

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

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MEDIDEA, L.L.C.,))	
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Plaintiff,))	
))	
v.))	Civil No. 17-11172-LTS
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DEPUY ORTHOPAEDICS, INC. et al.,))	
))	
Defendants.))	
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MEMORANDUM AND ORDER ON
MOTION FOR SUMMARY JUDGMENT (DOC. NO. 190)

November 15, 2019

SOROKIN, J.

MedIdea, L.L.C. brought this patent infringement action against DePuy Orthopaedics, Inc., DePuy Synthes Products, Inc., and DePuy Synthes Sales, Inc. d/b/a DePuy Synthes Joint Reconstruction (collectively, “DePuy”) alleging that DePuy’s Attune® knee replacement system infringes several claims of four related MedIdea patents, all of them entitled “Multiple-Cam, Posterior-Stabilized Knee Prosthesis,” and all relating generally to total knee replacement implants featuring cam-and-post designs.¹ DePuy counter-sued, seeking declarations of invalidity and non-infringement.

After the Court issued its claim construction Order on November 7, 2018, MedIdea stipulated to non-infringement of two of the asserted patents—the ’132 patent and the ’730 patent.

¹ The four patents are: U.S. Patent Nos. 6,558,426 (“the ’426 patent”), 8,273,132 (“the ’132 patent”), 8,721,730 (“the ’730 patent”), and 9,492,280 (“the ’280 patent”). The ’280 patent is a continuation of the ’730 patent, which is, in turn, a continuation of the ’132 patent, which, in its turn, is a divisional of the ’426 patent—the earliest of the four patents. The Field, Background, Summary, and Detailed Description of the Invention sections are identical in all four patents. The Abstracts vary, and the three later patents contain additional figures.

Doc. No. 164.² Then, after seeking and obtaining clarification of the Court’s claim construction Order (see Doc. No. 164; Doc. No. 174), MedIdea further stipulated to non-infringement of all but claim 9 of the ’426 patent. See Doc. No. 191-12. DePuy now moves the Court for summary judgment of non-infringement as to the last remaining asserted claim. Doc. No. 190.

DePuy’s principal argument is that under the Court’s claim construction Order, the claimed invention requires that the multiple points of cam action (or “cam action surfaces,” which the parties agree means the same thing) that contact the posterior side of the tibial post be convex. Doc. No. 191; Doc. No. 201. And because the accused Attune® knee replacement system has no more than one convex cam action surface, the Court should find that, as a matter of law, the Attune® system does not infringe. Id. DePuy further argues that to the extent the Court’s claim construction is not clear that the claimed invention requires each of the multiple cam action surfaces to be convex, the Court should address and resolve this threshold claim construction question, which arose only after the Court issued its claim construction Order. Id. Alternatively, DePuy argues that even if the claimed points of cam action are not limited to convex surfaces, the Attune® system still does not infringe because it has only one continuous point of cam action, and any evidence MedIdea may have to the contrary is legally insufficient to meet its burden of proving infringement. Id.

MedIdea opposes DePuy’s motion. Doc. No. 199. MedIdea does not dispute DePuy’s contention that if the claimed points of cam action are limited to convex surfaces, the Attune® system does not infringe. See id.; Doc. No. 205. But MedIdea argues that by not limiting its construction of “points of cam action” to convex surfaces, the Court has already determined that

² Citations to “Doc. No. __” reference documents appearing on the court’s electronic docketing system; pincites are to the page numbers in the ECF header.

the claim term is not so limited and encompasses concave surfaces. Id. MedIdea also contends that DePuy is not entitled to further construction of this claim term because the Court adopted DePuy’s proposed construction of that term—which construction was not limited to convex surfaces—and, having failed to ask the Court to so limit the construction, DePuy must now live with the construction it proposed and the Court adopted. Id. On the merits, MedIdea argues that the claimed cam action surfaces are not limited to convex surfaces but may encompass concave surfaces, and that its evidence that the Attune® system has multiple cam action surfaces is more than sufficient to withstand summary judgment. Id.

The Court held a hearing on DePuy’s motion for summary judgment on November 6, 2019. After carefully reviewing all of the parties’ submissions in connection with the present motion and hearing their arguments, the Court GRANTS DePuy’s motion for the reasons that follow.

I. BACKGROUND

A. The ’426 patent

The ’426 patent endeavors “to facilitate a more normal rollback while inhibiting initial translation which could lead to increased wear and sub-optimal . . . mechanics” by incorporating “additional points of cam action” beyond what was provided by then-existing cam-and-post systems. Doc. No. 92-2 (’426 patent) at Abstract. Claim 9 of the ’426 patent recites:

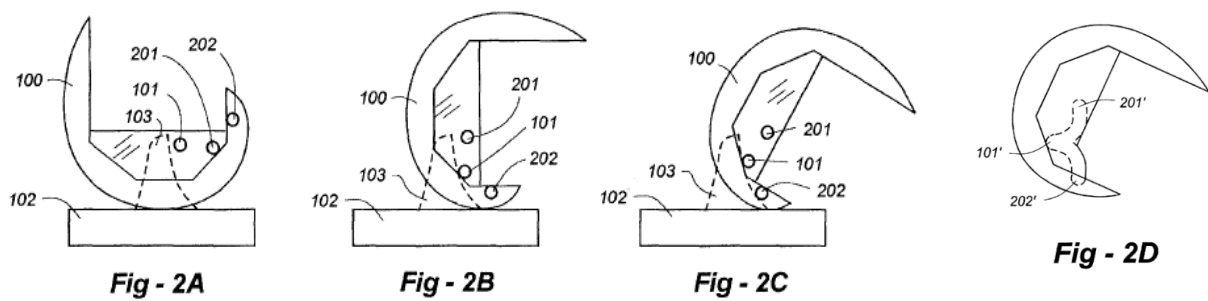
9. A distal femoral knee-replacement component configured for use with a tibial component having a bearing surface and superior tibial post with a posterior aspect, the distal femoral component comprising:

a body having a pair of medial and lateral condylar protrusions and an intercondylar region therebetween dimensioned to receive the tibial post;
and

a structure providing more than one physically separate and discontinuous points of cam action as the knee moves from extension to flexion.

Id., claim 9 (emphasis added). The only limitation at issue in the present motion is the last one, the relevant portion of which is bolded.

The '426 patent discloses the following four figures, which also appear in the other three related patents originally asserted in this action:



'426 patent, Figures 2A-2D; see also '132 patent (same); '730 patent (same); '280 patent (same).

Figure 2A shows an embodiment of the claimed components when the knee is “in extension,” Figure 2B shows them when the knee is in “90 degrees flexion,” and Figure 2C shows them when the knee is in “flexion at 120 degrees or more.” '426 patent at 3:29-32, Figs. 2A-2C. Figure 2D depicts a femoral component that features “the alternative use of interconnected cams with physically separate contact points”; the curved structure partially outlined with dotted lines is a “cam mechanism.” Id. at 3:46-48; id., Fig. 2D; see also Doc. No. 97 at 4 (MedIdea characterizing figure 2D as depicting a “single unitary cam structure with multiple cam action surfaces”). In all four figures, the points marked 101, 201, and 202 (or 101', 201', and 202') are the “physically separate contact points” or “points of cam action” that interact with the posterior surface of the tibial post at different times during the bending of the knee. Id. at 3:32-40.

Indeed, during prosecution of the related '132 patent, the patentee explained:

In Figures 2A-2C, the members 101, 201 and 202 are physically separate. Figure 2D, also reproduced below, illustrates the alternative use of interconnected cams with physically separate contact points. The only difference between the embodiment depicted in Figures 2A-C and 2D is that the cams are strengthened through the use of bridging material. **The cam surfaces that interact with the**

tibial post are the same, functionality is the same, and all embodiments include a cam extension (202 in Figures 2A-C and 202' in Figure 2D).

Doc. No. 93-12 (Petition to Reverse Withdrawl [sic] of Claims from Consideration) at 3 (emphasis added).

B. The Claim Construction Proceedings

During the claim construction proceedings, the parties agreed to construe the claim phrase at issue here—“a structure providing more than one physically separate and discontinuous points of cam action as the knee moves from extension to flexion”—to mean “a structure having at least two points of cam action, each of which engages the posterior surface of the tibial post as the knee moves from extension to flexion, the structure including an area between the points of cam action that does not engage the tibial post.” Doc. No. 192-1 (Joint Claim Construction Chart) at 3. The Court adopted this construction. Doc. No. 158 at 18 n.12. The Court also construed several of the constituent terms in the claim phrase at issue. It construed the term “cam,” which appears throughout the '426 patent (and the other patents originally asserted) to mean “a structure that makes sliding or rolling contact with the tibial post as the knee bends.” Id. at 7.³ And it construed “point of cam action,” which the parties agreed should be construed to have the same meaning as “cam action point” and “cam action surface,” to mean “the surface of a cam that contacts the tibial post.” Id. at 8, 9. In so doing, the Court expressly “decline[d] to adopt MedIdea’s eleventh-hour view” that “a single ‘cam’ could have multiple ‘cam action surfaces,’ and that a single ‘cam action surface’ in turn could have multiple ‘points of cam action.’” Id. at 8, n.4.

Relevant to the present motion, the Court also construed the claim term “separate cam action surface (or area),” which appears in several claims of the related '730 patent, to mean “a

³ The Court construed all the disputed claim terms, whose meaning is informed by a shared specification, to have the same meaning across all the patents in suit. See generally id.

cam action surface (or area) that is spaced apart from another cam action surface (or area).” Doc. No. 158 at 12. In its analysis of the scope of this claim term, the Court noted that although MedIdea had, in its briefing, proposed construing “separate” to mean “distinct,” MedIdea had “advanced a different definition of ‘separate’ throughout the claim construction hearing, repeatedly describing a ‘cam action surface’ as something which ‘occupies a unique location in the geometry of the surface of the cam.’” Id. at 11 n.6. The Court rejected this alternative construction of “separate”—and, with it, of “cam action surface”—for several reasons:

First, the “unique location” phrase appears nowhere in any of the patents-in-suit. Second, the phrase appears in neither of MedIdea’s written claim construction submissions, and MedIdea has not clearly proposed it as an alternative or replacement for the construction presented in its briefs. Espousing a new construction of a disputed term for the first time during a claim construction hearing is neither appropriate nor fair. Third, the “unique location” phrase is rife with imprecision and would needlessly require jurors to parse ambiguous and confusing concepts like “the geometry of the surface of the cam,” all in the context of a simple word (“separate”) with an otherwise plain meaning. Finally, the phrase appears to be a transparent effort by MedIdea to extend the patent language beyond its intended scope by allowing a single, irregularly shaped cam to be arbitrarily subdivided into “separate” cam action surfaces, without meaningfully limiting the potentially infinite “unique locations” one might identify on “the geometry” of any “surface.”

Id.

Also relevant to the present motion, the Court construed the claim phrase “cam mechanism of the femoral component has a superior convex portion, a concave central portion, and an inferior convex posterior portion,” which appears in claim 1 of the related ’280 patent—to mean “a first convex cam surface and a second, posterior convex cam surface that are separated by a concave portion of the cam mechanism that does not contact the tibial post.” Id. at 15. The Court explained that “[t]his construction is consistent with both parties’ proposals insofar as they both require that the two convex portions the term references are surfaces which contact the tibial post.” Id. The Court went on to explain that its claim construction

further incorporates DePuy’s proposed language specifying that the “concave central portion” may not contact the tibial post. This is necessarily so, as continuous contact throughout both convex portions and the concave portion would mean that, rather than requiring two distinguishable cam surfaces (as a “cam mechanism” must), the disclosed structure could include one geometrically complex surface making continuous contact with the post (i.e., a single cam). Such an embodiment is explicitly criticized in the specification, Doc. No. 92-5 at 13, and was disavowed by Dr. Masini as outside the scope of his invention, Doc. No. 93-17 at 9. Further, no language or figure in the patent itself discloses an embodiment in which the concave portion of the cam mechanism makes continuous contact with the post. E.g., Doc. No. 92-5 at 1, 9-11 (containing various figures depicting cam mechanisms with concave and convex surfaces, each of which features a “concave portion” that is not contacting the post).

Id. at 15-16 (case citation omitted).

The Court’s discussion of the scope of this claim term makes clear that the limitation at issue could not be met by a concave portion of the cam mechanism making continuous contact with the tibial post, but MedIdea asked the Court to clarify whether the limitation could nevertheless be met by a concave portion of the cam mechanism making some (albeit non-continuous) contact with the post. Following the Court’s issuance of its claim construction Order, MedIdea asked:

Can the limitation of “a concave central portion” as claimed in claim 1 of the ’280 patent and construed by the Court as a “concave portion of the cam mechanism that does not contact the tibial post” be met if a portion of the concave structure of the cam mechanism contacts the posterior surface of the tibial post, and a portion of the concave structure of the cam mechanism does not make contact?

Doc. No. 164 at 2. The Court responded to MedIdea that “[t]o the extent clarification of the claim construction ruling is required on the issue identified by MedIdea, the Court has construed the relevant term from the ’280 patent in the manner proposed by DePuy, answering the question posed by MedIdea in the negative.” Doc. No. 174 ¶ 1. In light of this clarification, MedIdea stipulated to non-infringement of the ’280 patent. Doc. No. 183 at 5:2-3.

C. Related IPR Proceedings

While the claim construction proceedings were underway, the parties were also disputing the scope of the '426 patent claims in an inter partes review before the Patent Trial and Appeal Board. In the Patent Owner's Response it submitted in that proceeding, MedIdea described "[t]he disclosed and claimed invention of the '426 patent" as having "more than one distinct point of cam action engaging the posterior surface of the tibial post." Doc. No. 191-1 at 12 (citing '426 patent at 2:22-32 and Figs. 2A and 4). MedIdea went on to assert that:

The distinct points of cam action are implemented with **cams having convex surfaces**, each with its own center of radius relative to each other so that each point of cam action is separate and distinct from the others. ['426 patent] at Figs. 2A-D. As described in the specification of the '426 patent, the areas between the points of cam action may comprise an open space (Figs. 2A-C) or a connecting (*e.g.*, concave) surface (Fig. 2D). The multiple points of cam action engaging the posterior surface of the tibial post in **the disclosed and claimed invention** facilitate a more normal range of knee motion, and the separate and discontinuous nature of **the multiple points of cam action with convex cam action surfaces** facilitates a smooth transition between different distinct points of cam action because the knee's center of rotation, and thus the implant's center of rotation is different from the centers of rotation of each of the different points of cam action. ['426 patent] at 2:49-60, 3:29-57, and Figs. 2A-2D. This arrangement further prevents locking of the cam structure with the tibial post.

Doc. No. 191-1 at 13 (emphasis added).

D. MedIdea's Infringement contentions

In its original complaint in this action, MedIdea alleged that the accused Attune® system meets the limitation at issue by having at least two points of cam action, one convex and the other concave:

The Accused Product has a structure, i.e., a cam surface that provides at least two separate and discontinuous points of cam action as shown in annotated Figure 7 below. In particular, the cam surface has at least a first point of cam action **as part of a concave cam surface** (annotated in RED [1]) and a second point of cam action **as part of a convex cam surface** (annotated in GREEN [2]). These at least two cam surfaces with distinct radii (**concave and convex curvatures**) are physically separate and discontinuous from each other because contact between a particular

point of the cam surface and the corresponding surface of the tibial post is not continuously maintained throughout the femoral component's movement from extension to flexion.

Figure 7

Doc. No. 1 ¶ 29 (emphasis added).

MedIdea then changed its infringement theory. It filed an amended complaint, which is the operative complaint in this action, alleging instead that the claim limitation is met by at least two convex points of cam action:

The Accused Product has a structure, i.e., a cam surface that provides at least two separate and discontinuous points of cam action as shown in annotated Figure 7 below. In particular, the structure has a **first convex cam surface** and a **second convex cam surface** providing two points of cam action that are physically separate from one another. In addition, the structure provides points of cam action that are discontinuous because they are separated by an intermediate cam surface structure and engage the tibial post at different degrees of flexion.

Figure 7

Doc. No. 26 ¶ 41 (emphasis added).

Some months later, MedIdea served its preliminary infringement contentions, which were in keeping with the infringement theory it put forward in its amended complaint. In these preliminary contentions, MedIdea asserted that the Attune® system has three points of cam action and that:

At least two of the three separate points of cam action—each of which is configured to make contact with the posterior surface of the tibial post at a different degree of flexion—are separated from one another by a portion of outer cam surface area which is configured to not make contact with the posterior surface of the tibial post as the knee moves from extension to flexion.

Doc. No. 191-4 (MedIdea’s preliminary infringement contentions) at 9. Each of the three points of cam action (or cam action surfaces) MedIdea identified on the Attune® system is convex in relation to the tibial post:

Id. at 10.

Some time thereafter, but before the parties had submitted their claim construction briefs, MedIdea served its first amended infringement contentions. These amended contentions repeat the same assertions MedIdea made in its preliminary contentions and include the same annotated figure. See Doc. No. 191-5 (MedIdea's first amended infringement contentions) at 8-9.

After the parties submitted their claim construction briefs but before the Court issued its claim construction ruling, MedIdea served its second amended infringement contentions. See Doc. No. 191-7 (MedIdea's second amended infringement contentions). As to the limitation in question, MedIdea now asserted:

The cam mechanism includes at least two points of cam action, each of which engages the posterior surface of the tibial post as the knee moves from extension to flexion, the structure including an area between at least two points of cam action that does not engage the tibial post. Specifically, as the knee moves from extension (0° flexion) to full flexion an area of the cam surface does not make contact between approximately 87° and 88° of flexion. However, points of cam action exist on the cam action surface immediately before and after that area of discontinuity.

Id. at 8. MedIdea did not characterize the curvature of the claimed cam action surfaces it identified as allegedly being met by the Attune® system, nor did it include any figures in these second amended infringement contentions showing where the alleged cam action surfaces it identified reside on the femoral component of the Attune® system. See id.

After the Court issued its claim construction Order and responded to MedIdea’s request for clarification, MedIdea served supplemental infringement contentions in response to the Court’s Order (Doc. No. 174). Doc. No. 191-21 (sealed). In these most recent contentions, MedIdea alleges:

When flexion reaches between 86° to 89° (with a Fixed Base Tibial Insert) or 81° to 87° (with a Rotating Platform Tibial Insert)—the flexion angle varies slightly between the different sizes of the accused components—**the points of engagement between the cam and the post transition from the concave to a convex cam surface**. In this transition area, a surface area on the cam structure does not engage with the posterior surface of the tibial post as the knee moves from extension to flexion. This area of no engagement is between two points of cam action.

Id. at 8, ¶ 3 (emphasis added) (internal citations omitted) (quoted portion is redacted from Doc. No. 191-12). MedIdea also included the following figure to illustrate its contentions:



Id. at 10 (figure is redacted from Doc. No. 191-12).

II. DISCUSSION

A. The Court Must Resolve Claim Construction Disputes Whenever They Arise.

The parties raise a threshold question regarding the scope of the Court’s authority to address and resolve claim construction disputes arising after the Court has issued its claim construction ruling. In response to DePuy’s request that the Court to resolve the question of

whether the claimed “points of cam action” in claim 9 of the ’426 patent must be convex, MedIdea argues that DePuy is not entitled to any further construction because the Court adopted its proposed construction of “points of cam action” to mean “the surface of a cam that contacts the tibial post,” Doc. No. 158 at 9, and that if DePuy had wanted the Court to construe the term to refer to convex-only surfaces, it should have made that argument in its claim construction briefs. Doc. No. 199 at 12-13, 14-15; Doc. No. 205 at 3-5. DePuy responds that the parties’ dispute regarding whether the claimed points of cam action encompass surfaces that are concave arose only after the Court’s claim construction Order, when MedIdea served its supplemental infringement contentions and appeared, for the first time, to posit that at least one concave portion of the cam surface in the Attune® system meets the claimed “cam action surface” limitation. Doc. No. 205 at 6-11.

Not only is DePuy entitled to have the Court address and resolve the newly-arising claim construction dispute, the Court must resolve it. O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“When the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.”); MedIdea, L.L.C. v. DePuy Orthopaedics, Inc., No. 1:17-cv-11172, 2018 WL 5830849, *5 (D. Mass. Nov. 7, 2018) (when the parties disagree about the meaning of claim terms, “the Court is not only empowered, but required, to construe” them). MedIdea may be correct that DePuy did not ask the Court to construe the claimed points of cam action as limited to convex surfaces, but that is of no moment, for neither did MedIdea ask the Court to construe them as encompassing concave surfaces. Indeed, neither party raised the question of the shape of the points of cam action claimed in the ’426 patent until now. But now that the parties have raised it, and given that its resolution is necessary to the determination of whether DePuy’s accused Attune® system infringes the last remaining claim asserted in this action, the Court must address and resolve it.

Nor is it of any moment that the parties previously agreed to—and the Court adopted—a construction of “points of cam action,” when, as here, the stipulated construction did not resolve the newly-arising dispute. See, e.g., GE Lighting Sols., LLC v. AgiLight Inc., 750 F.3d 1304, 1310 (Fed. Cir. 2014) (“[P]arties in patent cases frequently stipulate to a construction or the court construes a term, only to have their dispute evolve to a point where they realize that a further construction is necessary.”). Indeed, MedIdea itself previously asked the Court to address a question it believed the Court’s claim construction ruling had left unresolved. See Doc. No. 164 at 2. Regardless of how it arose, the Court must address and resolve the parties’ dispute regarding whether the claimed points of cam action are limited to convex surfaces or also encompass concave surfaces. In doing so, the Court applies the familiar law governing claim construction. See Doc. No. 158 at 5-7.

B. The Claimed Points of Cam Action Are Convex.

Turning to the merits, the Court holds that the claimed “points of cam action” are convex. The Court notes at the outset that neither the claims nor the specification of the ’426 patent expressly limit the claimed “points of cam action” to convex surfaces. See, generally ’426 patent. But neither do they expressly encompass concave surfaces. See id. That said, taken as a whole, the intrinsic record strongly militates in favor of construing the claimed points of cam action as limited to convex surfaces and as not encompassing concave surfaces.

As an initial matter, the specification of the ’426 patent is shared with the other patents originally asserted in this action, including the ’280 patent. When construing a claim phrase in the latter patent, the Court noted that “no language or figure in the patent itself discloses an embodiment in which the concave portion of the cam mechanism makes continuous contact with the post.” Doc. No. 158 at 15. In response to MedIdea’s request for clarification as to whether the limitation

may be met if any part of the concave portion made contact with the post, the Court answered in the negative. Doc. No. 174 ¶ 1. Given that the same specification informs the construction of the claim terms at issue in the '426 patent, the Court's determination that the limitation at issue in the '280 patent is not met by contact with any part of the concave portion of the claimed points of cam action militates in favor of finding that they are limited to convex surfaces. This conclusion is supported by the specification and the prosecution history.

Every embodiment in the specification discloses points of cam action that are convex; no embodiment discloses points of cam action that are not convex or that are concave. See generally '426 patent. Indeed, the only concave structure disclosed in the specification is the non-contacting bridging portion of the “interconnected cams with physically separate contact points” in the embodiment illustrated in Figure 2D:

'426 patent, Fig. 2D; id. at 3:13-14.

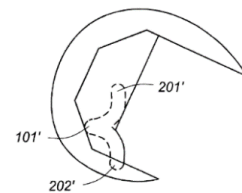


Fig - 2D

During prosecution of the related '132 patent, the patentee explained that “[t]he only difference between the embodiment depicted in Figures 2A-C and 2D is that the cams [in Figure 2D] are strengthened through the use of bridging material. The cam surfaces that interact with the tibial post are the same, functionality is the same . . .” Doc. No. 93-12 at 3. In the specification, each of the points of cam action (or cam action surfaces) in Figures 2A to 2D is depicted as convex in relation to the tibial post. See '426 patent, Figs. 2A-2D.

Of course, that the specification does not disclose points of cam action that are not convex is not, in itself, dispositive, for it is well-settled that limitations in the embodiments are not to be read into the claims. Liebel-Flarshein Co. v. Medrad, Inc., 358 F.3d 898, 913 (Fed. Cir. 2004) (“[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record

that the patentee intended the claims to be so limited.”). But the absence of any disclosure suggesting that the claimed points of cam action may be anything but convex is relevant. As the Federal Circuit has explained:

The claims, of course, do not stand alone. Rather, they are part of a fully integrated written instrument, consisting principally of a specification that concludes with the claims. For that reason, claims must be read in view of the specification, of which they are a part. As we [have] stated . . . , the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.

Phillips v. AWH Corp., 415 F.3d 1303, 1315 (Fed. Cir. 2005) (internal quotation marks and citations omitted). Indeed, the manner in which a claim term is used within the specification informs its interpretation and indicates whether the disclosed embodiments are co-extensive with the claimed limitation or are just non-limiting examples of it. Id. at 1323 (citing Snow v. Lake Shore & Mich. S. Ry. Co., 121 U.S. 617, 630 (1887) (“it was clear from the specification that there was ‘nothing in the context to indicate that the patentee contemplated any alternative’ embodiment to the one presented”)).

MedIdea counters that “although the specification shows a preferred embodiment with convex cam surfaces, . . . MedIdea expressly noted that the invention was not limited to the preferred embodiment and ‘may be implemented using any member combination of elements.’” Doc. No. 199 at 8 (quoting ’426 patent at 2:57-60). But, read in context, it is plain that this statement does not refer to the shape of the claimed points of cam action but rather to the structure within which the cams may be implemented:

In terms of structure, the points of cam action may be implemented using any member or combination of elements operative to provide distinct stages of cooperation with the posterior aspect of the superior post. For example, transverse bars may be used which bridge, or partially bridge, the intercondylar space. The members or elements need not be straight across, but may instead be curved, with the post being curved to allow for a rotation, if so desired. The cam structures

according to the invention may also be connected to one another forming points of contact as opposed to complete transverse elements such as distinct bars.

'426 patent at 2:57-67.

Moreover, MedIdea itself appears to have understood the claimed points of cam action to be limited to convex surfaces—at least until the parties submitted their claim construction briefs. Until then, MedIdea steadfastly and repeatedly maintained that the claimed points of cam action were met by convex surfaces on the femoral component of the Attune® system. See Doc. No. 26 (amended complaint) ¶ 41; Doc. No. 191-4 (MedIdea's preliminary infringement contentions) at 9; Doc. No. 191-5 (MedIdea's first amended infringement contentions) at 8-9.

Citing its original complaint, MedIdea argues that, to the contrary, it has from the first maintained that at least one of the claimed points of cam action could be met by a concave surface on the femoral component of the accused Attune® system. Doc. No. 199 at 11 (citing Doc. No. 1 at 10-11). In so arguing, MedIdea fails to acknowledge that it amended its original complaint and abandoned that initial infringement theory when it alleged that “[t]he Accused Product has a structure, i.e., a cam surface that provides at least two separate and discontinuous points of cam action . . . In particular, the structure has a **first convex cam surface** and a **second convex cam surface** providing two points of cam action that are physically separate from one another.” Doc. No. 26 ¶ 41 (emphasis added). MedIdea's amended complaint became the operative complaint in this action when MedIdea substituted it for the original complaint; by the same operation, the original complaint became a dead letter. Kolling v. Am. Power Conversion Corp., 347 F.3d 11, 16 (1st Cir. 2003) (Plaintiff's amended complaint completely supersedes his original complaint, and thus the original complaint no longer performs any function in the case.”).

MedIdea does not even acknowledge its amended complaint⁴ and argues in a footnote that “[n]either the initial infringement contentions nor the first amended infringement contentions included any language characterizing the shape of the cam surface on which the claimed points of cam action were located.” Doc. No. 199 at 12. That may be, but the figure accompanying those contentions identified only convex surfaces in relation to the tibial post as the claimed points of cam action:

Doc. No. 191-4 at 9; Doc. No. 191-5 at 9. MedIdea also fails to acknowledge that it continued to maintain that new theory of infringement until the parties submitted their claim construction briefs. Doc. No. 191-4 (MedIdea’s preliminary infringement contentions) at 9; Doc. No. 191-5 (MedIdea’s first amended infringement contentions) at 8-9.

Most tellingly, however, MedIdea itself characterized “the disclosed and claimed invention” to the Patent Trial and Appeal Board as comprising points of cam action with convex surfaces:

⁴ At the November 6, 2019 hearing on DePuy’s motion for summary judgment, MedIdea’s counsel characterized the difference in MedIdea’s asserted infringement theories between the original and the amended complaint as being broader in the latter than in the former. Whatever the overall breadth of MedIdea’s infringement contentions in the amended complaint, it cannot be disputed that MedIdea alleged in its original complaint that at least one of the claimed points of cam action could be met by a concave surface and that it made no such allegation in its amended complaint but instead identified only convex surfaces as allegedly meeting the claim limitation at issue. Compare Doc. No. 1 at 10-11 with Doc. No. 26 ¶ 41.

The multiple points of cam action engaging the posterior surface of the tibial post in **the disclosed and claimed invention** facilitate a more normal range of knee motion, and **the separate and discontinuous nature of the multiple points of cam action with convex cam action surfaces** facilitates a smooth transition between different distinct points of cam action because the knee's center of rotation, and thus the implant's center of rotation is different from the centers of rotation of each of the different points of cam action.

Doc. No. 191-1 at 3 (citing '426 patent at 2:49-60, 3:29-57, and Figs. 2A-2D) (emphasis added).

MedIdea's argument that "the examiner in the original prosecution recognized that the invention of the '426 patent was in having more than one point of cam action on the posterior side of the tibial post" and that "there was no mention of the cam's shape," Doc. No. 199 at 8, is unavailing, for the prosecution history of the '426 patent does not end with the patent's "original prosecution."

Indeed, contrary to MedIdea's characterization of its statements to the Board as describing only specific non-limiting embodiments of the claimed invention, id. at 16, MedIdea's statements expressly described what MedIdea characterized as "the disclosed and claimed invention," Doc. No. 191-1 at 3. Such statements, which form part of the prosecution history, are binding on MedIdea, especially given that they were made in direct response to the petitioner's argument that the shape of the claimed points of action was not limited. See, e.g., Aylus Networks, Inc. v. Apple Inc., 856 F.3d 1353, 1360 (Fed. Cir. 2017) ("Extending the prosecution disclaimer doctrine to IPR proceedings will ensure that claims are not argued one way in order to maintain their patentability and in a different way against accused infringers.").

At the hearing on DePuy's summary judgment motion, MedIdea argued that these and related statements it made in its Patent Owner's Response quoted above (see supra at 8) were not intended to describe the claimed invention but to describe its preferred embodiment, and do not, in any event, represent a "clear and unmistakable" disclaimer of claim scope. See Aylus, 856 F.3d at 1360 (noting that "to invoke the doctrine of prosecution disclaimer, any such statements [made by

the patentee during an IPR proceeding] must be both clear and unmistakable.”) (internal quotation marks and citation omitted). As support for its argument, MedIdea refers to the sentence that reads “[t]he distinct points of cam action are implemented with cams having convex surfaces,” and argues that the Federal Circuit has generally interpreted language of implementation to signal that the subsequent description refers to preferred embodiments, not to the claimed invention as such.

But this argument ignores that MedIdea did not just “use[] the term ‘claimed invention when addressing the preferred embodiments of the ’426 patent,” as it argued, but expressly characterized “the disclosed and claimed invention” as comprising convex cam action surfaces. Doc. No. 191-1 at 13. MedIdea’s assertions regarding the scope of “the disclosed and claimed invention” are clear and unmistakable. MedIdea could have referred explicitly to “the preferred embodiments” when characterizing the claimed “cam action surfaces” as convex. Alternatively, it could have referred simply to “cam action surfaces” without expressly characterizing them as convex. It did neither—likely because one of the questions posed by DePuy’s petition for inter partes review was whether a sharp-edged cam disclosed in the asserted prior art reference met the “points of cam action” limitation. See, e.g., Doc. No. 191-1 at 40. Having expressly characterized “the disclosed and claimed invention” as having “multiple points of cam action with convex cam action surfaces,” MedIdea is estopped from now arguing that the claimed points of cam action also encompass concave surfaces.

MedIdea suggests that DePuy is estopped from relying on the statements MedIdea made to the Board because DePuy itself argued to the Board that the points of cam action were not limited in shape and even encompassed sharp-edged surfaces. Doc. No. 199 at 13-14. But DePuy’s statements to the Board are irrelevant for two reasons. First, they are not the statements of the patent owner, so form no part of the prosecution history; only the statements made by the patent

owner do. See, e.g., Aylus, 856 F.3d at 1360 (“Because an IPR proceeding involves reexamination of an earlier administrative grant of a patent, it follows that statements made by a patent owner during an IPR proceeding can be considered during claim construction and relied upon to support a finding of prosecution disclaimer.”) (emphasis added). And second, DePuy’s characterization of the claimed points of cam action was rejected by the Board, so DePuy is not estopped from taking a contrary position here; it would only have been estopped from taking a contrary position if it had prevailed before the Board or in another proceeding. See, e.g., Lampi Corp. v. Am. Power Prods., 228 F.3d 1365, 1377 (Fed. Cir. 200) (“The doctrine of judicial estoppel is an equitable concept that prevents a party who prevails on one ground in a lawsuit from then repudiating that ground in order to prevail in another lawsuit.”) (emphasis added).⁵

⁵ In its opposition brief, MedIdea appeared also to argue that the doctrine of claim differentiation also militates in favor of construing the claimed points of cam action surfaces to encompass concave surfaces. [Doc. No. 199 at 10-11](#). MedIdea dropped this argument at the November 6, 2019 hearing. Thus, it is waived. In any event, the doctrine of claim differentiation does not apply here. The doctrine provides that an independent claim should not be construed as requiring a limitation added by a dependent claim. Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1380-81 (Fed. Cir. 2006). In its opposition brief, MedIdea contended that while claim 9 is silent as to the shape of the claimed points of cam action, “dependent claim 13 limits the cam structure to ‘transverse bars,’ and dependent claim 15 uses the terms ‘convex’ and ‘concave’ to impose a shape limitation not restricted in Claim 9.” [Doc. No. 199 at 10-11](#) (citing ’426 patent at 6:8-15). This argument is unavailing, for the shape limitations recited in dependent claims 13 and 15, which, along with claim 14, depend from dependent claim 12, pertain not to the points of cam action but to the bridging structure that may be used in interconnected cam structures. The claims at issue recite:

12. The distal femoral component of claim 9, wherein the points of cam action are implemented as features which at least partially bridge the intercondylar region.

13. The distal femoral component of claim 12, wherein the features are transverse bars that span the intercondylar region.

14. The distal femoral component of claim 12, wherein the bars are straight or curved.

15. The distal femoral component of claim 12, wherein the post is convex and the bars are concave to permit rotation.

’426 patent at 6:4-16. As the specification explains, “transverse bars may be used which bridge, or partially bridge, the intercondylar space. The members or elements need not be straight across, but may instead be curved, with the post being curved to allow[sic] for a rotation, if so desired.” Id. at 2:60-64. Dependent claims 13 to 15 recite features of the bars that bridge the intercondylar space. They do not reference the shape of the claimed points of cam action. Therefore, as MedIdea’s counsel conceded at the hearing on DePuy’s motion for summary judgment, the doctrine of claim limitation does not apply here.

C. Non-Infringement Under the Court’s Claim Construction is Not Disputed.

MedIdea does not dispute DePuy’s assertion that if the Court determines that the claimed points of cam action are convex, there is no infringement as a matter of law because, at most, the cam structure on the accused Attune® system has only one (convex) point of cam action, and more than one such point is required to infringe. Because the Court has determined that the claimed points of cam action are convex, and because infringement under this construction is not disputed, the Court does not reach the question of whether MedIdea’s evidence of infringement under a different construction of “points of cam action” is sufficient to withstand summary judgment.

III. CONCLUSION

The Court construes “points of cam action” in claim 9 of the ’426 patent to be limited to convex cam action surfaces and not to encompass concave surfaces. Because it is undisputed that DePuy’s accused Attune® system has no more than one (convex) point of cam action, and because more than one (convex) point of cam action is required to infringe claim 9 of the ’426 patent, the Court finds that, as a matter of law, DePuy’s Attune® system does not infringe claim 9 of the ’426 patent, the last remaining claim asserted in this action, and therefore GRANTS DePuy’s motion for summary judgment of non-infringement (Doc. No. 190). The parties shall submit a proposed form of final judgment within seven days.

SO ORDERED.

/s/ Leo T. Sorokin
United States District Judge