

NOTE: This disposition is nonprecedential.

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

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**SMITH & NEPHEW, INC. AND  
JOHN O. HAYHURST, M.D.,**  
*Plaintiffs-Appellants,*

v.

**ARTHREX, INC.,**  
*Defendant-Appellee.*

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2012-1265

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Appeal from the United States District Court for the District of Oregon in Case No. 04-CV-0029, Judge Michael W. Mosman.

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Decided: January 16, 2013

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JOHN M. SKENYON, Fish & Richardson, P.C., of Boston, Massachusetts, argued for plaintiffs-appellants. With him on the brief was MARK J. HERBERT.

CHARLES W. SABER, Dickstein Shapiro, LLP, of Washington, DC, argued for defendant-appellee. With him on the brief were SALVATORE P. TAMBURRO, MEGAN S. WOODWORTH and S. GREGORY HERRMAN.

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Before LOURIE, CLEVINGER, and WALLACH, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* LOURIE.

Dissenting opinion filed by *Circuit Judge* CLEVINGER.

LOURIE, *Circuit Judge*.

Smith & Nephew, Inc. (“Smith”) appeals from the final judgment of the United States District Court for the District of Oregon which granted judgment as a matter of law that Arthrex, Inc. (“Arthrex”) does not infringe claim 1 of U.S. Patent 5,601,557 (the “557 patent”). *Smith & Nephew, Inc. et al. v. Arthrex, Inc.*, No. 3:04-cv-00029-MO (D. Minn. Dec. 16, 2011) (Dkt. No. 1034). Because the court erred in granting judgment of noninfringement as a matter of law, we *reverse and remand*.

#### BACKGROUND

Smith is a licensee of the ’557 patent, owned by Dr. John O. Hayhurst. The patent is directed to a method and apparatus of anchoring cartilage within a joint. The patent discloses drilling a hole through the hard outer shell of bone into the less dense cancellous bone followed by a surgeon inserting a small, but resilient device (an “anchor”) by pressing it into the smaller drilled hole. The anchor compresses as it passes through that hole, but once in the softer cancellous bone, the resilience causes it to expand again, causing it to stay in place. Claim 1 reads:

1. A method for anchoring in bone a member and attached suture, comprising the steps of:

forming a hole in the bone;

attaching a suture to a member;

lodging the member within the hole by pressing the member with attached suture into the hole;  
and

attaching tissue to the suture so that the tissue is secured against the bone.

'557 patent col. 11, ll. 2–10. At issue in this appeal is the meaning of the term “lodging.”

In 2004, Smith filed a complaint against Arthrex for patent infringement, accusing four Arthrex anchors of infringement. The jury was unable to reach a verdict after the first trial, but the second trial returned an infringement verdict favorable to Smith. On appeal, we reversed and remanded for a new trial, reversing the trial court’s claim construction of “resile” in claim 2 and holding that resilience alone had to be sufficient to cause lodging of the anchor in the bone:

[I]ntrinsic resiliency is the only disclosed means for lodging the anchor, and it therefore must be sufficient to lodge the anchor. Thus, “resile” must be construed to mean “to return to or tend to return to a prior or original position in a manner sufficient to cause the lodging of the member in the hole.”

*Smith & Nephew, Inc. v. Arthrex, Inc.*, 355 F. App’x 384, 386–87 (Fed. Cir. 2009). We noted that such construction relied in part on a previous construction of “lodging” where we stated that a surgeon’s tug on the anchor after insertion “is not a required step in lodging the anchor, the anchor must lodge by some other mechanism.” *Id.* (citing *Smith & Nephew, Inc. v. Ethicon*, 276 F.3d 1304 (Fed. Cir. 2001).

On remand, the parties disputed the meaning of the term “lodging.” During the third trial, after the close of evidence for Smith, the district court adopted a construction of “lodging” that would add a requirement to the claim that to be lodged the anchor had to “withstand all the forces of surgery.” Faced with the dilemma of either a new trial or continuing the trial with a supposedly erro-

neous construction, the court decided to proceed with the trial because it believed that Arthrex would win under either construction. During that trial, expert testimony was presented to the effect that the maximum force on the anchor during surgery was 12.6 to 12.7 lbs, while the average was about 6 to 7 lbs.

The jury returned a verdict for Smith of underlying direct infringement by the surgeons who use the Arthrex anchors as well as induced and contributory infringement by Arthrex along with damages totaling roughly \$85 million. Arthrex moved for judgment of noninfringement as a matter of law. In its motion, Arthrex argued that under the correct construction of “lodging,” which required the anchor to “withstand all the forces of surgery,” no reasonable jury could find direct infringement because the accused anchors could not withstand the maximum 12.6 to 12.7 lbs of force during surgery. Arthrex also moved for judgment of no indirect infringement as a matter of law based on the testimony of its witnesses at trial.

Without an opinion, the district court granted both of Arthrex’s motions for judgment of no direct infringement as a matter of law and of no indirect infringement. Smith timely appealed. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

## DISCUSSION

### I.

We review the grant or denial of a motion for judgment as a matter of law under the law of the regional circuit. *Summit Tech., Inc. v. Nidek Co.*, 363 F.3d 1219, 1223 (Fed. Cir. 2004). The Ninth Circuit reviews a district court’s denial of a motion for judgment as a matter of law *de novo*. *In re First Alliance Mortg. Co.*, 471 F.3d 977, 991 (9th Cir. 2006). “Judgment as a matter of law should be granted only if the verdict is against the great weight of

the evidence, or it is quite clear that the jury has reached a seriously erroneous result.” *Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1005 (9th Cir. 2004) (internal quotations omitted). The jury's determination of infringement is a question of fact, which we review for substantial evidence. *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1309–10 (Fed. Cir. 2009). We address claim construction as a matter of law, which we review without formal deference on appeal, although we give respect to the conclusions and reasoning of the district court. *See Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc).

A.

Smith argues that the court's grant of judgment as a matter of law of no direct infringement was based on an erroneous construction of “lodging” and should thus be vacated and the jury verdict reinstated. Smith contends that the law of the case and the mandate rule precluded the court from revising this court's prior constructions of “resiles” and “lodging.” In addition, Smith argues that the post-trial construction of “lodging” requiring the anchor to “withstand[] all the forces of surgery” was contrary to the intrinsic record.

At the outset, the “law of the case” doctrine does not apply to the construction of “lodging.” That doctrine is not applicable when an issue was neither presented nor decided in a former proceeding in the case. *See Liquid Dynamics Corp. v. Vaughan Co.*, 449 F.3d 1209, 1220 (Fed. Cir. 2006). Similarly, the mandate does not encompass an issue that was not presented to the court. *Exxon Chem. Patents, Inc. v. The Lubrizol Corp.*, 137 F.3d 1475, 1484 (Fed. Cir. 1998). We did not construe “lodging” during the prior 2009 appeal. The issue was therefore not presented or decided, and the mandate rule and the law of the case doctrine are inapplicable.

Turning to the merits, we see no support in the intrinsic record to require the “lodging” to “withstand[] all the forces of surgery.” Claim 1 of the ’557 patent is directed only to anchoring a suture in the bone, not to the full surgical operation. ’557 patent col. 11 ll. 2–9. The “lodging” step occurs just after “forming” the hole and “attaching” a suture, but prior to “attaching tissue.” *Id.* None of the other steps of the actual surgery that occur after that attachment of tissue to the anchor are claimed.

Consistent with that understanding, the specification makes clear that it is only after tensioning, *i.e.* the surgeon’s tug, that the anchor becomes irremovable for the purposes of completing the surgery:

Whenever tension is applied to the suture, the ends of the legs dig into the bone and resist removal of the anchor member from the hole.

. . .

[T]ension in the suture (in conjunction with the intrinsic resilient force of the anchor member 80 that forces the leg edges 87 apart) tends to lodge the edges 87 of the anchor member legs beneath the cortical layer 97, rendering the anchor member substantially irremovable from the hole 100.

’557 patent col. 3 ll. 4–6, col. 9 ll. 50–60. However, as we previously noted in *Ethicon*, that tensioning, also known as the surgeon’s tug, is not a part of the lodging limitation. *See Ethicon*, 276 F.3d at 1310. We agreed with the magistrate judge in that case that “lodging . . . does not bar the surgeon’s tug and any ensuing small movement of the anchor after insertion.” *Id.* at 1308. Indeed, we held that “claim 1 neither excludes nor requires the step of pulling on the suture after it is inserted.” *Id.* at 1310. In other words, the surgeon’s tug, while possibly necessary to complete the surgery, is not part of what is claimed.

Indeed, the term “lodging” was only added to the claim language to overcome an anticipation rejection based on U.S. Patent 4,409,974 (“Freedland”). Freedland discloses connecting two sets of bone by using an anchoring device inserted into a hole drilled through the bone. That device was initially smaller than the diameter of the drilled hole, and it was not until the surgeon used pliers to deploy the arms of the device so that the anchor could remain in place. In overcoming that rejection, Hayhurst added “lodging” to the claims, stating:

This method [of lodging the member within the hole] is not found in the umbrella-like operation of the Freedland device. In order for the Freedland device to become lodged within a hole in a bone . . . it is necessary to apply opposing forces to the head 12 in order to swing the hinged arms 20 out of their collapsed position and into an extended position.

J.A. 607–08. Notably, there is no mention that the claimed anchor must withstand all the forces of surgery. Instead, that statement appears to deal only with how the claimed anchor stays in place after being initially pressed into the hole in the bone.

Nothing in the claim language, the prosecution history, or our precedent suggests that lodging must be sufficient to withstand all the forces of surgery. Instead, lodging, as claimed, only relates to how the anchor stays in place after being initially pressed into the bone. Thus the court erred in construing the claims to require lodging to be sufficient to withstand all the forces of surgery.

Smith also argues that under either construction the resilience testing evidence offered at trial sufficiently shows the anchors to be lodged. We agree. In the prior appeal, we rejected Arthrex’s argument that, given the

correct construction of “resile,” the district court should enter judgment of noninfringement:

Arthrex argues that in light of the claim construction we have adopted, the district court should be instructed to enter judgment of noninfringement in Arthrex’s favor. We disagree. Reasonable jurors could find infringement even under the revised claim construction. For example, the push-out tests submitted by [Smith] suggested that resilience itself creates 7.5 pounds of resistive force in the accused anchors. A reasonable juror could find that amount of resistive force to be sufficient to lodge the anchor in the bone.

*Arthrex*, 355 F. App’x at 387. That is exactly what happened during the third trial. Smith submitted test results concerning the resistive force due to resilience in the accused anchors. The jury, having been instructed on the proper construction of lodging and resiles, found that that amount of resistive force was sufficient to lodge the anchor in the bone. Substantial evidence supports that determination; we therefore see no reason to disturb that finding by the jury. Thus, the district court erred in granting judgment of no direct infringement of claim 1 as a matter of law.

## B.

Smith also argues that the court erred in granting judgment as a matter of law that Arthrex does not induce infringement of or contributorily infringe the patent. Smith challenges the instruction given by the district court on induced infringement, contending that the district court erroneously incorporated the *Global-Tech* “willful blindness” standard onto the “knowledge of infringement” test. *See Global-Tech Appliances, Inc. v. SEB S.A.*, \_\_\_ U.S. \_\_\_, 131 S.Ct. 2060, 2068, 179 L.Ed.2d 1167 (2011). Smith argues that the court instead



should have applied the “known or should have known of the infringement” standard outlined in *DSU Medical Corp. v. JMS Co.*, 471 F.3d 1293, 1304 (Fed. Cir. 2006) (en banc). On the merits, Smith argues that, under either standard, the court’s granting of judgment as a matter of law that Arthrex does not induce infringement or contributorily infringe was in error as substantial evidence supported the jury verdict.

Liability for inducement of infringement under § 271(b) “requires knowledge that the induced acts constitute patent infringement.” *Global-Tech*, 131 S.Ct. at 2068. Our earlier precedent in *DSU Medical* articulated the inducement standard somewhat differently from *Global-Tech*, requiring that the alleged infringer’s actions “knew or should have known his actions would induce actual infringement,” which includes knowledge of the patent. *DSU Med. Corp.*, 471 F.3d at 1304, 1306 (“[I]nducement requires that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another’s infringement.”). In *Global-Tech*, our court had used “deliberate indifference” as an alternative to actual knowledge, but the Supreme Court considered that “willful blindness” was a better surrogate for actual knowledge than this court’s deliberate indifference test. *Global-Tech*, 131 S.Ct. at 2068. In any event, the district court, in an abundance of caution, instructed the jury on both formulations and specifically submitted two separate questions for the jury on inducement. The jury found for Smith under both standards. Thus, any error in the instruction or the questions submitted to the jury regarding induced infringement was harmless.

We agree with Smith, however, that the court erred in finding that no rational jury could find induced or contributory infringement. The court again granted judgment as a matter of law without an opinion, only stating in a telephone conference that “no rational jury could find

indirect infringement for the reasons stated by Arthrex.” J.A. 124. Arthrex, in its post-trial briefing, had argued that it lacked the requisite knowledge of infringement based on the testimony offered by its employees at trial describing the differences between the accused products and the patent. The jury rejected that testimony.

Instead, as the jury heard, Arthrex indisputably knew of the '557 patent prior to any infringement. The jury heard evidence that the president and owner of Arthrex as well the chief engineer and group director for one of the accused products, the Bio-SutureTak anchors, knew of the '557 patent. J.A. 31900–03. The jury was also presented with evidence that, after personally learning of the '557 patent, the group director drafted instructions for use of the accused Bio-SutureTak anchor that paralleled the patented method steps of the '557 patent. J.A. 32012–17. Finally, the jury heard that Arthrex made no attempt to compare its anchors to the claims of the '557 patent. After weighing that evidence against Arthrex employees' testimony, the jury resolved the factual issue of knowledge against Arthrex, concluding that Arthrex had the necessary knowledge for both induced and contributory infringement. We see no reason to disturb that finding by the jury. Thus the district court erred in granting judgment as a matter of law that Arthrex does not induce infringement of the '557 patent.

#### CONCLUSION

We have considered the parties' remaining arguments and conclude that they are without merit. Because the district court erred in granting judgment of no direct infringement and in granting judgment that Arthrex did not indirectly infringe claim 1 of the '557 patent as a matter of law, we reverse the grants of judgment of non-infringement and remand to the court for further proceedings not inconsistent with this opinion. For the foregoing

reasons, the jury verdict is reinstated and the judgment of the district court is

**REVERSED AND REMANDED.**

NOTE: This disposition is nonprecedential.

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CLEVENGER, *Circuit Judge*, dissenting.

I respectfully dissent from the majority's reversal of judgment as a matter of law on the issue of indirect infringement. Because the jury's verdict on indirect infringement is not supported by substantial evidence, we should affirm.

As the majority acknowledges, the Supreme Court has made clear that to be guilty of indirect infringement, the accused infringer must either actually know of, or be willfully blind to, both the existence of the patent and the

fact of infringement. *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2068 (2011) (“we now hold that induced infringement under § 271(b) requires knowledge that the induced acts constitute patent infringement.”); *see also In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1339 (Fed. Cir. 2012) (“[t]o survive Appellees’ motion to dismiss, therefore, [the patentee’s] amended complaints must contain facts plausibly showing that Appellees specifically intended their customers to infringe the . . . patent and knew that the customer’s acts constituted infringement.”). This is true for both induced and contributory infringement. *See Global-Tech*, 131 S.Ct. at 2067 (“[A] violator of § 271(c) ‘must know that the combination for which his component was especially designed was both patented and infringing.’ ” (quoting *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 488 (1964))).

Here, it is undisputed that Arthrex knew of the existence of the ’557 patent. The parties dispute whether or not Arthrex was willfully blind to the fact of infringement.

Willful blindness is a high standard; it requires both “(1) the defendant must subjectively believe that there is a high probability that a fact exists and (2) the defendant must take deliberate actions to avoid learning of that fact.” *Global-Tech*, 131 S. Ct. at 2070.

In this case, Smith & Nephew did not present substantial evidence that Arthrex subjectively believed that they infringed. Smith & Nephew introduced circumstantial evidence to the effect that Arthrex was lagging in the suture anchor market. Smith & Nephew also showed that Arthrex learned of the patent before launching SutureTak on the market. Smith & Nephew used this evidence to imply that Arthrex copied their resilient suture anchor.

Arthrex rebutted this evidence with testimony showing that their product designers subjectively believed they did not infringe, and in fact understood that the accused products worked in an entirely different manner. To rebut any inference of copying, Arthrex showed that they did not change the design of the SutureTak products after learning of the '557 Patent. The only reasonable conclusion a jury could reach based on this evidence is that Arthrex did not subjectively believe they infringed the patent, and therefore Smith & Nephew failed to show willful blindness under the *Global-Tech* standard as a matter of law.

Because Smith & Nephew's damages award was based solely on indirect infringement, we should affirm the court below on the issue of indirect infringement. I would not reach the issue of claim construction.