United States District Court,
C.D. California.

BIEDERMANN MOTECH GMBH and Depuy Spine, Inc,
Plaintiffs.
v.
ACME SPINE, LLC and Allez Spine, LLC,
Defendants.

No. CV 06-3619 SJO (PLAx)

Aug. 31, 2007.

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ORDER RE PLAINTIFFS' MOTION FOR CLAIM CONSTRUCTION, RE DEFENDANT ALLEZ SPINE, LLC'S MOTION FOR CLAIM CONSTRUCTION

S. JAMES OTERO**, District Judge.**

Plaintiffs Biedermann Motech GmbH ("Biedermann") and Depuy Spine, Inc. (the latter, "Depuy," both collectively, "Plaintiffs") and Defendant Allez Spine, LLC ("Allez") have filed cross-motions for claim construction. Each side filed an opening brief and a responsive brief, and neither side filed a reply brief. Acme Spine, LLC. ("Acme," collectively with Allez, "Defendants") did not file separate briefs The issues raised are substantially similar to those raised last year in Plaintiffs' Motion for Preliminary Injunction. Because a hearing was held for the Motion for Preliminary Injunction, and the present briefs (four in all) build on top of the briefs filed for the Motion for Preliminary Injunction (five in all), there was no need to hold a hearing for claim construction. The motions have been decided on the briefs. L.R. 7-15.

The disputed terms are defined as highlighted in bold text below. Claims 1 and 3-6 are held to be invalid for lack of written description.

I. *PROCEDURAL POSTURE*

This is a patent case, based on alleged infringement of U.S. Patent No. 5,207,678 (the "'678 patent") by Allez and Defendant Acme Spine, LLC ("Acme"). One of the Plaintiffs, Depuy, is the exclusive licensee of the '678 patent. (Compl.para. 12.) The other, Biedermann, is the owner of the '678 patent. *Id*. para. 11.

Defendants are apparently not related. All seven claims are asserted, as the '678 patent contains seven claims and Plaintiffs have not said that they would be limiting the claims asserted

The patent relates to vertebral screws which are screwed into vertebrae of a person's spine and attached to metal rods which act to hold those vertebrae in rigid position. These screws are called "pedicle screws," because they are screwed into a part of the vertebrae called the vertebral "pedicle." The screws function to correct deformity or treat trauma. The term "pedicle screw" includes the screw itself as well as the parts which attach the screw to the rod. There are several ways to design these parts, discussed in more detail below.

The '678 patent was the subject of a prior patent suit before Judge Edward F. Harrington in the District of Massachusetts, *Depuy Acromed, Inc., et al. v. Medtronic Sofamor Danek, et al.,* Civil Action No. 01-10165-EFH. That suit alleged infringement by three models of Medtronic's pedicle screws: the Legacy model, the Vertex model, and the MAS model. None of these pedicle screws were found to literally infringe the '678 patent. Summary judgment was granted by Judge Harrington finding that the Legacy model does not literally infringe or equivalently infringe, and the Federal Circuit subsequently upheld this finding. Summary judgment was granted by Judge Harrington finding that the Vertex model does not literally infringe, and the Federal Circuit subsequently upheld this finding. Summary judgment was granted by Judge Harrington finding that the MAS model does not literally infringe, and this finding was not appealed by Depuy to the Federal Circuit. Adverse to Medtronic, Judge Harrington had originally found no equivalent infringement of the Vertex model, but this finding was overturned on appeal by the Federal Circuit. The case has been remanded for determining equivalent infringement of the Vertex model. Also adverse to Medtronic, Judge Harrington had submitted the question of equivalent infringement of the MAS model to the jury, which found infringement, and this finding was upheld by Judge Harrington when he denied Medtronic's motion for renewed judgment as a matter of law, and the denial of the motion was affirmed by the Federal Circuit.

The *Medtronic* patent suit was appealed to the Federal Circuit, as stated above. After oral argument, Depuy filed two additional patent suits. One patent suit is *Biedermann Motech GmbH and Depuy Spine, Inc. v. Alphatec Spine, Inc.,* Civil Action No. 06-11111-EFH, also before Judge Harrington in the District of Massachusetts, and the other is the instant case. In both of these patent suits, Depuy sought a preliminary injunction against the alleged infringers, based on its alleged prior success in the suit against Medtronic. A hearing was held in both new actions.

In the *Alphatec* case, Judge Harrington summarily denied the motion for preliminary injunction the very same day the hearing was held, October 26, 2006.

The Federal Circuit decided the *Medtronic* appeal on November 20, 2006, with the results as stated above. Currently, the *Medtronic* case is back before Judge Harrington, in order to determine whether the Vertex pedicle screws equivalently infringe the '678 patent. It is set for trial on September 10, 2007.

In the instant case, the Court took the Motion for Preliminary Injunction under submission to further consider Judge Harrington's rulings and thereafter, on October 24, 2006, notified the parties that it would await the Federal Circuit's decision in the *Medtronic* case before ruling on the preliminary injunction. Supplemental briefing was ordered on November 21, 2006 to argue the importance of the recent rulings by the Federal Circuit and Judge Harrington. Thereafter, the Motion was denied from the bench on January 8, 2007, with the reasoning explained in an Order issued January 17, 2007.

Now, Plaintiffs and Allez have filed cross-motions for claim construction. The other Defendant, Acme, did not participate in the briefing.

II. *TECHNOLOGICAL SUMMARY*

The patented pedicle screw of Plaintiffs and the pedicle screw of Allez are not identical. The structure of the two kinds of pedicle screws will be described. The Court's description is based on a pretrial review of the '678 patent and the alleged infringing products. This description may be modified as the litigation continues.

The patent at issue uses a short tube with a constricted end, called a "receiver." The receiver has two holes on opposite sides. The screw is inserted into the receiver before being installed into a vertebra, so that the receiver can pivot after the screw is installed. The screw has a smooth, rounded head which seats well in the constricted end of the tube. To attach the rod, a small cylindrical piece of metal called a "compression member" is placed inside the tube after the screw is installed into a vertebra. One side of the compression member seats well against the head of the screw. ('678 patent, at fig. 1.) The rod is inserted through the holes in the receiver. Although claim one does not specify, the patent specification states that the rod is also inserted through the compression member. The specification states that the rod is threaded, and thus, nuts are used on either side of the receiver to hold the rod in place. The specification states that the nuts can be applied with sufficient tightness as to flex the receiver against the compression member which presses against the screw. The patented embodiments were never manufactured, other than a few prototypes which were destroyed long ago. (Sheehan Decl. para. 21.)

The pedicle screw of Allez uses a short tube with a constricted end, alleged by Plaintiffs to be a "receiver." The other end has two notches on opposite sides. The screw is inserted into the alleged receiver before being installed into a vertebra, so that the alleged receiver can pivot after the screw is installed. The screw has a smooth, rounded head which seats well in the constricted end of the tube. To attach the rod, a small piece of metal, alleged by Plaintiffs to be a "compression member," is placed inside the tube after the screw is installed into a vertebra. One side of the alleged compression member has a smooth ring, which seats well against the rounded head of the screw. The other side of the alleged compression member has a U-shaped semi-circular cup. The rod is placed through the two notches of the alleged receiver and rests in the U-shaped semi-circular cup of the alleged compression member. A cap is screwed into the receiver. (The claim does not recite a "cap." This is a difference between Plaintiffs' and Allez's technology.) The cap has a U-shaped semi-circular cup on the bottom, so that when the cap is screwed into the top of the alleged receiver, the U-shaped semi-circular top embraces the top of the rod. The threaded portion of the cap and the U-shaped semi-circular cup can rotate with respect to each other, so that the cap may be screwed tightly into the alleged receiver while the U-shaped semi-circular cup embraces the top of the rod. The rod pushes against the alleged "compression member" which in turn presses against the screw, holding the screw in fixed position and preventing the screw from pivoting. While the patented product never made it off the drawing board, the Allez product has been wildly successful in the marketplace, indicating a fundamental difference between the two designs. (Order of Jan. 17, 2007, at 16.)

II. *LEGAL STANDARD*

A. *Summary Judgment*

The claim construction briefs were brought in an ad hoc format. As claim construction is a matter of law, the briefs will be treated as briefs for summary judgment. "Claim interpretation is a question of law

amenable to summary judgment." Laitram Corp. v. Morehouse Indus., 143 F.3d 1456, 1462 (Fed.Cir.1998). However, this Court notes in passing that several traditional features of summary judgment are not invoked in a claim construction motion. Summary judgment is a mechanism provided for in Rule 56(c) of the Federal Rules of Civil Procedure to resolve claims if there is no genuine issue as to any material fact, after considering the pleadings and any depositions, answers to interrogatories, admissions, or affidavits. The Supreme Court explained various rules for resolving alleged factual disputes in a trio of cases decided two decades ago, Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986), Matsushita Elec. Indus. Co. v. Zenith Radio, 475 U.S. 574, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986), and Celotex Corp. v. Catrett, 477 U.S. 317, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986). The rules include such familiar principles as the one that inferences from the underlying facts must be viewed in light most favorable to the non-moving party. Matsushita, 475 U.S. at 587.

However, the Federal Circuit has held that claim construction is a purely legal determination. According to the Federal Circuit, extrinsic evidence is only used for the Court's understanding of the patent. Cybor Corp. v. FAS Techs., 138 F.3d 1448, 1455 (Fed.Cir.1998) (en banc). When the Court construes the true meaning of the claims with the aid of extrinsic evidence, according to the Federal Circuit, the Court is not making factual findings or crediting certain evidence over other evidence. *Id*. According to the Federal Circuit, while "the trial judge may seek understanding outside the patent proper, from relevant texts and materials, and from experts in the art," "none of this involves 'fact-finding' in the sense of the traditional fact-law dichotomy." *Id*. at 1462.

Therefore, this Court does not favor the evidence or argument of the moving and nonmoving parties differently, as it would in a typical motion for summary judgment.

B. *Claim Construction*

Before a jury can determine if the Plaintiffs' patents are invalid or if the Defendants' technology infringes Plaintiffs' patents, the Court must determine the meaning and scope of the patent claims at suit through "claim construction." Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Only after claim construction can the jury compare the allegedly infringing device against the claims. *Id*.

The Federal Circuit's definitive statement of its claim construction jurisprudence is contained in an en banc case titled Phillips v. AWH Corp., 415 F.3d 1303, 1311-24 (Fed.Cir.2005) (en banc). The general rule is that the claims are of *primary importance* in ascertaining exactly what has been patented. Elements which are not actually in the claim should not be added to the claim through interpretation. Id. at 1312. The words in a claim are to be given their "ordinary and customary meaning." *Id* . The "ordinary and customary meaning" is the one which a person of ordinary skill in the art would have understood the words to mean at the time the patent application was filed. *Id*. at 1312-13. The parties did not stipulate as to the ordinary level of skill relevant to this case, however, they do not argue that the appropriate claim construction depends on ordinary level of skill in the art.

A person of ordinary skill in the art could have had a well-established notion of what various words meant before reading the patent application. However, the words may have had more specific or slightly different meanings in the context of the patent application. The person of ordinary skill interpreting the patent claims is assumed to have read the entire patent specification along with the patent claims. *Id*. Thus, the patent specification is the "primary basis" for the Court to construe the claims, *id*. at 1315, and it is entirely

appropriate for a court to "rely heavily" on the specification for guidance during claim construction. *Id*. at 1317.

It is also possible that the inventors intentionally excluded some embodiments by what they wrote in the patent specification. For instance, the inventors may have said "the invention is X" or "the invention has X" or "the invention does X." In such a situation, the inventors will be held to their word and will not be permitted to retract what they said in the specification. Chimie v. PPG Indus., 402 F.3d 1371, 1379 (Fed.Cir.2005). That is, if the inventors have limited the scope of their invention in the specification, then what they said is "dispositive" during claim construction. Phillips, 415 F.3d at 1316.

The doctrine of claim differentiation is one of the main tools for claim construction. There are two types of claim differentiation: the differentiation between an independent claim and a claim which depends from it, and the differentiation between two independent claims. In either case, claim differentiation comes into play when a claim construction would render additional, or different, language in another independent claim superfluous.

The former type of claim differentiation refers to the presumption that an independent claim should not be construed as having the same scope as a dependent claim. Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1380-81 (Fed.Cir.2006). For example, suppose an independent claim recites an element (like an engine), and there is a claim which depends from the independent claim which does nothing but recite language which limits that element to a species (for example, to a rocket engine). Then one could infer, under the doctrine of claim differentiation, that the word "engine" was deliberately chosen to encompass other types of engines besides rocket engines. A similar principle applies if the dependent claim merely recites an added element (like a pressure jacket) totally absent from the independent claim. In such a situation it would likely be improper to interpret the parent claim so that it included the dependent claim's added element. Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 909-10 (Fed.Cir.2004).

The latter type of claim differentiation is a presumption that each claim in a patent has a different scope. It can apply, for instance, between two independent claims or between an independent claim and a claim which depends from a different independent claim. This presumption is not as strong as the claim differentiation between an independent claim and a claim which depends from it; it is more of a guide than a rigid rule. "Different claims with different words can, of course, define different subject matter within the ambit of the invention. On the other hand, claim drafters can also use different terms to define the exact same subject matter. Indeed [the Federal Circuit] has acknowledged that two claims with different terminology can define the exact same subject matter." Curtiss-Wright Flow Control Corp. v. Velan, Inc. ., 438 F.3d 1374, 1380-81 (Fed.Cir.2006).

A related third principle is that words in claims should be interpreted to not render other parts of the same claim superfluous. Merck & Co. v. Teva Pharms USA, 395 F.3d 1364, 1372 (Fed.Cir.2005). In one case, the district court was overruled specifically because the district court had interpreted the word "adjustable" to be so broad as to make it meaningless. Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1379 (Fed.Cir.2006). Claims should be constructed so that each word in the claim has meaning. Bicon, Inc. v. Straumann Co., 441 F.3d 945, 950 (Fed.Cir.2006). *See also* In re Wilson, 57 C.C.P.A. 1029, 424 F.2d 1382, 1385 (C.C.P.A.1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art.").

The Federal Circuit has admonished that claim differentiation is not the be-all and end-all, sole tool for

claim construction. It is merely a presumption which can be overcome if, for example, claim differentiation would impermissibly broaden claims beyond their correct scope. Curtiss-Wright, 438 F.3d at 1381. In such a situation, the correct scope of patent claims can be determined by looking to the overall context of the specification, looking to the presence of disclaimers in the specification or prosecution history, etc.

It is a long-standing rule that snippets of language describing the preferred embodiment should not be read into the claims. Comark Commc'ns, Inc. v. Harris Corp., 156 F.3d 1182, 1186-87 (Fed.Cir.1998). But it is not picking snippets from descriptions of the preferred embodiment when the Court recognizes that the inventors consistently use claim language in particular ways. Rather, it is reading the language of the patents, as written by the inventors, in a consistent fashion. Inferring that a word in claim language has a particular meaning does not require extrapolating limitations from the preferred embodiments, which is forbidden. The practice of deducing meaning from all the intrinsic evidence including distinctions made by the inventors in their choice of language is acceptable. *See* Nystrom v. TREX Co., 424 F.3d 1136, 1144 (Fed.Cir.2005) (consistency of language in specification is acceptable basis for claim construction).

Nystrom concerned a patent on boards used for outdoor decking. The boards were designed to fit together to form a comfortable surface for walking upon and to effectively shed rainwater. *Id*. at 1140. The issue in *Nystrom* was whether the term "board" was limited to conventional wooden boards cut from a log. *Id*. at 1142. The alternative would be some sort of manufactured board, e.g., pressed together from plastic and wood fiber. *Id*. at 1140. Such manufactured boards were well known to those employed in the decking business. The patentee in *Nystrom* argued that it was error for the district court to rely on statements in the specification and prosecution history to limit the claim to conventional wooden boards because there was no clear avowal of claim scope in the specification or prosecution history *Id*. at 1142. Unfortunately for the patentee in *Nystrom,* the specification and prosecution history were entirely consistent with i the notion that the patent was limited to boards cut from a log. *Id*. at 1144-45. Because there was no notice in the intrinsic record to support a broader meaning of "board," the patentee was no entitled to the broader meaning. *Id*. at 1145.

There is an additional fact about *Nystrom* which is notable for this case. The Federa Circuit issued a different opinion coming to the opposite conclusion in *Nystrom* before *Phillips* came down, which was subsequently withdrawn in favor of the opinion cited above. Nystrom v. Trex Co., 374 F.3d 1105, 1110-11 (Fed.Cir.2004). In this earlier opinion, the Federal Circuit ha no trouble finding a broad definition for "board" given that there was no clear disavowal of claim scope in the patent or prosecution history. Thus, one lesson for district courts is that after *Phillips,* it is not necessary to find clear disavowal of claim scope in order to define the claims words narrowly. A comparison of the two *Nystrom* opinions shows that arguments which rely heavily on extrinsic evidence to support broad definitions of claim terms are simply not viable after *Phillips*.

Another principle of claim construction is that there is a long established rule that claims should be interpreted in a way that preserves their validity, if it is possible to do so consistently with the language chosen by the inventors. Klein v. Russell, 19 Wall. 433, 86 U.S. 433, 466, 22 L.Ed. 116 (1873). In particular, claims should be interpreted to be consistent with the enablement and written description requirements. The enablement requirement is that the patent specification must describe how to make and use the invention "in such full, clear, concise, and exact terms as to enable any person skilled in the art to which [the patent] pertains ... to make and use the invention." 35 U.S.C. s. 112. Although a patent specification need not explicitly disclose every variation of the invention claimed by the inventor, the disclosure must be complete enough that a person of ordinary skill in the art, at the time the patent

application was filed, could have relied on his background knowledge and the results of routine experimentation to practice each variation. *Liebel-Flarsheim Co. v. Medrad, Inc.,* No. 06-1145, slip op. at 10-15 (Fed.Cir. Mar. 22, 2007) (precedential). The written description requirement mandates that an inventor provide enough detail in the patent application to show that, at the time of filing the patent application, the inventor actually had in mind what is later purported to be the invention. Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1479 (Fed.Cir.1998). It is true that the Federal Circuit has cautioned against over-reliance on the validity-preserving principle of claim construction. If the intended meaning of the claim language is clear, such as from reading the prosecution history of amendments made to claims or from analyzing claim differentiation, then applying the principle of preserving claim validity to reach a different claim construction amounts to "judicial rewriting of claims to preserve validity," which is forbidden. Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910-12 (Fed.Cir.2004). That said, it is acceptable to use this tool if the claim language is ambiguous. *Id.*

Phillips also instructs that prosecution history, or the statements made by the inventors to the patent office, is crucial for the Court to consider in claim construction. Phillips, 415 F.3d at 1317. At times the prosecution history may be less clear than the specification. Id. at 1317. Yet if the inventors made remarks to the examiner that limited the scope of their invention, the claims *must* be constructed in a narrower way which accords with their remarks. *Id. See also* Amhil Enters. v. Wawa, Inc., 81 F.3d 1554, 1559-62 (Fed.Cir.1996). Indeed, the *very purpose* of consulting the prosecution history is to exclude *any* interpretation that the inventors disclaimed during prosecution. Phillips, 415 F.3d at 1317.

Additionally, the Court can rely on extrinsic evidence, such as dictionaries and treatises, at any time to give context to the meaning of words. Id. at 1317-18, 1324. The Court will not rely on dictionaries or treatises for interpretations which are inconsistent with the claims, specification, or prosecution history because "there is a virtually unbounded universe of potential extrinsic evidence of some marginal relevance that can be brought to bear on any claim construction question. In the course of litigation, each party will naturally choose the pieces of extrinsic evidence most favorable to its cause." Id. at 1319-20.

It is frequently the case that a patent is litigated in several consecutive cases against different defendants. Therefore, it is not unusual for a court to be asked to interpret a claim term which was previously constructed by another court, either another district court or the Federal Circuit. Both situations present themselves in this case. Previous claim constructions of the same patent by other courts can be "highly persuasive" in analyzing patent claims. Kemin Foods, L.C. v. Pigmentos Vegetalesdel Centro S.A. de C.V., 319 F.Supp.2d 939, 941-42 (S.D.Ia.2004). If the same issue arises in a future case, the Federal Circuit's ruling is dispositive, as claim construction is a matter of law. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 391, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996); Cybor Corp. v. FAS Techs., 138 F.3d 1448, 1455 (Fed.Cir.1998) (en banc). It is important, however, to recognize that claim construction orders are narrowly tailored to assist the jury in resolving infringement and validity disputes in particular cases. It is a mistake to treat even definitions from the Federal Circuit as eternal and universal truth, suitable for use in any future dispute. It may be that a prior interpretation by the Federal Circuit needs to be tweaked, remaining consistent with the original definition, to resolve a dispute in another case.

IV. *CLAIM CONSTRUCTION ANALYSIS*

Plaintiffs have requested that the Court interpret the phrases "two holes for receiving a rod," "spherically shaped portion," "compression member," and "for exerting a force onto said head, such that said head is pressed against the hollow spherically shaped portion." Allez would instead ask the Court to interpret the

phrases "the receiver member having ... an inner hollow spherically shaped portion" and "compression member for exerting a force." These four terms are essentially the same terms as were interpreted in the Order which denied Plaintiffs' Motion for Preliminary Injunction. (Order of Jan. 17, 2007, at 7.) The Court will use Plaintiffs' more succinct phrases in lieu of those of Allez

It is true that the grounds for claim interpretation have been hoed by several courts before this one. That does not mean, however, that Allez's arguments are meritless. Previous litigants fighting over different allegations of infringement may have chosen to emphasize different arguments, based on the facts of the particular cases or other factors.

In the present case, there are serious deficiencies in how the claims are drafted. The parties have not suggested that the significance of these deficiencies was addressed in the previous litigation. Claim 1 recites "two holes," yet the word "holes" appears nowhere in the rest of the patent application. *Id*. The same deficiency afflicts claims 3-6, as they depend from claim 1 without clarifying the word "holes." Claims 2 and 7 recite "slits" without providing an antecedent basis for them. Claim 4 depends from claim 1 and refers to "the radii of the hollow spherically shaped portions," yet claim 1 describes only one hollow spherically shaped portion. Thus, it appears that claim 4 ought to depend from claim 3 which recites a second hollow spherically shaped portion, rather than depending from claim 1. A similar defect afflicts claim 6, which depends from claim 1 and refers to "said hollow cylindrical portion," a feature which is introduced in claim 5. Thus, it appears that claim 6 ought to depend from claim 5 rather than claim 1. On top of all this, claim 1 has an obvious typographical error where it reads, "two holes for receiving a rod 916)," where the numerical reference should read "(16)" instead; i.e., the patent attorney forgot to hit the shift key when typing the left parenthesis and failed to carefully proofread her work. In other words, every claim of this patent suffers, directly or indirectly, from at least one drafting defect. Allez has identified other purported ambiguities in the second and fourth terms. This Order discusses whether and how these maladies apparently caused by sloppy drafting will be cured through claim construction. This is a case where poor drafting of the patent has made the process of claim construction unnecessarily difficult. *See* Honeywell, Inc. v. Victor Co. of Japan, Ltd., 298 F.3d 1317, 1323 (Fed.Cir.2002).

A. *Two Holes for Receiving a Rod*

The specification teaches two slits in the receiver member for receiving a rod, indicated in the drawings, specification, and claims by numeric references 12 and 13. ('678 patent, at col. 2 ll. 42-52.) The specification also teaches that the compression member has two slits for receiving the rod, which line up with the slits in the receiver member. The compression member slits are indicated in the drawings, specification, and claims by numeric references 20 and 21. ('678 patent, at col. 3 ll. 5-11.) Claims 2 and 7 reference the slits of the receiver member and the compression member, respectively. ('678 patent, cl. 2, at col. 4 ll. 28-30; '678 patent, cl. 7, at col. 4 ll. 51-52.)

Plaintiffs face a serious problem in that claim 1 recites "holes," a phrase which does not appear elsewhere in the patent: "said receiver member being provided with two holes for receiving a rod [(16)]." ('678 patent, cl. 1, at col. 4 ll. 28-30; Several questions are raised: Is the choice of word "holes" a mistake? What does "holes" mean in the context of this patent? Is this meaning of holes supported by the specification? As the claims are literally drafted, how does "holes" interact with the "slits" recited in claims 6 and 7? Are there any other problems with defining "holes" in such a way?

As a preliminary matter, it certainly appears that the use of the word "holes" was a drafting error. It appears

that the intention was to draft claim 1 broadly, introducing the rod slits 12-13 and 20-21 in dependent claims. The benefit of drafting claim 1 broadly and moving the slit limitations to dependent claims is that the patent would become stronger. A broader claim would allow the patent to be asserted against more competing products. Keeping the limitations in the dependent claims would provide assurance that if the broader claim were invalidated by a court, the dependent claims would remain. However, the attorney drafting the claims was apparently in a hurry, because he made at least one other obvious drafting error in claim 1 just four words later, referring to reference number "(16)" as "916)," i.e., he forgot to hit the shift key when typing the left parenthesis. It seems, therefore, that leaving the word "holes" in claim 1 was also a drafting error. (Order of Jan. 17, 2007, at 11.) Not only is the word unsupported by the specification, but putting the limitation of "holes" in claim 1 defeats the presumed purpose of expressing the limitation of "slits" in dependent claims. Plaintiffs insist, however, that "holes" is not a drafting error, and instead is intended to be read more broadly than "slits." (Pl. Resp. Br. at 7.) It is their prerogative to take that position. Therefore, "slits" will not be read equivalents to "holes." Novo Indus., L.P. v. Micro Molds Corp., 350 F.3d 1348, 1357 (Fed.Cir.2003).

The next question is what the word "holes" means. The word "hole" is not used anywhere in the patent specification, and so the intrinsic evidence is no help. At the time of the preliminary injunction, the evidence as to the word's meaning was rather meager, amounting to metaphors concerning Swiss cheese and threadbare overcoats. (Order of Jan. 17, 2007, at 9-10.) The Court encouraged the parties to find more relevant extrinsic evidence, and commented that a meaning for "holes" which excluded the preferred embodiment would not be considered. *Id*. at 11. The parties have come back with satisfactory extrinsic evidence which essentially shows that the word "hole" has no specific meaning in the medical device field, and sometimes the word is used very broadly. (Pl. Op. Br. at 11-13; Allez Op. Br. at 12-13.) As Judge Harrington held, " 'holes' is a general term that includes 'slits.' " Biedermann Motech GmbH v. Alphatec Spine, Inc., 482 F.Supp.2d 32, 33 (D.Mass.2007). Having established that the term "holes" embraces the meaning of the word "slits" and is a term with a broader meaning, the next question is what the term "holes" actually means.

Plaintiffs offer the definition, "openings, which may be U-shaped slits, in the receiver member that receive a rod." (Pl. Op. Br. at 25.) This definition seems adequate, so long as it is understood that this definition encompasses more than the term "slits." It would also be acceptable to instruct the jury that "holes" should be understood to have its ordinary meaning, with the understanding that "holes" means more than the word "slits" as used in claims 2 and 7. In the *Medtronic* litigation, the jury was not specially instructed on the meaning of the word "holes," and determined that the infringing product, which appears to have receiver member slits, met the limitation of "holes." (Pl. Reply Br. to Prelim. Inj. # 62, at 5.)

The next question is how the claims should be interpreted, given that "holes" has been defined to mean something broader than "slits." Claim 2 depends from claim 1 and has a particular issue relating to the receiver member. The portion of claim 1 discussing the receiver member reads as follows:

a receiver member (5) flexibly connected to said head (4), said receiver member being provided with two holes for receiving a rod [(16)], a receiver chamber (7) being provided within said receiver member (5), the receiver chamber (7) having at one end thereof a bore (8) for passing the threaded shaft portion (3) therethrough and an inner hollow spherically-shaped portion (9) for receiving the head (4) of said screw (1), an opening (10) being provided opposite said bore (8) for inserting said screw (1)

('678 patent, cl. 1, at col. 4 ll. 12-21.) For this discussion, the key point is that the receiver member is

"provided with two holes for receiving a rod [(16)]." The patent attorney who drafted the patent application did not provide reference numerals for the "holes" limitation, which might have clarified exactly what was intended. Claim 2 reads:

Device according to claim 1, characterized in that said receiver member (5) comprises in the portion thereof facing away from said bore (8) at least one slit (17) extending up to the open side thereof, said receiver member further comprising two mutually opposite slits (12, 13) for passing said rod (16) and for receiving locking nuts (24, 25), the slits (12, 13) being angularly offset with respect to said slit (17).

('678 patent, cl. 2, at col. 4 ll. 25-32.) For this discussion, the key point is that the receiver member "***further*** compris[es] two mutually opposite slits (12, 13) for passing said rod (16) and for receiving locking nuts (24, 25), the slits (12, 13) being angularly offset with respect to said slit (17)."

Comparing the language from the two claims, it is apparent that claim 2 unambiguously states that the receiver member has "two holes for receiving a rod [(16)]" *and* "two mutually opposite slits (12, 13) for passing said rod (16)." In other words, a device infringing on claim 2 must have a grand total of four holes/slits which receive/pass a rod. The reason is that claim 2 uses the phrase "further comprising" which is standard in dependent claims for adding additional elements to a device. *Manual of Patent Examining Procedure,* s. 608.01(n), Dependent Claims (2007). If the patent attorney wished to limit the "holes" to being slits, the proper terminology would be "in which," as in "in which the holes for receiving a rod (16) are two mutually opposite slits (12, 13) for passing said rod (16) and for receiving locking nuts (24, 25), the slits being angularly offset with respect to said slit (17)." This reading is supported by the distinction made in the claims between "receiving a rod [(16)]" and "passing said rod (16)."

This reading is unambiguous, because claim 1 uses the term "holes" without a reference number. If "two holes" had reference numbers, and the same reference numbers were used in reference to the "two mutually opposite slits (12, 13)," then perhaps there would be an ambiguity in the claim. Ambiguous claims can be interpreted to achieve the inventor's desired meaning. *See* Honeywell, Inc. v. Victor Co. of Japan, Ltd., 298 F.3d 1317, 1322-24 (Fed.Cir.2002). As written, however, the claim is unambiguous, and unambiguous claims must be interpreted as written.

This court, however, repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity. Even "a nonsensical result does not require the court to redraft the claims of the ... patent. Rather, where as here, claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated." "Where, as here, the claim is susceptible to only one reasonable construction, ... we must construe the claims based on the patentee's version of the claim as he himself drafted it."

Chef America, Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1374 (Fed.Cir.2004).

In *Chef America,* the sole issue on appeal was the meaning of the following claim language: "heating the resulting batter-coated dough to a temperature in the range of about 400 degrees F. to 850 degrees F." *Id.* at 1372. The question was whether the dough itself was to be heated to that temperature or whether the claim only specified the temperature at which the dough was to be heated, i.e., the temperature of the oven. *Id.* at 1373. The problem was that if the batter-coated dough was heated to the specified temperature range, it would be burned to a charcoal-like briquette. *Id.* Thus, the patentee argued that the claim language referred to the temperature of the oven, not the dough, and the word "to" should have been construed to mean "at."

Id. at 1373-74. The Federal Circuit held that the district court correctly construed the claim as written. *Id*. at 1376.

In the present case, the issue is as clear as in *Chef America*. The claim as written is unambiguous. The inventor's patent attorney used standard language of claim drafting language to claim something other than the preferred embodiment.

The last question is whether there are any other problems with defining "holes" more broadly than "slits" without describing in the specification what these additional claimed embodiments might be. The areas of inquiry are indefiniteness, enablement, and written description.

A claim is found invalid for being indefinite pursuant to 35 U.S.C. s. 112(2) "if, when read in light of the specification, it does not reasonably apprise those skilled in the art of the scope of the invention." Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1342 (Fed.Cir.2003). The term "holes" was defined above as "openings, which may be U-shaped slits, in the receiver member that receive a rod." The definition was made with the understanding that the term "holes" is more encompassing than the term "slits." Because the term "holes" was able to be defined, it is not indefinite. A claim is only indefinite if it is "insolubly ambiguous, and no narrowing construction can properly be adopted." *Id*.

A claim is found to be invalid for lack of enablement pursuant to 35 U.S.C. s. 112(1) if the patent specification fails to teach a person of ordinary skill in the art how to make and use the invention without undue experimentation *Id*. at 1334. The preferred embodiment has a receiver member with two rod-receiving slits 12, 13 and two other slits 17 to facilitate the deformation of the receiver member when retaining nuts are applied. ('678 patent, col. 2 ll. 42-57; '678 patent, col. 3 ll. 47-56.) The preferred embodiment also has a compression member with two rod-receiving slits 20, 21 corresponding to the rod-receiving slits 12, 13 of the receiver member, and two other slits 23 are provided to allow deformation when retaining nuts are applied. ('678 patent, col. 3 ll. 5-13, 47-56.) If any of these slits are replaced with holes which are not slits, the question i s what that alternative embodiment would look like. Would a person of ordinary skill in the art be able to make and use such an alternative embodiment? The Court finds it difficult to imagine such an alternative embodiment, and the specification gives no guidance at all as to such modifications. However, "[t]he specification need not explicitly teach those in the art to make and use the invention; the [enablement] requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without 'undue experimentation.' " Id. at 1334. As there is little evidence in the record regarding how a person of ordinary skill in the art would read the specification, at this point it would be premature to find claim 1 invalid for lack of enablement.

A claim is found to be invalid for lack of written description pursuant to 35 U.S.C. s. 112(1) if the patent specification fails to recount his invention in such detail that his future claims can be determined to be encompassed within his original creation. Id. at 1330. The written description requirement is often more stringent than the enablement requirement. Id. at 1334. The "holes" limitation was not filed as part of the original application; rather, it was filed several months later. (Pl. Op. Br. at 9-10.) Thus, it must be carefully considered whether the "holes" limitation meets the written description requirement. Although it is somewhat unusual to discuss the written description requirement of 35 U.S.C. s. 112(1) in a claim construction motion, both parties have discussed the issue. (Allez Op. Br. at 10; Pl. Op. Br. at 10-11.) The Federal Circuit has on several occasions found that a patent is invalid on its face for lack of written description. *See* Univ. of Rochester v. G.D. Searle & Co., 358 F.3d 916, 927 (Fed.Cir.2004). This Court signaled its concern about written description in its previous Order, writing, "In any case, Depuy may have

a problem arguing that 'hole' is intended to be broader than 'slit,' because a broader definition of 'hole' is not supported by the specification." (Order of Jan. 17, 2007, at 8.)

Plaintiffs' argument essentially boils down to the fact that, under the adopted definition, a slit is a type of hole, and embodiments featuring slits are adequately described. The concern, however, is not with the claiming of the preferred embodiment featuring holes which are slits. Rather, the concern is with claiming undescribed embodiments featuring holes which are not slits. There is no description in the specification, none whatsoever, of embodiments featuring holes which are not slits. What does such an embodiment look like? How does one make and use it? Even if the specification were enabling to one of skill in the art on how to construct such an embodiment, Plaintiffs must show that the later-added claim 1 can be determined to be encompassed within the original patent application to satisfy the written description requirement Amgen, 314 F.3d at 1330.

The classical case on written description is Gentry Gallery, Inc. v. Berkline Corp., 134 F.3d 1473, 1478-1480 (Fed.Cir.1998).

In this case, the original disclosure clearly identifies the console as the only possible location for the controls. It provides for only the most minor variation in the location of the controls, noting that the control "may be mounted on the top or side surfaces of the console rather than on the front wall ... without departing from this invention." No similar variation beyond the console is even suggested.

Id. at 1479. Likewise, in the present case, no variation beyond the "slit" embodiments was even suggested in the original patent application. It is true, as *Gentry Gallery* says, that inventors can add claims to a pending patent application. *Id*. However, as *Gentry Gallery* cautions, those new claims must be adequately described by the original patent application. *Id*.

While claimed subject matter need not be described in haec verba in the specification to satisfy the written description requirement, the claimed invention must be described in a way that one skilled in the art can recognize what is claimed. Univ. of Rochester v. G.D. Searle & Co., 358 F.3d 916, 922-23 (Fed.Cir.2004). In the present case, "holes" and "slits" are not simply different words for approximately the same thing. Rather, Plaintiffs have insisted on ascribing a broader meaning to "holes," and the Court has obliged.

Holes are **"openings, which may be U-shaped slits, in the receiver member that receive a rod."** Claim 1 is invalid for lack of written description due to the use of the over-broad word "holes ." Claims 3-6 do not contain the word "slit" or "slits" and therefore cannot limit the term "holes" used in claim 1. Thus, they are invalid as well. It may seem strange to find claims invalid on a "battle-tested" patent like this one. However, the adequacy of support for the term "holes" was not at issue in the previous litigation. In the *Medtronic* litigation, the word "holes" was not defined for the jury. Because the word was not defined for the jury, the issue of how the word differs from the word "slits" and whether that difference had legal consequence was not addressed either "As for the lack of earlier cases on this issue, it regularly happens in adjudication that issues do not arise until counsel raise them, and, when that occurs, courts are then required to decide them." Univ. of Rochester, 358 F.3d at 924.

B. *Spherically Shaped Portion*

The specification reveals that the screw rests upon an area of the receiver which is shaped like a segment of a sphere. The specification specifically calls this area "the hollow sphericalsegment-shaped portion." ('678

patent, at col. 2 ll. 43-44.) That is, the specification discloses that the receiver has a lip or ridge which could have been cut from a sphere. Claim one refers to "an inner hollow spherically shaped portion." Allez would attach significance to the difference in wording. Allez argues that this means that the receiver must contain an entire sphere. (Allez Op. Br. at 15-16.)

For the reasons stated in the Order of January 17, 2007, Allez's argument is rejected. (Order of Jan. 17, 2007, at 12-13.)

Allez responds by pointing out that many dictionaries do not include the definition of "spherical" embracing the meaning "segment of a sphere." (Allez Resp. Br. at 8-9.) However, the correctness of a definition is not negated by a party's ability to find concise, old, or bad dictionaries which lack that definition. So long as an inventor's intent is clear, he is free to use words in broader standard senses, even if those senses are not the most commonly used. Honeywell, Inc. v. Victor Co. of Japan, Ltd., 298 F.3d 1317, 1324 (Fed.Cir.2002). In the present patent, the inventor describes the embodiments of the invention in the clearest language, referring to spherical segments. It is immaterial that the claims lack some precision, because the claims are read in light of the specification. If an inventor can secure the approval of the patent office, the inventor is permitted to use whatever language he pleases in the claims so long as "the scope of the claim would be reasonably ascertainable by those skilled in the art." Bose Corp. v. JBL, Inc., 274 F.3d 1354, 1359 (Fed.Cir.2001).

So that the jury understands that the term "spherical" embraces the meaning "segment of a sphere," the term "spherically shaped portion" is defined as **"a portion shaped like a segment of a sphere."** Plaintiffs' definition is essentially the same. It reads, "a portion of a thing shaped like a sphere; it encompasses a segment of a sphere." (Pl. Op. Br. at 25.) There are two reasons the Plaintiffs' definition is not adopted. First, it refers to a "thing" in a confusing way. Second, it confuses the jury by stating that the "thing" is "shaped like a sphere," which is precisely what the Plaintiffs are arguing against! The Plaintiffs' entire argument is that they do not need to show an entire sphere, rather, a segment of a sphere will suffice. While the term "spherical" may embrace the notion of "a segment of a sphere," there is no evidence that the term "sphere" embraces that notion.

C. *Compression Member*

There are two issues regarding the interpretation of the phrase "compression member." First, is the phrase a means-plus-function limitation pursuant to 35 U.S.C. s. 112(6)? Second, if not, what is the meaning of the phrase "compression member"?

If the phrase "compression member" is interpreted pursuant to s. 112(6), then according to the statute, Plaintiffs would be limited to claiming the corresponding structure disclosed in the specification and equivalents thereof. In other words, Allez would like "compression member" to be interpreted as a means-plus-function limitation because Plaintiffs would be left with a narrow set of claims, making it more likely that Allez would be found not to infringe the '678 patent.

The Federal Circuit has spoken directly on the issue of whether "compression member" should be interpreted as a means-plus-function limitation pursuant to 35 U.S.C. s. 112(6). The answer is no, it should not. Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1023 (Fed.Cir.2006).

Allez argues that Judge Harrington and the Federal Circuit were mistaken for any number of reasons.

(Sheehan Decl. para.para. 29-33; Mossinghoff Decl. para.para. 11-32.) For example, Allez argues that Judge Harrington's finding, subsequently affirmed by the Federal Circuit, that "compression member" had a specific meaning in the medical device arts was based on thin evidence. (Mossinghoff Decl. para.para. 31-32.) Judge Harrington's finding was based on dictionary definitions outside the medical device field (the definitions related to the fields of architecture and aircraft engineering), and the definitions may have had an altogether different meaning than that called for in the '678 patent: a member being subjected to force rather than a member applying force. (Order of Jan. 17, 2007, at 14.) Allez also points out a change in the claim language during the prosecution of the patent (Allez Op. Br. at 20), provides evidence on the way that the term "compression member" is used in patent claims in the medical device arts (Allez Op. Br. at 20-23), and argues that it is inconsistent with established jurisprudence to find that "compression member" is not a means-plus-function limitation. (Allez Resp. Br. at 14-20.)

In effect, Allez argues that it should not be bound by an adverse ruling caused by allegedly substandard trial advocacy in the *Medtronic* case. (Allez Resp. Br. at 16 n. 6.) But regardless of whether Allez's arguments are persuasive, they are foreclosed. Claim construction is an issue of law and after due consideration the Federal Circuit has addressed this exact same issue in a previous case. Therefore, the Federal Circuit's holding is dispositive. *See* Markman v. Westview Instruments, Inc., 517 U.S. 370, 391, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "Compression member" is not a means-plus-function limitation.

The second question is how the phrase "compression member" should be interpreted. Again, because the Federal Circuit has ruled in this area, the interpretation of the claim limitation at issue must be consistent with the Federal Circuit's opinion. This task is somewhat difficult for reasons explained below.

To start with, the Federal Circuit was addressing a different issue, whether "compression member" is a means-plus-function limitation. (Order of Jan. 17, 2007, at 14.) While the Federal Circuit's analysis suggests aspects of a definition for the term "compression member," it is not clear that the Federal Circuit intended that its analysis be plucked wholesale from its opinion and dropped into a definition for the term "compression member." The Federal Circuit stated, "The claims and the specification unmistakably establish that 'compression member' refers to particular structure. The claim language demonstrates that the compression member must fit inside the cylindrical opening and be of sufficient size to exert a force on the screw head, which implies structure." Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1023 (Fed.Cir.2006).

The main reason that it is unclear whether the analysis was intended to be used as a definition is that the analysis in large part relied upon dependent claims. Generally speaking, it is inappropriate to incorporate limitations of a dependent claim into a parent claim during claim construction. Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1380-81 (Fed.Cir.2006); Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 909-10 (Fed.Cir.2004). *See also* Pl. Op. Br. at 23 (arguing that it is inappropriate to limit the term "compression member" as used in claim 1 to having a spherically shaped portion on the underside, as the limitation is stated in dependent claim 3). Therefore, it would not be appropriate to define the term "compression member" narrowly merely because certain dependent claims add specific limitations to how a compression member would fit into the medical device. In particular, it would seem incorrect to limit the "compression member" recited in claim 1 to compression members which "fit inside the cylindrical opening and [are] of sufficient size to exert a force on the screw head." *See* Depuy Spine, 469 F.3d at 1023. Claim 1 says nothing about a cylindrical opening in the receiver member, and claim 1 says nothing about the compression member fitting inside the cylindrical opening. Claim 1 reads as follows:

Device for stabilizing spinal column segments, comprising a pedicle screw (1) having a threaded shaft portion (3) and a spherically-shaped head (4) at the end of said threaded shaft portion, a receiver member (5) flexibly connected to said head (4), said receiver member being provided with two holes for receiving a rod [(16)], a receiver chamber (7) being provided within said receiver member (5), the receiver chamber (7) having at one end thereof a bore (8) for passing the threaded shaft portion (3) therethrough and an inner hollow spherically-shaped portion (9) for receiving the head (4) of said screw (1), an opening (10) being provided opposite said bore (8) for inserting said screw (1), said device further comprising a compression member (18) for exerting a force onto said head (4) such that said head is pressed against the hollow spherically-shaped portion (9).

('678 patent, cl. 1.) Rather, the two limitations of a cylindrical opening in the receiver member and the compression member fitting inside the cylindrical opening are introduced in claims 5 and 6 respectively. Claim 5 reads:

Device according to claim 1, characterized in that said receiver chamber (7) has a hollow cylindrically-shaped portion (11) opposite to the bore (8) and adjacent to the hollow spherically-shaped portion (9).

('678 patent, cl. 5.) Claim 6 reads:

Device according to claim 1, characterized in that said compression member (18) comprises a cylindrical portion having an outer diameter which is substantially equal to the inner diameter of said hollow cylindrical portion (11).

('678 patent, cl. 6.) The doctrine of claim differentiation provides that it must be assumed that the dependent claims were deliberately added so that the independent claim would have a broader scope than the dependent claims. Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1380-81 (Fed.Cir.2006); Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 909-10 (Fed.Cir.2004). *See also* Pl. Op. Br. at 23. Thus, the proper definition for "compression member," it seems, would not include the limitations that the compression member "must fit inside the cylindrical opening and be of sufficient size to exert a force on the screw head." *See* Depuy Spine, 469 F.3d at 1023.

As an example of how the two limitations identified above are not essential to claim 1, and as an example as to why claim 1 should be interpreted more broadly than claims 5 and 6, consider an alternative implementation of the invention. This alternative implementation would use a square-sided compression member, fitting into a square-sided hollow portion of the receiver member. Such an alternative implementation arguably would be obvious to try, as the patent specification teaches that both the compression member and the receiver member have four slits spaced 90 degrees apart, where two opposing slits are sized to receive a threaded rod and the other two opposing slits are sized to allow slight deformation when the nuts are tightened, securing the pedicle screw and the threaded rod. ('678 patent, col. 2 l. 42 to col. 31.16.) The four slits spaced 90 degrees apart would correspond neatly to the four sides, angled at 90 degrees, of a square-sided device. Such an alternative implementation would make it easier to align the slits of the receiver member with the slits of the compression member. There may be countervailing considerations in considering ease of fabrication or in considering whether such a geometry would allow the desired deformation upon tightening the nuts. However, the patent specification does not teach that a cylindrical shape for the compression member and hollow portion is particularly suitable and does not teach away from trying other geometries of the compression member and hollow portion of the receiver member.

Thus, one might conclude that the Federal Circuit was merely extracting the gestalt of "compression member" from several claims in order to decide the question of whether "compression member" was intended to be a means-plus-function limitation, and thus one might conclude that a proper definition of "compression member" might leave out the limitations quoted above. *See* Depuy Spine, 469 F.3d at 1023 (referring to "the claim language" rather than claim 1 explicitly).

There are two problems with this conclusion.

The first problem is perhaps minor. The Federal Circuit explicitly refers to lines 22-24 of column 4 of the '678 patent, i .e., the last lines of claim 1, to find the two limitations described above. Thus, it seems that under the Federal Circuit's reading, a proper definition of "compression member" would necessarily include limitations that the compression member "must fit inside the cylindrical opening and be of sufficient size to exert a force on the screw head." *See* Depuy Spine, 469 F.3d at 1023. In fact, the cited lines of the ' 678 patent do not actually say anything about a cylindrical opening. They read, "comprising a compression member (18) for exerting a force onto said head (4) such that said head is pressed against the hollow spherically shaped portion (9)." ('678 patent, cl. 1, col. 4 ll. 22-24.) Therefore, the fact that the citation is to lines of claim 1 does not necessarily mean that the Federal Circuit was not relying on other claims in the patent. It is reasonable to assume that the author of the opinion chose to state the citation succinctly as a stylistic matter, as just a few sentences above, the opinion states, "The *claims* ... unmistakably establish...." Depuy Spine, 469 F.3d at 1023.

The second problem is more serious. It is unclear how the Federal Circuit's analysis is consistent with the principle that limitations disclosed in a dependent claim cannot be used to determine whether a term in the parent claim is a means-plus-function limitation. As the Federal Circuit explained in an older case:

[T]he judicially developed guide to claim interpretation known as "claim differentiation" cannot override [35 U.S.C. s. 112(6)]. A means-plus-function limitation is not made open-ended by the presence of another claim specifically claiming the disclosed structure which underlies the means clause or an equivalent of that structure. If Laitram's argument were adopted, it would provide a convenient way of avoiding the express mandate of section 112(6). We hold that one cannot escape that mandate by merely adding a claim or claims specifically reciting such structure or structures.

Laitram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1538 (Fed.Cir.1991). Although this case is rather old, it has been cited numerous times, most recently last year. In Kwik Products, Inc. v. National Express, Inc., 179 Fed. Appx. 34, 39 (Fed.Cir.2006), the Federal Circuit quoted the second sentence of the above quotation from *Laitram,* which states the principle at issue quite succinctly. Thus, *Laitram* is still good law. In the *Medtronic* litigation the Federal Circuit identified specific features of "compression member" as the basis for not finding it to be a means-plus-function limitation. According to the *Laitram* principle, it must be that those features are characteristics of the term "compression member" as it is used in claim 1, and so the limitations identified by the Federal Circuit should be incorporated into the definition. Plaintiffs urge this theory, seeking a narrowly focused definition of "compression member." (Pl. Op. Br. at 20.) Yet, from reading the claims, it appears that the limitations which the Federal Circuit identified are more properly limited to the dependent claims. Allez has extensively analyzed the apparent ambiguity in the Federal Circuit's opinion. However, the forum for clarifying Federal Circuit opinions is not district court, but the appellate court. After final judgment, Allez can appeal and present its arguments there.

In summation, it is difficult to determine the proper definition of "compression member" pursuant to the

Federal Circuit's opinion. The safest approach is probably to give a similar definition as Judge Harrington, as the Federal Circuit did not overrule Judge Harrington's definition. Thus, the Court adopts Judge Harrington's definition. Judge Harrington stated the definition as, **"an intermediate piece (or member) that applies a compression force to the head of the screw."** This definition is hereby adopted. The adopted definition is broader than that proposed by Plaintiffs: "a structural member, sized and configured to fit inside the receiver member, that contacts and applies forces to the pedicle screw head." (Allez did not propose its own definition.) A few ways in which Judge Harrington's definition is broader than Plaintiffs' are that Judge Harrington's definition does not state whether the compression member contacts the screw head, directly applies force to the screw head, sits inside the receiver member, is sized to fit inside the receiver member, or is a structural member. It is unclear whether any of these distinctions are important.

D. ***For Exerting a Force onto Said Head, such that Said Head Is Pressed Against the Hollow Spherically Shaped Portion***

The last argument of Allez is less compelling than its other arguments. Allez argues that there is an insoluble ambiguity in claim 1. The specification teaches that there are two hollow spherically shaped portions, which cup the head of the pedicle screw. One, forming the inside bottom of the receiver member, cups the bottom of the screw head. The other, forming the bottom of the compression member, cups the top of the screw head. (Allez Op. Br. at 23.) Claim 1 recites the first hollow spherically shaped portion. It reads in part:

said receiver member being provided with two holes for receiving a rod [(16)], a receiver chamber (7) being provided within said receiver member (5), the receiver chamber (7) having at one end thereof a bore (8) for passing the threaded shaft portion (3) therethrough and an inner hollow spherically shaped portion (9) for receiving the head (4) of said screw (1)

('678 patent, cl. 1, col. 4 ll. 13-20.) Later in claim 1, it recites, "a compression member (18) for exerting a force onto said head (4) such that said head is pressed against the hollow spherically shaped portion (9)." ('678 patent, cl. 1, col. 4 ll. 22-24.) There is no ambiguity. Claim 1 recites exactly one inner hollow spherically shaped portion which is subseguently referred to in the same claim. A subsequent reference requires antecedent basis in the same claim. *Manual of Patent Examining Procedure,* s. 2173 .05(e), Lack of Antecedent Basis (2007). Thus, where claim 1 recites "such head is pressed against *the* hollow spherically shaped portion (9)," claim 1 is referring to the "hollow spherically shaped portion" previously introduced in claim 1 as part of the receiver member. Thus, the purported ambiguity identified by Allez is in fact not an ambiguity. This is therefore not an ambiguity which would cause claim 1 to be found indefinite pursuant to 35 U.S.C. s. 112(2).

Although there is no need to change the definition of "for exerting a force onto said head (4) such that said head is pressed against the hollow spherically shaped portion (9)," for the sake of ultimate clarity, it is hereby defined as, **"for exerting a force onto said head (4) such that said head is pressed against the hollow spherically shaped portion (9) of the receiver member (5)."**

E. ***The Antecedent Basis Problems of Claims 4 and 6***

Not raised by the parties is the problem that claims 4 and 6 have antecedent basis problems.

Claim 4 depends from claim 1 and refers to "the hollow spherically shaped portions (9, 19)." ('678 patent, cl. 4, col. 41. 38.) However, there is only antecedent basis for a "hollow spherically shaped portion (9)," found in claim 1. ('678 patent, cl. 1, col. 4 ll. 18-19.) Instead, claim 3 provides for "a hollow spherically

shaped portion (19)." Claim 3 does not otherwise limit claim 1. Thus, it appears that there is a typographical error in claim 4, and claim 4 was intended to depend from claim 3 rather than claim 1. Thus, the preamble of claim 4, which currently reads, "Device according to claim 1," is interpreted to read, **"Device according to claim 3."** In other cases, the Federal Circuit has excused a lack of antecedent basis where it would be reasonably clear to a person of ordinary skill in the art what was meant. Bose Corp. v. JBL, Inc., 274 F.3d 1354, 1359 (Fed.Cir.2001). This seems to be a similar case.

Claim 6 has a similar issue, in that it refers to "said hollow cylindrical portion (11)" without providing antecedent basis. ('678 patent, cl. 6, col. 4 ll. 48-49.) Claim 6 depends from claim 1. Claim 5 depends from claim 1, provides for a "hollow cylindrical portion (11)," and does not otherwise limit claim 1. Therefore, it appears that there is a typographical error in claim 6, and claim 6 was intended to depend from claim 5. Thus, the preamble of claim 6, which currently reads, "Device according to claim 1," is interpreted to read, **"Device according to claim 5."**

V. *CONCLUSION*

"Two holes for receiving a rod" means **"openings, which may be U-shaped slits, in the receiver member that receive a rod."** A "spherically shaped portion" is **"a portion shaped like a segment of a sphere."** A "compression member" is **"an intermediate piece (or member) that applies a compression force to the head of the screw."** The phrase "for exerting a force onto said head, such that said head is pressed against the hollow spherically shaped portion" means **"for exerting a force onto said head (4) such that said head is pressed against the hollow spherically shaped portion (9) of the receiver member (5)."** Claim 4 is interpreted to depend from claim 3 rather than claim 1. Claim 6 is interpreted to depend from claim 5 rather than claim 1. In claim 1, the text "916)" means "(16)." Claims 1 and 3-6 are invalid for lack of written description.

IT IS SO ORDERED.

C.D.Cal.,2007.
Biedermann Motech GmbH v. Acme Spine, LLC