

# United States Court of Appeals for the Federal Circuit

2006-1260, -1437

ACUMED LLC,

Plaintiff-Appellee,

v.

STRYKER CORPORATION, STRYKER SALES CORPORATION,  
STRYKER ORTHOPAEDICS, and HOWMEDICA OSTEONICS CORPORATION,

Defendants-Appellants.

Frederick C. Laney, Niro, Scavone, Haller & Niro, of Chicago, Illinois, argued for plaintiff-appellee. With him on the brief were Paul K. Vickrey, Robert A. Vitale, and Richard B. Megley, Jr.

Gregory J. Vogler, McAndrews, Held & Malloy, Ltd., of Chicago, Illinois, argued for defendants-appellants. With him on the brief was Sharon A. Hwang.

Appealed from: United States District Court for the District of Oregon

Judge Anna J. Brown

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ACUMED LLC,

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Defendants-Appellants.

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DECIDED: April 12, 2007

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Before GAJARSA, LINN, and MOORE, Circuit Judges.

Opinion for the court filed by Circuit Judge GAJARSA. Dissenting opinion filed by Circuit Judge MOORE.

GAJARSA, Circuit Judge.

This patent infringement case deals with orthopedic devices for the treatment of fractures to the upper arm. Defendants Stryker Corp., Stryker Sales Corp., Stryker Orthopaedics, and Howmedica Osteonics Corp. (collectively, "Stryker") appeal from the final judgment of the United States District Court for the District of Oregon, following a jury trial, finding Stryker liable to plaintiff Acumed LLC ("Acumed") for willful infringement of U.S. Patent No. 5,472,444 ("the '444 patent"). We affirm the district court's findings of infringement and willfulness, but vacate the permanent injunction issued against Stryker and remand for reconsideration in light of the Supreme Court's decision in eBay Inc. v. MercExchange, LLC, 126 S. Ct. 1837 (2006).

## I. BACKGROUND

### A. The Technology and Patent

Acumed is the assignee of the '444 patent, which is directed to an orthopedic nail for the treatment of fractures in the humerus (the upper arm bone which ends in the shoulder ball at top and the elbow joint at the bottom). In the most common form of fracture to this bone, the patient falls on top of his or her arm, breaking the shoulder ball (the "humeral cortex") off from the longer part of the bone (the "humeral shaft"). Sometimes the humeral cortex itself breaks into two or three pieces as well. See '444 patent col.1 ll.17-27. Orthopedic surgeons use nails like the one disclosed in the patent to treat this type of fracture by excavating a hole through the humeral cortex and down the humeral shaft, inserting the nail into the hole, then fixing it in place using bone screws that pass through holes in the nail. This procedure secures the bone pieces of the cortex to each other and to the shaft.

Claim 1 of the '444 patent contains every limitation disputed on appeal by the parties. It reads:

An elongated tapered nail for securing fractures of the proximal humerus comprising:

an elongated body having a curved shank configured to occupy an upper portion of the proximal humeral shaft, and a contiguous butt portion extending proximally from the shank and configured to occupy the humeral cortex;

the butt portion being shorter than the shank and defining a plurality of at least three transverse holes, each defining a hole axis, with the three hole axes angularly offset from each other, such that the holes may receive fasteners attached to fragments of the humeral cortex.

'444 patent col.5 ll.44-50 (disputed terms emphasized).

B. Stryker's Dealings with Opinion Counsel

On August 28, 2002, Stryker's German patent attorney, Edo Graalfs, wrote a letter to his American counterpart, Raymond W. Augustin, regarding the humeral nail Stryker was in the process of developing. Graalfs expressed concern that the Stryker nail might infringe the '444 patent:

[T]he independent claim 1 of this US patent has a relatively broad [sic, "broad"] scope of protection . . . . I advised that the nail must not be provided with a curvature as this is a feature of independent claim 1. Now it turned out that for business reasons it would be a requirement to also use a curved shank. I expressed my doubts . . . that it could be possible to find a structure not covered by the mentioned US patent.

Augustin then placed a memorandum to file dated December 13, 2002, in which he echoed Graalfs' concerns:

[T]he Stryker Trauma humeral nail would have each and every element of claim 1 . . . of the '444 patent. . . . [I]t is our opinion that there is no strong invalidity argument which could be used against all the '444 issued claims based on the prior art known at this time. . . . In conclusion, it is our opinion that a curved version of the Stryker Trauma humeral nail . . . should not be marketed in the United States.

Testimony at trial indicated that the Stryker nail eventually sold in the United States did not differ in any relevant respect from the design specifications reviewed by Graalfs and Augustin in writing these letters.

After his initial memorandum to file, Augustin drafted a formal opinion of counsel letter and transmitted it to Stryker on November 19, 2003. This opinion letter was longer and more detailed than the earlier memo to file. In it, Augustin concluded—using claim construction arguments basically identical to those made by Stryker during this litigation—that the Stryker nail would not infringe any claim of the '444 patent either

literally or by equivalents. He also expressed a belief that Claim 1 of the '444 patent was invalid due to anticipation by an earlier Stryker product.<sup>1</sup>

At trial, Acumed presented evidence tending to show that Stryker did not seriously rely upon the later opinion letter from Augustin. For instance, Stryker filed with the FDA its application for the accused device on August 14, 2003, some months before Augustin transmitted the favorable opinion letter. Gregory Plakson, Stryker's Director of Intellectual Property, testified at his deposition that he did not understand portions of the opinion letter and did not ask Augustin anything about the opinion. Acumed also presented evidence tending to show copying by Stryker, including that a Stryker consultant "confiscated" from an operating room a how-to chart detailing the assembly and insertion of Acumed's product.

C. Litigation background

Stryker began to sell its accused humeral nail in the United States in early 2004. In April 2004, Acumed filed suit against Stryker in the District of Oregon, alleging infringement of Claims 1, 3-5, 10, 11, and 14-17 of the '444 patent. Following a Markman hearing, the district court construed the disputed terms. It defined "curved shank" as "a shank that has a bend or deviation from a straight line without sharp corners or sharp angles" and "transverse holes" as "holes across the butt portion of the nail." It also found that

the term "angularly offset from each other" means the axes of the three holes are spaced apart from each other, an angle is formed by the axes of any two such holes when viewed in two dimensions from the butt end or from the side, and the axes are not aligned in a parallel orientation.

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<sup>1</sup> Stryker does not pursue any invalidity arguments in this appeal.

Acumed LLC v. Stryker Corp, No. 04-CV-513-BR (D. Or. Oct. 14, 2004) (“Order on Claim Construction”). The case proceeded to jury trial on infringement, willfulness, and invalidity. The jury found that the asserted claims were valid, that Stryker’s product literally infringed those claims, and that Stryker’s infringement was willful. The district court denied Stryker’s motion for judgment notwithstanding the verdict and awarded Acumed enhanced damages for willful infringement, increasing the damages found by the jury by fifty percent. It permanently enjoined Stryker from selling the accused device in the United States.

Stryker appeals the jury verdict of infringement and willfulness and the district court’s grant of injunctive relief. This court has jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

## II. DISCUSSION

### A. Standard of review

A finding of patent infringement requires a two-step process: first, the court determines the meaning of the disputed claim terms, then the accused device is compared to the claims as construed to determine infringement. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995), aff’d, 517 U.S. 370 (1996). We review the construction step de novo. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). When reviewing a district court’s denial of a motion for judgment as a matter of law, we review the jury’s factfinding on the infringement step for support by substantial evidence. Id. at 1454. Whether infringement is willful is a factual question that must be proven by clear and convincing evidence. Comark Commc’ns v. Harris Corp., 156 F.3d 1182, 1190 (Fed. Cir. 1998). To reverse a willfulness verdict, an

infringer must show that there is not “substantial evidence to support the jury's finding of willfulness by clear and convincing evidence.” Id.

B. Claim Construction and Infringement

1. “Curved shank”

The main dispute between the parties on construction relates to the claim requirement of a “curved shank,” construed by the district court to mean a shank that “has a bend or deviation from a straight line without sharp corners or sharp angles.” Stryker challenges that interpretation, arguing that the better reading of the term is “a nonangular continuous bend.”

When construing claims, a court must begin by “look[ing] to the words of the claims themselves . . . to define the scope of the patented invention.” Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The task of comprehending those words is not always a difficult one. “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” Id. at 1314. “[C]urved,” as it is used in the '444 patent, is not a “term[] that ha[s] a particular meaning in a field of art.” Id. Its ordinary meaning encompasses “curvature” made up of small discontinuities. Consider, for instance, an archway made from rectangular bricks. The bricks are at angles with respect to each other, but the overall effect is to describe an arc. It would be unreasonable to say that such an archway is not “curved.” If the word “curved” is given its ordinary, lay meaning, the district court’s construction is correct.

Stryker argues that “curved” is implicitly assigned a different, narrower meaning by virtue of the context in the written description in which it appears. See id. at 1316 (“[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.”). That argument is based on a particular manner of implanting the nail disclosed and touted by the written description. The ’444 patent’s Summary of the Invention section states that “[t]he curved tapered shape of the present invention permits it to be inserted into a cavity formed by a broach tool having the same shape as the nail.” ’444 patent col.1 ll.49-51. A broach tool is “essentially a rasp having the same profile as the hole it is intended to form.” Id. col.3 ll.27-28. The patent teaches that broaching is advantageous, since, inter alia, it “generally causes less tissue damage than a rotating drill bit or reamer.” Id. col.3 ll.32-33. However, “[b]roaching is only suitable for certain shapes of holes and objects”—in particular, it is useful only for an object that “largely pass[es] through its own envelope.” Id. col.3 ll.37-40. “Objects with angled bends or small radius curves (relative to the object length) do not pass through their own envelope on insertion, and are not well suited to insertion into a broached hole.” Id. col.3 ll.45-48.

Stryker’s argument is essentially an assertion that since the patent says broaching is desirable, the term “curved” must be construed to cover only embodiments whose curvature allows them to be inserted into a broached hole, excluding “angled bends or small radius curves.” That assertion is flawed: it is an attempt to import a feature from a preferred embodiment into the claims. See Phillips, 415 F.3d at 1323 (“[A]lthough the specification often describes very specific embodiments of the

invention, we have repeatedly warned against confining the claims to those embodiments.”). Neither use with a broaching tool nor suitability for such use is claimed. Indeed, the application which led to the '444 patent originally included claims to the method of implanting the nail with a broaching tool, but the patentee elected to withdraw those claims from the application after the Examiner noted they were directed to a separate, distinct invention.

The fact that usability with a broaching tool is merely a feature of a preferred embodiment provides sufficient grounds for refusing to read “curved” narrowly. We also note, though, that the patent’s Claim 13 (not asserted by Acumed in this case) covers “[t]he nail of claim 1 having a profile that substantially passes within its own envelope.” ’444 patent col.6 ll.26-27. “[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.” Liebel-Flarsheim Co v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004); see also Wegner Mfg., Inc. v. Coating Mach. Sys., Inc., 239 F.3d 1225, 1234 (Fed. Cir. 2001); Comark, 156 F.3d at 1187; Tandon Corp. v. U.S. Int’l Trade Comm’n, 831 F.2d 1017, 1023 (Fed. Cir. 1987). “That presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” Sunrace Roots Enter. Co. v. SRAM Corp., 336 F.3d 1298, 1303 (Fed. Cir. 2003); see also Ecolab Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1375-76 (Fed. Cir. 2002); Wegner Mfg., 239 F.3d at 1233 (“Claim differentiation . . . is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the

only meaningful difference between the two claims.”). If we were to give “curved” in Claim 1 the meaning which Stryker advances, Claim 1 would cover only nails that “substantially pass[] within [their] own envelope[s].” Such a restrictive reading would render Claims 1 and 13 identical in scope. Since independent claims are presumed to have broader scope than their dependents, the presumption is that Claim 1 should not be limited in the manner Stryker urges. For the reasons discussed above, that presumption has not been rebutted.

Stryker also argues that the district court’s exclusion of “sharp corners or sharp angles” renders the construction insufficiently definite, since the court did not specify precisely how “sharp” is too sharp. However, a sound claim construction need not always purge every shred of ambiguity. The resolution of some line-drawing problems—especially easy ones like this one—is properly left to the trier of fact. See PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“[A]fter the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact.”); Modine Mfg. Co. v. U.S. Int’l Trade Comm’n, 75 F.3d 1545, 1554 (Fed. Cir. 1996) (whether claim limitation requiring diameter of “about 0.040 inch” embodied held a matter of “technologic fact”); see also Abbott Labs. v. Baxter Pharm. Prods., Inc., 471 F.3d 1363, 1368 (Fed. Cir. 2006) (where result is the same under any reasonable construction, “we need not construe [the disputed] phrase with numerical exactitude.”). Here, the accused product has a rounded-off six-degree angle in its shaft. A reasonable jury could have found that in the context of this sort of nail, a rounded bend

of six degrees was not a “sharp angle.” The jury’s conclusion is bolstered by the testimony of Stryker’s own technical expert, who noted in reference to the Stryker nail that “there’s no sharp angle there.” There may be some area of imprecision within the district court’s “without sharp angles” construction, but this accused product is in no danger of falling within that area. The construction is correct, and the jury’s finding that the Stryker nail possesses a “curved shank” is supported by substantial evidence.

2. “Transverse holes”

The district court defined “transverse holes” as “holes across the butt portion of the nail.” Stryker argues that this claim term should be limited to holes that are perpendicular to the nail shaft, excluding from the claim scope holes that are tilted so that one end of the hole is vertically offset from the other end. Again, this argument is an improper attempt to read a feature of the preferred embodiment into the claims as a limitation.

Stryker’s argument for a narrow reading of “transverse” stems from the fact that “[e]very description of the transverse holes in the ’444 patent contemplates a perpendicular hole.” This is a correct characterization of the patent: every figure which illustrates the holes shows them going perpendicularly through the shaft, and the written description characterizes the holes in Figure 2 as “perpendicular to the portion of the nail axis at the butt portion 14 of the nail.” ’444 patent col.2 ll.58-59. However, Figure 2 and the text characterizing it simply discloses a single, preferred embodiment of the invention. “[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments.” Phillips, 415 F.3d at 1323; see also Comark, 156 F.3d at 1186-87.

The plain meaning of Claim 1 covers more than the particular embodiment shown in the figures. While the disclosed embodiment possesses “perpendicular” holes, the claim language covers all “transverse” holes—a word that does not necessarily imply right angles. Moreover, the patentees’ description of their preferred embodiment itself implies a difference between the words “perpendicular” and “transverse.” The written description states that Figure 2 “illustrates a plurality of transverse holes, each of which is . . . perpendicular to the portion of the nail axis at the butt portion 14 of the nail.” ’444 patent col.2 ll.56-59. This implies that a “transverse” hole need not be “perpendicular”—if it were, the patentee would not have needed to clarify that these holes, in addition to being transverse, were perpendicular to the nail axis. Just as in Phillips, where the asserted claim mentioned “steel baffles” and hence “strongly implie[d] that the term ‘baffles’ does not inherently mean objects made of steel,” 415 F.3d at 1314, this usage of language is strong evidence that the patentee considered “transverse” and “perpendicular” to have distinctly different meanings.

The intrinsic evidence of the specification therefore suggests that the patentees knew how to restrict their claim coverage to holes passing through at right angles. They could have used the word “perpendicular,” as they did in discussing their preferred embodiment. Instead, they chose a different term that implies a broader scope. The intrinsic evidence does not indicate that one of skill in the art would believe the patentees meant “perpendicular” when they said “transverse.” There is very little indication that the patentees considered perpendicularity important to their invention. The patentees tout the virtue of their preferred hole orientation only once, noting that “[t]he predictability of fracture modes makes the orientation of holes in the illustrated

embodiment suitable in most cases.” ’444 patent col.4 ll.65-67 (emphasis added). Far from demonstrating that “the patentee[s] . . . intend[ed] for the claims and the embodiments in the specification to be strictly coextensive” with respect to this limitation, Phillips, 415 F.3d at 1323, this statement admits that the disclosed perpendicular hole orientation may not always be ideal. See ’444 patent col.5 ll.2-4 (suggesting that, if holes are not “ideally situated, the surgeon may slightly rotate the nail to achieve a more favorable alignment”). Nowhere in the specification or the prosecution history do the patentees criticize or distinguish tilted, non-perpendicular holes.

The dissent states that the specification language which discloses only perpendicular holes should be determinative of the claim scope. In particular, it points to three instances in the written description where “transverse holes” are described as “perpendicular.” Dissent at 3-4 (citing ’444 patent col. 2 ll.57-59; col.3 ll.1-3; col.3 ll.9-11). All three of these instances appear in a textual description of the patent’s Figure 2, indicating that the holes depicted in that figure are perpendicular to the nail axis. Thus, while the dissent emphasizes the fact that there are three references to “perpendicular” holes in the specification, its argument is ultimately premised on characteristics which the patentee has attributed to a single preferred embodiment. In the context of this patent, such an argument must be contradicted by “our repeated statements that limitations from the specification are not to be read into the claims.” Comark, 156 F.3d at 1186; see also id. at 1187 (“[T]he language that [the defendant] argues should limit claim 1 is clearly found in the . . . patent’s description of the preferred embodiment. It is precisely against this type of claim construction that our prior case law counsels.”).

By highlighting the specification phrase “each of which is defined” and by describing that phrase as “important[],” Dissent at 5, the dissent appears to suggest that the patentee has in some sense imposed a limiting definition upon the word “transverse.” But the use of the word “defined” here does not imply a lexicographic definition, especially not a definition of “transverse” to mean “perpendicular.” Instead, the statement that the holes of the cited embodiment are “defined on . . . an axis” merely introduces the useful abstract concept of a “hole axis,” later employed in the claims to describe the orientation of the holes with respect to each other. See ’444 patent, Claim 1, col.5 ll.53-54 (“the three hole axes [are] angularly offset from each other . . .”). The claims repeatedly echo this form of usage of the word “define.” See, e.g., ’444 patent Claim 1, col.5 ll.51-53 (“the butt portion . . . defining a plurality of at least three transverse holes, each defining a hole axis” (emphasis added)); Claim 2, col.5 ll.57-58 (“the curved shank includes a curved portion defining a curved central axis”); Claim 3, col.5 ll.60-61 (“the butt portion defines a central axis”). If the word “define” were always to be an important signifier of limitation, this claim language would indicate that the butt portion has been defined to be transverse holes, that those holes in turn have been defined as hole axes, and that the curved portion and butt portion—physical parts of the nail—have each been dubbed identical to an imaginary central axis. These interpretations are incorrect, but they are the natural consequence of finding a restrictive definition of a term anywhere the word “define” might appear in this patent, regardless of context. The specification does not define “transverse” and “perpendicular” to be coequal in meaning.

The fact that the term “transverse” has a broader scope than “perpendicular” also distinguishes this case from Nystrom v. Trex Co., 424 F.3d 1136 (Fed. Cir. 2005), relied upon by the dissent. See Dissent at 5-6. In Nystrom, “both parties acknowledge[d] the ordinary meaning of ‘board’ as ‘a piece of sawed lumber,’” but the patentee sought to have that claim term “broaden[ed] . . . to encompass relatively obscure definitions that are not supported by the written description or prosecution history.” Id. at 1145. We refused to impose a construction broader than the term’s ordinary meaning. Id. at 1145-46. Here, on the contrary, we decline to impose a construction narrower than the term’s ordinary meaning.

The dissent cites to other patents whose usage of “transverse” arguably supports its conclusion. Dissent at 8-9. One of them, U.S. Patent No. 5,697,934, is purely extrinsic evidence and therefore merits little consideration. See Phillips, 415 F.3d at 1317. The other, U.S. Patent No. 4,475,545, is cited by the ’444 patent and is part of the intrinsic record. However, it was not “created by the patentee in attempting to explain and obtain the patent.” Id. Its usage is not that of this patentee, and so it also merits less weight than the evidence of the patentee’s own words. While these patents merit some consideration, the specification and claims of the ’444 patent itself should be given significantly greater weight. Id. (noting that prosecution evidence “is less useful for claim construction purposes”).

A proper reading of the intrinsic evidence indicates that where the patentees discussed the perpendicular holes of their preferred embodiment, they were not narrowly defining the term “transverse” or otherwise limiting the claims, but merely discharging their statutory duties “to teach and enable those of skill in the art to make

and use the invention and to provide a best mode for doing so.” Phillips, 415 F.3d at 1323. That preferred embodiment cannot be the only product covered by the claims; if it were, the claims themselves would be unnecessary. The district court’s construction of “transverse holes” is correct.<sup>2</sup>

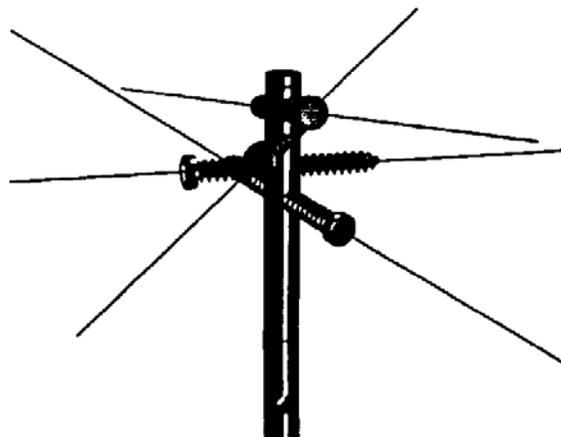
### 3. “Angularly offset”

As noted above, the district court interpreted the claim requirement that the hole axes be “angularly offset” to mean that “the axes of the three holes are spaced apart from each other, an angle is formed by the axes of any two such holes when viewed in two dimensions from the butt end or from the side, and the axes are not aligned in a parallel orientation.” Neither party challenges this definition on appeal, but Stryker argues that its accused product does not fall within the definition.

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<sup>2</sup> Observing that the district court defined “holes” as “openings through the butt portion of the nail” and “transverse” as “being across or set crosswise,” the dissent argues that these two definitions imply that “transverse holes” has been construed to mean “openings through across the butt portion of the nail.” Dissent at 7. If the district court’s definitions of those two words are so concatenated, that is indeed the result. We of course do not propound such a construction. Neither did the district court: after defining “transverse” and “holes,” it defined the phrase “transverse holes” as “holes across the butt portion of the nail.” Order on Claim Construction at 1. The construction of the disputed phrase as a whole is correct, and that construction is what we affirm today. Our de novo review means that we need not decide whether the logic or subsidiary definitions used by the district court to reach the correct construction were sound. Likewise, de novo review makes the atmospherics of the Markman hearing, see Dissent at 1-3, legally irrelevant here. We review only the district court’s finished product, not its process. Furthermore, the dissent’s criticism of that process contends that Phillips prohibited the district court from beginning its interpretive inquiry by consulting a dictionary. Dissent at 3 (“In accordance with Phillips, the interpretative inquiry should begin not with a dictionary definition . . .”). Although in Phillips we rejected an approach in which a broad dictionary definition is adopted and then whittled down only if contradicted by the specification, 415 F.3d at 1321, we did not prohibit the use of dictionaries in claim construction, nor did we define at what point in the claim construction analysis they may be consulted.

Stryker's argument is geometrical in nature. A "hole axis" under the district court's definition is the imaginary line that passes through the center of one of the transverse holes. Stryker correctly points out that the axes thus defined by the accused product form "skew lines" which are neither parallel nor intersecting in three-dimensional space. Since those lines neither form angles nor run parallel with each other, Stryker suggests that its product falls outside the district court's definition. However, this argument ignores an essential part of that definition, which states that "an angle is formed . . . when [the hole axes are] viewed in two dimensions." The district court's meaning here is clear: the hole axes need not actually intersect. It suffices that the axes appear to intersect in two dimensions. As an example, if the hole axes are sketched on a piece of paper (a two-dimensional view of the nail) and the lines of that drawing intersect, the product drawn meets the district court's definition of "angularly offset." It is totally clear that the hole axes of Stryker's product intersect when drawn on paper, a point well illustrated by Stryker's own diagram in support of its argument on this point:



This diagram, which represents the accused product, shows intersecting hole axes when viewed in two dimensions. The jury's finding that Stryker's product

embodies the “angularly offset” claim limitation is therefore supported by substantial evidence.

#### 4. Conclusion

Since the district court’s claim construction is correct and there is substantial evidence to support the jury’s finding that Stryker’s product embodies each claim limitation at issue, the judgment of infringement is affirmed.

#### C. Willful Infringement

The jury found Stryker’s infringement to be willful, despite the fact that Stryker admitted into evidence the November 19, 2003 opinion letter from Augustin which concluded that Stryker’s product would not infringe. Favorable opinions of counsel normally present a well-grounded defense to willfulness, but the protection they afford is not absolute. “Those cases where willful infringement is found despite the presence of an opinion of counsel generally involve situations where opinion of counsel was either ignored or found to be incompetent.” Read Corp. v. Portec, Inc., 970 F.2d 816, 828-29 (Fed. Cir. 1992).

Willfulness is “not an all-or-nothing trait, but one of degree.” Comark, 156 F.3d at 1182 (quoting Rite-Hite Corp. v. Kelley Co., 819 F.2d 1120, 1125-26 (Fed. Cir. 1987)). Whether an infringer ignored the opinion of its counsel is, as part of the willfulness inquiry, also a question of degree. Evidence of the extent of that ignorance should be weighed by the factfinder together with the totality of the other circumstances surrounding the infringer’s culpability. See Comark, 156 F.3d at 1191 (evaluating opinion of counsel within a totality of the circumstances).

Here, substantial evidence supports a finding that Stryker ignored the November 2003 opinion letter to an extent sufficient to permit willfulness to be found in these circumstances. Most notable is the fact that two patent attorneys, Graalfs and Augustin, had at first strongly discouraged Stryker from marketing the infringing nail in the United States. Despite that advice, Stryker continued to push towards a United States market entry, filing its FDA application months before it received Augustin's revised legal advice. Additionally, Acumed presented evidence that Stryker copied its product, including that Stryker arranged to "confiscate" a hospital room chart instructing doctors in the use of the Acumed nail.

There is evidence in the record tending against willfulness, such as the Augustin opinion letter itself and the testimony of Stryker's Director of Intellectual Property that he ordered no sales be made in the United States until after the favorable opinion letter. However, it is for the jury, not this court, to determine the weight and credibility to be given to the evidence. See Comark, 156 F.3d at 1192 (court determining whether to overturn a jury verdict is "not required to assume that the jury believed all or indeed any . . . exculpatory evidence"). The jury here was free to disbelieve or weigh lightly evidence tending to show Stryker's reliance on the opinion letter and to place that evidence within the overall factual context of the case.

Substantial evidence supports the jury's finding that Stryker's infringement was willful. The judgment of willfulness is therefore affirmed.

D. Permanent Injunction

In ruling on the plaintiffs' motion for a permanent injunction, the district court applied "the general rule [in patent cases] that an injunction will issue, once infringement

and validity have been adjudged . . . unless there are some exceptional circumstances that justify denying injunctive relief.” Transcript of Record at 53, Acumed, LLC v. Stryker Corp., No. CV-04-513 (D. Oregon Feb. 22, 2006). The Supreme Court has since struck down that general rule in eBay v. MercExchange, making clear that the traditional four-factor test for injunctions applies to patent cases. 126 S. Ct. at 1840.

Acumed argues that the facts found by the district court can serve as independent support for the injunction, even without application of the old general rule. This court cannot express a position on that argument. If we were to weigh the evidence ourselves to reach a conclusion on injunctive relief, we would effectively be exercising our own discretion as if we were the first-line court of equity. That role belongs exclusively to the district court. Our task is solely to review the district court’s decisions for an abuse of discretion. See eBay, 126 S. Ct. at 1839 (“The decision to grant or deny permanent injunctive relief is an act of equitable discretion by the district court, reviewable on appeal for abuse of discretion.”). Accordingly, the permanent injunction is vacated. On remand, the district court should reconsider the four-factor test as propounded by the Supreme Court’s decision in eBay as to whether or not an injunction should issue.

### **III. CONCLUSION**

The district court’s claim construction and its findings of infringement and willfulness are affirmed. The permanent injunction is vacated and remanded.

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

No costs.

# United States Court of Appeals for the Federal Circuit

2006-1260, -1437

ACUMED LLC,

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v.

STRYKER CORPORATION, STRYKER SALES CORPORATION,  
STRYKER ORTHOPAEDICS and HOWMEDICA OSTEONICS CORPORATION,

Defendants-Appellants.

MOORE, Circuit Judge, dissenting.

I agree with the majority's holding in all respects save one. I write separately to voice my disagreement with the majority's holding that the district court properly construed "transverse holes" in claim 1 of the '444 patent to mean "holes across the butt portion of the nail." Because the majority concludes that the district court's claim construction was proper, it affirms the court's finding of literal infringement. From that decision, I respectfully dissent.

At the outset, I note that I am troubled by the district court's clear reliance on a common English language dictionary, which was published ten years after the '444 patent issued to construe the term "transverse holes." During the claim construction hearing, the court explained that the dictionary would be "an aid to our work." The court not only used the dictionary as an "aid," but actually utilized the dictionary definitions as

the starting point when defining each of the disputed claim terms.<sup>1</sup> Moreover, the court seemed to disregard the briefs in favor of off-the-cuff attorney argument during claim construction. In fact, when Stryker argued that Acumed's attorneys were changing their claim construction during the course of the hearing, the district court responded: "Let's not worry about changing. I'm going to keep you all focused right on the task at hand. I don't care what happened before today. I care what's going on here." After hearing arguments from the parties regarding the disputed claim terms and on the appropriateness of the dictionary definitions, the district court resolved each issue orally during the hearing. One week later, the court issued a one-page formal Order on Claim Construction that simply reiterated the court's oral rulings. Acumed LLC v. Stryker Corp., No. 04-cv-513-br (D. Or. Oct. 14, 2004).

While I acknowledge that there are not formal requirements for a district court's methodologies when conducting claim construction hearings and issuing related orders, I raise this concern because I believe the district court's methodology led it astray from determining the "the meaning that the term ["transverse holes"] would have to a person of ordinary skill in the art . . . in the context of the entire patent, including the specification." Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). When one properly begins this claim construction inquiry with the intrinsic evidence,

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<sup>1</sup> It should be noted that the claim construction hearing in this case occurred before this court's en banc decision in Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005). Thus, the district court may have been following the methodology described in Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1201-02 (Fed. Cir. 2002), which relied heavily on the use of dictionaries to ascertain the plain meaning of a claim term. After our Phillips decision, which clarified that the Texas Digital approach was not appropriate, the plaintiff asked the district court here to reconsider her claim construction, but that request was denied.

rather than dictionary definitions, it is evident that the district court's construction of "transverse holes" is in error.

With respect to the claim term "transverse holes," the district court utilized the dictionary to first determine that a "hole" is "an opening through something." The district court then referred to the dictionary and found two definitions for the term "transverse": "(1) acting, lying, or being across: set crosswise; (2) made at right angles to the anterior-posterior axis of the body." The district court concluded that we should construe the claim term in accordance with the broader of the two dictionary definitions<sup>2</sup> because there is no express disavowal of claim scope in the specification. This approach was specifically rejected by this court sitting en banc in Phillips, 415 F.3d at 1320, and we have continued to reject this approach to claim construction. See On Demand Mach. Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1340 (Fed. Cir. 2006).

In accordance with Phillips, the interpretive inquiry should begin not with a dictionary definition, but with the patent itself, to ascertain what an ordinarily skilled artisan reading the patent would understand the claim term to mean. Phillips, 415 F.3d at 1321. The intrinsic evidence provides no support for the broader of the two dictionary definitions set forth above (i.e., that "transverse" means "acting, lying, or being across; set crosswise"), but fully supports the narrower definition (i.e., that "transverse" means "made at right angles to the anterior-posterior axis of the body"). Each of the eight transverse holes described in the specification are specifically described as being perpendicular. Id. at col.2 ll.57-59 (describing "a plurality of transverse holes, each of

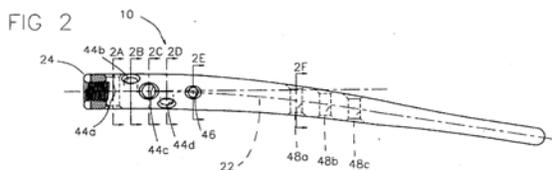
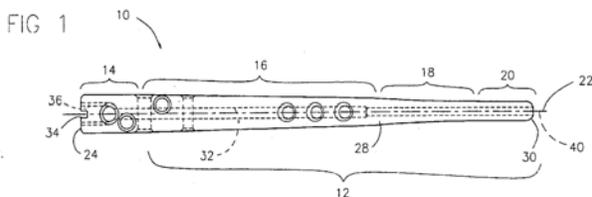
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<sup>2</sup> The court emphasized that the broader definition appeared as the "number one" definition in Webster's dictionary. It should be noted, however, that this order is not indicative of importance or primacy, but merely reflects historical usage. MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY (11th ed. 2003) 19a ("Order of Senses").

which is defined on a respective axis intersecting the nail axis 22, and perpendicular to the portion of the nail axis at the butt portion 14 of the nail”); col.3 ll.1-3 (“transverse hole 44a is oriented . . . perpendicular to the nail axis 22”); col.3 ll.9-11 (“the distal holes are . . . perpendicular to the butt end portion of the nail axis”) (emphases added). The majority suggests that the use of both words “implies a difference between the words ‘perpendicular’ and ‘transverse.’” Maj. Op. at 11. The majority contends that if transverse was meant to be construed as perpendicular, “the patentee would not have needed to clarify that these holes, in addition to being transverse, were perpendicular to the nail axis.” Id. I disagree. First, the patentee used the two words to clearly specify which of the definitions of transverse applied to his invention; the purpose of using the word “perpendicular” was to further describe what the inventor meant by the term “transverse,” not to distinguish it as the majority suggests. Second, to say that something is perpendicular also requires mention of a reference plane or line to which the object is located at a right angle. Here, the patent specification limits the discussion of “transverse holes” to holes having an axis perpendicular with respect to the nail axis at the butt portion. ’444 patent, col.2 ll.56-59. That was the point of using the word perpendicular in the specification. Thus, by utilizing the word “transverse,” the patentee did not need to repeat in the claim that each hole was perpendicular to the nail axis at the butt portion.

The specification describes “three sets of transverse holes.” Id. at col.2 l.62. With reference to Figures 1 and 2 of the patent, reproduced below, the first set includes four proximal transverse holes (44a-44d), the second set is one intermediate transverse hole (46), and the third set includes three distal transverse holes (48a-48c). Each of

these eight holes is then described and shown in the accompanying figures as being perpendicular to the nail axis 22. Id. at col.2 l.56-col.3 l.11. Most importantly, the specification states that “a plurality of transverse holes each of which is defined on a respective axis intersecting the nail axis 22, and perpendicular to the portion of the nail axis at the butt portion 14 of the nail.” Id. at col.2 ll.56-59 (emphases added). Thus, the specification limits each of the transverse holes by the common characteristic that each has an axis perpendicular to the nail axis at the butt portion.



There is not a single non-perpendicular, “transverse” hole shown or described in the patent. Construing “transverse” to include something other than perpendicular—in spite of the repeated, narrow usage of that term in the specification— would provide patent coverage that is broader than what the inventor actually invented and disclosed in his specification, which clearly should have been the starting point for claim construction. Smith v. Snow, 294 U.S. 1, 14, (1935) (stating “if the claim were fairly susceptible of two constructions, that should be adopted which will secure to the patentee his actual invention”). Since Phillips, we have repeatedly rejected the concept of construing claim terms to have meanings broader than the meaning derived from the intrinsic evidence. For example, in Nystrom v. Trex, Co. this court stated:

[i]n the absence of something in the written description and/or prosecution history to provide explicit or implicit notice to the public—i.e., those of ordinary skill in the art—that the inventor intended a disputed term to cover more than the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term to encompass

a broader definition simply because it may be found in a dictionary, treatise, or other extrinsic source.

424 F.3d 1136, 1145 (Fed. Cir. 2005); see also Primos, Inc. v. Hunter's Specialties, Inc., 451 F.3d 841, 845, 847-48 (Fed. Cir. 2006) (affirming district court's claim construction after district court rejected dictionary definition that was broader and inconsistent with the use of the claim term in the patent at issue); Old Town Canoe Co. v. Confluence Holdings Corp., 448 F.3d 1309, 1318 (Fed. Cir. 2006) (patentee is "not entitled to a claim construction divorced from the context of the written description and prosecution history"); Atofina v. Great Lakes Chem. Corp., 441 F.3d 991, 996 (Fed. Cir. 2006) (quoting Free Motion Fitness, Inc. v. Cybex Int'l, Inc., 423 F.3d 1343, 1348-49 (Fed. Cir. 2005) for the proposition that "in those circumstances where reference to dictionaries is appropriate, the [court's] task is to scrutinize the intrinsic evidence in order to determine the most appropriate definition" (emphasis added)); In re Johnson, 435 F.3d 1381, 1384 (Fed. Cir. 2006) (citing Phillips, 415 F.3d at 1303 for the proposition that "[i]t is well established that dictionary definitions must give way to the meaning imparted by the specification"); Network Commerce, Inc. v. Microsoft Corp., 422 F.3d 1353, 1359-60 (Fed. Cir. 2005) (rejecting proposed construction of the term "download component" based on the combination of two dictionary definitions as untenable "in light of the specification").

Patent scope should be coextensive with what the inventor invented as evidenced by what is disclosed in the patent specification. Netword, LLC v. Centraal Corp., 242 F.3d 1347, 1352 (Fed. Cir. 2001) (stating that the claims should not "enlarge what is patented beyond what the inventor has described as the invention"); Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998) ("The

construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.”). Thus, where, as here, the intrinsic evidence clearly provides one meaning for the term “transverse,” it is inappropriate to give that term a broader interpretation, particularly where the only support for the broader interpretation is extrinsic evidence—in this case, a dictionary (which supports the narrower construction as well).

Moreover, the district court’s interpretation of “hole,” which neither party is challenging, makes the majority’s interpretation of “transverse” redundant and nonsensical. The court found that the word “‘holes’ in the phrase ‘defining a plurality of at least three transverse holes,’ means openings through the butt portion of the nail.” Claim Construction Order, at 1. This makes sense in the context of orthopedic implants, because a hole is necessarily through the part, which in the case of an intramedullary nail is to accept a screw. Here, the majority’s definition of “transverse” as “being across” is redundant when read together with the definition of holes. It makes the phrase “transverse holes” mean “openings through across the butt portion of the nail.” The majority’s claim construction thus impermissibly renders the claim term “transverse” meaningless, a methodology that this court has repeatedly denounced. Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”); see also Bicon, Inc. v. Straumann Co., 441 F.3d 945, 950 (Fed. Cir. 2006); Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1307 (Fed. Cir.

2005). Only if “transverse” requires perpendicularity does each claim term have a distinct meaning.<sup>3</sup>

That “transverse” means perpendicular in direction is further supported by other intrinsic evidence, namely, other patent references cited during prosecution of the ’444 patent. For example, U.S. Patent No. 4,475,545, entitled “Bone Nail,” discloses a pair of holes “passing through the nail in transverse relation to its longitudinal direction and both axes of the said both pairs of holes being located in different planes extending in transverse direction relative to the longitudinal direction of the nail.” ’545 patent, Abstract. The first hole is defined by the nail entrance 8’ and exit 8”. The second distal hole is defined by the nail entrance 9’ and exit 9”. As shown in Figures 4 and 5, both of these holes are perpendicular to the longitudinal axis of the nail at the distal portion. The hole axes are similarly described as being located in a plane “normally extending relative to the longitudinal axis of the nail.” ’545 patent, col.3 ll.45-46. Thus, the usage of “transverse” in the ’545 patent is consistent with the definition requiring perpendicularity.

The narrower definition of transverse is also more consistent with extrinsic evidence that demonstrates how those skilled in the art would understand the term. First, in another patent application filed within a year of the issue date of the ’444 patent, the ’444 patent’s inventor, Randall Huebner, uses the word “transverse” in a way that clearly denotes perpendicularity in direction. There, as here, Mr. Huebner describes a

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<sup>3</sup> Claim 22, which indirectly depends from independent claim 19, further illustrates this point. Claim 22 recites “a plurality of second securement holes” in the butt portion of the claimed nail. These holes, like the transverse holes in claim 1, are required to go through the butt portion of the nail. But unlike the transverse holes, the securement holes need not be defined by an axis perpendicularly situated with respected to the nail axis at the butt portion.

“transverse hole” extending through a shaft, stating “the head [of the shaft] includes a hole extending therethrough in a direction generally transverse to the axis of the shaft.” U.S. Patent No. 5,697,934, col.2 ll.45-46 (filed Dec. 2, 1996); see also id. at col.3 l.66-col.4 l.1 (describing another hole as “formed through head 50 with a central axis 54 generally transverse to elongate axis 38 of shaft 32”). Mr. Huebner’s use of transverse in that application clearly shows a directional requirement implicit in the term “transverse” that is not encompassed in the broader definition accepted by the majority. Next, although the district court chose to rely exclusively on a general dictionary that was not contemporaneous with the patent, technical dictionaries, including one highly relevant to the field of orthopedic implants at the time the patent issued, define “transverse” as referring to a perpendicular direction. Dorland’s Medical Dictionary defines transverse as “placed crosswise; situated at right angles to the long axis of a part.” DORLAND’S ILLUSTRATED MEDICAL DICTIONARY 1735 (28th ed. 1994).

Thus, the intrinsic and extrinsic evidence establish that the ’444 patent’s use of “transverse” is only consistent with the narrower definition rejected by the district court and the majority opinion. The only passage of the specification which the majority relies upon to support its broader interpretation of “transverse holes” is the language “[t]he predictability of fracture modes makes the orientation of holes in the illustrated embodiment suitable in most cases.” The majority suggests that this language “admits that the disclosed perpendicular hole orientation may not always be ideal.” Maj. Op. at 12. I respectfully submit that the majority has taken the language out of context and imparted a meaning to it that is not correct. The entire paragraph wherein this sentence is found is discussing Figure 4 and the orientation of the holes relative to each other

around the circumference of the nail, not relative to the nail axis at the butt portion 22. That paragraph focuses on the need to orient the screws “to prevent rotation or axial movement of the nail” and discusses that the screws should be located on “opposite sides of the nail.” ’444 patent, col.4 ll.61-65. Hence, when the very next sentence of the specification refers to the “orientation of the holes,” ’444 patent, col.4 ll.65-67, it is doing so in the context of their placement around the nail.

Tellingly, the majority opinion offers no other support—intrinsic or extrinsic—for its construction, and in fact, offers no explanation at all for its conclusion that “the claim language covers all ‘transverse’ holes—a word that does not necessarily imply right angles.”<sup>4</sup> Maj. Op. at 11. What, if not the specification, is the majority using to determine the plain meaning of this term? The district court based its conclusion regarding the plain meaning of transverse on Webster’s Dictionary, which it acknowledged supported both the definition across and perpendicular. In the present case, as in Nystrom, I see no reason why we should adopt one, broader, plain meaning of the term “transverse” when there is another plain meaning that is completely consistent with the intrinsic evidence. When one begins with the patent specification, in my opinion, there is no doubt which of the two meanings of “transverse” is correct.

The majority attempts to distinguish the Nystrom case as a case in which the patentee “sought to have [the] claim [at issue] ‘broaden[ed] . . . to encompass relatively obscure definitions that are not supported by the written description or prosecution history.’” Maj. Op. at 14 (quoting Nystrom, 424 F.3d at 1145). The majority suggests

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<sup>4</sup> The majority’s observation that “[n]owhere in the specification or the prosecution history do the patentees criticize or distinguish tilted, non-perpendicular holes,” Maj. Op. at 12, only underscores the absence of a written description broad enough to support the meaning that they attribute to the claim term “transverse.”

that in Nystrom “[w]e refused to impose a construction broader than the term’s ordinary meaning.” Maj. Op. at 14. In this case, the Webster’s Dictionary which provided the basis for the district court’s determination of the term’s ordinary meaning included two definitions for the term transverse (across and perpendicular). Even the district court acknowledged both definitions. In this case, we must choose between two plain meanings of the word “transverse.” As in Nystrom, we should interpret the claim term by reference to the specification and refuse to read the term “transverse” as encompassing meanings unsupported by even a modicum of intrinsic evidence; otherwise we give the patentee more than what was invented and disclosed to the public.

Even if I did not read the intrinsic record to clearly support the narrower of the two plain and ordinary meanings of the term “transverse,” I would still be compelled by our precedent to conclude that the narrower meaning applies to this limitation. In Athletic Alternatives, Inc. v. Prince Manufacturing, Inc., this court was presented with a case in which there were two plain and ordinary meanings of a term. 73 F.3d 1573, 1579 (Fed. Cir. 1996). The court was at an impasse after concluding that the specification, the prosecution history and the doctrine of claim differentiation did not provide guidance on what the plain meaning of the claim term at issue was. Id. at 1579-81 (concluding that “the specification is completely silent with regard to the meaning” of the claim term; that there were “[t]wo strong and contradictory interpretative strands run[ning] through the patent’s prosecution history . . . [that] together . . . are irreconcilable;” and that after analyzing claim differentiation “we [were] left with two

equally plausible meanings of Claim 1”). Faced with such a conundrum, we resorted to the statutory basis for the claims themselves, 35 U.S.C. § 112, ¶ 2, and concluded that

[w]ere we to allow [the patentee] successfully to assert the broader of the two senses of [the claim term] against Prince, we would undermine the fair notice function of the requirement that the patentee distinctly claim the subject matter disclosed in the patent from which he can exclude others temporarily. Where there is an equal choice between a broader and a narrower meaning of a claim, and there is an enabling disclosure that indicates that the applicant is at least entitled to a claim having the narrower meaning, we consider the notice function of the claim to be best served by the narrower meaning.

Id. at 1581.

Even if the specification was completely silent on whether the transverse holes had to be perpendicular to the nail axis at the butt portion of the nail—which, as discussed above, I do not believe it is—we must, according to our precedent, adopt the narrower of the two plain and ordinary meanings of the word “transverse.” Accord Athletic Alternatives, 73 F.3d at 1581. The majority’s rejection of Stryker’s claim construction position as “an improper attempt to read a feature of the preferred embodiment into the claims as a limitation,” fails to identify any language in the specification that demonstrates that the patentee contemplated anything more than transverse holes that are perpendicular to the nail axis at the butt portion. Thus, even adopting the majority’s view of the intrinsic record, I cannot agree with their conclusion.

Based on the foregoing, I conclude that the district court’s construction of the term “transverse holes” was improper and should be reversed. The term “transverse holes” in claim 1 of the ’444 patent should be interpreted as “openings through the butt portion of the nail oriented perpendicularly with respect to the longitudinal axis of the butt portion.” Because the uncontested evidence shows that the alleged infringing

products do not literally infringe claim 1 of the '444 patent as properly construed, a remand on that issue would not be necessary. Acumed could, however, argue that Stryker's T2 PHN products infringe claim 1 of the '444 patent under the doctrine of equivalents.<sup>5</sup> Accordingly, I would reverse the judgment of literal infringement and remand for proceedings with respect to infringement under the doctrine of equivalents.

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<sup>5</sup> Although Stryker argues that Acumed waived the doctrine of equivalents with respect to this claim element because it did not assert that theory at trial under the court's claim construction, that statement is incorrect. See Exxon Chem. Patents, Inc. v. The Lubrizol Corp., 137 F.3d 1475, 1479 (Fed. Cir. 1998) (determining that plaintiff did not waive equivalents arguments where the court's claim construction made a doctrine of equivalents argument under any other claim construction "moot").