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Paper No. 10
Date: April 20, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LIFE SPINE, INC.,
Petitioner,

v.

GLOBUS MEDICAL, INC.,
Patent Owner.

IPR2023-00041
Patent 8,845,732 B2

Before KRISTI L. R. SAWERT, CYNTHIA M. HARDMAN, and MICHAEL A. VALEK, *Administrative Patent Judges.*

HARDMAN, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Petitioner Life Spine, Inc. requests *inter partes* review of claims 1, 7–13, and 16 of U.S. Patent No. 8,845,732 B2 ("the '732 patent," Ex. 1001). Paper 2 ("Pet."). Patent Owner Globus Medical, Inc. filed a Preliminary Response. Paper 7 ("Prelim. Resp."). With our authorization, Petitioner filed a Preliminary Reply and Patent Owner filed a Preliminary Sur-reply. Paper 8 ("Prelim. Reply"); Paper 9 ("Prelim. Sur-reply").

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). For the reasons provided below, we exercise our discretion under 35 U.S.C. § 314 to deny institution of an *inter partes* review.

A. Real Parties in Interest

Petitioner and Patent Owner each identify themselves as the real party in interest. Pet. 1; Paper 5 (Patent Owner Mandatory Notices), 1.

B. Related Matters

The parties identify *Globus Medical, Inc. v. Life Spine, Inc.*, Case No. 1:21-cv-01445 (D. Del.), filed October 13, 2021, as involving the '732 patent. Pet. 1; Paper 5, 1. The parties also identify a number of patent applications related to the '732 patent, i.e., 17/192,231, 17/409,079, 17/410,335, 17/589,029, and 17/931,913. Pet. 1–2; Paper 5, 1.

The parties also identify IPR2022-1434, IPR2022-01435, IPR2022-01600, IPR2022-01601, IPR2022-01602, and IPR2022-01603, which concern patents related to the '732 patent, as well as IPR2022-01599, which concerns the same claims of the '732 patent challenged herein. Pet. 1–2; Paper 5, 1.

C. The '732 Patent (Ex. 1001)

The '732 patent, titled "Expandable Fusion Device and Method of Installation Thereof," relates to an expandable device for insertion between adjacent vertebrae to facilitate fusion. Ex. 1001, code (54), 1:15–19. According to the Specification, a need exists for a fusion device that is "capable of being installed inside an intervertebral disc space at a minimum to no distraction height and . . . a fusion device that can maintain a normal distance between adjacent vertebral bodies when implanted." *Id.* at 1:53–57. The '732 patent purports to meet this need with a fusion device including first and second endplates and a central ramp capable of moving in a first direction to push the endplates outwardly into an expanded configuration. *Id.* at 1:65–2:2.

The Specification describes exemplary expandable fusion devices for installation in an intervertebral disc space to facilitate intervertebral fusion. *Id.* at 1:61–65. One embodiment of an expandable device is depicted in Figure 60 of the '732 patent, reproduced below.

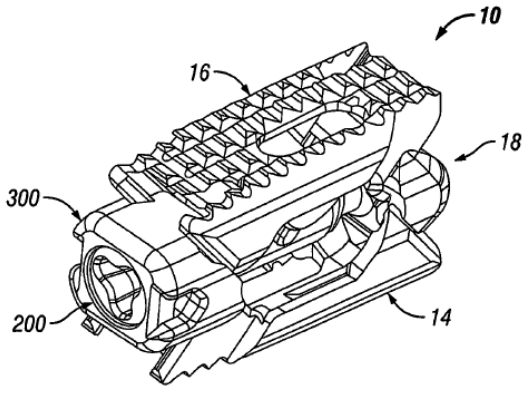

FIG. 60

Figure 60 of the '732 patent, reproduced above, is a perspective view of expandable fusion device 10 in an expanded position. *Id.* at 5:1–3. Expandable fusion device 10 includes first endplate 14, second endplate 16,

central ramp 18, actuator assembly 200, and driving ramp 300. *Id.* at 21:39–42. Actuator assembly 200 functions to pull central ramp 18 and driving ramp 300 together, which forces apart endplates 14 and 16. *Id.* at 21:42–45.

Figure 58 of the '732 patent, reproduced below, is an exploded view of the expandable fusion device in Figure 60. *Id.* at 4:62–64.

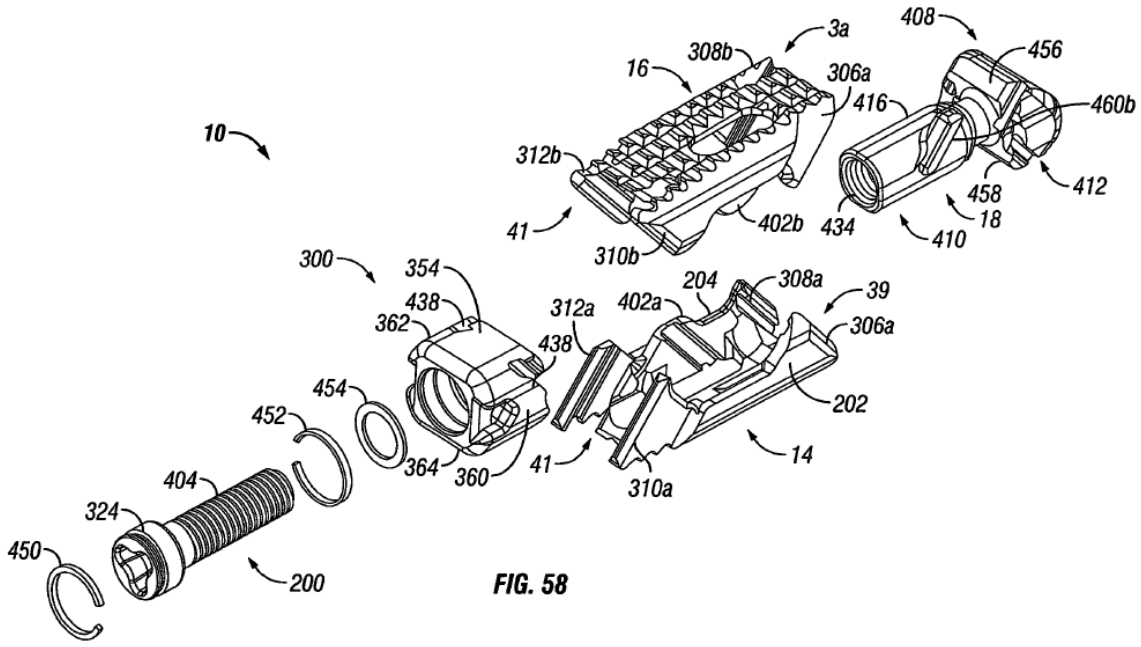

FIG. 58

Figure 58 of the '732 patent, reproduced above, depicts central ramp 18 with first end 408 and second end 410, expansion portion 412, second expansion portion 414, and rod-receiving extension 416 extending longitudinally from expansion portion 412 of central ramp 18. *Id.* at 22:47–52. Driving ramp 300 includes side portions 360 and 362, each having ramped portion 438. *Id.* at 23:14–19.

Figure 61 of the '732 patent, reproduced below, is a side cross-section view of the expandable fusion device in Figure 58 in an expanded position. *Id.* at 4:62–64.

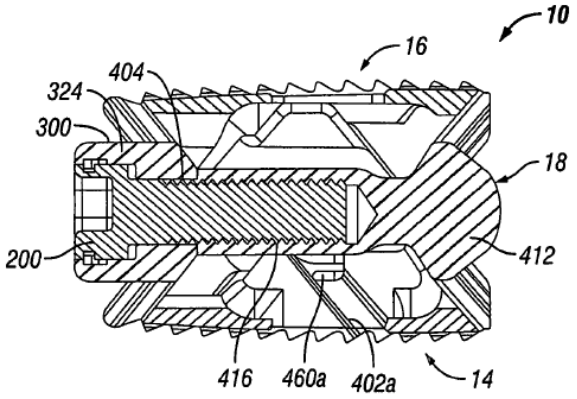

FIG. 61

Figure 61 of the '732 patent, reproduced above, depicts the expandable fusion device having actuator assembly 200, which includes head portion 324 and extension 404. *Id.* at 22:33–35. Rod-receiving extension 416 of central ramp 18 is threaded to receive threading of extension 404 of actuator assembly 200. *Id.* at 22:64–67.

In operation, expandable fusion device 10 is inserted into an intervertebral disc space and seated into position. *Id.* at 23:28–30. To expand the device, an instrument is used to engage head portion 324 of actuator assembly 200. *Id.* at 23:45–46. Rotating actuator assembly 200 in a first direction pulls central ramp 18 linearly towards actuator assembly 200 and pushes driving ramp 300 linearly towards central ramp 18. *Id.* at 23:47–51, 24:5–8. Ramped portions of central ramp 18 and driving ramp 300 push against corresponding ramped portions of endplates 14 and 16, which pushes the endplates outward into an expanded position. *Id.* at 23:56–61, 24:9–14.

The Specification describes an exemplary technique for endoscopically inserting the expandable fusion devices into the intervertebral disc space between adjacent vertebrae. *Id.* at 5:51–6:8, 26:3–46. An access path to the intervertebral disc space is created, for example,

by using a posterolateral approach. *Id.* at 26:5–8. The expandable fusion device 10 is placed into the intervertebral disc space and expanded to the desired height. *Id.* at 26:37–39. A bone graft or similar bone-growth inducing material may is be introduced around or within the expandable fusion device 10. *Id.* at 6:9–18, 26:39–41.

D. The Challenged Claims

Petitioner challenges claims 1, 7–13, and 16 of the '732 patent. Claims 1, 13, and 16 are independent. Claim 1, reproduced below with bracketed lettering added,[1] is illustrative:

> 1. [a] A system for intervertebral fusion comprising:
>
> [b] a dilator having a proximal end and a tapered distal end for penetrating soft tissue;
>
> [c] a cannula having a proximal end and a distal end; and
>
> [d] an intervertebral implant sized for insertion into an intervertebral space through the cannula, [e] wherein the intervertebral implant comprises a first endplate, a second endplate, and a central ramp disposed between the first endplate and the second endplate, [f] wherein the central ramp is configured to move in a first direction and cause the first and second endplates to move outwardly and away from one another,
>
> [g] a driving ramp disposed between the first endplate and the second endplate at an opposite end of the intervertebral implant from the central ramp, [h] wherein the driving ramp has a longitudinal through bore, [i] wherein the driving ramp is configured to engage ramped surfaces of the first endplate and ramped surfaces of the second endplate; and
>
> [j] an actuation member comprising a head portion and an actuation member extension that extends through an

[1] For ease of reference, we use the same bracketed lettering Petitioner uses in the Petition. *See, e.g.*, Pet. 108.

> unthreaded opening in a longitudinal through bore of the driving ramp to be received within an opening in the central ramp extension, [k] wherein rotational movement of the actuation member in the first direction pulls the central ramp towards the driving ramp;
>
> [l] wherein when the actuation member is rotated, the driving ramp is fixed with respect to the actuation member and the central ramp is moved in either the first direction or a second direction.

Ex. 1001, 27:12–41.

Challenged independent claims 13 and 16 are similar to claim 1, but have a few notable differences. For example, unlike claim 1, claim 13 requires that "when the intervertebral implant is in an unexpanded configuration, the first ramped surfaces of the first endplate and the first ramped surfaces of the second endplate overlap." *Id.* at 28:51–54. Additionally, unlike claim 1, claim 16 recites that the central ramp comprises "a ramped expansion portion." *Id.* at 30:5–8.

Challenged claims 7–12 depend directly or indirectly from independent claim 1 and recite additional features of the first and second endplates of the intervertebral implant. *Id.* at 27:55–28:32.

E. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1, 7–13, and 16 are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §[2]	Reference(s)/Basis
1, 7–13, 16	§ 102(b)	Lopez[3]
1, 7–13, 16	§ 103(a)	Lopez, Baynham[4],
1, 7–13, 16	§ 103(a)	Varela[5], Lopez

Pet. 3. Petitioner supports its contentions with, *inter alia*, the Declaration of Troy D. Drewry. Ex. 1002. Patent Owner supports its contentions with, *inter alia*, the Declaration of Brad Culbert. Ex. 2001.

[2] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), amended several provisions of 35 U.S.C., including §§ 102 and 103. The '732 patent issued from Application No. 13/531,943, filed June 25, 2012, and claims priority, as a continuation-in-part, to Application No. 12/875,637, filed on September 3, 2010. Ex. 1001, codes (21), (63). Petitioner contends that "the earliest date to which any challenged claim of the '732 patent can claim priority is June 25, 2012." Pet. 5. On this record, Patent Owner does not take a position on priority date. *See generally* Prelim. Resp. For purposes of this Decision, we need not decide whether the challenged claims have a priority date of June 25, 2012 or September 3, 2010. Under either date, the pre-AIA versions of 35 U.S.C. §§ 102 and 103 apply, and our analyses herein would be the same under either priority date.

[3] Morgenstern Lopez et al., U.S. Patent 8,394,129 B2, issued March 12, 2013 ("Lopez," Ex. 1031).

[4] Baynham et al., U.S. Patent Pub. 2007/0270968 A1, published November 22, 2007 ("Baynham," Ex. 1007).

[5] Varela, U.S. Patent Pub. 2012/0185049 A1, published July 19, 2012 ("Varela," Ex. 1032). The parties call this reference "Varela-'049."

II. DISCRETIONARY DENIAL

Institution of *inter partes* review is discretionary. *See* 35 U.S.C. § 314(a); *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (explaining that section "314(a) invests the Director with discretion on the question whether to institute review") (emphasis omitted). As noted above in Section I.B., Petitioner has concurrently filed two petitions challenging the same claims of the '732 patent. Our discretionary determination whether to institute review takes into consideration guidance in the Patent Trial and Appeal Board Consolidated Trial Practice Guide November 2019 Update ("Trial Practice Guide"[6]) for situations where a petitioner has concurrently filed parallel petitions challenging the same patent. The Trial Practice Guide explains:

> [b]ased on the Board's experience, one petition should be sufficient to challenge the claims of a patent in most situations. Two or more petitions filed against the same patent at or about the same time (e.g., before the first preliminary response by the patent owner) may place a substantial and unnecessary burden on the Board and the patent owner and could raise fairness, timing, and efficiency concerns. *See* 35 U.S.C. § 316(b). In addition, multiple petitions by a petitioner are not necessary in the vast majority of cases.

Trial Practice Guide, 59 (emphasis omitted). The Trial Practice Guide recognizes that "there may be circumstances in which more than one petition may be necessary, including, for example, when the patent owner has asserted a large number of claims in litigation or when there is a dispute about priority date requiring arguments under multiple prior art references."

[6] *Available at* https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf.

The Trial Practice Guide, however, characterizes such circumstances as "rare." *Id.*

To aid the Board, a petitioner who files parallel petitions should "identify: (1) a ranking of the petitions in the order in which it wishes the Board to consider the merits . . . , and (2) a succinct explanation of the differences between the petitions . . . ." *Id.* at 59–60. Pursuant to this guidance, Petitioner filed its Ranking Paper, in which it requests that the Board consider the merits of IPR2022-01599 ("the '599 Petition") ahead of the present Petition ("the '041 Petition"). Paper 3 ("Ranking"), 1.

As to the differences between the petitions, Petitioner asserts that the grounds in this, the '041 Petition, establish "unpatentability in the event that the '732 Patent is only entitled to the later June 25, 2012 filing date," while "[t]he grounds set forth in the '599 Petition establish that the challenged claims are unpatentable even if Patent Owner could demonstrate their entitlement to the September 3, 2010 filing date." Ranking 2. Petitioner also asserts that the '041 Petition presents anticipation and obviousness grounds, whereas the '599 Petition presents only obviousness grounds, based on "distinct primary references." *See id.* at 2, 4. Finally, Petitioner contends that "the '732 Patent has three very lengthy independent claims challenged in the petitions (claims 1, 13, and 16), which makes fully addressing both sets of grounds in a single petition untenable." *Id.* at 5.

Patent Owner responds that this is not a "rare" case meriting two petitions. Prelim. Resp. 2. Patent Owner argues that because "Petitioner considers the '599 Petition to be stronger than the '041 Petition, and given that there is no possibility for Patent Owner to antedate the prior art in the '599 Petition, there is no legitimate basis for the second ranked '041 Petition

having been filed at all." *Id.* at 3. Patent Owner also argues that there is nothing "rare" about the length or total number of challenged claims. *Id.* at 4–5.

Petitioner does not persuade us that two petitions are warranted under the present circumstances. The Trial Practice Guide acknowledges that "when there is a dispute about priority date . . . two petitions by a petitioner may be needed," but expressly states that such a need "should be rare." Trial Practice Guide, 59. Petitioner has not shown that this is one of those rare circumstances. Indeed, we are instituting the higher-ranked '599 Petition (see our separate decision in IPR2022-01599, issued concurrently herewith) and "there is no possibility for Patent Owner to antedate the prior art in the '599 Petition." Prelim. Resp. 3. Because there is no dispute that the references asserted in the '599 Petition are prior art, there is no dispute about priority date that might give rise to a need for a second petition.

Petitioner's reliance on *SolarEdge* as support for filing two petitions is unavailing. Prelim. Reply 1 (citing *SolarEdge Techs. Ltd. v. SMA Solar Tech., AG*, IPR2020-00965, Paper 8, 33–34 (PTAB Jan. 11, 2021)). In *SolarEdge*, beyond the risk of antedation, the petitioner argued that each petition took a different approach to mapping claims and had different strengths. *See id.* at Paper 3, 2–4. We agree with Patent Owner that Petitioner has not persuasively identified any such distinctions between the '599 and '041 Petitions here. *See* Prelim. Sur-reply 1. Instead, we agree with Patent Owner that many of the arguments in the two petitions are cumulative. Prelim. Resp. 9–10.

For example, "the embodiment relied on from Olmos in the '599 Petition is the same primary embodiment relied on from Lopez in the '041

Petition." Prelim. Resp. 10–11. As another example, in the '599 Petition, Petitioner cites secondary references for teachings regarding dilators and cannulas, which subject matter Petitioner contends was "ubiquitous in the field of minimally invasive spinal surgery at the time of invention." Pet. 102. As Patent Owner points out, "[i]n the '041 Petition, Petitioner relies on Lopez alone for all claim limitations in Ground 1," such that the difference between the obviousness grounds in the '599 Petition and the anticipation ground in the '041 Petition is that "Lopez addresses the purportedly 'ubiquitous' dilator and cannula related limitations." Prelim. Resp. 9–10. Under these circumstances, we find that Petitioner does not adequately explain why, if we institute the higher-ranked '599 Petition, a second review of the '041 Petition remains necessary.

Petitioner's argument that a second petition is warranted because the '732 patent has "three very lengthy independent claims" is unavailing. Ranking 5. We agree with Patent Owner that Petitioner has not demonstrated anything extraordinary about the length or total number of challenged claims. *See* Prelim. Resp. 4. Each Petition challenges the same nine claims, which is less than half of the up to 20 claims contemplated under the base filing fee for an *inter partes* review. *See* 37 C.F.R. § 42.15(a)(3)–(4). We also agree with Patent Owner that Petitioner's analysis includes copious use of figures and cross-referencing of arguments, which reduces concern regarding word-count limitations. In short, Petitioner has not adequately demonstrated that "fully addressing both sets of grounds in a single petition [is] untenable." Ranking 5.

For the foregoing reasons, Petitioner has not sufficiently justified the need for two petitions against the same claims of the '732 patent. In light of

the totality of the circumstances, including that we are concurrently instituting review in IPR2022-01599 for all claims challenged in that proceeding, we exercise our discretion to decline institution in this proceeding. 35 U.S.C. § 314(a).

III. CONCLUSION

Pursuant to 35 U.S.C. § 314(a), we decline to institute this proceeding.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied*, and no trial is instituted.

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