United States District Court, W.D. Tennessee, Western Division.

SMITH & NEPHEW, INC,

Plaintiff.

v.

ZIMMER, INC,

Defendant.

No. 07-2362-STA-tmp

March 2, 2009.

MEMORANDUM OPINION AND ORDER ON MARKMAN HEARING

S. THOMAS ANDERSON, District Judge.

On May 24, 2007, Plaintiff Smith & Nephew ("Smith & Nephew") filed a Complaint for a Declaratory Judgment of Non-Infringement against Defendant Zimmer, Inc. ("Zimmer") (D.E.# 1). The present matter is before the Court for resolution of issues of claim construction after a November 11, 2008 hearing pursuant to Markman v. Westview Instruments, Inc. FN1 The claims at issue are found within U.S. Patent No. 4,622,959 (the "Marcus Patent").

FN1. 517 U.S. 370, 372, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

I. BACKGROUND

The Marcus Patent relates to the treatment of femoral fractures with a multi-use femoral intramedullary nail. Fractures of the femur may be treated through the use of an intramedullary nail. Intramedullary nails are rods that are inserted into the marrow canal of a femur and then secured in place through the use of screws. (Pl.'s Opening Claim Construction Br. 1; D.E. # 57; Def.'s Opening Claim Construction Br. 1; D.E. # 56.) To ensure the proper fit between the nail and the patient's bone, pre-operative X-rays of the fractured femur are taken. These X-rays help to determine the selection of potentially appropriate nails; however, since these X-rays may not be wholly accurate, several different nails, varying in diameter, length, and type, are routinely at hand. (Def.'s Opening Claim Construction Br. 2.) This has resulted in the inconvenience of keeping an array of various nails stocked, as well as requiring surgeons to attain expertise in the use of each different nail. (*Id.* at 3.) Thus, the creators of the Marcus Patent purportedly have created a multi-use intramedullary nail designed to alleviate the number of nails a surgeon may have been required to keep on hand.

II. LEGAL STANDARDS FOR CLAIM INTERPRETATION

The claims of a patent define the scope of the patent. FN2 In construing the claim language, the Court's

primary purpose is to determine their meaning. FN3 Claim construction is a matter of law for the court.FN4 In construing a claim, courts should look primarily to the intrinsic evidence, which includes the claims themselves, the specification, and the prosecution history.FN5 Where intrinsic evidence is dispositive, extrinsic evidence, such as expert testimony, inventor testimony, and prior art, should not influence the court's claim interpretation.FN6

FN2. See Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed.Cir.2005).

FN3. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995).

FN4. See Markman, 52 F.3d at 978.

FN5. See Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366, 1373-74 (Fed.Cir.2008) ("It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history."); Intamin Ltd. v. Magnetar Techs., Corp., 483 F.3d 1328, 1334 (Fed.Cir.2007) ("This court construes claims according to the principles set forth by this court in Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (en banc)."); Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996).

FN6. Intamin Ltd., 483 F.3d at 1334 ("As such, the court consults primarily the claims themselves in context, with much of that context supplied by the specification and the prosecution history."); Vitronics, 90 F.3d at 1584.

Claim language should be given its "ordinary and customary meaning," which is "the meaning that the term would have to a person of ordinary skill in the art" of the invention's field.FN7 The claim's "ordinary and customary meaning" should provide an objective baseline from which to begin claim construction. FN8 Importantly, a person of ordinary skill in the art would read the claim term in the context of the particular claim, in addition to the context of the entire patent.FN9

FN7. Phillips, 415 F.3d at 1312-13 (finding that this principle flows naturally from the recognition that inventors are usually persons skilled in the field of the invention and that patents are intended to be read by others of skill in the pertinent art); *see* Cohesive Techs., Inc. v. Waters Corp., 543 F.3d 1351, 1360 (Fed.Cir.2008); Computer Docking Station Corp., 519 F.3d at 1373-74; Hockerson-Halberstadt, Inc. v. Avia Group Int'l., Inc., 222 F.3d 951, 955 (Fed.Cir.2000); Johnson Worldwide Assoc., Inc. v. Zebco Corp., 175 F.3d 985, 990 (Fed.Cir.1999); Markman, 52 F.3d at 986.

FN8. See Phillips, 415 F.3d at 1312-13.

FN9. *Id.*; see Computer Docking Station Corp., 519 F.3d at 1373-74 ("[T]he person of ordinary skill is deemed to read the claim terms in the context of the entire patent, including the specification and

prosecution history.").

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field. The inventor's words that are used to describe the invention-the inventor's lexicography-must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decision making process by reviewing the same resources as would that person, viz., the patent specification and the prosecution history. FN10 FN10. Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed.Cir.1998).

Under this framework, although the claims themselves may provide guidance as to the meaning of a particular term, they remain part of a "fully integrated written instrument." FN11

FN11. Phillips, 415 F.3d at 1315.

The specification contains a written description of the invention and should enable a person of ordinary skill in the art to make and use the invention. FN12 The Federal Circuit has described a patent's specification as "the single best guide to the meaning of the disputed term." FN13 "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." FN14 However, it remains a bedrock principle of patent law that the claims of the patent define the invention to which the patentee is entitled the right to exclude.FN15 Thus as a general rule, courts should not import limitations present in the specification into the claims.FN16 Reading claims in view of the specifications, but without improperly reading limitations from the specification into the claims, can make for a difficult task.FN17 As such, it is usually only upon occasions where the patentee has demonstrated a clear intention to limit the claim scope, using words or expressions of manifest exclusion or restriction or disclaiming a particular subject matter that a court should interpret a claim term more narrowly than its plain meaning suggests.FN18 These restrictive interpretations typically occur when there are repeated and definitive remarks throughout the specification that demonstrate a limitation on the claim language's broader scope.FN19 This continues to remain true even when the specification describes only a single embodiment.FN20 And to that end, "a narrow disclosure in the specification does not necessarily limit broader claim language." FN21

FN12. See id. at 1312-13; Markman, 52 F.3d at 979.

FN13. Phillips, 415 F.3d at 1315; *see also* Computer Docking Station Corp., 519 F.3d at 1374 (stating that the specification is always highly relevant to claim construction analysis, and is usually dispositive).

FN14. Reinshaw P.L.C. v. Marposs Societa' per Azioni, 158 F.2d 1243, 1250 (Fed.Cir.1998).

FN15. Ventana Med. Sys., Inc. v. Biogenex Labs., Inc., 473 F.3d 1173, 1180 (Fed.Cir.2006) (citing

FN16. Saunders Group, Inc. v. Comfortrac, Inc., 492 F.3d 1326, 1331 (Fed.Cir.2007) (*quoting* Innova/Pure Water, Inc. v. Safari Water Filtration Sys., 381 F.3d 1111, 1117 (Fed.Cir.2004) (internal quotations omitted)); *see also* Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 906, 913 (Fed.Cir.2004) ("It is improper to read limitations from a preferred embodiment described in the specification-even if it is the only embodiment-into claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.") (citing cases).

FN17. Liebel-Flarsheim Co., 358 F.3d at 904 (" 'There is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification.' " (*quoting* Comark Commc'ns, Inc. v. Harris Corp., 156 F.3d 1182, 1186-87 (Fed.Cir.1998)).

FN18. Computer Docking Station Corp., 519 F.3d at 1373-74 (reiterating that occasionally specification explanations may lead one of ordinary skill in the art to interpret a claim term more narrowly than a plain reading would suggest, but, regardless, claim construction should not import claim limitations from a few specification statements or figures into the claims, particularly if those specification extracts describe only embodiments of a broader claimed invention); Liebel-Flarsheim Co., 358 F.3d at 906 ("Absent a clear disclaimer of particular subject matter, the fact that the inventor may have anticipated that the invention would be used in a particular way does not mean that the scope of the invention is limited to that context.").

FN19. Computer Docking Station Corp., 519 F.3d at 1374 ("[R]epeated and definitive remarks in the written description could restrict a claim limitation to a particular structure."); *see* Liebel-Flarsheim Co., 358 F.3d at 907 ("Whether a claim must, in any particular case, be limited to the specific embodiment presented in the specification, depends in each case on the specificity of the description of the invention and on the prosecution history ... [as c]laims are not correctly construed to cover what was expressly disclaimed.").

FN20. Saunders Group, Inc., 492 F.3d at 1331 ("A patent that describes only a single embodiment is not necessarily limited to that embodiment[, and] ... 'claims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope' " (*quoting* Innova/Pure Water, Inc., 381 F.3d at 1117 (internal quotations omitted)); *see also* Liebel-Flarsheim Co., 358 F.3d at 906 (citing cases).

FN21. Intamin Ltd., 483 F.3d at 1335 (citing Phillips, 415 F.3d at 1323).

When looking at a single claim in context with the embodiments disclosed by the specifications, it is important to remember that a single claim need not cover all embodiments.FN22 Instead a patentee may draft different claims to cover different embodiments.FN23 As the Federal Circuit has stated, "the fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." FN24

FN22. *Id.* at 1337.

FN23. Id. (citing Telemac Cellular Corp. v. Tropp Telecom, Inc., 247 F.3d 1316, 1326 (Fed.Cir.2001)).

FN24. See Phillips, 415 F.3d at 1327; Liebel-Flarsheim Co., 358 F.3d at 907.

Statements made during the patent's prosecution also may affect the scope of the claims. The file history "represents an ongoing negotiation between the PTO and the applicant." FN25 As such, the prosecution history helps to demonstrate how the inventor and the PTO understood the patent.FN26 "[A] patentee may limit the meaning of a claim term by making a clear and unmistakable disavowal of scope during prosecution." FN27 "The doctrine of prosecution disclaimer 'protects the public's reliance on definitive statements made during prosecution' by 'precluding patentees from recapturing through claim interpretation specific meanings [clearly and unmistakably] disclaimed during prosecution.' "FN28 In other words, the patentee may not advocate an interpretation which he earlier disavowed in order to obtain allowance.FN29 However, prosecution disclaimer does not necessarily apply to applicants who simply describe a feature of the prior art, but do not distinguish the claimed invention based on that same feature.FN30

FN25. Phillips, 415 F.3d at 1317.

FN26. Id.; see also Ventana Med. Sys., Inc., 473 F.3d at 1183.

FN27. Computer Docking Station Corp., 519 F.3d at 1374 (*quoting* Purdue Pharma L.P. v. Endo Pharms., Inc., 438 F.3d 1123, 1136 (Fed.Cir.2006)).

FN28. Id.

FN29. Id.; see Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed.Cir.1985).

FN30. Computer Docking Station Corp., 519 F.3d at 1374 (*citing* Innovative Props. Co. v. Avery Dennison Corp., 350 F.3d 1365, 1373 (Fed.Cir.2003)).

Thus, generally speaking "[c]laims should be assigned a narrower scope only if there is some indication in the patent or the prosecution history that the [disputed] term ... was meant to have a more restrictive meaning as used in the patent, or a broader meaning was disclaimed during prosecution." FN31 However, in addition to these general principles of claim construction, it may be necessary for a court to apply additional doctrines of claim construction, such as the doctrine of claim differentiation or the standards applicable to claims that recite means-plus-function language.

FN31. See Phillips, 415 F.3d at 1316; Honeywell Int'l, Inc. v. ITT Indus., Inc., 452 F.3d 1312, 1319-20 (Fed.Cir.2006); SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1342-44 (Fed.Cir.2001).

When a patent discloses both independent and dependent claims, each claim is presumed different in scope.FN32 The doctrine of claim differentiation informs us that "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." FN33 Without construing independent claims to have a broader scope, dependent claims may otherwise be rendered redundant and void.FN34 This presumption may be rebutted if the circumstances suggest a different explanation, or if the evidence favoring a different claim construction is strong.FN35 An argument for claim differentiation is at its strongest, when a comparison of the independent and dependent claims reveals that the limitation sought to be read into the independent claim is the very same limitation that appears in the dependent claim.FN36

FN32. Wenger Mfg., Inc. v. Coating Machinery Sys., Inc., 239 F.3d 1225, 1233 (Fed.Cir.2001).

FN33. Phillips, 415 F.3d at 1314-15; see also Intamin Ltd., 483 F.3d at 1335.

FN34. Wenger Mfg., Inc., 239 F.3d at 1229 (*citing* Dow Chem. Co. v. Untied States, 226 F.3d 1334, 1341-42 (Fed.Cir.2000)).

FN35. Liebel-Flarsheim Co., 358 F.3d at 904.

FN36. Id. at 910; Wenger Mfg., Inc., 239 F.3d at 1234 (holding this to be especially true when the limitation from the dependent claim that is sought to be read into the independent claim is the only meaningful difference between the two claims).

Generally speaking, if the word "means" appears in a claim element in combination with a function, the court will presume the patentee was utilizing means-plus-function claiming, and as such, should be construed according to 35 U.S.C. s. 112, para. 6.FN37 Like all claim construction, the interpretation of means-plus-function language under s. 112, para. 6 shall be according to the knowledge of one skilled in the art.FN38 Although s. 112, para. 6 allows a patentee to utilize generic claiming language, a patentee still is required to "particularly point out and distinctly claim" their invention; thus, s. 112, para. 6 requires a patentee to set forth an adequate disclosure of what is meant by the claim language within the patent's specification.FN39 Specifically, s. 112, para. 6 recites a mandatory procedure by which means-plus-function claiming shall be interpreted: All means-plus-function limitations "shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." FN40 This provision represents a quid pro quo by permitting inventors to use a generic means for expression of a claim limitation provided that the specification indicates what structures constitute the means. FN41 As such, functional claim elements are restricted to those means that are equivalent to the actual means shown in the patent specification. FN42 This is not necessarily a high bar as "[alll one needs to do in order to obtain the

benefit of that claiming device is to recite some structure corresponding to the means in the specification, as the statute states, so that one can readily ascertain what the claim means and comply with the particularity requirement of para. 2." FN43

FN37. TriMed, Inc. v. Stryker Corp., 514 F.3d 1256, 1259-60 (Fed.Cir.2008); Biomedino, LLC, v. Waters Techs. Corp., 490 F.3d 946, 947 (Fed.Cir.2007); *Al*- Site Corp. v. VSI Int'l, Inc., 174 F.3d 1308, 1316 (Fed.Cir.1999).

FN38. Biomedino, LLC, 490 F.3d at 950; Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1380 (Fed.Cir.1999).

FN39. Atmel Corp., 198 F.3d at 1378-79; *see also* Biomedino, LLC, 490 F.3d at 947 (explaining that while s. 112, para. 6 permitted broad means-plus-function language, these claims still had to describe a more definite structure, by reciting some structure which performed the specified function within the patent's specifications) (citations omitted).

FN40. 35 U.S.C. s. 112, para. 6; *see also* Commonwealth Scientific & Indus. Research Org. v. Buffalo Tech., 542 F.3d 1363, 1368 (Fed.Cir.2008); Finsar Corp. v. DirecTV Group, Inc., 523 F.3d 1323, 1340 (Fed.Cir.2008); *Al*- Site Corp., 174 F.3rd at 1318, 1320.

FN41. Atmel Corp., 198 F.3d at 1381; see also Biomedino, LLC, 490 F.3d at 947.

FN42. Ishida Co. v. Taylor, 221 F.3d 1310, 1316 (Fed.Cir.2000); Al- Site Corp., 174 F.3d at 1320.

FN43. Atmel Corp., 198 F.3d at 1381; *see also* Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1367 (Fed.Cir.2008); Biomedino, LLC, 490 F.3d at 950.

Under this rubric, the construction of a means-plus-function limitation requires the court to perform two steps: (1) Determine the claimed function, and (2) identify the corresponding structure in the written description that performs the function.FN44 Also, a court should determine the function first, before the corresponding structure can be identified.FN45 In construing means-plus-function limitations, a court should not adopt a function different from that explicitly recited in the claim.FN46 Importantly, "a court errs by importing the functions of a working device into the specific claims, rather than reading the claims for their meaning independent of any working embodiment.' "FN47 Additionally," in order to qualify as corresponding, the structure must not only perform the claimed function, but the specification must clearly associate the structure with performance of the function.' "FN48 If a patent specification discloses multiple/alternative structures by which a function may be accomplished, the court is not required to articulate a single claim interpretation which is consonant with all structures in the specification that correspond to the claimed function.FN49

FN44. Minks v. Polaris Indus., Inc., 546 F.3d 1364, 1377 (Fed.Cir.2008); Biomedino, LLC, 490 F.3d at 950 (stating that upon concluding the claim contains a means-plus-function limitations, two steps of claim construction remain: (1) identify the function of the limitation, and (2) look to the specification and identify the corresponding structure for that function); JVW Enters., Inc. v. Interact Accessories, Inc., 424 F.3d 1324, 1330 (Fed.Cir.2005); Wenger Mfg., Inc., 239 F.3d at 1229.

FN45. JVW Enters., Inc., 424 F.3d at 1330.

FN46. Id. at 1331.

FN47. Welker Bearing Co. v. PHD, Inc., 550 F.3d 1090, 1095-96 (Fed.Cir.2008); JVW Enters., Inc., 424 F.3d at 1331 (citations omitted); Wenger Mfg., Inc., 239 F.3d at 1229 ("Under s. 112, para. 6, a court may not import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function.").

FN48. JVW Enters., Inc., 424 F.3d at 1332 (citations omitted).

FN49. Ishida Co., 221 F.3d at 1316.

III. CLAIM CONSTRUCTION

The parties disagree about the proper construction of certain language found in claim 1 and claim 11. The contested words and phrases are underlined, and the court will address them in their order of appearance in the patent. The disputed claims within the Marcus Patent are as follows:

Claim 1

An intramedullary nail for use in fractures of the femur comprising, an elongated unitary body having a head, an intermediate body portion, and a distal tip, said body having an axial opening therein extending through said head and into said intermediate body portion, said nail being insertable into the medullary canal of a femur to a position in which said distal tip is in the distal femur region and said head is in the intertrochanteric femur region, a first transverse screw receiving opening in said body near said distal tip, a second screw receiving opening in said head having its axis within the femoral neck, and a third screw receiving opening in said head having an axis generally transverse to the axis of the femoral neck and crossing the axis of the second opening, means for securing an inserting tool to said head for inserting the nail in a femur, and means on said head defining a line having a predetermined fixed angular relation to the axis of each of said screw receiving openings for accurately locating a guide of a tool circumferentially and axially of the nail in precise axial alignment with any of said openings.

Claim 11

An intramedullary nail according to claim 10 wherein said slot further comprises means for accurately locating a driver tool in a predetermined angular position on said head.

A. The Requirement of Interchangeability

1. "said nail being insertable into the medullary canal of a femur"

a. The Parties' Proposed Construction

Plaintiff Smith & Nephew's proposed construction is as follows: "The same nail is capable of being inserted into the medullary canal of a left or a right femur." (Pl.'s Opening *Markman* Br. 8; D.E. # 57.) Specifically, Plaintiff contends that when reading this language in isolation it is not clear whether the claimed nail can treat a variety of fractures, a specific type of fracture, or fractures of a left femur, a right femur, or both a left and right femur. (*Id.* at 9.) Furthermore, Smith & Nephew asserts that when read in context with the entire patent, it unambiguously requires the claimed nail be a "multi-use" nail, such that the same nail can be used to treat various fractures of a left and right femur. (*Id.*)

Plaintiff points to language in the title, abstract, background, summary, and detailed description to demonstrate that the Marcus Patent "consistently and without exception" emphasizes that the invented nail is for treating fractures of both the left and right femurs, not just specific fractures of one or the other. (*Id.*; Pl.'s Resp. to Def.'s Opening *Markman* Br. 6-7; D.E. 58.) In particular, Plaintiff states that "[t]he specification ... demonstrates that the ability of a single nail to repair a variety of types of fractures of a left or a right femur is not an optional feature or non-limiting embodiment, but is the essence of the claimed invention." (Pl.'s Opening *Markman* Br. 10; D.E. # 57.) Plaintiff contends the written description plainly demonstrates that the disclosed embodiment *is* the invention, not just a preferred embodiment. (Pl.'s Resp. to Def.'s Opening *Markman* Br. 8; D.E. 58.) Specifically, Plaintiff states that when the specification refers to examples or preferred embodiments of the invention, these items are couched in conditional language, such as "preferred," "preferably," and "as an alternative." (*Id.* at 8-9.) Plaintiff also asserts that in looking at the prior art, the Patent Office found Zimmer's multi-use nail distinguishable due to its capability of treating various fractures of both the left and right femurs. (Pl.'s Opening *Markman* Br. 11; D.E. # 57.)

On the other hand, Defendant Zimmer's proposed construction is: "The nail is insertable into the canal of the femur called the medullary canal." (Def.'s Opening *Markman* Br. 13; D.E. # 56.) Specifically, Zimmer asserts that these terms should be assigned their ordinary and plain language meaning, as the claim does not contain any language limiting the nail to use in both the left and right femur and reading such a requirement into this language would violate the rule that limitations found within the specification should not be read into the claims. (*Id.* at 13-14.) Defendant states that claim 1 merely recites a nail, with a plain and specific structure, and does not require it to be compatible with both left and right femurs. (Def.'s Resp. to Pl.'s Opening Claim Construction Br. 2; D.E. # 59.)

Although the specifications of the patent describe a nail capable of being inserted in the left and right femur, Defendant asserts that the specifications merely present the best mode by which to recreate the invention, but not every mode the invention is capable of embodying. (*Id.*) In so doing, the specifications of the Marcus lay out an invention (1) capable of treating multiple types of fractures located in different parts of the femur, (2) possessing an alignment mechanism so that tools can be accurately aligned with the various screw holes, and (3) capable of use in both a left and right femur. (*Id.*) Defendant asserts that while aspects

one and two are spelled out in claim one, aspect three is not mentioned until claim 9, which depends from claim 1. (*Id.* at 3.) Defendant contends that the patent merely encompasses a nail that can be used to repair fractures from the femoral neck to the supracondylar region, which has a securing arrangement for driving and guiding tools, so as to easily maintain the angular position during the insertion of the nail. (*Id.* at 3-4) Zimmer states that the nail's capability of use in fractures of the left or right femoral neck is just one example/aspect of the invention. (*Id.* at 4.) According to Zimmer, claim 1 speaks for itself, as it indicates nothing requiring the nail be used in both the left and right femurs. (*Id.* at 5.)

b. Claim Construction Analysis

Based on the principles of claim construction and the intrinsic evidence currently before the Court, the Court finds this claim language should be construed to mean: The nail is insertable into the canal of the femur called the medullary canal. When looking to the claim in context with the written description, the Court finds that the limiting language found in the patent's written description should not be imported into the broader language found within the claim.FN50 In conducting a claim construction analysis, it has been repeatedly emphasized that restrictive interpretations typically occur when there are repeated and definitive remarks throughout the specification that demonstrate a limitation on a broader claim's scope.FN51 This principle remains true when a patent's specification discloses only a single embodiment, as narrow descriptions should not necessarily limit broader claim language.FN52 Although there is language within the written description that discloses a nail capable of being used in both the left and right femur, the Court finds these instances do not demonstrate the patentee's intent to limit the invention to such a nail through the use of repeated and definitive remarks to that end.FN53 Also noteworthy is that the majority of the patent refers to a nail capable of use in the left or right femur, which connotes choice. Instead, the use of the more inclusive conjunction and is frequently found in the arguments contained within Plaintiff's brief as opposed to the actual patent. Moreover, the patentee may choose to disclose a limited preferred embodiment although the patent's claim language reveals a broader invention.FN54

FN50. See Phillips, 415 F.3d at 1315 (stating that although the specifications are the single best guide to the meaning of disputed terms, it remains a bedrock principle of patent law that the claims of the patent define the invention to which the patentee is entitled the right to exclude).

FN51. See Computer Docking Station Corp., 519 F.3d at 1374; Liebel-Flarsheim Co., 358 F.3d at 907.

FN52. See Saunders Group, Inc., 429 F.3d at 1331; Intamin Ltd., 483 F.3d at 1335 (citing Phillips, 415 F.3d at 1323).

FN53. See Computer Docking Station Corp., 519 F.3d at 1373-74; Liebel-Flarsheim Co., 358 F.3d at 1374.

FN54. See Saunders Group, Inc., 429 F.3d at 1331; Intamin Ltd., 483 F.3d at 1335 (citing Phillips, 415 F.3d at 1323).

In looking to the patent's prosecution history, it does not appear that the patentee distinguished his invention

from the prior art on the basis of its capability of use in both the left and right femur. Instead, the Court finds the patent history repeatedly emphasized that his invention was distinguishable, because it was capable of treating a variety of different fractures in a variety of different *regions* within a single femur. "In the past, different nails and nailing arrangements have been used to repair fractures in different *portions* of the femur...." (Letter/Memorandum from the United States Patent and Trademark Office on Multi-Use Femoral Intramedullary Nail, Docket No. 10-33, to Randal E. Marcus (Mar. 5, 1985) 3; D.E. # 57-9.) In fact, the patent application describes prior art that utilizes this same "left or right" capability language, only the prior art nail's sole purpose was treatment of fractures in the intertrochanteric region of the femur as opposed to multiple regions of the femur. (*Id.* at 4.) For example, in comparing the Marcus patent with the previous Ender patent, the patent office stated:

[The Marcus nail] can be used to repair substantially any femoral fracture of either the right or left femur with provisions for inserting transverse locking screws into the femoral neck, the introchanteric region and the distal femur region.... The Ender patent discloses a femoral nail including a head, a slotted intermediate body portion and a distal end. A pair of transverse screw receiving openings 14, 15 are provided at angles such that transverse screws may be inserted in the intertrochanteric region of either the left or right femur. No suggestion is made that a transverse screw be inserted into the femoral neck.

From the portions of the prosecution history before the Court, it cannot be said that the patentee made a clear and unmistakable disavowal of the scope of the patent during prosecution.FN55

FN55. Computer Docking Station Corp., 519 F.3d at 1317 (quoting Purdue Pharma L.P., 438 F.3d at 1136).

Furthermore, as patentees may draft different claims to cover different embodiments, a court is not required to construe a single claim to be limited to a structure that is capable of achieving all of the patent's objectives. FN56 This becomes especially apparent and applicable when applying the doctrine of claim differentiation to the claim at issue. As previously stated, a patent containing both independent and dependent claims carries with it the presumption that each claim is different in scope.FN57 This presumption is rebutted in circumstances where evidence favoring a different interpretation is strong.FN58 Additionally, differentiation is strongest when a comparison of the independent and dependent claims reveals the limitation from the dependent claim that is sought to be read into the independent claim is the very same limitation that makes the claims different.FN59 Claim 9 sets forth the physical limitations of a nail capable of insertion into both the left and right femur. "An intramedullary nail according to claim 1 wherein said nail curves anteriorly, said openings in said head have their axes in a common plane, and said openings in said head are symmetrical about a plane normal to said common plane." (U.S. Patent No. 4,622,959 (filed Nov. 18, 1986).) Nothing in claim 1 requires the nail to (1) curve anteriorly, (2) have the axes of the openings in the head in a common plane, or (3) have the openings placed symmetrically about a plane normal to said common plane. Differentiation in this instance is at its strongest, since the elements set out in claim 9 are the very same elements that make it different from claim 1, and any other reading of claims 1 and 9 would make claim 9 redundant and thus void.FN60

FN56. See Phillips, 415 F.3d at 1327; Liebel-Flarsheim Co., 358 F.3d at 907.

FN57. See Intamin Ltd., 483 F.3d at 1335; Phillips, 415 F.3d at 1314-15; Wenger Mfg., Inc., 239 F.3d at 1233;

FN58. See Liebel Flarsheim Co., 358 F.3d at 904; Wenger Mfg., Inc., 239 F.3d at 1229.

FN59. See Liebel Flarsheim Co., 358 F.3d at 904; Wenger Mfg., Inc., 239 F.3d at 1234.

FN60. See Intamin Ltd., 483 F.3d at 1335; Phillips, 415 F.3d at 1314-15; LiebelFlarsham Co., 358 F.3d at 904; Wenger Mfg., Inc., 2239 F.3d at 1233.

2. "a second screw receiving opening in said head having its axis within the femoral neck, and a third screw receiving opening in said head having an axis generally transverse to the axis of the femoral neck and crossing the axis of the second opening,"

a. The Parties' Proposed Construction

Smith & Nephew's proposed constructions is as follows:

The "second screw receiving opening in said head having its axis within the femoral neck" and the "third screw receiving opening in said head having an axis generally transverse to the axis of the femoral neck and crossing the axis of the second opening" means that the head of the intramedullary nail includes two passageways capable of receiving a screw, the "second" passageway being aligned along the femoral neck when the nail is inserted into the medullary canal of a femur and the "third" passageway extending across the "second" passageway. The second and third passageways cross one another within the axial opening of the nail at an angle such that the same nail can position a screw along a femoral neck or in a direction transverse to a femoral neck of a left or a right femur.

(Pl.'s Opening Markman Br. 16; D.E. # 57.) In other words, Smith & Nephew assert that:

The plain language of claim 1 clearly requires that each of the second and third screw receiving openings be formed in the head of the nail (the screw receiving openings are "in said head"), that one of those openings align with the "axis of the femoral neck," and that those openings extend across one another in the head of the nail (the third screw receiving opening "cross[es] the axis of the second opening."). As discussed below, in the context of the entire '959 Patent, it is clear that the screw receiving openings must cross in the axial opening of the nail's head.

(*Id.* at 17.) Specifically, Smith & Nephew asserts that the patent specification's disclosure of certain angle ranges for positioning the screws along the passageways throughout the femoral neck demonstrate that the passageways could not extend to angles significantly outside the disclosed range, nor could the passageways cross each other anywhere but in the axial bore of the nail's head. (*Id.*) As such, Plaintiff contends that within the context of the Patent's written description and drawings, the "second" and "third screw receiving openings" must cross one another within the axial opening of the nail at an angle such that the same nail can position a screw along a femoral neck or in a direction transverse to a femoral neck of a left or right femur. (*Id.* at 18.) They state that reading the claims in any other fashion would be too broad, and thus, violate the tenet that claims should not be construed to cover more than what the patentee considers the invention. (Pl.'s Resp. to Def.'s Opening Markman Br. 12; D.E. # 12.)

Zimmer on the other hand asserts that the claim term "a second screw receiving opening in said head having its axis within the femoral neck" is very straightforward, and merely means "the nail includes a second opening for a screw in the head of the nail that has an axis which in use can align with the femoral neck." (Def.'s Opening *Markman* Br. 15; D.E. # 56.) They go on to state that "a third screw receiving opening in said head having an axis generally transverse to the axis of the femoral neck and crossing the axis of the second opening" also is straight forward and means "the nail includes a third opening for a screw in the head of the nail that has an axis that is angled with respect to the axis of the femoral neck, and crosses with the axis of the second screw opening." (*Id.* at 16.)

Defendant asserts that interpreting this to mean that the screw receiving opening must occur such that the same nail can be used in the left or right femur is contrary to the claim language, which merely describes "just 'an axis' of the third screw receiving opening that crosses with 'an axis' of the second screw receiving opening." (*Id.*) Specifically they state: "The claim limitation does not require that passageways of the openings for the second and third screws necessarily extend across one another; nor does the limitation require that the openings be in a configuration such that the nail can be positioned within a left or right femur." (*Id.*) Zimmer also states that Smith & Nephew has misrepresented the recited term "screw receiving opening" as a "passageway." (Def.'s Resp. to Pl.'s Opening *Markman* Br. 16; D.E. # 59.) They point to the language of the patent to demonstrate that the term "passageway" is never used, and thus, should not be interchangeable with the term "screw receiving opening." (*Id.*)

Finally, Zimmer contends that a required screw receiving opening configuration is not affirmatively stated in the patent until Claim 9, which depends from Claim 1. (*Id.*) Thus, according to Zimmer construing the claims as Smith & Nephew does would violate the doctrine of claim differentiation, which requires that an independent claim should not be construed as requiring a limitation added by a dependent claim. (Def.'s Opening *Markman* Br. 16-17; D.E. # 56.) Although dependent Claim 9 does recite a nailing configuration that requires the receiving openings in the head to have their axes in a common plain, which are symmetrical about a plane normal to said common plain, which in term enables usage in both the left and right femur, Zimmer states nothing of such a configuration can be found in Claim 1. (*Id.*) Zimmer asserts that Smith & Nephew's construction again violates the tenet that limitations found within the specifications generally should not be read into the claims. (Def.'s Resp. to Pl.'s Opening *Markman* Br. 16; D.E. # 59.)

b. Claim Construction Analysis

As the previous construction analysis set forth, nothing from the claims, specifications, or prosecution history indicate that the configuration of screw receiving openings should be limited to a configuration that enables the nail to be insertable into both the left and right femur.FN61 To the extent that the specifications discloses an embodiment of a nail with a specific screw receiving opening configuration, it would be improper to import these additional limitations into the broader scope of claim 1.FN62 Additionally under the doctrine of claim differentiation, it is not until dependent claim 9, which does disclose a specific screw receiving opening configuration that a limitation such as the one suggested by Plaintiff is revealed.FN63 As such the Court construes this portion of claim 1 to mean:

FN61. See Phillips, 415 F.3d at 1315; see also Computer Docking Station Corp., 519 F.3d at 1374; Saunders Group, Inc., 429 F.3d at 1331; Intamin Ltd., 483 F.3d at 1335 (citing Phillips, 415 F.3d at 1323); Liebel-Flarsheim Co., 358 F.3d at 907.

FN62. See Phillips, 415 F.3d at 1315 (stating that although the specifications are the single best guide to the meaning of disputed terms, it remains a bedrock principle of patent law that the claims of the patent define the invention to which the patented is entitled the right to exclude); see also Computer Docking Station Corp., 519 F.3d at 1374; Saunders Group, Inc., 429 F.3d at 1331; Intamin Ltd., 483 F.3d at 1335 (citing Phillips, 415 F.3d at 1323); LiebelFlarsheim Co., 358 F.3d at 907.

FN63. See Intamin Ltd., 483 F.3d at 1335; Phillips, 415 F.3d at 1314-15; LiebelFlarsham Co., 358 F.3d at 904; Wenger Mfg., Inc., 2239 F.3d at 1233.

The nail includes a second opening for a screw in the head of the nail that has an axis, which in use can align with the femoral neck. The nail includes a third opening for a screw in the head of the nail that has an axis that is angled with respect to the axis of the femoral neck, and crosses with the axis of the second screw opening.

B. The Means-Plus-Function Claims

As to the following issues of claim construction, both parties agree that the language of these claims is written in a means-plus-function format, and thus, they are governed by 35 U.S.C. s. 112. (Pl.'s Opening *Markman* Br. 19-20; D.E. # 57; Def.'s Opening *Markman* Br. 17; D.E. # 56.) Generally speaking Plaintiff asserts its constructions are properly limited to only the structures and their equivalents that are actually disclosed within the specifications for performing the claimed functions. (*Id.* at 20-21.) It contends that Zimmer's analysis of the claims is too broad, because it improperly extends the means-plus-function clauses to cover structures that are not disclosed. (*Id.*) Plaintiff states: "[C]ontrolling statutory and case law authority requires that means-plus-function elements be construed to cover only the structures specifically described in the patent's specification and linked to the claimed function." (Pl.'s Resp. to Def.'s Opening *Markman* Br. 13; D.E. # 58.) On the other hand, Defendant contends that Smith & Nephew inappropriately attempts to limit these means-plus-function structures to only one structure, while ignoring that the patent discloses many structures stated to perform the recited function. (*Id.* at 17-18, 19, 20.)

1. "means for securing an inserting tool to said head for inserting the nail in a femur"

a. The Parties' Proposed Construction

Plaintiff construes this language as follows:

The "means for securing an inserting tool ..." language is written in means-plus function format under 35 U.S.C. s. 112(6). The structure disclosed in the specification of the '959 Patent corresponding to the claimed function is an internally threaded opening in the top of the intramedullary nail and the equivalent of an internally threaded opening in the top of the intramedullary nail.

(Pl.'s Opening *Markman* Br. 19; D.E. # 57.) Smith & Nephew states that this construction is correct because the only structure disclosed within the patent as a means for securing an inserting tool is an internally threaded opening in the top of the nail and its equivalents, and thus, the means by which an inserting instrument may be secured to the nail properly is limited to an internally threaded opening and its equivalents. (*Id.* at 20-21.)

On the other hand, Defendant proposes that this language describes the following:

A securing arrangement, such as internal screw threads, and equivalents thereof, for attaching a tool to the head for inserting the nail into the femur.

Zimmer contends that the function to be performed is securing an inserting tool into the head of the nail for inserting the nail into a femur, and the means by which this securing tool is attached is through the use of internal threads and equivalents thereof. (*Id.* at 17.) Zimmer states that the function to be performed is "securing an inserting tool to said head for inserting the nail in a femur." (Def.'s Opening *Markman* Br. 17; D.E. # 56.) In support, Zimmer points to the language of the specification, which states that "[t]he head or upper end of the nail includes a securing arrangement for securing a tool for driving and extracting the nail." (*Id.*) In identifying the corresponding structure, Defendant points to language in the specification which describes the internal screw threads and their equivalents as the means by which the function is performed. Specifically, they point to language in the specification that describes internal screw threads: (1) "Opening 64 [of the head] has internal threads 66 for threadedly securing various tools to the head of the nail both before and after insertion of the nail in the femur," and (2) "an inserting tool (extractor-driver 74) that includes 'a threaded screw 92 having threads to mate with the internal threads in the head of nail 12.' " (*Id.* at 17-18.)

b. Claim Construction Analysis

When interpreting a means-plus-function claim, the Court determines what the claimed function is and then turns to the written description in order to identify the corresponding structure that performs the claimed function. FN64 In the case at bar, the function to be performed is securing an inserting tool into the head of the nail for inserting the nail into a femur. According to the structure disclosed within the written description, the means by which this securing tool is attached is through the use of internal threads and equivalents thereof. The detailed description states "[o]pening 64 has internal threads 66 for threadedly securing various tools to the head of the nail both before and after insertion of the nail in the femur." ('959 Patent col.6 1.14-17.) To the extent the description goes on to describe ways in which the inserting/extracting tool properly aligns with any screw receiving openings or properly aligns with the internal screw threads, it appears the only means by which the inserting/extracting tool is actually secured to the nail is performed by the internal screw threads. Although the parties largely seem to agree on the construction of this claim, to the extent that Defendant asserts it is entitled to a broader construction of the scope of this claim, the means by which the inserting tool is physically secured to the head of the nail properly is limited to "internal screw threads and equivalents thereof."

FN64. *Minks*, 456 F.3d at 1377; Biomedino LLC, 490 F.3d at 950; JVW Enters., Inc., 424 F.3d at 1330; Wenger Mfg., Inc., 239 F.3d at 1229.

2. "means on said head defining a line having a predetermined fixed angular relation to the axis of each of said screw receiving openings for accurately locating a guide of a tool circumferentially and axially of the nail in precise axial alignment with any of said openings."

a. The Parties' Proposed Construction

Plaintiff construes this language to mean:

The "means on said head defining a line ..." language is written in means-plus-function format under 35 U.S.C. s. 112(6). The structure disclosed in the specification of the '959 Patent corresponding to the claimed function is a slot and the equivalent of a slot. "For accurately locating a guide of a tool circumferentially and axially of the nail in precise axial alignment with any of said openings" means that the "means on said head defining a line ..." accurately locates one or more tool guides in alignment with the first, second and third screw receiving openings.

(Pl.'s Opening Markman Br. 22; D.E. # 57.) Again, Smith & Nephew states that this construction is correct because the only structure disclosed within the patent as a means for defining a line from the head is a slot and a slot's equivalent. (*Id.* at 21.) Plaintiff contends that "[this] language means that the slot must allow one to accurately locate one or more tool guides in alignment with the first, second, and third screw receiving openings. In other words, the slot or its equivalent allows a user to fasten a tool guide to the intramedullary nail in precise alignment with any of the screw receiving openings." (*Id.* at 22.) Plaintiff goes on to state that the language requiring the slot extend at a "predetermined fixed angular relation" to "each" of the screw receiving opening is critical, because in the context of the entire patent, it becomes clear that the purpose served by this language is to allow a surgeon to accurately locate one or more guides in alignment with each of the first, second, and third screw receiving openings, not just some of those openings. (*Id.* at 23.) To demonstrate, Plaintiff points to language in the patent, which states:

An additional feature of the nail of this invention is that after insertion of the nail in the femur, and removal of the driving tool, a jig can be secured to the head of the nail, to accurately locate and guide a drill or other cutting tool in precise alignment with any of the preformed screw receiving openings in the nail. This assures that the locking screws, when threaded through the femur, will precisely align with the openings in the nail without any additional drilling or reaming of the femur to attain alignment.

(*Id.* at 24.) Accordingly, they assert this language makes clear that this language means that the slot or its equivalents can locate accurately one or more tool guides in alignment with all of the three screw receiving openings in the nail. (*Id.*)

Defendant proposes this language describes the following:

[A]n orientation element, such as a slot, and equivalents thereof, on the head of the nail defining a line with a known fixed angular relation with respect to the axis of each of the first, second and third screw openings, for accurately positioning a tool guide circumferentially about the nail and along the axis of the nail for precise alignment with any of the first, second or third screw openings.

(Def. Opening *Markman* Br. 19; D.E. # 56.) Defendant asserts that the function to be performed "is accurately locating a guide tool circumferentially and axially of the nail in precise axial alignment with any of said openings." (*Id.*) In support, Defendant points to language in the specification, which states as follows: "The head or upper end of the nail includes a securing arrangement for securing a tool for driving and extracting the nail and the tool advantageously cooperates with a locating slot in the head so that the desired angular disposition of the nail is indicated and easily maintained during insertion of the nail." (*Id.*) In identifying the corresponding structure, Defendant points to language in the specification which describes "a diametrically extending U-shaped slot 62" that can be found in the head of the nail. (*Id.*)

b. Claim Construction Analysis

When interpreting a means-plus-function claim, the Court determines what the claimed function is and then turns to the written description in order to identify the corresponding structure that performs the claimed function. FN65 Here, the function to be performed is "accurately locating a guide of a tool circumferentially and axially of the nail in precise axial alignment with any of said openings." This does not mean the guide tool must be capable of locating all of the screw receiving openings, but instead must be capable of precise alignment with any of the first, second, or third screw receiving openings. Accordingly, the structure disclosed within the written description for performing this function is a slot and equivalents thereof. As the detailed description states, "[f]ormed in the top of the head is a diametrically extending U-shaped slot 62.... As will soon be explained, this slot provides a means for angularly orienting the nail, and for accurately locating a tool with respect to the nail and the several screw receiving openings." ('959 Patent col.6 1.6-12.) To the extent that Defendant asserts they are entitled to a broader construction, the means by which the nail is angularly oriented, and by which a tool may accurately locate the several screw receiving openings with respect to the nail properly is limited to "a slot and equivalents thereof."

FN65. *Minks*, 456 F.3d at 1377; Biomedino LLC, 490 F.3d at 950; JVW Enters., Inc., 424 F.3d at 1330; Wenger Mfg., Inc., 239 F.3d at 1229.

3. "An intramedullary nail according to claim 10 wherein said slot further comprises means for accurately locating a driver tool in a predetermined angular position on said head."

a. The Parties' Proposed Construction

Plaintiff construes this language to mean:

"For accurately locating a guide of a tool circumferentially and axially of the nail in precise axial alignment with any of said openings" means that the "means on said head defining a line ..." accurately locates one or more tool guides in alignment with the first, second and third screw receiving openings.

(Pl.'s Opening *Markman* Br. 19; D.E. # 57.) In identifying the corresponding structure, Plaintiff points to language in the specification that describes "a pair of grooves and the equivalent of a pair of grooves," as the means by which the function is performed. (*Id.* at 21).

Defendant proposes this language describes the following:

The slot further has an aspect, such as a groove, and equivalents thereof, for accurately locating a driver tool in a predetermined angular position on the head.

(Def.'s Opening *Markman* Br. 21; D.E. # 56.) Zimmer states that the function to be performed "is accurately locating a driver tool in a predetermined angular position on said head." (*Id.*) Defendant goes on to point to language in the specification which "describes a screw guide and drilling jig that includes lugs that enter the respective grooves in the upper end of the nail head to accurately align the jig circumferentially a well as axially of the inserted nail, when a fastening screw." (*Id.* at 21.)

b. Claim Construction Analysis

When interpreting a means-plus-function claim, the Court determines what the claimed function is and then turns to the written description in order to identify the corresponding structure that performs the claimed

function. FN66 Here, the function to be performed is "accurately locating a driver tool in a predetermined angular position on said head." Accordingly, the structure disclosed within the written description for performing this function is a groove and equivalents thereof. As the detailed description states, "[t]he lugs 116 at the bottom of head 112 enter the respective grooves in the upper end of the nail head to accurately align the jig circumferentially as well as axially of the inserted nail...." ('959 Patent col.6 1.68-col.7 1.4.) Thus, the means by which a driving tool is accurately located in a predetermined angular position properly is limited to "a groove and equivalents thereof."

FN66. *Minks*, 456 F.3d at 1377; Biomedino LLC, 490 F.3d at 950; JVW Enters., Inc., 424 F.3d at 1330; Wenger Mfg., Inc., 239 F.3d at 1229.

IV. CONCLUSION

Having considered the papers submitted by the parties and the arguments of counsel during the *Markman* hearing, the Court interprets the claim terms as set forth above and as summarized below.

CLAIM LANGUAGE

"said nail being insertable into the medullary canal of a femur"

"a second screw receiving opening in said head having its axis within the femoral neck, and a third screw receiving opening in said head having an axis generally transverse to the axis of the femoral neck and crossing the axis of the second opening"

"means for securing an inserting tool to said head for inserting the nail in a femur"

"means on said head defining a line having a predetermined fixed angular relation to the axis of each of said screw receiving openings for accurately locating a guide of a tool circumferentially and axially of the nail in precise axial alignment with any of said openings"

"an intramedullary nail according to claim 10 wherein said slot further comprises means for accurately locating a driver tool in a predetermined angular position

CLAIM CONSTRUCTION

The nail is insertable into the canal of the femur called the medullary canal.

The nail includes a second opening for a screw in the head of the nail that has an axis, which in use can align with the femoral neck. The nail includes a third opening for a screw in the head of the nail that has an axis that is angled with respect to the axis of the femoral neck, and crosses with the axis of the second screw opening.

This claim is written in a means-plus-function format. The function to be performed is securing an inserting tool into the head of the nail for inserting the nail into a femur. The means by which the inserting tool is attached to the head of the nail is limited to internal screw threads and equivalents thereof.

This claim is written in a means-plus-function format. The function to be performed is accurately locating a guide of a tool circumferentially and axially of the nail in precise alignment with any of said openings. This does not mean the guide tool must be capable of locating all of the screw receiving openings at the same time, but instead must be capable of precise alignment with any of the first, second, or third screw receiving openings. The means by which this function is performed is a slot and equivalents thereof.

This claim is written in a means-plus-function format. The function to be performed is accurately locating a driver tool in a predetermined angular position on said head. The means by which this function is performed is a groove and equivalents thereof.

on said head"

IT IS SO ORDERED.

W.D.Tenn.,2009. Smith & Nephew, Inc. v. Zimmer, Inc.

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