

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

LAZARE KAPLAN INTERNATIONAL, INC.,

Plaintiff-Appellant,

v.

**PHOTOSCRIBE TECHNOLOGIES, INC.
AND DAVID BENDERLY,**

Defendants-Appellees,

AND

GEMOLOGICAL INSTITUTE OF AMERICA,

Defendant-Appellee.

2009-1251

Appeal from the United States District Court for the
Southern District of New York in 06-CV-4005, Senior
Judge Thomas P. Griesa.

Decided: December 22, 2010

DEANNE E. MAYNARD, Morrison & Foerster LLP, of Washington, DC, argued for plaintiff-appellant. With her on the brief were HAROLD J. MCELHINNY, Morrison & Foerster LLP, of San Francisco, California, CYNTHIA LOPEZ BEVERAGE, Morrison & Foerster LLP, of Washington, DC.

IRA J. SCHAEFER, Hogan & Lovells US LLP, of New York, New York, argued for defendants-appellees, Photoscribe Technologies, Inc., et al.

JOHN ALLCOCK, DLA Piper LLP (US), of San Diego, California, argued for defendant-appellee, Gemological Institute of America. With him on the brief were WILLIAM G. GOLDMAN, and STANLEY J. PANIKOWSKI.

Before LOURIE, FRIEDMAN, and LINN, *Circuit Judges*.

LINN, *Circuit Judge*.

After jury and bench trials, the United States District Court for the Southern District of New York entered a final judgment against Lazare Kaplan International, Inc. (“Lazare”) in favor of Gemological Institute of America (“the Institute”); Photoscribe Technologies, Inc. (“Photoscribe”); and Photoscribe’s founder and president, David Benderly (collectively, “the Defendants”) decreeing the following: (1) the Defendants had not infringed the asserted claims of United States Patents No. 6,476,351 (“the ’351 Patent”) and No. 7,010,938 (“the ’938 Patent”) and claim 18 of the ’351 Patent is invalid; (2) the ’351 and ’938 patents are unenforceable due to inequitable conduct; (3) the case is exceptional under 35 U.S.C. § 285; and (4) the Defendants are entitled to their reasonable attorneys’

fees. *Lazare Kaplan Int'l, Inc. v. Photocscribe Techs., Inc.*, No. 06-CV-4005 (TPG) (S.D.N.Y. Jan. 22, 2009). The district court denied Lazare's motions for judgment as a matter of law and for new trials, and Lazare appealed. For the reasons discussed below, this court affirms-in-part, vacates-in-part, and remands for further proceedings consistent with this opinion.

I. BACKGROUND

Lazare is the owner of the '351 and '938 patents, entitled "Laser Marking System" and "Microinscribed Gemstone," respectively. The '351 Patent discloses a system that uses a fixed laser to create a series of microscopic spots on the surface of gemstones such as diamonds. Together these spots form a "microinscription" that is visible with the aid of a jeweler's loupe and can be used to authenticate and track gemstones. In addition to a laser, the disclosed system includes a movable "stage" that positions a gemstone (also referred to as a "workpiece") to be inscribed, an optical system that focuses energy from the laser onto the gemstone, and a computer system for control. The system also typically includes two or more video cameras mounted at right angles to each other that provide images of the gemstone to a computer display throughout the inscription process. The laser, stage, and optical system are rigidly mounted on a common frame to reduce the effect of vibration on the system. FIG. 9 of the '351 Patent illustrates a preferred embodiment of the system:

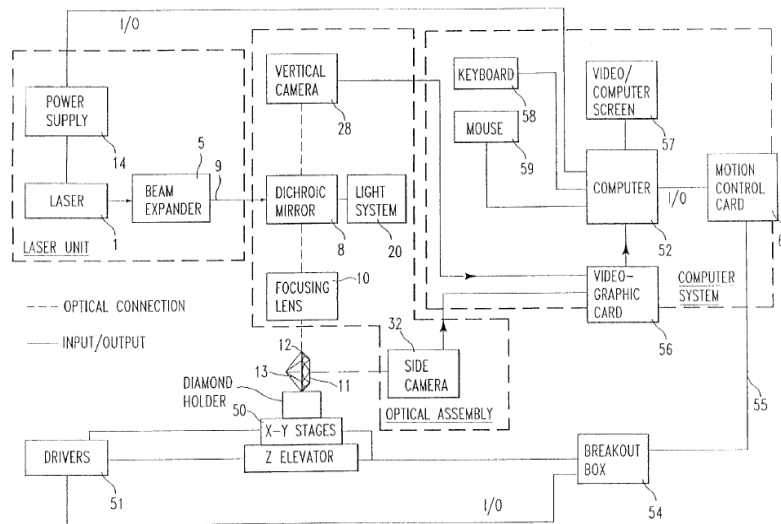


FIG. 9

As is relevant here, the '351 Patent claims a microinscribing system that has a "rigid frame" supporting the laser, stage, and optical system "in fixed relation, to resist differential movements" and to "increase immunity to vibrational misalignments." The patent also claims a method of microinscribing that includes "controlling the directing" of laser energy based on marking instructions and imaging.

The '938 Patent is a descendant of the '351 Patent that has a largely similar specification. As its title suggests, the '938 Patent claims microinscribed gemstones that have specified characteristics. In particular, the patent claims gemstones with laser generated spots, the "positional accuracy" of which is "within about ± 1 micron" and the "positional repeatability" of which is "within about 1.0 micron." The patent also claims ranges of depths and widths of each spot on a gemstone, the depths being "less than about 10 microns" and widths being either "less than about 9 microns" or "less than about 12 microns."

Lazare also owns United States Patent No. 4,392,476 (referred to as “the Gresser Patent” after co-inventor Herbert Gresser), entitled “Method and Apparatus for Placing Identifying Indicia on the Surface of Precious Stones Including Diamonds.” The patent, which is prior art to both the ’351 and ’938 patents, discloses a system for inscribing gemstones that includes a “laser beam generation system,” an “optical system,” and a “table system.” Gresser Patent col.2 ll.13-68. Herbert Gresser and his company, Group II Manufacturing Ltd. (“Group II”), developed a commercial embodiment of the disclosed system for Lazare in the 1980’s that the parties refer to as the “Gresser machine.” According to a contract concerning the development of the Gresser machine, the machine was to include “a rigid base to support a laser, scanner optics, and object fixture with adequate protective covers.” To prevent vibrations from causing errors during the inscription process, the machine rested on a cushion of compressed air produced by a set of pneumatic legs positioned underneath the machine. The ’351 Patent makes passing reference to both the Gresser Patent and the Gresser machine. Neither the ’351 Patent nor the Gresser Patent, however, explicitly discloses that the Gresser machine included the rigid base mentioned above.

Lazare initiated the underlying action against the Defendants, claiming that the Defendants infringed various claims of both the ’351 and ’938 patents, including claims 1, 7, and 18 of the ’351 Patent and claims 1, 24, 62, and 70 of the ’938 Patent. Lazare asserted, among other things, that Photoscribe, acting under the exclusive control of David Benderly, manufactured infringing inscription machines and sold them to the Institute, which in turn used the machines to produce infringing diamonds. The Defendants denied the allegations and argued that the

asserted claims are invalid and that both patents are unenforceable due to inequitable conduct.

Before trial, the parties agreed upon the meaning of the “positional accuracy” and “positional repeatability” limitations, but disputed the meanings of the “controlling the directing” and “rigid frame” limitations. After construing the disputed limitations at a hearing pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), the district court determined that under its construction of “controlling the directing” claims 1 and 7 of the ’351 Patent were not literally infringed and granted summary judgment of no literal infringement of these claims in favor of the Defendants. *Lazare Kaplan Int’l, Inc. v. Photocrite Techs., Inc.*, No. 06-CV-4005 (TPG), 2008 WL 355605, at *1 (S.D.N.Y. Feb. 5, 2008) (“*Summary Judgment Order*”). The court, however, permitted Lazare to argue at trial that these claims were infringed under the doctrine of equivalents. *Id.*

After a two-week jury trial, the jury found that the Defendants had not infringed any of the asserted claims. The jury also found that the Defendants had proven by clear and convincing evidence that claim 18 of the ’351 Patent is invalid. In a subsequent bench trial on inequitable conduct, the district court concluded that Lazare had committed inequitable conduct with respect to the ’351 Patent by failing to adequately disclose the structure of the Gresser machine to the United States Patent and Trademark Office (“PTO”). The court found that Lazare had also engaged in inequitable conduct with respect to the ’938 Patent because Lazare did not submit to the PTO a declaration Lazare created that demonstrated that the Gresser machine could produce inscriptions with line widths and depths falling within the ranges recited in the claims. Based on its inequitable conduct findings, the

court held that the case was exceptional under 35 U.S.C. § 285 and awarded the Defendants over \$6 million in attorneys' fees. Lazare made separate motions for judgment as a matter of law and for new trials, which the district court denied. *Lazare Kaplan Int'l, Inc. v. Photocscribe Techs., Inc.*, No. 06-CV-4005 (TPG), 2009 WL 1383655 (S.D.N.Y. May 18, 2009). Lazare timely appealed, and we have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

II. DISCUSSION

On appeal, Lazare challenges the denial of its post-trial motions on a number of grounds. Lazare first contends that the district court incorrectly construed the “controlling the directing” limitation in claims 1 and 7 of the '351 Patent, arguing that under the correct construction of the limitation the accused devices infringe these claims. Next, Lazare asserts that the district court provided the jury with flawed instructions regarding the construction of the “rigid frame” element in claim 18 of the '351 Patent and that ample evidence supported infringement. Lazare also contends that testimony asserting that claim 18 is invalid was not sufficiently corroborated. Regarding claims 1 and 24 of the '938 Patent, Lazare argues that the district court failed to construe the recited “positional accuracy” limitation and that under the correct construction of the limitation no reasonable jury could have found that these claims were not infringed. Lazare makes a similar assertion with respect to claims 62 and 70 of the '938 Patent, contending that no reasonable jury could have found that these claims are not infringed because uncontroverted evidence showed that the recited “positional repeatability” limitation is satisfied. Finally, Lazare argues that the court improperly concluded that the '351 and '938 patents are

unenforceable due to inequitable conduct and exacerbated this error by determining that the case was exceptional and awarding the Defendants their attorneys' fees. We address each of these contentions in turn.

Because the denial of a motion for judgment as a matter of law or for a new trial is a procedural issue not unique to patent law, this court reviews such denials under the law of the regional circuit where the appeal from the district court would normally lie, in this case, the Second Circuit. *Riverwood Int'l Corp. v. R.A. Jones & Co., Inc.*, 324 F.3d 1346, 1352 (Fed. Cir. 2003). The Second Circuit reviews for abuse of discretion the denial of a motion for new trial. *SEC v. DiBella*, 587 F.3d 553, 563 (2d Cir. 2009). "A motion for a new trial ordinarily should not be granted unless the trial court is convinced that the jury has reached a seriously erroneous result or that the verdict is a miscarriage of justice." *Armstrong v. Brookdale Univ. Hosp. & Med. Ctr.*, 425 F.3d 126, 133 (2d Cir. 2005). The Second Circuit reviews de novo the denial of a motion for judgment as a matter of law, "applying the same standards that guided the district court's consideration of the issue." *Nimely v. City of New York*, 414 F.3d 381, 391 (2d Cir. 2005). The Second Circuit will grant a motion for judgment as a matter of law "only if 'a reasonable jury would not have a legally sufficient evidentiary basis to find for the [non-movant] on that issue.'" *Cameron v. City of New York*, 598 F.3d 50, 59 (2d Cir. 2010) (alteration in original) (citation omitted).

A. "Controlling the Directing"

Claim 1 of the '351 Patent recites a method of micro-inscribing a gemstone involving controlling the directing of focused laser energy based on marking instructions and imaging:

1. A method of microinscribing a gemstone with laser energy from a pulse laser energy source, focused by an optical system on the workpiece, comprising the steps of: mounting a gemstone in a mounting system; directing the focused laser energy onto a desired portion of the gemstone; imaging the gemstone from at least one vantage point; receiving marking instructions as at least one input; and *controlling the directing of the focused laser energy based on the marking instructions and the imaging, to selectively generate a marking on the gemstone based on the instructions.*

'351 Patent col.26 ll.53-65 (emphasis added). Claim 7 of the '351 Patent is a corresponding system claim that includes a similar limitation. *See id.* col.27 ll.17-35. The district court construed "controlling the directing" to mean "controlling is based on the marking instructions generated by the operator of the machine, and automatic feedback derived from optical images of the gemstone during the laser burn process." *Summary Judgment Order* at *1. The court found that this construction followed from the plain meaning of the limitation and concluded that two passages from the specification of the '351 Patent support this construction. First, the court noted that the specification discloses using optical feedback "to adjust workpiece positioning as well as inscription speed, number, intensity and/or rate of pulses at a given location, as well as to verify progress of the marking process." '351 Patent col.3 ll.1-6. The court observed that this description "does not talk about those operations being done by a human operator" and interpreted the description as "plainly talk[ing] about some adjustment being accomplished as a result of the image and that image being conveyed to the computer." *Markman Hr'g Tr.* vol. 3, 413, Oct. 25, 2007. Second, the court found that

the following description of a portion of the laser energy microinscribing system reinforced the court's construction: "input for receiving marking instructions; a processor for controlling said directing means based on said marking instructions and information received from said imaging system." '351 Patent col.13 ll.56-59.

Lazare argues that the district court erroneously construed "controlling the directing . . . based on . . . the imaging" to require automatic feedback derived from optical images of a gemstone during the laser burn process. Lazare asserts that the claims do not specify what "control[s] the directing . . . based on . . . the imaging" or when this type of control occurs. Lazare contends that the specification makes clear that "controlling the directing . . . based on . . . the imaging" encompasses control based on both automated and manual feedback that occurs either before or during the laser burn process. Lazare believes that under the proper construction of the claim it is entitled to judgment as a matter of law that the accused devices infringe claim 1 of the '351 Patent. Alternatively, Lazare requests a new trial on both literal infringement and infringement under the doctrine of equivalents.

In response, the Defendants contend that as a matter of common sense and grammar "controlling the directing . . . to selectively generate a marking on the gemstone" necessarily occurs during the laser burn process. Because the claimed "controlling" must occur during this process, the Defendants assert that "controlling the directing . . . based on . . . the imaging" must be construed to require automated feedback based on an image during the laser burn process, as they contend that only automated control is possible while the laser is marking a gemstone. The Defendants argue that this construction is consistent with the specification and that statements made during prosecution of the '351 Patent also suggest that the disputed

limitation should be limited to automatic control during the laser burn process. This court agrees with Lazare.

This court reviews the district court's claim construction de novo. *Cybor Corp. v. Fas Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). Claim language is generally given its "ordinary and customary meaning," that is, "the meaning that the [language] would have to a person of ordinary skill in the art in question at the time of the invention." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). When determining the meaning of disputed claim language, courts consider "those sources available to the public that show what a person of skill in the art would have understood [the] disputed claim language to mean." *Id.* at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). Such sources include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id.* (quoting *Innova*, 381 F.3d at 1116). Because the parties do not rely on extrinsic evidence, we confine our analysis to the claims, the specification, and the prosecution history.

1. The Claim Language

This court begins with the claims, as they usually give "substantial guidance as to the meaning of particular claim terms." *Id.* (citing *Vitronics Corp. v. Conception, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Contrary to the Defendants' contentions, the language of the claims does not compel the construction of "controlling the directing" adopted by the district court. The claims are silent regarding when the imaging that the "controlling the directing" is in part based upon takes place or who or what

generates this imaging. In particular, we note that nothing in the claims expressly precludes manually “imaging” before the laser burn process begins and then using the imaging to control the laser as it marks a gemstone.

2. The Specification

This court turns next to the specification. “Claims must be read in view of the specification[] of which they are a part.” *Markman*, 52 F.3d at 979. The specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (quoting *Vitronics*, 90 F.3d at 1582). Here, the specification indicates that “controlling the directing . . . based on . . . the imaging” includes control based on both automated and manual feedback derived from optical images of a gemstone, either before or during the laser burn process. Throughout the patent, the term “imaging” is used in connection with an optical feedback process in which either a computer or a user can set up and manipulate an inscription. For example, the summary of the invention section of the specification describes an “optical feedback imaging system, e.g., the video camera,” ’351 Patent col.4 ll.39-40, and discloses that “optical feedback of the process is possible through one or more video cameras,” *id.* col.2 ll.61-62. The specification explains that the optical feedback “may be used to adjust workpiece positioning as well as inscription speed, number, intensity and/or rate of pulses at a given location, as well as to verify progress of the marking process.” *Id.* col.3 ll.1-6. The district court correctly observed that this sentence “does not talk about those operations being done by a human operator,” but neither does the sentence foreclose a role for a human in the optical feedback process. But the next paragraph in the specification explicitly contem-

plates such a role: “[t]he optical feedback system also allows the operator to design an inscription, locate the inscription on the workpiece, verify the marking process and archive or store an image of the workpiece and formed markings.” *Id.* col.3 ll.14-17. Within the same section, the specification discloses that where a single pass of the laser is sufficient to inscribe a gemstone “an automated optical feedback system may reliably control operation.” *Id.* col.5 ll.57-60. The specification goes on to explain, however, that when multiple passes are necessary “user control may be desirable, and such control is possible through use of the video cameras which are directed at the workpiece, which display a real time image on a computer monitor.” *Id.* col.5 l.67 – col.6 l.4.

The detailed description section of the specification further illuminates the meaning of “controlling the directing . . . based on . . . the imaging.” In the portion of the text entitled “Mode of Operation,” the specification states that data concerning the profile of a gemstone is “used to keep the focal point of the laser output on the surface of the girdle at all times.” *Id.* col.17 ll.28-30 (element numbers removed). The specification discloses that such data “may be automatically extracted from the images, or a manual entry step employed to outline the profile and/or girdle boundaries.” *Id.* col.17 ll.30-33. The specification indicates that the manual entry step may involve a user marking a girdle profile “[i]n [a] horizontal camera screen . . . using a mouse input device to mark the critical dimensions.” *Id.* col.17 ll.26-28. The specification also makes clear that the manual entry step is performed before the marking process begins: “When these procedures are complete a so-called G-code file is generated containing all inscription data. This file is transferred to the positioning stage controller for performance of the actual inscription.” *Id.* col.17 ll.36-38. Similarly, the specification later discloses that a “complete inscription . .

. is projected on an image from a vertically oriented camera of the girdle providing the user with the ability to interactively change length of inscription, height of characters remove and align the whole inscription.” *Id.* col.20 ll.52-56. The specification again notes that the “girdle area may be outlined by the user with a mouse or automatically determined by image analysis in the computer system. The operator can thus observe the inscription before making; observe the marking process itself, and then observe the result and decide if the inscription is complete or not.” *Id.* col.20 ll.56-62 (element numbers removed).

Considered together, these statements make evident that one of ordinary skill in the art at the time of the invention would have understood the term “controlling the directing . . . based on . . . the imaging” to include control based on either automated or manual feedback derived from optical images of a gemstone, before or during the laser burn process.

3. Prosecution History

Nothing in the prosecution history of the ’351 Patent suggests a narrower meaning of the “controlling the directing” limitation. The Defendants contend that several statements made in response to the rejection of what is now claim 1 of the ’351 Patent by the PTO show that Lazare considered the “controlling the directing” limitation as requiring automatic computer control. One of the statements is contained in an interview summary issued by the PTO stating that Lazare “[a]greed that none of the references . . . disclose the feedback of using imaging of the workpiece during the marking process.” In a subsequent response, Lazare stated the “controlling” limitation “requires analysis of the image” and that “[n]one of the prior art references discloses using the

imaging as a basis for controlling the inscription process.” This court fails to see how either of these statements support the narrow construction of “controlling the directing . . . based on . . . the imaging” asserted by the Defendants. In light of the description of the inscription process in the specification of the ’351 Patent, this court understands the reference to “using imaging of the workpiece during the marking process” to include not only using an image during the laser burn process, but also the preparatory steps of, for instance, using an image to position an inscription and generate a profile of a gemstone. The statements that the “controlling” limitation “requires analysis of the image” and that “[n]one of the prior art references disclose[] using the imaging as a basis for controlling the inscription process” are consistent with this understanding of the specification. To the extent that the Defendants contend that these statements amount to a disclaimer of subject matter, these statements fall short of the clear and unmistakable disavowal necessary for the doctrine of prosecution disclaimer to apply. *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003) (“[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.”).

Based on the foregoing, this court concludes that the district court erred by limiting “controlling the directing . . . based on . . . the imaging” to automatic feedback derived from optical images of the gemstone during the laser burn process. We therefore vacate the grant of summary judgment of no literal infringement and the jury verdict of no infringement under the doctrine of equivalents, as both are based on this erroneous construction. Although Lazare argues that it is entitled to judgment as a matter of law based on the record before us, prudence counsels that we remand this portion of the judgment for further

proceedings, as we cannot determine with any certainty that the accused machines infringe the asserted claims under this new construction. *See Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1324 (Fed. Cir. 2008) (“Because we have adopted a new claim construction on appeal, and this is not a case in which it is clear from the record that the accused device does or does not infringe, a remand is warranted for a determination of infringement under the correct claim construction.”).

B. “Rigid Frame”

1. Jury Instructions

Claim 18 of the ’351 Patent recites a “laser energy microinscribing system” that includes a “rigid frame”:

18. A laser energy microinscribing system for gemstones, said system comprising: a laser energy source; a cut gemstone mounting system, allowing optical access to a mounted gemstone; an optical system for focusing laser energy from the laser energy source onto a cut gemstone; a displaceable stage, having a control input, for moving said gemstone mounting system with respect to said optical system so that said focused laser energy is presented to desired positions on said gemstone; an imaging system for viewing the gemstone from at least one vantage point; and *a rigid frame supporting said laser, said optical system and said stage in fixed relation, to resist differential movements of said laser, said optical system and said stage and increase immunity to vibrational misalignments.*

'351 Patent col.28 ll.27-43 (emphasis added). Lazare argued during the *Markman* hearing that the “rigid frame” element should be accorded its plain meaning, urging that the element “should be accepted for exactly what it says,” and the district court adopted this construction of the claim. At trial, Lazare asked the district court to read eighteen pages of proposed instructions to the jury, which included sections that addressed the construction of the “rigid frame” element and the standard for demonstrating infringement. The court declined, choosing instead to read its own instructions to the jury. As part of those instructions, the district court explained to the jury that the jury was to determine whether the accused machines “infringed claim 18 of the '351 Patent in respect to the element dealing with a rigid frame” and then read the “rigid frame” limitation as recited in the claim to the jury. Jury Charge vol. 10, 1554, Mar. 7, 2008. The court also read aloud dictionary definitions of the words “rigid” and “frame” and explained that together the words “mean[] . . . [a] rigid structure, a structure [that] is not pliant, not flexible, a structure [that] is stiff, unyielding, firm” *Id.* at 1556. The court informed the jury that the “definition is of interest and if you want to call for a dictionary during your deliberations, you can call for one.” *Id.* at 1555. The court later reiterated this invitation, stating that “you can get the dictionary on your own and you may find some other part of the definition that is helpful.” *Id.* at 1556. Neither party claims that the jury asked for, or was given, a dictionary during its deliberations.

During a subsequent recess, Lazare requested that the court read the definition of “rigid frame” that the court had adopted during the *Markman* hearing. The court refused, explaining that it already had done so: “I gave the ruling on the *Markman* . . . because of the lan-

guage of the claim. . . . I read the language of the claim [to the jury]. I don't have to go back to that." *Id.* at 1575. When the court provided the parties an opportunity to object and suggest curative instructions, Lazare objected to the "rigid frame" instruction on the grounds that the court improperly focused on the words "rigid" and "frame" and read dictionary definitions of these words to the jury. The court, apparently concerned that its jury instruction might be erroneous, informed Lazare that to correct the instruction the court would "be glad to read anything you want me to read or direct [the jury's] attention [to]" and was "willing to do whatever you would like to have me do." *Id.* at 1585-86. In response, Lazare told the court it "would be satisfied certainly if you just read the next sentence [from the '351 Patent] to the jury": "[D]ue to [the] compact size of the system and relatively small components, the frame may have sufficient rigidity to provide isolation from vibrational effects." *Id.* at 1595. Lazare later reassured the court that reading the sentence would address its concerns with the instruction, stating that it would "be satisfied with a simple reading of that sentence to the jury." *Id.* at 1596. The court complied with Lazare's request, and Lazare raised no further objection.

Lazare now contends that it is entitled to a new trial because the district court abdicated its responsibility to definitively construe the "rigid frame" element when the court refused to read its construction of the element to the jury and instead suggested that the jury could rely on a dictionary to interpret the element. Lazare also asserts that the court misled the jury by focusing on the words "rigid" and "frame" and reading dictionary definitions of those words to the jury. Lazare argues that it was unnecessary to object to the curative instruction given by the district court because the court had already made clear that objecting further would have been pointless by

refusing Lazare's requests to read the proposed jury instructions and the court's construction of the "rigid frame" element to the jury.

The Defendants disagree and contend that Lazare waived these arguments by failing to object to the curative instruction. The Defendants assert that even if we conclude that Lazare did not waive these arguments, there is no reason to disturb the jury verdict because the instruction at issue is consistent with the court's construction of the "rigid frame" element and, moreover, Lazare has not established that it suffered any prejudice as a result of the instruction.

This court agrees with the Defendants. Under Rule 51 of the Federal Rules of Civil Procedure, a party must timely object to a jury instruction "on the record, stating distinctly the matter objected to and the grounds for the objection." If a party fails to preserve its objection to a jury instruction, a court may nonetheless "consider a plain error in the instructions . . . if the error affects substantial rights." Fed. R. Civ. P. 51(d)(2).

We look to regional circuit law to determine whether a party has satisfied the requirements of Rule 51. *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000) ("Because objection to a jury instruction involves a procedural matter that is not intimately related to this court's exclusive jurisdiction, we look to the regional circuit law to ascertain the requirements necessary to comply with [Rule 51]." (citation omitted)). The Second Circuit generally requires a litigant to object to a jury instruction in the manner set forth in Rule 51; however, the Second Circuit will excuse a failure to properly object to a jury instruction when the litigant has "previously made its position clear to the trial judge and any further attempt to change the judge's mind would have been futile." *Thornley v. Penton Publ'g, Inc.*, 104 F.3d 26, 30 (2d Cir. 1997), *abrogated on other grounds*

by *Slattery v. Swiss Reinsurance Am. Corp.*, 248 F.3d 87 (2d Cir. 2001). Barring such an excuse, when a litigant has failed to object to a jury instruction, the Second Circuit reviews the instruction for “fundamental error.” *DiBella*, 587 F.3d at 569 (explaining that the “Court may review jury instructions and verdict sheets for fundamental error even when a litigant has not complied with the Fed. R. Civ. P. 51 objection requirements” (citation omitted)); see also *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1375 (Fed. Cir. 2010) (applying the Second Circuit’s fundamental error standard to jury instructions concerning patent law). For an error to be fundamental, it must be “so serious and flagrant that it goes to the very integrity of the trial.” *DiBella*, 587 F.3d at 569 (citation omitted).

Lazare acknowledges that it did not object after the district court gave the curative instruction, and this court is not persuaded that lodging an objection would have been futile. This is not, as Lazare argues, a situation in which further attempts to persuade the district court would have been unavailing or even unwelcome. Although Lazare claims that it notified the court of its position regarding the instruction when it asked the court to read the proposed jury instructions and the court’s construction of the “rigid frame” element to the jury, neither request stated the basis for Lazare’s objection to the instruction. Once Lazare formally objected and explained why it believed the instruction was erroneous, the court made clear that it would not only entertain whatever remedial measures Lazare suggested, but also would likely adopt them, stating that it would be “glad to read anything you want me to read or direct [the jury’s] attention [to]” and that it was “willing to do whatever you would like to have me do” to correct the instruction. We can hardly imagine a clearer indication that further suggestions or discussion would not have been futile.

Moreover, by proclaiming that it would be “satisfied certainly” if the court read the curative instruction and later stating that it would “be satisfied with a simple reading of the [curative instruction],” Lazare led the court to believe that reading the curative instruction would address any concerns Lazare had with the original instruction. It would be fundamentally unfair to allow Lazare to unequivocally assert in response to the court’s offer to “do whatever you would like to have me do” that reading the curative instruction it suggested would address its objections and then successfully argue on appeal that it was somehow precluded from seeking its desired remedy.

Because Lazare failed to object after the court gave the curative instruction and because this failure was not excused, the only question that remains is whether the instruction given represents fundamental error. Although the instruction given by the district court may not have been ideal, the instruction was not so flawed as to undermine the integrity of the trial. Contrary to Lazare’s argument, the court did not leave the construction of the “rigid frame” limitation to the jury. Rather, it informed the jury that it was “[the court’s] duty to hold a hearing before the trial and determine what the proper construction or interpretation of [the] patent language is.” The district court then read its construction of the limitation—the language of the limitation itself, supplemented by dictionary definitions—to the jury. Lazare contends that the court erred by resorting to a dictionary, but courts are not barred from relying on dictionaries to define claim terms. As we explained in *Phillips*, courts are free to consult dictionaries “and may . . . rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent docu-

ments.” 415 F.3d at 1322 (quoting *Vitronics*, 90 F.3d at 1584 n.6). Here, after reading dictionary definitions of the words to the jury, the court explained that the words “mean[] . . . [a] rigid structure, a structure [that] is not pliant, not flexible, a structure [that] is stiff, unyielding, firm” This definition is entirely consistent with the plain language of the “rigid frame” limitation and the specification. Regarding the contention that the court improperly focused on the words “rigid” and “frame”, we note the court read the entire limitation to the jury and instructed the jury that every part of the claim must be considered. At bottom, this court is not convinced that the instruction amounted to fundamental error.

2. Corroboration

To demonstrate that claim 18 of the '351 Patent is invalid, the Defendants introduced at trial the testimony of Herbert Gresser, who, as noted above, is the eponymous co-inventor of the Gresser machine. He testified that the machine included a laser, a fixture for a diamond, and various optical components mounted on a “rigid base plate” that was “rigid enough to support all these parts without major deflections.” Relying in part on this testimony, the Defendants successfully argued that claim 18 is invalid.

Lazare essentially contends on appeal that it is entitled to judgment as a matter of law that claim 18 is not invalid because the Defendants failed to sufficiently corroborate Gresser’s testimony, as none of the evidence introduced by the Defendants mentions either “resist[ing] differential movements” or “increas[ing] immunity to vibrational misalignments” as required by claim 18. For their part, the Defendants argue that the evidence pre-

sented at trial was more than sufficient to corroborate Gresser's testimony.

Generally, “[c]orroboration is required of any witness whose testimony alone is asserted to invalidate a patent.” *TypeRight Keyboard Corp. v. Microsoft Corp.*, 374 F.3d 1151, 1159 (Fed. Cir. 2004) (citation omitted). This requirement stems from the suspect nature of oral testimony concerning invalidating events. As the Supreme Court noted more than a century ago, the “unsatisfactory character” of such testimony “aris[es] from the forgetfulness of witnesses, their liability to mistakes, their proneness to recollect things as the party calling them would have them recollect them, aside from the temptation to actual perjury” *The Barbed Wire Patent*, 143 U.S. 275, 284 (1892). Although oral testimony asserted to invalidate a patent must be corroborated, as we have explained in a similar context, this court has “not impose[d] an impossible standard of ‘independence’ on corroborative evidence by requiring that every point . . . be corroborated by evidence having a source totally independent of the [witness].” *Knorr v. Pearson*, 671 F.2d 1368, 1374 (CCPA 1982). Rather, this court applies a “rule of reason” analysis to determine whether the testimony introduced has been sufficiently corroborated. *Lacks Indus., Inc. v. McKechnie Vehicle Components USA, Inc.*, 322 F.3d 1335, 1349 (Fed. Cir. 2003). Under this analysis, this court evaluates all of the pertinent evidence “so that a sound determination of the credibility of the [witness’s] story may be reached.” *Price v. Symsek*, 988 F.2d 1187, 1195 (Fed. Cir. 1993). When conducting a rule of reason analysis, this court generally considers the following eight factors:

- (1) the relationship between the corroborating witness and the alleged prior user,

- (2) the time period between the event and trial,
- (3) the interest of the corroborating witness in the subject matter in suit,
- (4) contradiction or impeachment of the witness' testimony,
- (5) the extent and details of the corroborating testimony,
- (6) the witness' familiarity with the subject matter of the patented invention and the prior use,
- (7) probability that a prior use could occur considering the state of the art at the time,
- (8) impact of the invention on the industry, and the commercial value of its practice.

Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1371 (Fed. Cir. 1998).

This court is not persuaded by Lazare's argument that corroboration is lacking. In support of Gresser's testimony, the Defendants introduced a 1980 contract between Gresser's company, Group II, and Lazare, under which Group II agreed to create what became the Gresser machine. The contract explicitly specified that the machine would include "a rigid base to support laser, scanner optics, and object fixture with adequate protective covers." The Defendants also produced a 1982 manual for the machine that describes its operation and illustrates its structure. This documentary evidence, created around the time the machine was developed, provides strong support for Gresser's testimony. *Cf. Sandt Tech., Ltd. v. Resco Metal & Plastics Corp.*, 264 F.3d 1344, 1350-51 (Fed. Cir. 2001) ("Documentary or physical evidence that is made contemporaneously with the inventive process provides the most reliable proof that the inventor's testimony has been corroborated."). Moreover, one of Lazare's own witnesses, Charles Rosario, Lazare's Senior Vice

President of Diamond Operations, confirmed that the Gresser machine had a base that supported a laser, scanner optics, and an object fixture and testified that the base “was so solid that it wouldn’t warp.” The evidence before the district court also included an undated commercial video illustrating the machine in operation and an undated photograph of the machine annotated by Gresser during litigation. Because the annotations were added to the photograph during litigation, the annotations are no more reliable than the oral testimony they accompanied. See *Juicy Whip, Inc. v. Orange Bang, Inc.*, 292 F.3d 728, 743 (Fed. Cir. 2002). But, despite being undated, the photograph itself and the video lend further credence to Gresser’s testimony, as they are consistent with his description of the machine and the other supporting documentary evidence presented, and Lazare has not challenged their accuracy. Indeed, with a minor exception irrelevant here, Rosario acknowledged that the photograph and video accurately represented the Gresser machine. After considering the factors set out in *Woodland Trust*, this court concludes that this evidence was sufficient to corroborate Gresser’s testimony.

C. “Positional Accuracy of Placement”

Claims 1 and 24 of the ’938 Patent each recite a diamond that has graphitized spots having dimensions within specified width and depth ranges, wherein the “positional accuracy of placement” of each spot is within approximately ± 1 micron:

1. A diamond having a microinscribed marking comprising a plurality of laser generated graphitized spots on a polished surface of the diamond, each spot having a depth of less than about 10 microns and having a width of less than about 9 mi-

crons, *wherein a positional accuracy of placement of each of the graphitized spots to form the marking is within about ± 1 micron.*

'938 Patent col.27 ll.13-19 (emphasis added).

24. A diamond having a microinscribed marking comprising a plurality of laser generated graphitized spots on a bruted surface of the diamond, each spot having a depth of less than about 10 microns and having a width of less than about 12 microns, *wherein a positional accuracy of placement of each of the graphitized spots to form the marking is within about ± 1 micron.*

Id. col.28 ll.35-41 (emphasis added). Before trial, the parties agreed that the “positional accuracy of placement” limitation means that “[d]uring inscription . . . the center of each spot is within ± 1.1 microns of the desired position of the spot on the diamond.” Joint Pre-Claim Construction Hr’g Statement 3. During trial, the Defendants contended that to prove that a diamond satisfied the “positional accuracy of placement” limitation, Lazare must show that each graphitized spot on the diamond was placed within ± 1 micron of a predetermined reference point on the diamond. Lazare, by contrast, argued that to meet the limitation it simply needed to demonstrate that “[w]hen you put down a spot” you can put another spot “right next to it.” Neither party asked the court to further construe the “positional accuracy of placement” limitation, and the jury returned a verdict of noninfringement of both claims.

Citing our decision in *O2 Micro International Ltd. v. Beyond Innovation Technology Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008), Lazare contends that a new trial is

necessary because the district court erred by failing to further construe the “positional accuracy of placement” limitation. Lazare argues that the parties disputed the scope of the limitation, and, despite recognizing the nature of the dispute, the court failed to resolve the issue, effectively leaving the jury to determine the meaning of the limitation. Lazare also asserts that under the correct construction of the limitation no reasonable jury could have found that these claims are not infringed. The Defendants contend that the court was not obligated to further construe the limitation because Lazare did not ask the court to revisit the parties’ agreed upon construction. Moreover, the Defendants argue that the parties did not dispute the construction of the claim but rather the proper test to determine infringement, which is a factual question appropriate for the jury.

This court agrees with the Defendants that the parties’ dispute concerns factual questions relating to the test for infringement and not the legal inquiry of the appropriate scope of the “positional accuracy” limitation. See *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1377 (Fed. Cir. 2005) (“Because the claim language does not require a particular form of testing, this inquiry is not a claim construction question, which this court reviews de novo. Rather, this court reviews this inquiry as a question of fact.”), *overruled on other grounds by Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348 (Fed. Cir. 2009).

Even if Lazare were correct that the parties’ disagreement concerned the scope of the limitation, Lazare waived this argument by not raising it before the district court. Although waiver is generally a procedural issue, this court applies Federal Circuit precedent when determining whether a claim construction argument has been

waived. *Harris Corp. v. Ericsson Inc.*, 417 F.3d 1241, 1250-51 (Fed. Cir. 2005). Unlike *O2 Micro* where the appellant presented its claim construction argument to the district court during a *Markman* hearing, Lazare first asserted the claim construction argument it presses on appeal in a post-trial motion. As we have repeatedly explained, “litigants waive their right to present new claim construction disputes if they are raised for the first time after trial.” *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008) (citation omitted).

Lazare argues that its failure to raise its claim construction argument was excused because the court was allegedly aware of the issue before the trial concluded. Lazare primarily relies on two statements from the court to support its contention that the court knew of the dispute. First, when discussing the “positional accuracy of placement” limitation at trial the court stated it would “have to worry about the interpretation of the claim.” Second, after reading the parties’ agreed upon construction of the limitation as part of its jury instruction, the court told the jury that “I don’t think there is any more definition that I can give you. This is in your hands.” Neither statement, however, demonstrates that the court was aware of the supposed dispute. The court stated that it would “have to worry about the interpretation of the claim” in the context of a discussion regarding the difference between “positional accuracy” and “positional repeatability.” There is no indication anywhere in this discussion that the court was aware of the argument that Lazare now raises on appeal. When the court informed the jury that “I don’t think there is any more definition that I can give you,” we understand the court simply to have instructed the jury that it was up to the jury to apply the definition of “positional accuracy” that the court had just read, not, as Lazare argues, that the jury was

free to chose from what Lazare contends were the conflicting constructions presented by the parties. Regardless, it was incumbent upon Lazare to raise its claim construction argument before the district court, and, having failed to do so, Lazare cannot now resurrect that argument on appeal by pointing to ambiguous statements in the record.

This court also agrees with the Defendants that the jury's verdict was supported by substantial evidence. The record contains ample evidence that, under the test proposed by the Defendants, Lazare failed to demonstrate infringement, as Lazare's expert admitted that he never compared each spot on the diamond to a predetermined reference point.

D. "Positional Repeatability"

Claims 62 and 70 of the '938 Patent each recite a diamond that has graphitized spots, wherein each spot has a "positional repeatability" within about 1.0 micron:

62. A diamond, having a microinscribed marking comprising a plurality of laser generated graphitized spots on a polished surface of the diamond, each spot having a depth of less than about 10 microns and having a width of less than about 9 microns, *wherein a positional repeatability of each of the graphitized spots in forming the marking is within about 1.0 micron.*

'938 Patent col.31 ll.4-10 (emphasis added).

70. A diamond, having a microinscribed marking comprising a plurality of laser generated graphitized spots on a bruted surface of the diamond,

each spot having a depth of less than about 10 microns and having a width of less than about 12 microns, *wherein a positional repeatability of each of the graphitized spots in forming the marking is within about 1.0 micron.*

Id. col.31 ll.34-40 (emphasis added).

Before trial, the parties agreed that “positional repeatability” means “[w]hen a spot in the inscription is repeated, the center of the spot is placed within 1.1 microns from the center of the original spot.” Joint Pre-Claim Construction Hr’g Statement 3. To prove infringement of this limitation, Lazare measured the width of certain “dual trace” inscriptions—an inscription that results from attempting to place one inscription on top of another—on selected diamonds. Lazare’s experts testified that the lines that make up the measured dual trace inscriptions were within a micron of each other. Nonetheless, the jury returned a verdict of non-infringement of the claims.

Lazare argues on appeal that no reasonable jury could have found non-infringement of these claims, as the Defendants did not present any contrary measurements or tests. The Defendants contend that Lazare’s expert admitted that he never performed the measurements that the Defendants believe are necessary to prove infringement. Moreover, the Defendants argue that even if the test he performed was adequate, he only made representative measurements and did not measure each spot on the diamond as required by the claim. Finally, the Defendants contend that Lazare’s expert admitted that “positional repeatability” cannot be determined by measuring the width of a dual trace inscription.

This court agrees with the Defendants. Although Lazare’s experts testified that the lines that form the measured dual trace inscriptions were within a micron of each other, one of Lazare’s experts testified that “positional repeatability” cannot be determined from measuring the width of a dual trace inscription. Moreover, David Benderly testified that, based on known inaccuracies in the allegedly infringing machines and the results of calibration tests, the machines could not produce diamonds that satisfied the “positional repeatability” limitation. Because the jury was free to dismiss the conflicting testimony of Lazare’s experts and rely on Benderly’s testimony, the court concludes that the jury verdict was supported by substantial evidence.

E. Inequitable Conduct

To prove inequitable conduct, an accused infringer must present clear and convincing evidence that “the applicant (1) made an affirmative misrepresentation of material fact, failed to disclose material information, or submitted false material information, and (2) intended to deceive the [PTO].” *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 537 F.3d 1357, 1365 (Fed. Cir. 2008) (quoting *Cargill, Inc. v. Canbra Foods, Ltd.*, 476 F.3d 1359, 1363 (Fed. Cir. 2007)). If a court concludes that a threshold level of both materiality and intent to deceive has been proven by clear and convincing evidence, the court must then “balance the equities to determine whether the applicant’s conduct before the [PTO] was egregious enough to warrant holding the entire patent unenforceable.” *Id.* (citation omitted). We review the underlying factual findings of materiality and intent to deceive for clear error, and we review the ultimate determination of inequitable conduct for abuse of discretion. *Id.* (citation omitted).

1. The '351 Patent

The district court concluded that Lazare engaged in inequitable conduct when prosecuting the application that matured into the '351 Patent by failing to disclose the structure of the Gresser machine to the PTO. The court found that the structure of the machine was highly material to the prosecution of the '351 Patent because evidence presented at trial demonstrated that the machine contained a laser, optical system, and stage mounted on a thick aluminum plate, which the court concluded was relevant to the “rigid frame” element recited in claim 18 of the patent. The court also observed that the PTO initially rejected a claim that included a “rigid frame” element during the prosecution of U.S. Patent No. 5,932,119, the parent of the '351 Patent. The PTO originally rejected the claim in light of the following three patents: United States Patent No. 5,225,650 to Babel et al. (“the Babel Patent”), the Gresser Patent, and Japanese Patent No. 3-146285. The PTO characterized the Babel Patent as teaching a rigid frame supporting a laser, optical system, and work-piece and concluded that the claim was obvious over the combination of this disclosure, the laser inscribing machine taught by Gresser, and a camera system taught by the Japanese patent. In response, the prosecuting attorneys successfully argued that neither Babel nor any of the other cited references disclosed the claimed “rigid frame.” The court found that this rejection demonstrated that the PTO had “no understanding whatever about the structure of the Gresser machine.” Moreover, the court concluded that the rejection “posed in the most explicit terms the issue of whether there was prior art that was material and relevant in connection with this application to get a patent on a rigid frame” and “demanded a disclosure of the fact that the Gresser machine has this especially thick

base to which the laser, the optical system, and stage were attached.”

Regarding specific intent, one of Lazare’s prosecuting attorneys explained during his deposition that he did not more fully describe the Gresser machine to the PTO in part because he believed that the “different design strategy in the machine,” e.g., the use of pneumatic legs to provide an air cushion for the machine, demonstrated that the machine did not have the claimed “rigid frame” and therefore did not need to be disclosed. The district court discounted this testimony, finding that “[t]he fact that there were damp[ening] mechanisms at the feet [of the machine] under no circumstances can possibly rationally explain not disclosing relevant prior art.” The district court found that Lazare intended to deceive the PTO by not adequately disclosing the structure of the Gresser machine because Lazare “simply had to know the issues. They had to know particularly after the [rejection]. . . . They had to know that there was a very, very clear duty to disclose the arrangement of the Gresser machine”

Lazare argues that under the correct construction of the “rigid frame” limitation, the structure of the Gresser machine was not material to the prosecution of the ’351 Patent. Lazare contends that even under the construction of the limitation espoused by the district court, information about the machine was not material because that information was cumulative. Lazare also challenges the court’s intent finding, pointing out that the Gresser machine is mentioned in the specification of the ’351 Patent and that Lazare discussed the Gresser machine during prosecution. Lazare argues that the court improperly inferred intent to deceive solely from the materiality of the information and that intent to deceive was not the

single most reasonable inference that could be drawn from the evidence.

The Defendants respond that irrespective of the construction adopted by the court, the structure of the machine was material because the evidence presented at trial showed that the machine had a rigid base that supported the components recited in claim 18. Regarding intent to deceive, the Defendants contend that the fleeting mentions of the Gresser machine in the '351 Patent and during prosecution demonstrate Lazare's intent to deceive because, although Lazare discussed the machine, Lazare never disclosed the relevant part of the machine to the PTO. The Defendants also assert that the court properly inferred intent from the circumstances surrounding the decision to withhold from the PTO information concerning the structure of the machine.

This court agrees with Lazare. Even assuming that information concerning the structure of the Gresser machine was highly material to the prosecution of the '351 Patent, the district court clearly erred by inferring that Lazare's counsel intended to deceive the PTO by withholding the information. Counsel provided an explanation for not disclosing the machine, and there is nothing to suggest that the decision to withhold was an attempt to conceal. At best, the failure to disclose what was believed to be cumulative information was a mistake or exercise of poor judgment that does not support an inference of intent to deceive. *See Abbott Labs. v. Sandoz, Inc.*, 544 F.3d 1341, 1354 (Fed. Cir. 2008) ("Mistake or negligence, even gross negligence, does not support a ruling of inequitable conduct.").

2. The '938 Patent

While the application that matured into the '938 Patent was pending, Lazare obtained measurements of the average width and depth of lines inscribed by the Gresser machine on several diamonds. The measured depths were all less than 10 microns and, with one exception, the measured widths were less than 9 microns, falling within the range of depths and widths recited in what would become claims 1, 24, 62, and 70 of the '938 Patent. Charles Rosario prepared a declaration that included a chart summarizing the measurements and provided the declaration to the Lazare attorneys responsible for prosecuting the '938 application. The attorneys decided not to submit the declaration in the '938 application, which by this time the PTO had indicated was in condition for allowance. At the inequitable conduct hearing, the attorneys explained that they did not submit the declaration because they believed that the declaration was cumulative in light of three patents already before the PTO that they believed disclosed the claimed ranges of widths and depths—the Gresser Patent and U.S. Patents No. 5,410,125 and No. 5,149,938 to Ronald Winston and Necip Alev (collectively, “the Winston Patents”)—and did not address the “positional repeatability” and “positional accuracy” limitations found in the relevant claims. The attorneys, however, filed the declaration in a pending continuation of the '938 application that contained similar claims and was before the same examiner.

The district court concluded that Lazare committed inequitable conduct by withholding the declaration from the PTO in the '938 application. The court found the declaration highly material and concluded that the prosecuting attorneys were aware of the materiality of the declaration and yet still decided to withhold the declaration from the PTO. The court gave no weight to the

attorneys' explanation for withholding the declaration, finding that the Winston and Gresser patents "under no circumstances anticipate or disclose what is really relevant to the claims being made in the proposed '938 Patent." The court characterized the Gresser Patent as disclosing a "width of anywhere from 1 to 100 microns" and observed that the widths recited in the '938 application were "not something less than 100 microns as described in [the] Gresser [Patent], it was something less than 9 microns or 12 microns." Similarly, the court described the Winston Patents as teaching depths "either plus or minus 10 microns" and noted that in the '938 application "the depth is not specified to be somewhere plus or minus 10 microns . . . as in the Winston patent, it was specified to be less than about 10 microns, and no more." In light of these findings, the court determined that Lazare intended to deceive the PTO by withholding the declaration.

Lazare reasserts on appeal that the declaration was not material because the declaration was cumulative to the Winston Patents and the Gresser Patent. Lazare argues that each of the Winston Patents disclose the range of inscription depths and widths contained in the declaration, and that the Gresser Patent teaches the range of widths disclosed in the declaration. Lazare again argues that the district court improperly inferred intent to deceive from its materiality finding and asserts that intent to deceive is not the single most reasonable inference to be drawn from the evidence.

The Defendants contend that neither the Winston Patents nor the Gresser Patent discloses the claimed depths or widths and, in any event, Lazare waived the argument that the Winston Patents each disclose the claimed widths because Lazare did not raise this argument before the district court. The Defendants argue that even if we were to conclude otherwise, the declaration is

still not cumulative because the references to depths and widths in these references are “oblique.” As further support for their materiality contention, the Defendants note that despite being aware of both the Winston Patents and the Gresser Patent, the PTO twice found similar claims in the continuation of the ’938 application anticipated by the declaration. The Defendants defend the district court’s intent finding by again arguing that the district court properly inferred intent from the prosecuting attorneys’ knowledge of the materiality of the declaration and the circumstances surrounding the decision to withhold the declaration.

This court again agrees with Lazare. Here, too, even if we assume that the declaration is highly material, the district court committed clear error when it found that Lazare intended to deceive the PTO by withholding the declaration. The court rejected the attorneys’ explanation for withholding the declaration because the court believed that a reference that discloses a range that overlaps or includes, but is not coextensive with, a claimed range cannot teach the claimed range. This is simply incorrect; a prior art reference that discloses a range that encompasses or overlaps a claimed range generally is sufficient to establish a *prima facie* case of invalidity. *See, e.g., In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (“We therefore conclude that a prior art reference that discloses a range encompassing a somewhat narrower claimed range is sufficient to establish a *prima facie* case of obviousness.”); *Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1311 (Fed. Cir. 2006) (“Where a claimed range overlaps with a range disclosed in the prior art, there is a presumption of obviousness.”). Although we give a court’s credibility determinations considerable deference, a court cannot, as was done here, “cloak the application of an erroneous legal standard in the guise of a credibility determination, and thereby shield it from appellate

review.” *Andreu ex rel. v. Sec’y of Health & Human Servs.*, 569 F.3d 1367, 1379 (Fed. Cir. 2009). When the attorneys’ explanation for withholding the declaration is considered, it is clear that intent to deceive is not the single most reasonable inference that can be drawn from the evidence. Therefore, the court clearly erred when it determined that Lazare committed inequitable conduct with respect to the ’938 Patent. *See Scanner Techs. Corp. v. ICOS Vision Sys. Corp. N.V.*, 528 F.3d 1365, 1376 (Fed. Cir. 2008) (“Whenever evidence proffered to show either materiality or intent is susceptible of multiple reasonable inferences, a district court clearly errs in overlooking one inference in favor of another equally reasonable inference.”).

F. Exceptional Case and Attorneys’ Fees

“Determining whether a case is exceptional and thus whether attorney fees should be granted under 35 U.S.C. § 285 is a two-step process.” *Enzo Biochem, Inc. v. Calgene, Inc.*, 188 F.3d 1362, 1370 (Fed. Cir. 1999). “The district court must first determine whether the case is exceptional, a factual determination that we review for clear error; if the case is found to be exceptional, the district court must then determine whether attorney fees should be awarded, a determination that we review for abuse of discretion.” *Id.* Because the district court’s exceptional case finding is based on its clearly erroneous inequitable conduct ruling and its award of attorneys’ fees in turn rests on the exceptional case finding, we vacate both the exceptional case finding and the attorneys’ fee award. *See Research Corp. Techs. v. Microsoft Corp.*, 536 F.3d 1247, 1254 (Fed. Cir. 2008).

III. CONCLUSION

For the foregoing reasons, this court vacates the grant of summary judgment of no literal infringement and the verdict of non-infringement under the doctrine of equivalents of claims 1 and 7 of '351 Patent and remands for further proceedings. We affirm the verdict of invalidity and non-infringement of claim 18 of the '351 Patent. We also affirm the verdicts of non-infringement of claims 1, 24, 62, and 70 of the '938 patent. Finally, this court vacates the inequitable conduct findings, the exceptional case finding, and the award of attorneys' fees.

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

COSTS

Each party shall bear its own costs.