

**United States Court of Appeals
for the Federal Circuit**

**STRYKER CORPORATION, STRYKER PUERTO
RICO, LTD., STRYKER SALES CORPORATION,**
Plaintiffs-Appellees

v.

ZIMMER, INC., ZIMMER SURGICAL, INC.,
Defendants-Appellants

ZIMMER ORTHOPAEDIC SURGICAL PRODUCTS,
Defendant

2013-1668

Appeal from the United States District Court for the
Western District of Michigan in No. 10-CV-1223, Judge
Robert J. Jonker.

Decided: December 19, 2014
Revised Opinion Issued: March 23, 2015

GREGORY J. VOGLER, McAndrews, Held & Malloy,
Ltd., of Chicago, Illinois, argued for plaintiffs-appellees.
With him on the brief were SHARON A. HWANG, DEBORAH
A. LAUGHTON, and CAROLINE A. TEICHNER.

DONALD R. DUNNER, Finnegan, Henderson, Farabow,
Garrett & Dunner, LLP, of Washington, DC, argued for

defendants-appellants. With him on the brief were KARA STOLL and GARTH BAER. Of counsel was BENJAMIN THOMAS SIROLLY.

Before PROST, *Chief Judge*, NEWMAN and HUGHES, *Circuit Judges*.

PROST, *Chief Judge*.

Zimmer, Inc., Zimmer Surgical, Inc., and Zimmer Orthopaedic Surgical Products (collectively “Zimmer”) appeal from the final judgment of the United States District Court for the Western District of Michigan that U.S. Patent Nos. 6,022,329 (“329 patent”), 6,179,807 (“807 patent”), and 7,144,383 (“383 patent”) were valid and willfully infringed. For the reasons stated below, we affirm the jury’s findings that the patents were valid and infringed, and the jury’s award of damages to plaintiff-appellees Stryker Corporation, Stryker Puerto Rico, Ltd., and Stryker Sales Corporation (collectively “Stryker”). However, we reverse the district court’s judgment that Zimmer’s infringement was willful, and, accordingly, we vacate its award of treble damages. Finally, we vacate and remand the district court’s finding of exceptional case and its award of attorneys’ fees.

I

The patents at issue concern pulsed lavage devices. Pulsed lavage devices deliver pressurized irrigation for certain medical therapies, including orthopedic procedures and cleaning wounds. The particular devices at issue in this case are portable, battery powered, and handheld. They include both suction and discharge tubes, so they both spray fluid from an external source and also suction off fluid and debris. These devices represent an improvement over older pulsed lavage systems that required a central power source and external mechanical

pumps, which meant that they needed to be wheeled around the hospital.

Stryker and Zimmer are the two main competitors in the orthopedic pulsed lavage device market. Stryker began bringing battery-powered, handheld pulsed lavage devices to the marketplace in 1993. That same year, Stryker filed the application which eventually gave rise to the patents at issue. In February 2000, the first of these patents, the '329 patent, issued. Later that year Stryker sued another manufacturer, Davol Inc., for infringement. That suit settled in 2001, and Davol took a license on the '329 patent. The '807 patent subsequently issued in January 2001, and the '383 patent issued in December 2006.

Zimmer introduced its first portable pulsed lavage device, the Var-A-Pulse, in 1996. In 1998, Zimmer began to develop a new design, which came to market soon thereafter as the Pulsavac Plus range of products. Zimmer's Pulsavac Plus products achieved a peak of \$55 million in annual sales in late 2007, before they were withdrawn from the marketplace due to a product recall, after which sales resumed in December 2008.

In 2010, Stryker sued Zimmer, alleging that Zimmer's Pulsavac Plus devices infringed various claims of the '329, '807, and '383 patents. The district court granted partial summary judgment in favor of Stryker, finding infringement of the '807 and '383 patents' asserted claims. The question of whether Zimmer infringed the single asserted claim of the '329 patent, as well as Zimmer's invalidity defenses against all of the asserted claims, went to trial. The jury found that the products infringed claim 2 of the '329 patent and that all the asserted claims were valid. The jury also awarded \$70 million in lost profits. It further found that Zimmer had willfully infringed all three patents. The jury also found that Stryker had marked substantially all of its products that commercially

embodied the patents in suit during the period it sought damages, pursuant to 35 U.S.C. § 287(a).

In August 2013, the district court issued an order rejecting Zimmer’s motions for judgment as a matter of law (“JMOL”) on various issues, affirming the jury’s verdict, awarding trebled damages for willful infringement, finding an exceptional case and thus awarding attorneys’ fees to Stryker, and imposing a permanent injunction. The district court subsequently entered final judgment pursuant to its order.

Zimmer appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II

We turn first to Zimmer’s appeal on the issues of claim construction, infringement, and validity.

Claim construction is an issue of law that we review de novo. *Lighting Ballast Control LLC v. Philips Elecs. N. Am. Corp.*, 744 F.3d 1272, 1276-77 (Fed. Cir. 2014) (en banc). In construing a claim term, we look at the term’s plain and ordinary meaning as understood by a person of ordinary skill in the art. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). There is an exception to this general rule when a patentee sets out a definition and acts as her own lexicographer. *Thorner v. Sony Computer Entm’t Am., LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Infringement is a question of fact. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1309 (Fed. Cir. 2009). Invalidity by reason of anticipation under 35 U.S.C. § 102 is a question of fact. *Atlas Powder Co. v. Ireco, Inc.*, 190 F.3d 1342, 1346 (Fed. Cir. 1999). Invalidity by reason of obviousness under 35 U.S.C. § 103 is a legal conclusion based on underlying facts. *Allergan, Inc. v. Sandoz Inc.*, 726 F.3d 1286, 1290 (Fed. Cir. 2013). Zimmer has the burden to prove invalidity by clear and

convincing evidence. *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 736 (Fed. Cir. 2013).

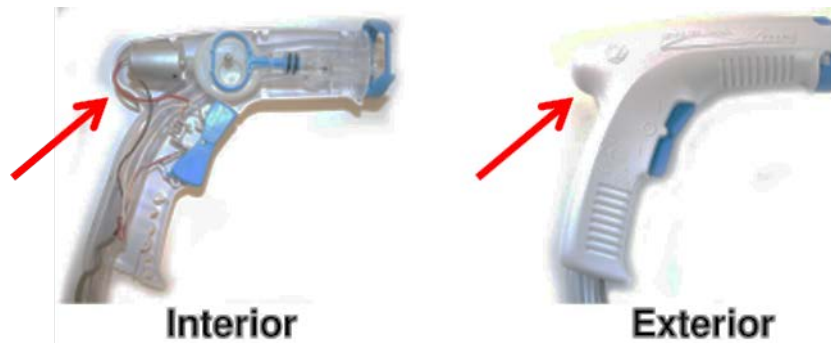
On the issues of infringement and validity that the jury decided, Zimmer appeals the district court's denials of its motion for JMOL. Generally, a district court grants JMOL and sets aside the jury's verdict if it "finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue." Fed. R. Civ. P. 50(a). We apply the law of the regional circuit to our review of the district court's grant or denial of a motion for JMOL. *ClearValue, Inc. v. Pearl River Polymers, Inc.*, 668 F.3d 1340, 1343 (Fed. Cir. 2012). The Sixth Circuit reviews the district court's decision on a motion for JMOL de novo. *Barnes v. City of Cincinnati*, 401 F.3d 729, 736 (6th Cir. 2005). "Judgment as a matter of law may only be granted if, when viewing the evidence in a light most favorable to the non-moving party, giving that party the benefit of all reasonable inferences, there is no genuine issue of material fact for the jury, and reasonable minds could come to but one conclusion in favor of the moving party." *Id.*

For the reasons stated below, we affirm the district court's judgment on the various defenses of non-infringement and invalidity that Zimmer raises across the three asserted patents. However, we also find that each of these defenses was not unreasonable.

The '329 Patent

The only asserted claim of the '329 patent, claim 2, describes features of a "pulsed irrigation surgical handpiece." According to this claim, the handpiece comprises a "hollow housing," which includes a "handle," and, in relevant part in this case, "an electric motor spaced between the top and bottom of said *handle* and located *in said handle*" adjacent to an irrigation tube within the housing. '329 patent col. 22 ll. 5-7 (emphases added). Zimmer contends that this limitation is critical for the

purposes of infringement because, as indicated by the arrows below, the motor in its accused Pulsavac Plus device is not located in the handle—rather, it is located in the “nub” of the handpiece, the protrusion behind the barrel.



Appellees’ Br. 11 (red arrows added).

During claim construction, Zimmer took the position that no construction was necessary and that the claim term “handle” could be understood as having its plain and ordinary meaning to a person of ordinary skill in the art. *Stryker Corp. v. Zimmer, Inc.*, No. 10-1223, slip op. at 6 (W.D. Mich. Feb. 1, 2012), ECF No. 106 (“*Claim Construction Order*”). Stryker proposed to construe the term “handle” as “a portion of a device designed to be held by a hand or hands.” *Id.* The district court adopted Stryker’s proposed construction.

Stryker argued that nothing in the patent’s specification otherwise limited the meaning of “handle,” and that its definition for “handle” was consistent with general dictionaries. Zimmer argued that Stryker’s express construction of the term, however, was too broad and read out the specification’s consistent distinction between the “handle” and “barrel” portions of the claimed device.

The ’329 patent generally describes various embodiments, all of which comprise a “hand-held housing having

a handle and a barrel which extends from the upper end of the handle.” ’329 patent col. 3 ll. 28-31. Zimmer further supported its position with the language of claim 4, which depends on claim 2. Claim 4 separately describes both a “handle” and a “barrel,” which Zimmer argued meant that the patentee maintained the distinction between the two parts of the handpiece.

However, the district court ultimately agreed with the Stryker that a device that met claim 2 did not need to have a discrete barrel joined to the handle, since this claim could cover wand-shaped devices that existed in the prior art in which the entire handpiece functioned like a handle and no separate barrel was joined at an angle. The district court reasoned that since claim 4 is a dependent claim, it could cover the pistol-shaped design described in the specification, while claim 2 would more broadly cover wand-shaped devices as well.

On appeal, Zimmer also raises the prosecution history of U.S. Patent Application No. 08/559,133 (“133 application”), the parent of the application that issued as the ’329 patent. During the ’133 application’s prosecution, Stryker sought to overcome a rejection of claim 39 based on a prior art reference which described a pistol-shaped device with a barrel and a handle. Stryker traversed the rejection by arguing that the motor of the prior art handpiece was “not in the handle or at an angle to the barrel.” Zimmer contends that claim 39 included the limitation “locating said motor in said handle,” which is the same as the one at issue in the construction of “handle” in claim 2 of the ’329 patent. Therefore, Zimmer argues, Stryker’s statement disclaimed designs in which the motor is located in the barrel or nub of a pistol-shaped handpiece. *See Gemalto S.A. v. HTC Corp.*, 754 F.3d 1364, 1371 (Fed. Cir. 2014) (“[W]hen multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has issued applies with equal force to subsequently issued patents that

contain the same claim limitation.”); *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1349 (Fed. Cir. 2004); *Elkay Mfg. Co. v. EBCO Mfg. Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999).

Zimmer did not raise its prosecution history argument during its claim construction briefing and the *Markman* hearing before the district court. The district court indicated that it would not alter the claim construction but, nevertheless, determined that it would still consider this argument in deciding Zimmer’s motion for summary judgment of non-infringement. *Stryker Corp. v. Zimmer, Inc.*, No. 10-1223, slip op. at 3 (W.D. Mich. Nov. 29, 2012), ECF No. 248 (“*Summary Judgment Order I*”). The district court nevertheless denied Zimmer’s motion, finding that the prosecution disclaimer was insufficiently “clear and unmistakable” because claim 39 of the ’133 application had additional limitations that were absent in claim 2 of the ’329 patent. *Id.* at 4-5.

The district court’s analysis was flawed, however, because this was not a case in which the “purported disclaimers are directed to specific claim terms that have been omitted or materially altered in subsequent applications (rather than to the invention itself).” *Saunders Grp., Inc. v. Comfortrac, Inc.*, 492 F.3d 1326, 1333 (Fed. Cir. 2007).¹ There was no difference in the language

¹ The limitation at issue in the original claim 39 of the ’133 application was, in full: “a handpiece housing containing said pump and shell, said handpiece housing being elongate [sic] and bent and comprising a handle and a barrel, said barrel being open to and extending forward from an intersection with the top of the handle at an angle thereto, said hollow shell extending lengthwise along and within said handle into said angled intersection of said handle and barrel and *locating said motor in said*

describing the limitations as between the two claims at issue, rather, the limitation of claim 2 was included within claim 39. There is no reason why a disclaimer on a limitation within a narrower claim would not apply to the identical limitation within the broader claim, as the same concerns about the prior art would relate to both. *See, e.g., Gemalto*, 754 F.3d at 1371 (applying a common disclaimer to both an independent and narrower dependent claim containing the same term).² That said, the district court did not err in rejecting Zimmer’s argument as it related to claim construction, while still entertaining it in the context of infringement. *See SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 889-90 (Fed. Cir. 2004) (affirming the district court’s construction on the grounds that a proffered alternative construction was

handle remote from said angled intersection, said link extending at said angle from said shell and handle forwardly into and along the length direction of said barrel, said pump movable member extending along the length direction of said barrel and being reciprocatingly driven by said link in said length direction of said barrel.” J.A. 16672 (emphasis added).

² This is unlike the case cited by Stryker and the district court for the contrary proposition, *Middleton, Inc. v. Minnesota Mining and Manufacturing. Co.*, 311 F.3d 1384, 1388-89 (Fed. Cir. 2002), in which the term at issue, “uniform” in the context of floor coverings, would potentially have a different meaning if it applied to the narrower claim—limited to smooth sporting surfaces—and a subsequent, broader claim that contemplated other kinds of surfaces. Here, a limitation on the location of the motor within the handpiece would mean the same thing in the context of either claim.

untimely raised). Therefore, we review Zimmer’s argument only as it relates to infringement.

Infringement is a question of fact, and we must give a substantial degree of deference to the jury’s verdict. At trial, Stryker presented evidence indicating that a medical professional could hold Zimmer’s Pulsavac Plus by the nub behind the barrel, where the motor was located. In addition, Stryker presented evidence that the barrel of the Pulsavac Plus was called a “barrel grip” in an associated patent application, and the barrel included indentations that would allow the device to be used while held by the barrel. Stryker also persuaded the jury that it was reasonable to infer that if the nub behind the barrel was also shaped such that it was at least *capable* of being held, then it would be “a portion of the device designed to be held by hand,” in accordance with the district court’s construction of “handle” in the claim at issue. In light of the evidence presented at trial as a whole, along with the prosecution history, we do not find that “reasonable minds could come to but one conclusion” that Zimmer did not infringe claim 2 of the ’329 patent. *Barnes*, 401 F.3d at 736. Accordingly, we affirm, though Zimmer’s claim construction and non-infringement positions were not unreasonable.

The ’807 Patent

Infringement

Zimmer argues that the district court erred in granting summary judgment of infringement of the ’807 patent’s asserted claims. We review the district court’s grant of summary judgment de novo. *Dixon v. Univ. of Toledo*, 702 F.3d 269, 273 (6th Cir. 2012). “Summary judgment is proper where there exists no issue of material fact and the moving party is entitled to judgment as a matter of law.” *ETW Corp. v. Jireh Publ’g, Inc.*, 332 F.3d 915, 920 (6th Cir. 2003) (citing Fed. R. Civ. P. 56(c)). All

reasonable factual inferences are drawn in favor of the nonmoving party. *Id.*

Zimmer’s argument on appeal centers on whether its products include, as required for all the asserted claims, “a front end for *receiving* the discharge tube and the suction tube.” ’807 patent col. 27 ll. 35-37 (emphasis added).³ This limitation describes the interface between the nozzles at the front end of the handpiece and the nozzles of a removable tip that includes discharge and suction tubes. Zimmer argues that the claim language requires that there be male openings on the tip that fit into the female nozzles on the handpiece. Therefore, Zimmer contends that the accused devices do not infringe because they are designed with female openings on the tip that fit into tapered male nozzles on the handpiece. To support its position, Zimmer relies on various dictionary definitions of “receive,” which it argues all have some variant of the verbs “to contain” or “to hold.” *See* Appellants’ Br. 57. Zimmer argues that this meaning is consistent with the specification, which discloses a single embodiment in which the neck of the suction tube “seats in” the drain tube—and, specifically, that this configuration is designed to avoid “leakage of the fluid and material as it flows in the drain tube.” ’807 patent col. 11 ll. 29-34; *see also* Figure 8.

As an initial matter, Stryker’s argument that Zimmer waived a narrower construction of the term “receive” is unavailing. The parties and the district court directly addressed this issue during the summary judgment proceedings. Moreover, unlike the dispute concerning the meaning of “handle” in the ’329 patent, the district court did not note any waiver and expressly considered the

³ Stryker asserted claim 45 and certain of its dependent claims.

scope of “receive” in evaluating whether Zimmer’s design infringed. *See Pfizer, Inc. v. Teva Pharm., USA, Inc.*, 429 F.3d 1364, 1377 (Fed. Cir. 2005) (contemplating “rolling claim construction, in which the court revisits and alters its interpretation of the claim terms as its understanding of the technology evolves”).

Stryker further argues that the specification provides a broader disclosure of “an irrigation handpiece to which complementary tips can be readily *coupled*.” ’807 patent col. 1 ll. 10-12 (emphasis added); *see also* col. 2 ll. 45-47 (disclosing “a tip assembly [that] readily *seals* to a complementary handpiece”) (emphasis added). Stryker also points to Zimmer’s own lay witnesses, who admitted that its Pulsavac Plus handpiece “receives” the tips.⁴

The district court noted that, in its view, “Zimmer’s reading of ‘receive’ is artificially narrow.” *Stryker Corp. v. Zimmer, Inc.*, No. 10-1223, slip op. at 8 (W.D. Mich. Nov. 29, 2012), ECF No. 247 (“*Summary Judgment Order II*”). Instead, the district court reasoned that “[t]he word “receives” in this context can only mean that one part of the device connects directly with another part of the device.” *Id.* Thus, the district court found that Zimmer infringed. While it is a close case, we do not find that the district court erred in granting summary judgment of infringement based on the record before it.

⁴ Stryker also argues that Zimmer’s invalidity argument relies on the prior art Var-A-Pulse device including the “receive” limitation—even though it has the same kind of tip assembly as the Pulsavac Plus. We note, however, that nothing precludes Zimmer from arguing for a narrower application of the limitation on the infringement context, while also arguing, in the alternative, that—if the district court were to disagree—the patent claim would be so broad as to be invalid.

Invalidity

Zimmer also appeals the district court's holding that the asserted claims of the '807 patent were anticipated by its prior art Var-A-Pulse device, the predecessor of the Pulsavac Plus. Stryker argues that the Var-A-Pulse device does not anticipate because it is missing the "lock assembly" limitation of the asserted claims, which require that there be "a lock assembly mounted to the front end of said body for releasably securing the discharge tube and the suction tube to said body." '807 patent col. 27 ll. 35-37. The district court adopted Stryker's proposed construction of the term "lock assembly" as "components that work together to secure or fasten the tip to the handpiece." *Claim Construction Order* at 16. In the Var-A-Pulse device, the tip was attached to the handpiece in such a way that the tip nozzles fit into interior housing grooves at the front of the handpiece, which were then held together by friction. Zimmer argues that under the district court's construction, the limitation was present in the prior art because the nozzles were "secured or fastened" when they were fit in the interior housing groove.

At trial, Zimmer presented evidence that included the Var-A-Pulse's technical documentation, which indicated that the tip should be "secured" to the handpiece, as well as testimony from various Stryker witnesses admitting that the tip nozzles were fastened to the handpiece when they were inserted. Stryker argued that, unlike the accused Pulsavac Plus devices, which include a locking ring to secure the tip, there is no separate part or assembly in the Var-A-Pulse. Stryker also contended the prior art device did not include the full claim limitation, which requires that the lock assembly be "mounted" to the front end of handpiece. Stryker argued that because Zimmer identified a "lock assembly" that itself included the housing groove that is part of the front end, Zimmer was essentially arguing that the lock assembly was mounted to itself, thus nullifying the limitation. Stryker also

presented evidence to the jury showing that the Var-A-Pulse tips readily fell off the front end of the handpiece, and that this led the development of the locking ring in the Pulsavac Pulse.

The jury ultimately found that there was no clear and convincing evidence that the Var-A-Pulse device anticipated the '807 patent's asserted claims. In light of the evidence that was presented, we find that a reasonable jury could have reached this verdict. Accordingly, we affirm.

The '383 Patent

At trial, Zimmer argued that the asserted claims of the '383 patent were obvious at the time of the invention in light of U.S. Patent No. 5,046,486 ("Grulke"), U.S. Patent No. 4,817,599 ("Drews II"), and U.S. Patent No. 5,350,356 ("Bales"). Zimmer contends that all of the limitations of the '383 patent's asserted claims were collectively present in the prior art references. Stryker does not directly dispute this point. Instead, it principally argues that because the designs claimed by Grulke and Drews II each exclude certain components described in the claims, one of ordinary skill in the art would not have been motivated to combine these references. In brief, Grulke disclosed a pulsed lavage system that uses a pneumatic, rather than an electric, motor. Drews II disclosed a pulsed irrigation system, powered by an electric motor, that is used as an eye wash.

At trial, Zimmer argued that it would have been obvious to one of ordinary skill to try to replace the pneumatic motor of Grulke with the electric motor in Drews II. Zimmer further argued that any reconfiguration of Grulke to accommodate an electric motor could be done by one of ordinary skill. *See In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1382 (Fed. Cir. 2007) ("[W]e do not ignore the modifications that one skilled in the art would make to a device borrowed from the prior art."). Zimmer also argued

that even though the Grulke reference was directed to orthopedic pulsed lavage systems, and the Drews II reference was directed to eyewash systems, they both described pressured water irrigation in hospitals and clinics. Zimmer contended that that a person of ordinary skill in the art of pulsed lavage devices would thus be aware of the art in both fields and would be motivated to combine features from each of them. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007) (“Common sense teaches, however, that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.”).

Zimmer also presented evidence of the examiner’s rejection of certain claims in Stryker’s prosecution of U.S. Patent Application No. 11/563,504 (“504 application”), a continuation of the ’383 patent, which occurred during the discovery phase of this case. During that patent application’s prosecution, the examiner issued a non-final office action, rejecting certain claims of the ’504 application as obvious over Grulke “and further in view of Drews II.” J.A. 17226. Stryker did not attempt to traverse the rejection and instead ultimately abandoned the application. Stryker principally argued that because the claim at issue in the ’504 application included certain different limitations, the examiner’s rejection did not have any relevance to the ’383 patent’s claims. We note, however, that the difference in the detail of the claims is immaterial as to whether it would have been obvious to combine Grulke and Drews II. While persuasive, the examiner’s proffered rejection is not on its own dispositive, in large part because the U.S. Patent and Trademark Office (“PTO”) and district courts “take different approaches in determining invalidity and on the same evidence could quite correctly come to different conclusions.” *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1428 (Fed. Cir. 1988).

Stryker also argued that the Grulke device differed substantially from the Drews II device. For example, it was designed for surgery rather than eyewashing. Grulke also disclosed a large device that was wheeled into an operating room that had many components that differed from those in the portable device disclosed Drews II. Stryker presented expert testimony rebutting Zimmer's evidence that it would have been obvious to combine these references.

On the basis of the record presented at trial, we agree with the district court that a reasonable jury could conclude that one of ordinary skill in the art would not have been motivated to combine the Grulke and Drews II references, even in light of the examiner's rejection of related claims on the basis of this combination. This is sufficient to affirm the district court's determination that Zimmer did not show, by clear and convincing evidence, that the '383 patent's claims were obvious.

For this reason, we need not reach other issues, including the evidence of secondary considerations of non-obviousness. Therefore, we affirm the district court's determination that the '383 patent's asserted claims were not obvious over the combination of Grulke, Drews II, and Bales.⁵

⁵ Zimmer also appeals the jury's finding that Stryker's products were sufficiently marked by the '383 patent during part of the period for which it sought damages. We need not reach this issue, because we affirm the finding that Zimmer infringed the '807 and '329 patents, which is sufficient to support all of Stryker's award of damages for lost profit. However, we note that the jury was indeed incorrectly instructed that it should consider "whether some portion of the Stryker products not

III

Willful Infringement

To establish willful infringement, the patentee has the burden of showing “by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). “The state of mind of the accused infringer is not relevant to this objective inquiry.” *Id.* Only if the patentee establishes this “threshold objective standard” does the inquiry then move on to whether “this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer.” *Id.* We have held that objective recklessness, even though “predicated on underlying mixed questions of law and fact, is best decided by the

marked with a particular patent number were marked with other *related patent* notices.” *Stryker Corp. v. Zimmer, Inc.*, No. 10-1223, slip op. at 18 (W.D. Mich. Aug. 7, 2013), ECF No. 537 (“*Post-Verdict Order*”) (emphasis added). Because of this instruction, the jury could have been misled to consider a product marked with the number of a patent related to the ’383 patent—but not with the ’383 patent number itself—as being sufficiently marked. While the district court appears to have relied on cases that suggest that there is some flexibility in what constitutes sufficient marking, the statute is not so broad as to allow marking with a different patent—with different claims—to provide sufficient notice to the public. Rather, the plain language of the marking statute provides that the patented article be marked with the “number of *the* patent.” 35 U.S.C § 287(a) (emphasis added).

judge as a question of law subject to *de novo* review.”⁶ *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1007 (Fed. Cir. 2012). Objective recklessness will not be found where the accused infringer’s “position is susceptible to a reasonable conclusion of no infringement.” *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1310 (Fed. Cir. 2011).

The district court failed to undertake an objective assessment of Zimmer’s specific defenses to Stryker’s claims. Instead, the district court’s analysis of objective reasonableness summarily asserted that the “jury heard testimony” that Zimmer “all but instructed its design team to copy Stryker’s products.” *Post-Verdict Order* at 23. The district court further concluded that the “pioneering” nature of Stryker’s inventions and the secondary considerations of non-obviousness “made it dramatically less likely that Zimmer’s invalidity arguments were reasonable.” *Id.*

An objective assessment of the case shows that Zimmer presented reasonable defenses to all of the asserted claims of Stryker’s patents.

⁶ This court has not yet addressed whether *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), or *Highmark Inc. v. Allcare Health Mgmt. Sys., Inc.*, 134 S. Ct. 1744, 1746 (2014), altered the standard of review under which this court analyzes the objective prong of willfulness. However, as the district court failed to undertake any objective assessment of Zimmer’s specific defenses, the district court erred under any standard of review and thus this court need not now address what standard of review is proper regarding the objective prong of willfulness.

First, with respect to the '329 patent, the motor in the Zimmer's Pulsavac Plus is located in the nub at the rear of the barrel of its pistol-shaped device. Stryker's infringement case relied on first persuading the district court to broadly construe the claim term "handle" to include the barrel of a pistol-shaped device—even though the patent specification only describes the handle and barrel separately. Then, Stryker had to persuade the jury that the barrel nub was a part of the device "designed to be held by hand," even in light of prosecution history in which Stryker distinguished between the location of the motor in the handle as opposed to the barrel. Though Stryker ultimately prevailed, Zimmer's arguments were not unreasonably founded on the plain meaning of "handle" in the context of a pistol-shaped device, the specification's exclusive disclosure of pistol-shaped devices, and the prosecution history—all on which it could have relied to provide notice of what the patent claims covered.

Second, with respect to the '807 patent, the specification only disclosed female nozzles on the front end of the device and male nozzles on the removable tip, which would be consistent with the claim requiring that the front end "receive" the tip. Zimmer's devices had the exact opposite configuration: tapered male nozzles on the front end and female nozzles on the tip. Furthermore, the prior art Var-A-Pulse devices included all of the asserted claims' limitations except one. In light of the district court's claim construction, Stryker's defense to Zimmer's argument relied on persuading the jury that even though the tip's nozzles could fit into the handpiece and be held in place through friction with internal housing grooves, that did not mean they were "secured or fastened." Again, though Stryker prevailed, Zimmer's defenses were not unreasonable.

Third, with respect to the '383 patent, Zimmer's obviousness argument relied on a combination of references that was also raised by a PTO examiner during Stryker's

prosecution of a related patent application—in an office action that occurred during discovery in this litigation. Zimmer’s reliance on this combination was not without reason, in particular since the references related to pressurized water irrigation systems used in hospitals and clinics. Therefore, even if Zimmer’s defenses failed at trial, it still made a reasonable case that the ’383 patent’s asserted claims were obvious and thus invalid.

In sum, we find that Zimmer’s defenses to the infringement of each patent claim that Stryker asserted were not objectively unreasonable, and, therefore, it did not act recklessly.

Attorneys’ Fees

As the court reversed the district court’s determination of willful infringement, and the district court’s award of attorneys’ fees was based on that determination, we vacate the district court’s grant of attorneys’ fees. However, because there exist further allegations of litigation misconduct in this case and because the standard for finding an exceptional case has changed since the district court issued its finding regarding attorneys’ fees, we remand this issue for further consideration by the district court.

IV

For the aforementioned reasons, we affirm the jury’s verdict of infringement and validity of all three patents at issue, as well as its award of lost profits. However, we reverse the district court’s determination of willful infringement and thus vacate its award of trebled damages. We also vacate and remand the district court’s finding of an exceptional case and its award of attorneys’ fees. The case is remanded for further proceedings consistent with this opinion.

**AFFIRMED-IN-PART, REVERSED-IN-PART,
VACATED-IN-PART, AND REMANDED**