹ The jury could reasonably have found that the 1977 Book was fraudulently withheld and that it disclosed the claimed invention. First, the jury could reasonably have concluded that Branemark, through his Swedish patent agent, Barnieske, withheld the 1977 Book with the requisite intent to defraud the PTO. The initial disclosure to Barnieske, provided by Branemark’s co-inventor, af Ekenstam, indicated that the studies described in the 1977 Book verified the utility of the claimed invention. While Barnieske did testify that he did not recall his thoughts during the prosecution of the patent and that he would have submitted the 1977 Book to the PTO if he had considered it relevant, the jury was free to disbelieve him. Barnieske

could not explain, even in retrospect, why he deleted all reference to the 1977 Book. Importantly, the 1977 Book was thought by at least one inventor to be relevant, as evidenced by the initial disclosure to the patent agent, but it was inexplicably not later disclosed to the PTO. Also, as the author of the 1977 Book and an inventor, Branemark presumably knew of the book’s relevance to the invention and could have directed Barnieske not to disclose the book to the PTO. Thus, the jury could properly have inferred that Branemark had the requisite intent to defraud the PTO based on his failure to disclose the reference to the PTO. Such a scheme to defraud is the type of conduct contemplated by *Walker Process*.

Second, substantial evidence upon which a reasonable jury could have relied also indicates that the 1977 Book was sufficiently material to justify a finding of fraud. 3I’s expert witness, Dr. Donald Brunette, testified that the SEMs of the 1977 Book depict dental implants having all the elements of the claims asserted by NP. Specifically, he explained how he had determined that the SEMs depict a “biologically flawless material” suitable for use as a dental implant. He also explained how he determined that the depicted micropits have diameters within the claimed range of approximately 10 to 1000 nanometers. Even Branemark, in this deposition testimony, conceded that it would not have been difficult to calculate the size of the micropits depicted in the 1977 Book, given the magnification factors provided in the captions to the SEMs. Accordingly, a reasonable jury could have found, based on the unambiguous claim language, that the 1977 Book anticipated the patent and that the examiner would not have granted the patent if he had been aware of the 1977 Book.

Third, the record indicates that a reasonable jury could have found that NP brought suit against 3I with knowledge of the applicants’ fraud. A reasonable jury could have found that two of NP’s then-officers, Dr. Ralph Green, Jr. and Mr. Mats Nilsson, were

9. Because we consider the conduct relating to the 1977 Book sufficient to uphold the jury’s finding of fraud, we need not discuss 3I’s allegations that Branemark fraudulently misrepresen-

ted the causal relationship between the claimed micropitted surface and osseointegration and fraudulently concealed the best mode of making and using the claimed invention from the PTO.

aware of the fraud based on Green's testimony that Nilsson told him: "[I]f the Patent Office did not receive a copy of [the 1977 Book], and if that were true, then we would have a larger problem and that was fraud." Green's testimony also indicates that NP was aware that the 1977 Book was highly material and, in fact, likely rendered the patent invalid. Green testified that he, Nilsson, and Mr. George Vande Sande obtained a legal opinion from NP's attorney, Mr. David Lindley, who indicated that if "we were to sue anyone on the patent we would lose in the first round. . . . [T]here was prior art, not the least of which was this textbook [the 1977 Book] that would invalidate the patent."

Regarding NP's motion for a new trial, we have concluded that the court's instructions to the jury regarding fraud, to which NP did not object, substantially comport with the law. Specifically, the court emphasized to the jury that to strip NP of its immunity from the antitrust laws, 3I "must prove that the '891 patent was fraudulently . . . obtained by clear and convincing evidence." The court also pointed out that only "knowing, willful and intentional acts, misrepresentations or omission" may support a finding of fraud and that the jury should approach such a finding with "great care." As to reliance, the court instructed the jury that "[m]ateriality is shown if but for the misrepresentation or omission the '891 patent would not have been issued." These instructions were not legally erroneous.

Because we conclude that the finding of *Walker Process* fraud was supported by substantial evidence and was based upon a jury instruction that was not legally erroneous or prejudicial, we affirm the denial of NP's motion for JMOL. NP was properly deprived of its immunity from the antitrust laws under *Walker Process*, and it could not have benefited from additional jury instructions regarding *PRE* or *Noerr*. The court's refusal to so instruct the jury therefore does not require a new trial.

We have also considered NP's alternative arguments in support of its motion for a new trial, including its assertions that the district court erred in permitting Green to testify, in prohibiting Dr. Hodosh and Messrs. Vande

Sande and Martens from testifying, in allowing 3I to present a theory of joint venture liability to the jury, and in impugning the credibility of NP's arguments before the jury. We do not find these arguments persuasive. The district court did not abuse its discretion or misapply the law of attorney-client privilege in making its evidentiary rulings, nor did it prejudice NP's substantive rights by allowing the jury to consider a joint venture theory of liability or by commenting on NP's arguments during the trial. Accordingly, the court did not abuse its discretion in denying NP's motion for a new trial.

CONCLUSION

The district court did not err in holding the '891 patent invalid as a matter of law at the close of NP's case-in-chief because NP itself introduced evidence that was fatal to the patent's validity. Likewise, the district court did not err in denying NP's motion for JMOL or a new trial on 3I's antitrust counterclaim. A reasonable jury, applying the correct law, could have found that the facts of this case were sufficient to constitute fraud within the meaning of *Walker Process*.

AFFIRMED.



**CONTINENTAL PLASTIC
CONTAINERS, Plaintiff-
Appellant,**

v.

**OWENS BROCKWAY PLASTIC
PRODUCTS, INC., Defendants-
Appellees.**

No. 96-1509.

United States Court of Appeals,
Federal Circuit.

March 31, 1998.

Rehearing Denied;

Suggestion for Rehearing

In Banc Declined May 27, 1998.

Patentee brought action against competitor, alleging infringement of its design pat-