Trials@uspto.gov
571-272-7822

Paper 17
Entered: October 30, 2014

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZIMMER HOLDINGS, INC.
and ZIMMER, INC.,
Petitioner,

v.

BONUTTI SKELETAL INNOVATIONS LLC,
Patent Owner.

Case IPR2014-01078
Patent 7,837,736 B2

Before WILLIAM V. SAINDON, MICHAEL R. ZECHER, and RICHARD E. RICE, *Administrative Patent Judges*.

RICE, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Denial of Motion for Joinder
37 C.F.R. § 42.122

I. INTRODUCTION

Zimmer Holdings, Inc. and Zimmer, Inc. (collectively, "Petitioner") filed a Petition (Paper 1, "Pet.") requesting an *inter partes* review of claims 23–25 of U.S. Patent No. 7,837,736 B2 (Ex. 1001, "the '736 Patent") and a Motion for Joinder (Paper 3) seeking to join this case with Case IPR2014-00191. Bonutti Skeletal Innovations LLC ("Patent Owner") filed a Preliminary Response (Paper 16, "Prelim. Resp.") and an Opposition to the Motion for Joinder (Paper 8). We have jurisdiction under 35 U.S.C. § 314, which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). Taking into account the arguments presented in Patent Owner's Preliminary Response, we determine that the information presented in the Petition does not establish that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of challenged claims 23–25 of the '736 Patent. Accordingly, we do not authorize an *inter partes* review as to any of the claims of the '736 Patent challenged in this case. As a result, we deny Petitioner's Motion for Joinder as moot.

A. Related Proceedings

The '736 Patent is the subject of a patent infringement lawsuit titled *Bonutti Skeletal Innovations, LLC v. Zimmer Holdings, Inc.*, No. 1:12-cv-01107-GMS (D. Del.). Pet. 2–3; Patent Owner's Mandatory Notices, Paper 7, 2. Petitioner also has filed four related Petitions in the following

cases: IPR2014-00191 (the ’736 Patent), IPR2014-00311 (U.S. Patent No. 7,959,635 B1), IPR2014-00321 (U.S. Patent No. 7,806,896 B1), and IPR2014-01080 (U.S. Patent No. 7,806,896 B1). Pet. 3.

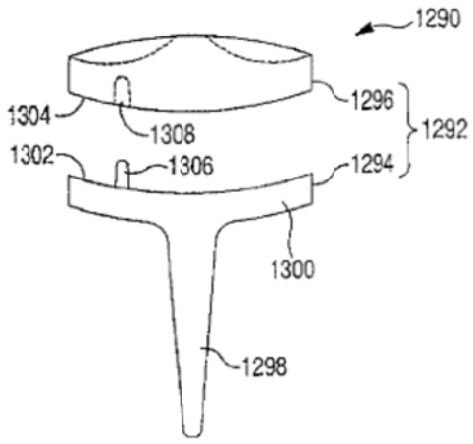
In Case IPR2014-00191, we authorized an *inter partes* review to be instituted as to claims 15–22, 26–28, and 31–36 of the ’736 Patent, but not claims 23–25. *Zimmer Holdings, Inc. v. Bonutti Skeletal Innovations, LLC*, Paper 12, 2, Case IPR2014-00191 (PTAB June 2, 2014). Petitioner again challenges claims 23–25 in the present case.

B. The ’736 Patent (Ex. 1001)

The ’736 Patent, titled “MINIMALLY INVASIVE SURGICAL SYSTEMS AND METHODS,” relates to, *inter alia*, knee implants and knee implant surgery, including implants that can be used in other joints of the human body. *See. e.g.*, Ex. 1001, 9:51–53, 63–67; 97:33–98:5; 99:34–102:4; Figs. 80, 81, 88–90.

Figure 90 of the ’736 Patent is reproduced below.

Fig. 90



Ex. 1001, Fig. 90.

Figure 90 depicts rotating platform knee implant 1290, including tibial component 1292 with plate member 1300, tray 1294, tapered spike 1298, and rotatable bearing insert 1296. *Id.* at 101:14–16, 28–31. Plate member 1300 has a concave, spherically-shaped plateau surface (superior surface 1302). *Id.* at 101:18–20. Superior surface 1302 is provided with post 1306, which cooperates with recess 1308 located on bearing insert 1296 to permit rotation of bearing insert 1296 with respect to tray 1294. *Id.* at 101:28–31. Post 1306 is not located over the center of the tibia, but rather "offset medially toward the medial compartment of the knee." *Id.* at 101:55–57, Fig. 90. According to the Specification of the '736 Patent, "[i]n prior art rotating platform designs, the post is substantially in line with the central keel." *Id.* at 101:58–59. "Offsetting post 1306 more toward the medial compartment of the knee recreates the natural pivoting motion o[f]

the knee, with less translation medially, a more stable joint medially, and more rotational arc or more movement laterally." *Id.* at 101:63–67.

Figures 88 and 89 of the '736 Patent are reproduced below.

Fig. 88

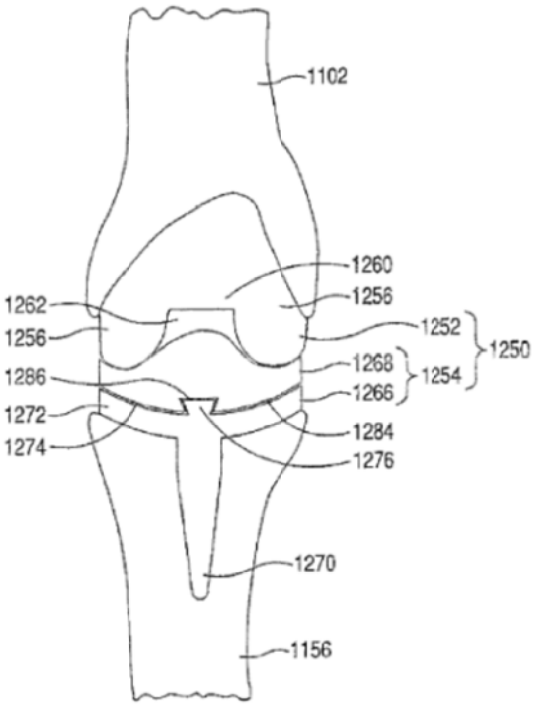
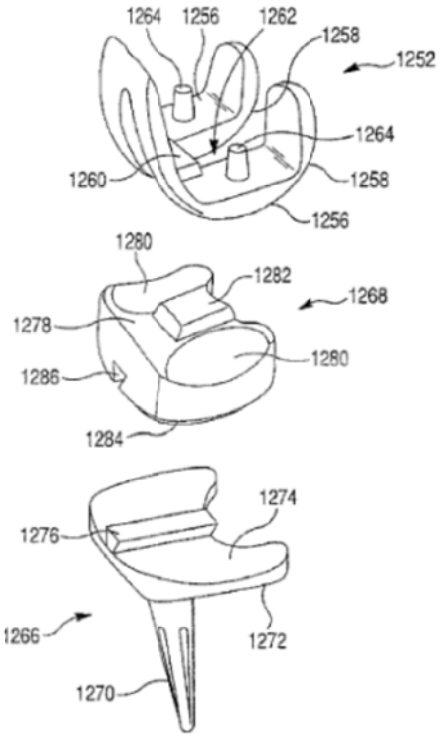


Fig. 89



Ex. 1001, Figs. 88 & 89.

Figures 88 and 89 illustrate mobile bearing implant 1250 with femoral component 1252 and tibial component 1254, the latter comprising bearing tray 1266, insert 1268, tapered keel or spike 1270, and plate member 1272. Ex. 1001, 99:35–38, 49–51. Plate member 1272 includes superior surface 1274, which has a concave, spherically shaped plateau surface. *Id.* at 99:54–55. As described in the Specification, track 1276 in plate member 1272

cooperates with corresponding groove 1286 in bearing insert 1268 to enable sliding movement "substantially in the anterior-posterior direction." Ex. 1001, 99:60–66. The Specification discloses that "the arrangement of the track and groove can be switched so that bearing insert 1268 is provided with the track and superior surface 1274 is provided with the groove." *Id.* at 100:2–5.

C. Illustrative Claims

Claim 15 is independent and not challenged in the present case. Claims 23–25 depend directly or indirectly from claim 15. Claims 15 and 25 are illustrative and are reproduced below:

> 15. A device to replace an articulating surface of a first side of a joint in a body, the joint having first and second sides, comprising:
>
> a base component, including a bone contacting side connectable with bone on the first side of the joint, and a base sliding side on an opposite side of said base component relative to said bone contacting side;
>
> a movable component, including a movable sliding side, said movable sliding side being matably positionable in sliding engagement with said base sliding side, and an articulating side on an opposite side of said movable component relative to said movable sliding side, shaped to matingly engage an articulating surface of the second side of the joint;
>
> a protrusion extending from one of said base sliding side or movable sliding side, said protrusion substantially offset with respect to a midline of the first side of a joint;

> a recess sized to receive said protrusion, disposed in the other of said base sliding side or movable sliding side, said protrusion and recess matable to constrain movement of said first and second components relative to each other, thereby promoting movement of the joint within desired anatomical limits.
>
> 25. The device of claim 15, further including means associated with said protrusion to prevent a separation of said base sliding side and said movable sliding side.

Ex. 1001, 114:5–27, 61–63.

D. The Asserted Prior Art References

Petitioner relies upon the following references as prior art (*see* Pet. 5–6):

Walker	US 5,755,801	May 26, 1998	Ex. 1002
Buechel	US 4,340,978	July 27, 1982	Ex. 1012

E. The Asserted Grounds

Petitioner challenges claims 23–25 of the ’736 Patent on the following grounds (Pet. 5–6, 26–34):

Reference(s)	Basis	Claims Challenged
Walker	§ 102(b)	25
Walker and Buechel	§ 103(a)	23–25

II. ANALYSIS

A. Claim Construction

We give claim terms in an unexpired patent their broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). The broadest reasonable interpretation consistent with the specification of a means-plus-function limitation "is that statutorily mandated in paragraph six [of 35 U.S.C. § 112]." *In re Donaldson Co.*, 16 F.3d 1189, 1194–95 (Fed. Cir. 1994).

Here, challenged claim 25 recites "means associated with said protrusion to prevent a separation of said base sliding side and said movable sliding side." Ex. 1001, 114:61–63. In Case IPR2014-00191, we determined that claim 25 contains a means-plus-function limitation because it recites "means" and a function for performing the claimed "means," i.e., "to prevent a separation of said base sliding side and said movable sliding side," and because it does not recite sufficient structure or material for performing the specified function. *Zimmer Holdings, Inc. v. Bonutti Skeletal Innovations, LLC*, Paper 12, 8, Case IPR2014-00191 (PTAB June 2, 2014)

(citations omitted). We incorporate herein by reference our determination and the associated analysis from that related case.

Because claim 25 contains a means-plus-function limitation, the Petition "must identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function." *See* 37 C.F.R. § 42.104(b)(3). Petitioner, however, asserts that the Specification "has no disclosure of . . . the means associated with the protrusion recited in claim 25." Pet. 14 (citing Ex. 1013 (Declaration of Arthur G. Erdman, Ph.D.) ¶ 11), 24–25. Petitioner argues that "Fig. 90 and the associated description . . . fail to disclose structure associated with the claimed protrusion (e.g., post 1306) to prevent separation of the base sliding side and the movable sliding side (e.g., bearing insert 1296 and the tray 1294)." *Id.* at 14 (citing Ex. 1001, 101:6–102:28). Anticipating Patent Owner's countervailing argument that the dovetail-like structure depicted in Figures 88 and 89 corresponds to the means-plus-function limitation, Petitioner additionally argues that Figures 88 and 89 "do not relate to the claimed invention as they do not include a protrusion substantially offset with respect to a midline of the first side of a joint, as required by the claims." *Id.* at 16.

As Petitioner anticipated, Patent Owner relies on Figures 88 and 89, and argues that bearing insert 1268 (depicted in those figures) includes a recess in the form of dovetail-shaped groove 1286, which mates with a protrusion in the form of dovetail-shaped track 1276. Prelim. Resp. 5. Patent Owner also refers to a passage in the Specification that states:

"Although a single track 1276 is shown centrally located [in Figures 88 and 89], *track 1276 can be located elsewhere along superior surface 1274 and/or more than one track can be used (e.g. two lateral symmetrically placed tracks)*." Ex. 1001, 99:63–100:2 (emphasis added); *see* Prelim. Resp. 7 (citations omitted).

On the basis of Figures 88 and 89 and the related description in the Specification, Patent Owner argues that "the means of claim 25 should be construed to mean a dovetail track, or equivalent thereof, which performs the function of preventing a separation of said base sliding side and said movable sliding side." Prelim. Resp. 7. We are persuaded, at least in part, by Patent Owner's argument. That is, we are persuaded that track 1276, as depicted in Figures 88 and 89, is a protrusion that extends from plate member 1272. We also are persuaded that, because protrusion 1276 is dove-tail shaped (i.e., wider toward its outward end than its base), it prevents separation of bearing insert 1268 and plate member 1272 when mated with corresponding dovetail-shaped-groove 1286. We are not persuaded, however, that the track, aside for its dovetail shape, corresponds to the specified function. We also are not persuaded by Petitioner's argument that protrusion 1276 as depicted in Figures 88 and 89 is not "substantially offset relative to a midline of the first side of a joint" (as required by independent claim 15), because Petitioner's argument does not address the disclosure in the Specification that: (1) "two lateral symmetrically placed tracks" can be used in place of the single, centrally-located track depicted in Figures 88 and 89, or that, (2) if a single track is used, the track need not be located

centrally, but rather can be located elsewhere along superior surface 1274. Ex. 1001, 99:63–100:2.

For purposes of this Decision, we determine that the broadest reasonable construction consistent with the Specification of "means associated with said protrusion to prevent a separation of said base sliding side and said movable sliding side" is a dovetail-shaped protrusion that is wider toward its outward end than its base and that prevents separation of the base sliding side and the movable sliding side when mated with a corresponding dovetail-shaped groove, and equivalents thereof.

B. Asserted Grounds of Unpatentability

We turn now to Petitioner's asserted grounds of unpatentability to determine whether Petitioner has met the threshold standard of 35 U.S.C. § 314(a).

1. Claim 25 as Anticipated by Walker

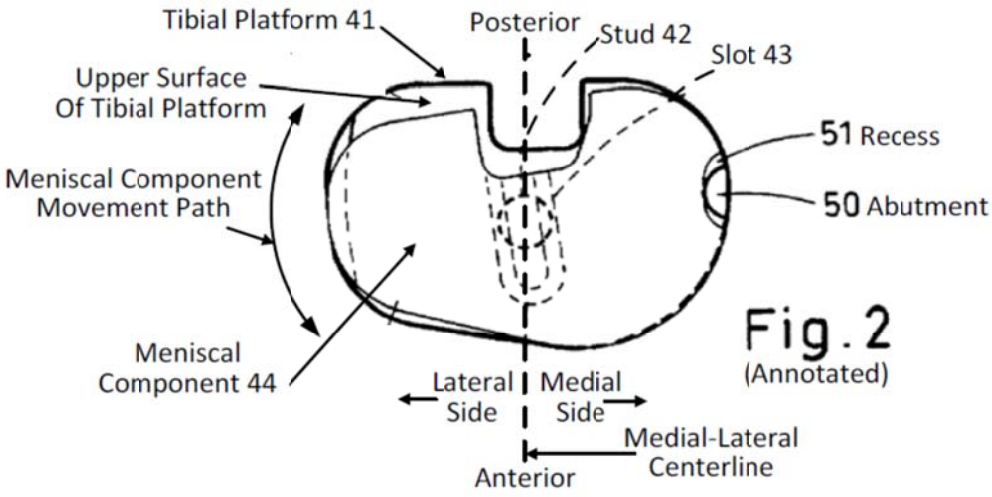
We determine that the information presented in the Petition does not establish that there is a reasonable likelihood that Petitioner would prevail in showing that Walker anticipates claim 25.

a. Walker (Ex. 1002)

Walker teaches that a prosthesis for knee replacement should facilitate "a limited degree of axial rotation . . . biased to the medial side of the knee." Ex. 1002, 1:11–20. To achieve such rotation, Walker discloses that "[p]referably, . . . the axis about which the meniscal component rotates is centred at the edge of the tibial platform or beyond its physical extent." *Id.*

at 2:29–32. Consistent with that teaching, the axis of rotation of the meniscal component relative to the tibial platform in each of Walker's disclosed embodiments, including the embodiment of Figure 2 on which Petitioner relies, is offset medially from the anterior-posterior midline of the tibial platform.[1]

Petitioner refers to an annotated version of Walker's Figure 2, which is reproduced below.



Pet 20.

---

[1] In the embodiment of Figure 1, "the centre of rotation of the meniscal component on the tibial platform lies outside the extent of the platform at a point indicated at A in FIG. 1*c*." *Id.* at 3:47–50, Figs. 1–1*e*. In the embodiment of Figure 2, the axis of rotation is at the edge of the tibial platform. *Id.* at 4:22–25, Figs. 2–2*b*. In the embodiment of Figure 3, "the rotation of the meniscal component 102 on the tibial platform is centred on a medially displaced axis 104." *Id.* at 4:45–47, Figs. 3–3*b*.

Petitioner's annotated Figure 2 of Walker is a plan view that depicts tibial platform 41 and meniscal component 44. Ex. 1002, 2:50–52, 4:22–25. Stud 42 in tibial platform 41 has an enlarged head and extends upward from tibial platform 41. *Id.* at 4:10–13. Slot 43 in meniscal component 44 includes upper groove 45, which "receiv[es] the head of stud 42 in such a way as to prevent lift-off of the meniscal component from the platform." *Id.* at 4:13–16. Walker discloses that "[r]otation of the meniscal component 44 about an axis X at the edge of the tibial platform is controlled by a semi-circular abutment 50 which is upstanding at the medial side of the platform." *Id.* at 4:22–25, Figs. 2, 2a, & 2b. Walker further discloses that "[a] recess or notch 51 is formed in the corresponding portion of the meniscal component and is rounded as shown [*see* annotated Figure 2 above] to allow approximately 2 mms movement in an anterior and posterior direction." *Id.* at 4:25–28, Figs. 2, 2a, & 2b.

Figure 2c of Walker is reproduced below.

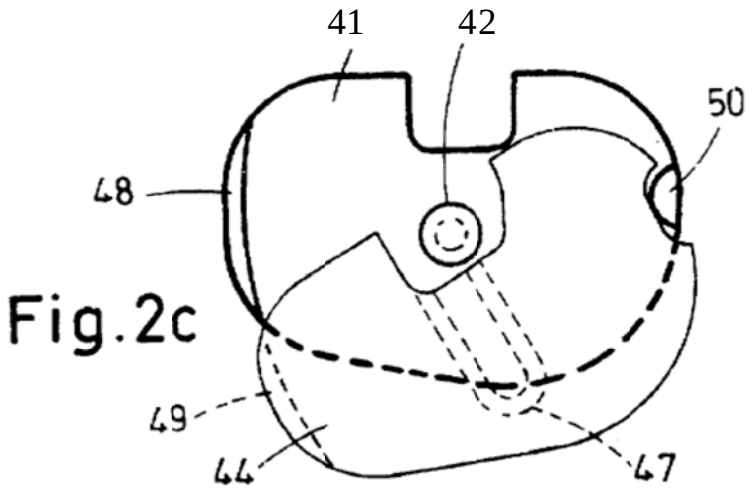


Fig.2c

Ex. 1002, Fig. 2C.

Figure 2c depicts "the method of engaging the meniscal component on the tibial base plate." *Id.* at 2:57–58. Walker discloses that "the meniscal component can be fitted to the tibial platform by engaging the abutment 50 in the recess 51 and then the stud 42 in its corresponding slot 43." *Id.* at 4:30–33, Fig. 2c.

b. Analysis

With respect to the means-plus-function limitation of claim 25, i.e., "means associated with said protrusion to prevent a separation of said base sliding side and said movable sliding side," Petitioner argues that Walker's "abutment 50 and its semicircular shape prevent separation of the base sliding side and the moveable sliding side." Pet. 29 (citing Ex. 1001, 4:23–34, Figs. 2, 2a, & 2c; Ex. 1013 ¶¶ 16, 26). Petitioner asserts that "one of ordinary skill would have understood that the Walker patent's abutment 50 and its semicircular shape prevent separation, as required by claim 25" (*id.* (citing Ex. 1013 ¶¶ 16, 26)), because Walker discloses that "the meniscal component can be *fitted* to the tib[i]al platform by engaging the abutment 50 in the recess 51 and then the stud 42 in its corresponding slot 43" (*id.* (quoting Ex. 1001, 4:30–34)).

Petitioner has not persuaded us that abutment 50 and its semicircular shape are a structural equivalent to a dovetail-shaped protrusion that is wider toward its outward end than its base and that prevents separation of the base sliding side and the movable sliding side when mated with a corresponding dovetail-shaped groove, as required to satisfy the means-plus-function limitation of claim 25. *See* section II.A *supra*. Petitioner's argument that

abutment 50 and its semicircular shape perform the recited prevention function (*see* Pet. 29) is insufficient. *See Fresenius USA v. Baxter Intern., Inc.*, 582 F.3d 1288, 1299 (Fed. Cir. 2009) ("Just as a patentee who seeks to prove infringement must provide a structural analysis by demonstrating that the accused device has the identified corresponding structure or an equivalent structure, a challenger who seeks to demonstrate that a means-plus-function limitation was present in the prior art must prove that the corresponding structure—or an equivalent—was present in the prior art.") (citations omitted).

Further, we are not persuaded that abutment 50 and its semicircular shape perform the recited prevention function. The disclosure in Walker that "the meniscal component can be fitted to the tibial platform by engaging the abutment 50 in the recess 51 and then the stud 42 in its corresponding slot 43" (Ex. 1001, 4:30–33)— on which Petitioner relies (*see* Pet. 29)—is in reference to Figure 2c (reproduced above), which shows that placing abutment 50 in recess 51 creates space to fit stud 42 in slot 43 (*id.*, Fig. 2c). On the record before us, we agree with Patent Owner that stud 42 and slot 43, rather than abutment 50 and recess 51, prevent separation of the base sliding side and the movable sliding side in the embodiment illustrated in Walker's Figure 2. Prelim. Resp. 12 (citing Ex. 1003, 4:14–22).[2]

[2] Petitioner does not contend that stud 42 satisfies the prevention means limitation. In any event, as Patent Owner argues, "stud 42 cannot be the claimed protrusion because it is not 'substantially offset with respect to a

Accordingly, we are not persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing on its contention that claim 25 of the ’736 Patent is anticipated by Walker as alleged.

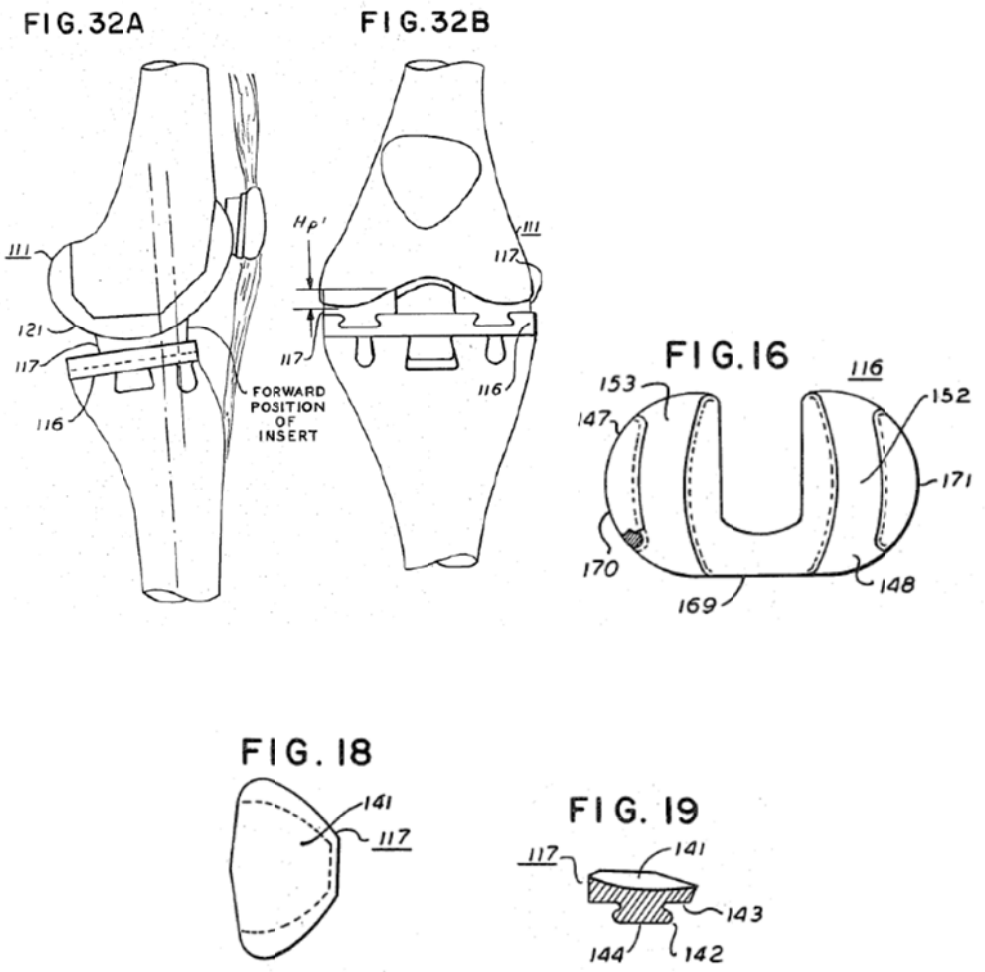
2. Claims 23–25 as Obvious over Walker and Buechel

We determine that the information presented in the Petition does not establish that there is a reasonable likelihood that Petitioner would prevail in showing that the combination of Walker and Buechel renders obvious claims 23–25.

a. Buechel (Ex. 1012)

Figures 16, 18, 19, 32A, and 32B of Buechel are reproduced below.

midline of the first side of a joint.’” Prelim. Resp. 12.



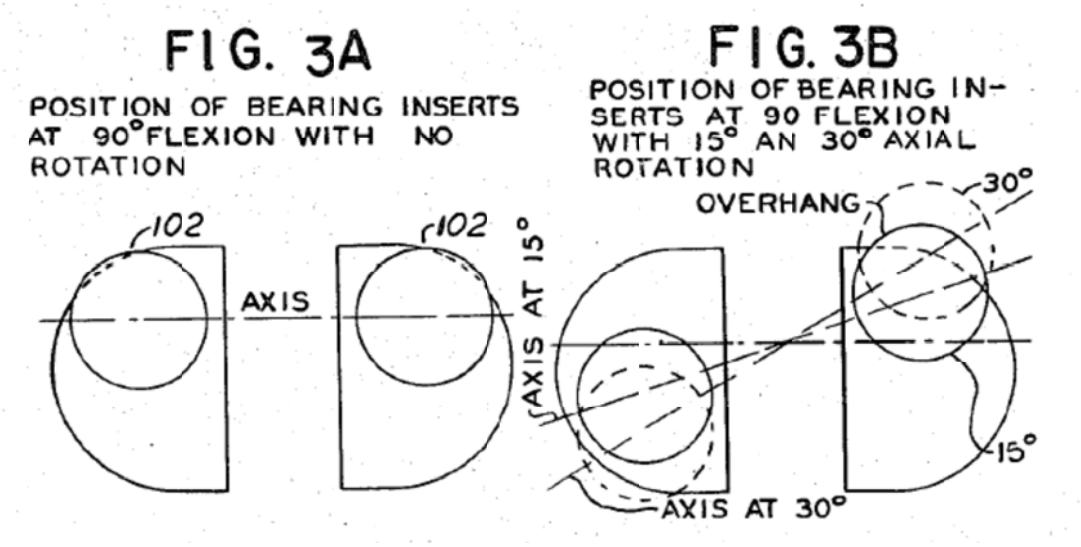
Ex. 1012, Figs. 16, 18, 19, 32A, & 32B; *see* Pet. 22.

Figures 16, 18, 19, 32A, and 32B depict a knee prosthesis comprising femoral component 111, tibial platform 116, and two intermediate tibial bearing components 117. *Id.* at 15:14–32. As shown in Figures 19 and 32B, each intermediate tibial bearing component 117 comprises a projecting dovetail surface. *Id.* 6:17–18, 15:16–17, 30–32. Tibial platform 116 consists of thick plate 147, in which are provided two curved tracks 148 and 153, as shown in Figure 16. *Id.* at 15:22–29, Fig. 16. Each of the two

curved tracks receives, and partially constrains, an identical intermediate tibial bearing component. *Id.* at 15:26–32, Figs. 16, 32A, 32B. Buechel discloses that the intermediate tibial bearing components move somewhat closer together as they move forward or rearward from the central position. *Id.* at 15:47–50.

According to Buechel, a serious problem with the prior art "Oxford" prosthesis is the potential for dislocation of the bearing inserts. *Id.* at 3:63–67.

Figures 3A and 3B of Buechel are reproduced below.



Ex. 1012, Figs. 3A & 3B.

Figures 3A and 3B depict the prior art Oxford prosthesis. *Id.* at 5:60–61. Figure 3A is a plan view showing the position of bearing inserts 102 at 90° flexion with no rotation of the knee, and Figure 3B is a plan view showing the positions of the bearing inserts at 90° flexion in the presence of axial rotations of 15° and 30°. *Id.* at 5:61–65. Buechel discloses that, in the

Oxford prosthesis, "[t]here is a pronounced overhang of bearing inserts 102, with resultant risk of dislocation, under the combination of 90° flexion and 30° rotation of the knee." *Id.* at 4:19–21, Figs. 3A & 3B.

As shown in Figures 3A and 3B, the bearing inserts rotate freely on flat tibial plates (tibial onlays 103). *See id.* at 3:59–61, Figs. 1A, 1B, 3A & 3B. Buechel discloses that, in contrast with the Oxford prosthesis, "[t]he method of track engagement utilized in the present invention . . . *prevents rotation of the intermediate tibial bearing components 117*." *Id.* at 16:47–50 (emphasis added).[3]

b. Analysis

Claim 23 recites "[t]he device of claim 15, wherein said protrusion is a dovetail pin and said recess is a dovetail tail, together forming a dovetail joint." Ex. 1001, 114:54–56. Claim 24 recites "[t]he device of claim 23, wherein said dovetail joint is elongated, extends in a substantially anterior-posterior orientation, and enables anterior-posterior displacement of the base sliding side relative to the movable sliding side." *Id.* at 114:57–60. Claim 25 and its prevention means limitation are discussed above. *See* section II.A *supra*.

[3] Patent Owner asserts that "[t]he inward motion of the tibial bearing components 117 provides a rotational movement that *is about an axis generally center to tibial bearing component 117*. Prelim. Resp. 16. Even so, rotation of the tibial bearing components relative to the tibial plates in Buechel is limited, if not prevented entirely.

Relying on the testimony of its Declarant, Dr. Erdman, Petitioner argues with respect to each of claims 23–25 that it would have been obvious to a person of ordinary skill in the art to substitute the dovetail joint structures of the Buechel patent for the abutment and recess of the Walker patent. Pet. 31–34 (citing Ex. 1013 (Erdman Decl.) ¶¶ 17–19, 27–29). Petitioner reasons that Walker and Buechel relate to "the same field of endeavor" and teach "similar functionality." *Id.* at 31 (citing Ex. 1013 ¶¶ 16, 27).

Dr. Erdman testifies that the dovetail joint structures in Buechel perform the "same function" as the abutment 50 and recess 51 in Walker—"constrained movement of meniscal components relative to the tray in mobile bearing knee implants." Ex. 1013 ¶ 27. With that predicate, Dr. Erdman concludes that "[i]t would have been obvious to a person of ordinary skill in the art (e.g., a matter of routine engineering and design choice) to substitute the dovetail joint structures of the Buechel patent for the abutment and recess of the Walker patent." *Id.* "Such a substitution," Dr. Erdman testifies, "would achieve the predictable result of providing constrained relative movement between the two components." *Id.*

On the record before us, however, we agree with Patent Owner that Petitioner has not shown adequately that it would have been obvious to substitute Buechel's dovetail joint structures for the abutment and recess illustrated in the embodiment of Walker's Figure 2. *See* Prelim. Resp. 13–18. We are persuaded that the structure and function of the dovetail joint structures in Buechel are substantially different from the structure and

function of the abutment and recess in Walker. *Id.* at 16–18. As discussed above, the function of the dovetail joint structures in Buechel is, *inter alia,* to *limit or prevent* rotation of the meniscal components relative to the tibial plates, while the function of abutment 50 and recess 51 in Walker is to *facilitate* rotation of the meniscal component about an axis at the edge of the tibial platform. *See* sections II.B.1.a and II.B.2.a *supra*. In view of those substantially-different structures and functions, we determine that Petitioner's obviousness rationale is not supported by adequate articulated reasoning with rational underpinning. *See KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 418 (2007) ("'[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'") (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)); *cf. In re Gal*, 980 F.2d 717, 719 (Fed. Cir. 1992) (design choice is not a sufficient rationale for obviousness where structure recited in claim and the function it performs are different from the prior art).

Accordingly, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing on its contention that claims 23–25 would have been obvious over the combination of Walker and Buechel.

C. Motion for Joinder with Case IPR2014-00191

In view of our determination not to authorize an *inter partes* review as to any of the claims of the '736 Patent challenged in this case, Petitioner's

Motion for Joinder seeking to join this case with Case IPR2014-00191, is *denied* as moot.

III. CONCLUSION

For the forgoing reasons, we determine that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail with respect to any of challenged claims 23–25 of the '736 Patent.

IV. ORDER

Accordingly, it is

ORDERED that no *inter partes* review will be instituted pursuant to 35 U.S.C. § 314 as to any claim of the '736 Patent on any of the grounds of unpatentability asserted in the Petition; and

FURTHER ORDERED that Petitioner's Motion for Joinder is denied as moot.

For PETITIONER:

Naveen Modi
Joseph Palys
PAUL HASTINGS LLP
naveenmodi@paulhastings.com
josephpalys@paulhastings.com

For PATENT OWNER:

Cary Kappel
William Gehris
DAVIDSON, DAVIDSON & KAPPEL, LLC
ckappel@ddkpatent.com
wgehris@ddkpatent.com