

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OCADO GROUP PLC,
Petitioner,

v.

AUTOSTORE TECHNOLOGY AS,
Patent Owner.

IPR2021-00274
Patent 10,294,025 B2

Before FRANCES L. IPPOLITO, SCOTT B. HOWARD, and
ALYSSA A. FINAMORE, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314, 37 C.F.R. § 42.4

I. INTRODUCTION

Ocado Group PLC, (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1 and 18–20 of U.S. Patent No. 10,294,025 B2 (Ex. 1001, “the ’025 patent”). AutoStore Technology AS (“Patent Owner”) filed a Preliminary Response to the Petition (Paper 7, “Prelim. Resp.”). Pursuant to our authorization for supplemental briefing, Petitioner filed a Reply to the Preliminary Response addressing discretionary denial under § 314(a) (Paper 8, “Prelim. Reply”), and Patent Owner filed a Sur-reply to that Reply (Paper 10, “Prelim. Sur-reply”). On May 28, 2021, per our instruction, the parties submitted a Joint Statement regarding the status of *In the Matter of Certain Automated Storage and Retrieval Systems, Robots, and Components Thereof*, (Inv. No. 337-TA-1228), filed October 1, 2020 (the “ITC investigation”), which involves the ’025 patent. Paper 11 (“Joint Statement”).

To institute an *inter partes* review, we must determine that the information presented in the Petition shows “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) (2018). For the reasons set forth below, upon considering the Petition, Preliminary Response, Reply, Sur-reply, and evidence of record, we determine the information presented in the Petition establishes a reasonable likelihood that Petitioner would prevail with respect to at least one of the challenged claims. Accordingly, we institute *inter partes* review.

A. Related Proceedings

The parties identify various matters that would affect or be affected by a decision in this proceeding. Pet. 2; Paper 6, 2. The ’025 patent has been asserted in *AutoStore Technology AS v. Ocado Group PLC*, No. 2:20-cv-

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00494-RAJ-LRL (E.D. Va.), filed October 1, 2020 (“District Court Litigation”). *See* Ex. 1002, 1–2. The ’025 patent is also involved in the ITC investigation noted above. Ex. 2009, 1–3; Paper 6, 2; Pet. 2¹. The District Court Litigation has been stayed pending the ITC investigation. Prelim. Reply 3; Ex. 2001, 1.

Four additional patents at issue in the District Court Litigation and the ITC investigation have also been challenged by Petitioner in the following *inter partes* or post-grant review petitions: IPR2021-00311 regarding U.S. Patent No. 10,474,140 B2; IPR2021-00398 regarding U.S. Patent No. 10,093,525 B2; IPR2021-00412 regarding U.S. Patent No. 10,494,239 B2; and PGR2021-00038 regarding U.S. Patent No. 10,696,478 B2. *See* Ex. 2015, 1–2; Ex. 2009, 1.

B. The ’025 Patent

The ’025 patent, titled “Robot for Transporting Storage Bins,” is directed to a remotely operated vehicle assembly for picking up storage bins from a storage system in which the vehicle is able to change direction. Ex. 1001, code (54), 1:6–9. The storage system is based on a Cartesian coordinate system having a first X-direction and a second Y-direction defining a lateral plane, and a vertical direction, or Z-direction, perpendicular to the lateral plane. *Id.* at 2:23–28. The vehicle, or robot, is put into motion by driving means that include a first set of vehicle wheels that allow movement of the vehicle along the first direction of the storage system and a second set of vehicle wheels that allow movement of the vehicle along the second direction perpendicular to the first direction. *Id.* at

¹ Petitioner incorrectly lists the ITC proceeding as ITC No. 337-3498. Pet. 2.

2:7–15, 6:19–20. A plurality of rails extend in the X-direction and the Y-direction, and the first and second sets of wheels are moved between a lowered, non-displaced state in contact with the rails and an upper, displaced state spaced from the rails. *Id.* at 8:5–14, 8:63–66, Figs. 7(a), 7(b). When the first set of wheels is in contact with the rails, the vehicle is configured to move in the X-direction, and when the second set of wheels is in contact with the rails, the vehicle is configured to move in the Y-direction. *Id.* at 6:60–64.

In order to change the direction of the vehicle, a vertically displaceable bar connected to a displacement plate is raised or lowered. Ex. 1001, 7:14–26. Because each set of wheels is rigidly connected to the displacement plate, movement of the displaceable bar causes movement between the displaced and non-displaced states. *Id.* at 7:16–24. In one embodiment, a displacement motor operates a lever arm that exerts an upward directed pressure force on the displacement bar to push the bar vertically upward. *Id.* at 7:35–38. In particular, the displacement bar vertically displaces the displacement plate, and the set of wheels rigidly connected to the displacement plate vertically moves. *Id.* at 7:14–26. When the first set of wheels is displaced, the first set of wheels is moved out of contact with the rails, and the vehicle is no longer configured to move in the X-direction. *Id.* at 6:60–64. When the first set of wheels is displaced, the second set of wheels contacts the rails, and the vehicle is configured to move in the Y-direction. *Id.* at 6:60–64. The second set of vehicle wheels can be displaced instead of, or in addition to, the first set of vehicle wheels, during a change of vehicle direction. *Id.* at 7:30–33.

The wheels are connected to a body of the vehicle, as seen, for example, in Figure 2, reproduced below.

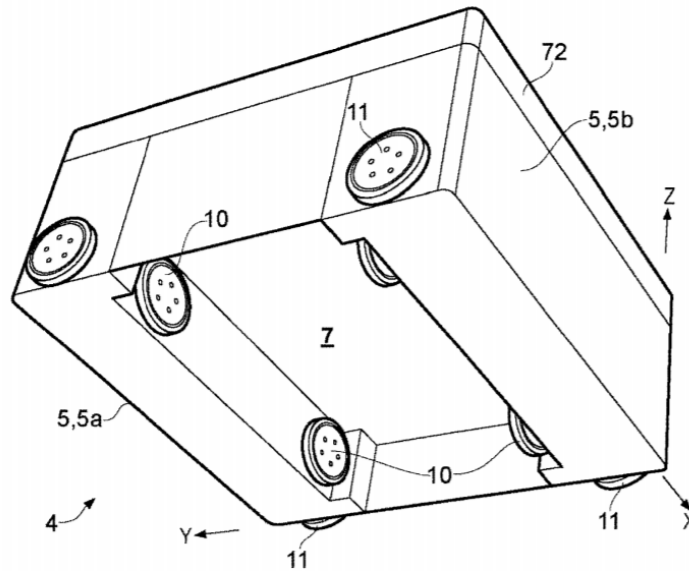


FIG. 2

Figure 2 is a perspective view of a remotely operated vehicle according to a first embodiment of the invention. Ex. 1001, 5:10–11. Vehicle body 4 includes centrally arranged cavity 7, a first set of four vehicle wheels 10 and a second set of four vehicle wheels 11 that are oriented perpendicular to each other. *Id.* at 6:23–29. Cavity 7 is sized to contain the largest storage bin 2 intended to be picked up by robot 1, as well as vehicle lifting device 9, depicted in Figure 11, reproduced below. *Id.* at 6:32–34.

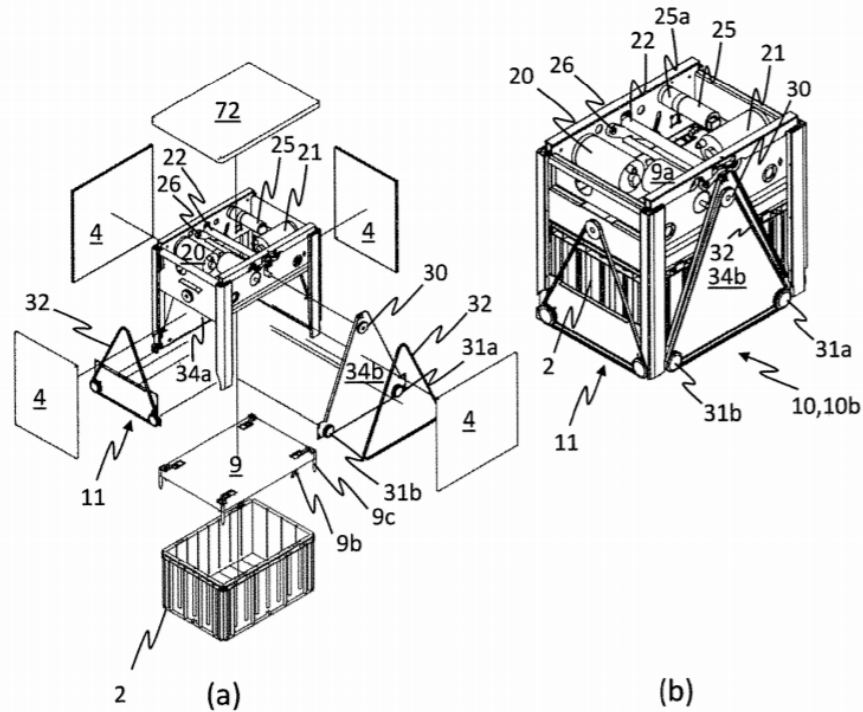


FIG. 11

Figures 11(a) and 11(b) are perspective views of a vehicle in exploded and non-exploded views, respectively. Ex. 1001, 5:44–47. As depicted in Figure 11(a), lifting device 9 is connected at least indirectly to vehicle body 4 and suitable for lifting storage bin 2 into the cavity. *Id.* at 1:62–64. Figures 11(a) and 11(b) also depict displacement motor 25, which displaces displacement arm 22 vertically, as being situated in a lateral plane above the cavity, wherein the lateral plane is defined as any plane that is parallel to the plane set up by the first (X) and second (Y) direction. *Id.* at 2:19–26.

C. Illustrative Claim

Petitioner challenges claims 1 and 18–20 (“challenged claims”) of the ’025 patent. Pet. 1. Claims 1 and 18 are independent, and claims 19–20

depend from claim 18. Claim 1 is illustrative of the claimed subject matter and is reproduced below.

1. A remotely operated vehicle assembly for picking up storage bins from an underlying storage system, comprising:
 - a vehicle body displaying a cavity for receiving a storage bin within the storage system[,]
 - a vehicle lifting device connected to the vehicle body for lifting the storage bin into the cavity,
 - driving means comprising:
 - a first set of vehicle wheels connected to the vehicle body allowing movement of the vehicle along a first direction within the storage system during use, and
 - a second set of vehicle wheels connected to the vehicle body allowing movement of the vehicle along a second direction in the storage system during use, the second direction being perpendicular to the first direction,
 - a displacement arrangement coupled to the driving means comprising
 - a displacement motor configured to provide power to displace at least one of the first set of vehicle wheels and the second set of vehicle wheels means between a displaced state where the first or second set of vehicle wheels is displaced away from the underlying storage system during use, and a non-displaced state where the first or second set of vehicle wheels is in contact with the underlying storage system during use,
 - wherein the displacement motor is situated in a lateral plane above the cavity, and further configured to generate a power that is converted to a vertically directed pressure force acting on the first or second set of vehicle wheels.

Ex. 1001, 11:64–12:30.

D. The Asserted Grounds of Unpatentability

Petitioner asserts that claims 1 and 18–20 are unpatentable on the following grounds:

Basis	35 U.S.C. §	Claims Challenged
Lindbo '178 ²	102(a)(2)	1, 18–20
Lindbo '178	103	1, 18–20
Lindbo '313 ³	102(a)(1)	19, 20 ⁴
Lindbo '313	103	19, 20
Lindbo '178, Lindbo '104 ⁵	103	19
Lindbo '901, ⁶ Bianco ⁷	103	1, 18–20

See Pet. 8–9. In support of its unpatentability arguments, Petitioner relies on the declaration testimony of Dr. Brian Pfeifer (Ex. 1008, the “Pfeifer Declaration”).

II. 35 U.S.C. § 314(a) DISCRETION

35 U.S.C. § 314(a) states that

[t]he Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.

The language of § 314(a) expressly provides the Director with discretion to deny institution of a *inter partes* review. See *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 1231, 2140 (2016) (“[T]he agency’s decision to deny a petition is a matter committed to the Patent Office’s discretion.”);

² Lindbo et al. (US 10,577,178 B2, issued Mar. 3, 2020) (Ex. 1003).

³ Lindbo et al. (GB 1314313.6, published Feb. 12, 2015) (Ex. 1004).

⁴ Petitioner’s “Statutory Grounds of Unpatentability” on page 8 of the Petition states that claims 19–20 are anticipated or obvious based on Lindbo ’313. This description of Petitioner’s challenge is consistent with the heading on page 38 of the Petition. We note, however, that pages 38 through 48 address claims 1 and 18.

⁵ Lindbo et al. (GB 2520104 A, published May 13, 2015) (Ex. 1005).

⁶ Lindbo (WO 2014/195901 A1) (Ex. 1010).

⁷ Bianco et al. (WO 2005/077789 A1) (Ex. 1011).

Consolidated Trial Practice Guide November 2019 (“TPG”) at 55,
<https://www.uspto.gov/TrialPracticeGuideConsolidated>.

In exercising the Director’s discretion under § 314(a), the Board may consider “events in other proceedings related to the same patent, either at the Office, in district court, or the ITC.” TPG at 58. *NHK Spring* explains that the Board may consider the advanced state of a related district court proceeding, among other considerations, as a “factor that weighs in favor of denying the Petition under § 314(a).” *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential). Additionally, the Board’s precedential order in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6 (PTAB Mar. 20, 2020) (precedential) (“the *Fintiv* Order”) identifies several factors for analyzing issues related to the Director’s discretion to deny institution in view of related litigation, with the goal of balancing efficiency, fairness, and patent quality.

When considering related litigation, the Board evaluates the following factors (“*Fintiv* factors”):

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

Fintiv Order at 5–6. In evaluating these factors, “the Board takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* at 6.

A. Factual Background

On October 1, 2020, Patent Owner filed an infringement proceeding against Petitioner, asserting thirty-three (33) claims of five (5) patents in the District Court Litigation. Ex. 1002; Prelim. Reply. 3. There, Patent Owner asserted U.S. Patent Nos. 10,294,025 B2; 10,093,525 B2; 10,474,140 B2, 10,494,239 B2; and 10,696,478 B2. Ex. 1002, 1–2.

At the same time, Patent Owner also filed a complaint with the ITC, requesting institution of an investigation pursuant to Section 337 of the Tariff Act of 1930, involving the same patents and Petitioner. Ex. 1006; *see also* Ex. 2009, 1–3. On November 2, 2020, the ITC instituted the ITC investigation. *See* Ex. 2009, 1–3. The District Court Litigation has been stayed pending resolution of the ITC investigation. Ex. 2001, 1.

Less than a month after institution of the ITC investigation, Petitioner filed this IPR petition. Thereafter, Petitioner requested a stay of the ITC investigation pending this IPR. Ex. 2016, 2.

The ITC Procedural Schedule, which issued on December 4, 2020, sets the hearing to start on August 2, 2021, the initial determination date for November 5, 2021, and a target date for completion of the investigation by March 7, 2022. Ex. 2002, 1–4. On March 9, 2021, the ITC denied Petitioner’s motion to stay the ITC investigation. Ex. 2016, 1. Subsequently on March 9, 2021, upon receiving the denial of the motion to stay, Petitioner notified Patent Owner that it would provide the following stipulation in the ITC investigation:

On [Date], the Patent Trial and Appeal Board instituted [IPR] of U.S. Patent No. 10,294,025 (the “’025 patent”). Respondents hereby stipulate that, from and after the date of this stipulation, they will not pursue a defense in this Investigation that the ’025 Patent is invalid based on grounds that were raised or reasonably could have been raised in Respondents’ IPR petition for the ’025 Patent.

Prelim. Reply 3–4 (alteration in original); *see generally* Ex. 2017.

In the parties’ Joint Statement regarding the status of the ITC investigation, the parties informed the Board that the ITC investigation had been temporarily reassigned to Chief Administrative Law Judge (“ALJ”) Bullock due to the retirement of the previously assigned ALJ Lord. Joint Statement 1. The parties further indicated “[a] replacement ALJ has not been appointed.” *Id.* Nonetheless, “[t]he current investigation schedule has not been modified.” *Id.*

Patent Owner requests that the Board exercise discretionary power to deny institution under 35 U.S.C. § 314(a) because the *Fintiv* factors favor denial in light of the advanced stage of the ITC investigation. Prelim. Resp. 2–24; Prelim. Sur-reply. Petitioner argues that exercising discretion to deny institution of *inter partes* review is not appropriate. Pet. 72–79; Prelim. Reply.

In our analysis below, we address each of the *Fintiv* factors in turn. Because the District Court Litigation is stayed pending the ITC investigation, we focus primarily on the ITC investigation below. *See* Ex. 2001, 1.

B. Factor 1: whether the court granted a stay or evidence exists that one may be granted if this proceeding is instituted

As noted above, the ’025 patent is involved the District Court Litigation and ITC investigation. The District Court Litigation has been

stayed pending resolution of the ITC investigation. Ex. 2001, 1. The parties have also indicated that a request to stay the ITC investigation was denied on March 9, 2021. Prelim. Resp. 5 (citing Ex. 2016); Prelim. Reply 3. While the District Court Litigation has been stayed, we note that that proceeding has been stayed pending the *ITC investigation* in accordance with 28 U.S.C. § 1659. Ex. 2001, 1. That being the case, we focus our discussion on the parties' arguments regarding the status of the ITC investigation.

Patent Owner argues that the motion to stay has already been denied by the ALJ in the ITC investigation. Prelim. Resp. 5. Further, Patent Owner argues that the ALJ indicated that, in some circumstances, "it might make sense to stay a 337 investigation" if the PTAB were to institute an *inter partes* review, but there is no evidence that a renewed request to stay would be granted in this case. *See* Prelim. Resp. 5–6 (quoting Ex. 2016, 10 n.9); Prelim. Sur-Reply 5–6. Additionally, Patent Owner contends that there are issues, such as indefiniteness under 35 U.S.C. § 112, pending in the ITC investigation that cannot be resolved by the Board in an *inter partes* review. Prelim. Resp. 8. Patent Owner argues that "[b]ecause this issue is not before the Board, the ITC cannot stay its investigation to await the Board's views." *Id.*

Petitioner responds that the ALJ's willingness to consider a motion to stay weighs against denial. Prelim. Reply 9–10; *see also* Ex. 2016, 10 n.9. In particular, Petitioner contends "the ITC ALJ recognized that 'there is of course the potential for the issues in this [ITC] investigation to be simplified by PTAB rulings' and that a stay might 'make sense . . . if, when, and to the extent that the PTAB determines there is a sufficient likelihood of invalidity that the PTAB institutes review.'" *Id.* at 9.

Nonetheless, we decline to speculate as to how the newly assigned ALJ may rule on a renewed motion to stay if one were filed. Likewise, we decline to speculate as to whether the ITC would stay the ITC investigation given the indefiniteness challenge asserted there, but not at issue in this proceeding. *See* Prelim. Resp. 5. Accordingly, we determine this factor does not weigh for or against exercising our discretion to deny institution.

C. Factor 2: proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision

Patent Owner asserts that the trial in the ITC investigation will take place in August 2–6, 2021. Prelim. Resp. 11. Patent Owner reasons that “a final written decision in this IPR if instituted would not occur until June 20, 2022—nearly a *full year* later.” *Id.*

Petitioner contends that because the ALJ will retire from the ITC soon, it is unlikely that the August trial date will hold. Prelim. Reply 8; Ex. 2019. Petitioner argues that “the currently scheduled dates—an August hearing (two months after the Board’s institution decision by June 10, 2021), the ALJ initial determination (five months after the institution deadline) and the completion of the investigation (nine months after the deadline)—are extremely unlikely given the ITC caseload and the ALJ’s departure.” *Id.* at 8–9.

Patent Owner counters that Petitioner has no basis to assume the schedule would change under a new ALJ. Prelim. Sur-reply 3–4.

In the Joint Statement, the parties informed the Board that upon the retirement of ALJ Lord, the ITC investigation has temporarily been assigned to Chief ALJ Bullock. Joint Statement 1. Additionally, “the current investigation schedule has not been modified.” *Id.* The parties further confirm that “[u]nder the current schedule, the hearing would occur on

August 2-6, 2021, with a November 5, 2021 initial determination date and a March 7, 2022 target date for the ITC to complete the investigation.” *Id.*

Based on the current schedule, the ITC investigation will be complete by March 7, 2022, over three months before the expected date of a Final Written Decision. *See* Ex. 2002, 3. Accordingly, taking into account both the district court and ITC investigation, we determine this factor weighs in favor of exercising discretion to deny institution.

D. Factor 3: investment in the parallel proceeding by the court and the parties

Patent Owner argues that the ITC investigation is already at an advanced stage and significant time and resources have been invested by the parties. Prelim. Resp. 13–17. Patent Owner asserts that “it is expected that by June 10, 2021, the ALJ will have issued a claim construction ruling for the ’025 patent, and may have issued summary determination decisions regarding the ’025 patent.” *Id.* at 17.

In its Reply to the Preliminary Response, Petitioner calls into question whether the scheduled dates will remain unchanged after a new ALJ is assigned. *See* Prelim. Reply 8–9.

Considering the status of these proceedings, we find that by the time we issue this Decision on institution, the parties will have invested some resources in the ITC investigation. Claim construction briefing, fact discovery, and expert discovery will all have been completed by June 2, 2021. Ex. 2002, 1–2; *see* Joint Statement 1. The parties further confirmed that “[o]n April 1, 2021, the Parties completed Markman briefing.” Joint Statement 1. However, “[t]he Markman hearing that was scheduled for April 1, 2021 was canceled . . . [and] [n]o Markman decision has been issued.” *Id.*

Still, *Fintiv* directs us to consider not only the investment of the parties and the court, but also whether “the petitioner filed the petition expeditiously, such as promptly after becoming aware of the claims being asserted.” *Fintiv* Order at 11. In cases where the petitioner acted expeditiously, “this fact has weighed against exercising the authority to deny institution under *NHK*.” *Id.*

Here, Patent Owner filed the District Court Litigation and ITC investigation on October 1, 2020. Ex. 1002; Ex. 1006. On November 2, 2020, the ITC instituted the ITC investigation. *See* Ex. 2009, 1–3. Within a month of the ITC’s institution, Petitioner filed this Petition on November 30, 2020. Paper 3 (“The petition for *inter partes* review in the above proceeding has been accorded the filing date of November 30, 2020.”). We credit Petitioner’s diligence in filing the Petition in this case within two months of the filing of the District Court Litigation and ITC complaint, and within one month after the institution of the ITC investigation, thus mitigating the investments made in the ITC investigation. Prelim. Reply 3–4.

Moreover, on March 9, 2021, just hours after the ITC ALJ denied the motion to stay, Petitioner notified Patent Owner that it would provide the following stipulation in the ITC investigation:

On [Date], the Patent Trial and Appeal Board instituted [IPR] of U.S. Patent No. 10,294,025 (the “’025 patent”). Respondents hereby stipulate that, from and after the date of this stipulation, they will not pursue a defense in this Investigation that the ’025 Patent is invalid based on grounds that were raised or reasonably could have been raised in Respondents’ IPR petition for the ’025 Patent.

Prelim. Reply 3–4 (alteration in original); *see generally* Ex. 2017. Patent Owner does not dispute the timing of the Petitioner’s stipulation, but

contends that it should have been provided earlier instead of the day before Patent Owner's Preliminary Response was due. Prelim. Sur-reply 3.

On the whole, the evidence here shows that Petitioner acted diligently not only in filing its Petition, but also in providing a stipulation immediately after the ITC ALJ denied the motion to stay. Under the circumstances of this case, we find that the Petitioner's expeditious and diligent filing of the Petition and notification of a stipulation mitigates the efforts completed by the parties in the ITC investigation. Accordingly, we determine this factor weighs against exercising discretion to deny institution.

E. Factor 4: overlap between issues raised in the petition and in the parallel proceeding

Patent Owner argues that "there is a substantial overlap between invalidity arguments raised in its petition and at the ITC." Prelim. Resp. 17. Patent Owner contends that "Petitioner's February 16, 2021 invalidity contentions in the ITC investigation raise the exact same grounds for invalidity as the petition here." *Id.* at 18 (citing Ex. 2012, App. E-1, E-2, E-3).

Petitioner asserts that the Board issued the precedential decision in *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A) *after* the Petition was filed. Prelim. Reply 4. Based on *Sotera*, Petitioner indicates that it will execute a *Sotera*-type stipulation in the ITC investigation "promptly after receiving notice of institution." Ex. 2018, 1. Petitioner contends that this stipulation mitigates any concerns of duplicative efforts between the ITC investigation and this proceeding. Prelim. Reply 7. Specifically, Petitioner's stipulation provides that

On [Date], the Patent Trial and Appeal Board instituted *inter partes* review (“IPR”) of U.S. Patent No. 10,294,025 (the “’025 Patent”). Respondents hereby stipulate that, from and after the date of this stipulation, they will not pursue a defense in this Investigation that the ’025 Patent is invalid based on grounds that were raised or reasonably could have been raised in Respondents’ IPR petition for the ’025 Patent.

Ex. 2017, 1.

In its Sur-reply, Patent Owner contends that “even though *Sotera*-style stipulations can streamline issues in overlapping proceedings, the efficiencies recognized by the Board in *Sotera* are significantly limited here in view of the advanced stage of the ITC proceeding now and by the date of institution.” Prelim. Sur-reply 2–3. Patent Owner argues that Petitioner engaged in gamesmanship by: (1) waiting to provide a stipulation after business hours one day before the due date for the Preliminary Response; and (2) serving the stipulation only on the attorneys representing Patent Owner at the ITC. *Id.* at 3; *see also* Prelim. Resp. 20 (“Literally yesterday, on March 9, 2021—over 3 months after filing this Petition—Petitioner served two lawyers on Patent Owner’s ITC legal team (and who have not entered appearances in the present matter) in an untimely attempt to obviate an argument against institution.”). Patent Owner adds that there is a high risk of overlapping issues between the ITC investigation and this proceeding because the parties have already invested a substantial amount of time in claim construction and validity issues. *Id.* at 4–5.

To start, we are not persuaded by Patent Owner’s allegation that Petitioner has engaged in gamesmanship by the timing or manner of when and how the stipulation was provided. *See* Prelim. Sur-reply 4–5. First, Petitioner explains that it notified Patent Owner of its intended stipulation within hours of the ITC ALJ’s denial of the motion to the stay the ITC

investigation. Prelim. Reply 3–4. Patent Owner argues that Petitioner should have provided the stipulation weeks before that; however, we find reasonable Petitioner’s explanation that the stipulation would have been unnecessary if the stay had been granted. *Id.* at 4 n.1. Second, Patent Owner has not directed us to any evidence in the record that indicates Patent Owner’s counsel in the instant proceeding did not also receive the stipulation after Petitioner served it on Patent Owner’s ITC counsel. Furthermore, the parties received authorization to address the *Fintiv* factors and the exercise of discretion under Section 314. Thus, Patent Owner has also been afforded an opportunity to challenge Petitioner’s stipulation here, which it has done in its Sur-reply. *See* Prelim. Sur-reply.

In addition, we are not persuaded that the efficiencies of Petitioner’s stipulation are significantly limited by the advanced stage of the ITC investigation as Patent Owner argues. *See* Prelim. Sur-reply 2–3. The hearing in the ITC investigation is scheduled for August 2–6, 2021, and according to the ITC Procedural Schedule, the parties have several pre-hearing deadlines, including the filing of pre-hearing statements and briefs by July 14, 2021. Ex. 2002, 2. That being the case, much work remains and Petitioner’s stipulation would serve to streamline and reduce the issues that remain for the ITC investigation post-institution of an *inter partes* review.

Considering the particular circumstances here and that Petitioner has agreed to be bound by a stipulation that is substantively the same as the stipulation addressed in *Sotera*, we follow the *Sotera* precedent in finding that this factor weighs strongly against discretionary denial. *See Sotera*, IPR2020-01019, Paper 12; Ex. 1038, 7–8; Ex. 2017. Accordingly, we consider the stipulation to address any concerns about overlap between the issues presented in the two fora.

F. Factor 5: whether the petitioner and the defendant in the parallel proceeding are the same party

Petitioner and Patent Owner acknowledge the parties are the same in the *inter partes* review and in the ITC investigation. Prelim. Resp. 21; Pet. 78. Thus, this factor weighs in favor of the exercise of discretion to deny institution. *Fintiv* Order at 13–14; *see also Sand Revolution II, LLC v. Cont'l Intermodal Grp. – Trucking LLC*, IPR2019-01393, Paper 24 at 12–13 (informative) (“Although it is far from an unusual circumstance that a petitioner in *inter partes* review and a defendant in a parallel district court proceeding are the same, . . . this factor weighs in favor of discretionary denial.”).

G. Factor 6: other circumstances that impact the Board's exercise of discretion, including the merits

Based on our review of the arguments and evidence on the merits, we determine that the merits in this case do not weigh so strongly in either direction that it would affect our analysis under *Fintiv*. As discussed below, we simply determine that Petitioner has demonstrated a reasonable likelihood that it would prevail at trial.

Accordingly, this factor is neutral in exercising discretion.

H. Balancing the Factors

Because the analysis is fact-driven, no single factor is determinative of whether we exercise our discretion and deny institution under 35 U.S.C. § 314(a). We recognize that the parties and the ITC have invested time and resources in the ITC investigation. The ITC investigation is scheduled for a target date for completion of the investigation by March 7, 2022, at least three months before a final written decision would occur in this proceeding. Nevertheless, in view of Petitioner’s diligence in filing the Petition and

Petitioner’s stipulation not to pursue grounds at the ITC that Petitioner raised or reasonably could have raised in this *inter partes* review, and after weighing the *Fintiv* factors together, we decline to exercise discretion to deny the Petition under 35 U.S.C. § 314.

III. ANALYSIS

A. Principles of Law

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631(Fed. Cir. 1987). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990).

In *Graham v. John Deere Co.*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the Federal Circuit has “repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor.” *WPIP v. Kohler*, 829 F.3d 1317, 1328 (Fed. Cir. 2016) (“A determination of whether a patent claim is invalid as obvious under § 103 requires consideration of all four *Graham* factors, and it is error to reach a conclusion of obviousness until all those factors are considered.”).

We note that, with respect to the fourth *Graham* factor, the current record in this proceeding does not include any argument or evidence directed to secondary considerations of nonobviousness.

B. Level of Ordinary Skill in the Art

In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Custom Accessories, Inc. v. Jeffrey-Allan Indus. Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co. v. United States*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

Petitioner contends that a person of ordinary skill in the art at the time of the invention of the '025 patent would have had the following education and experience: “a bachelor’s degree in mechanical engineering, and at least two to three years’ experience working in the field of the design of robotic vehicles for material handling systems.” Pet. 16 (citing Ex. 1008 ¶ 64).

Patent Owner does not dispute this level of skill. *See* Prelim. Resp. 23 (“Patent Owner elects not to address the merits at this preliminary juncture of the proceeding, preferring to address (indeed, having already largely addressed) the same invalidity issues presented here in a single forum: the ITC.”).

For purposes of this Decision, we adopt Petitioner’s proposal as reasonable.

C. Claim Construction

For petitions filed on or after November 13, 2018, the “broadest reasonable interpretation” standard has been replaced with the federal court claim construction standard that is used to construe a claim in a civil action

under 35 U.S.C. § 282(b). This is the same claim construction standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and its progeny.

Petitioner proposes a construction for the claim term “driving means.” Pet. 16–17. Patent Owner does not propose any claim construction. See Prelim. Resp. 23 (“Patent Owner elects not to address the merits at this preliminary juncture of the proceeding, preferring to address (indeed, having already largely addressed) the same invalidity issues presented here in a single forum: the ITC.”).

On this record, we determine that no claim term requires an express construction for the purpose of determining whether to institute *inter partes* review. See *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. Anticipation by Lindbo ’178 – Claims 1, 18–20

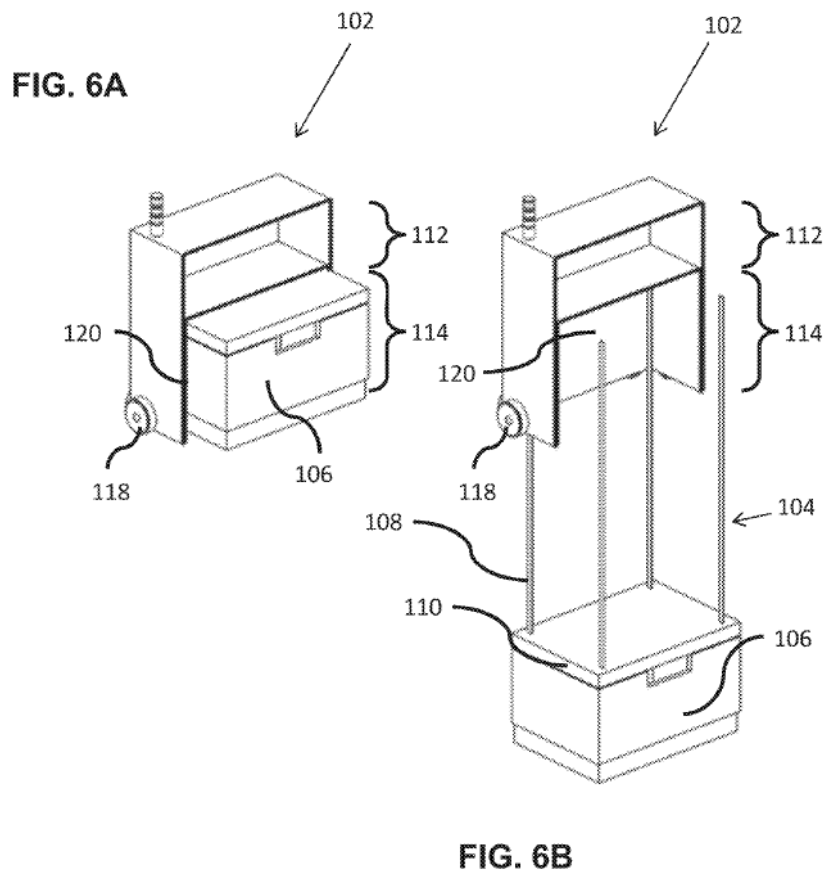
1. Overview of Lindbo ’178

Lindbo ’178 claims priority to Lindbo ’313 and relates to robotic devices for handling storage containers in a storage system of grids of stacked units. Ex. 1003, 1:8–10. The storage system of Lindbo ’178 includes first set 22a of parallel rails 22 for guiding movement of robotic load handling devices 30 in a first, X-direction, and second set 22b of parallel rails 22, arranged perpendicular to first set 22a that guide movement of the robotic devices in a second, Y-direction, perpendicular to the first direction. *Id.* at 2:62–3:1. Lindbo ’178’s robotic device 102 includes two sets of wheels 116, 118, which run on the rails to enable movement of

Lindbo's robotic device 102 in the X- and Y-directions respectively along the rails. *Id.* at 7:1–2, 9:7–11.

Each set of Lindbo '178's wheels 116, 118 can be lifted and lowered, so that either the first set of wheels or the second set of wheels is engaged with the respective set of rails 22a, 22b at any one time. Ex. 1003, 10:18–37. In particular, Lindbo '178 explains that operating motor 188 to draw common linkage 184 upwards causes first set of wheels 116 to be raised, leaving second set of wheels 118 alone engaged with the rails to enable movement of robotic 102 in the Y-direction. *Id.* at 10:27–31. Similarly, operating motor 188 to push common linkage 184 downwards, causes first set of wheels 116 to move downwards to engage with the rails and lifts second set of wheels 118 clear of the rails, to enable movement of robotic device 102 in the X-direction. *Id.* at 10:31–37.

Lindbo '178's robotic device 102 also includes a cavity or recess 120 sized to accommodate storage bin 106, as seen in Figures 6A and 6B, reproduced below. Ex. 1003, 9:17–19.



Figures 6A and 6B are schematic perspective views of a robotic device with part of the robotic device cut-away to show the inside of the device. *Id.* at 8:30–33.

As seen in Figures 6A and 6B, Lindbo '178's robotic device 102 includes lifting device 104 that is configured to grip the top of container 106 to lift the container into cavity 120. Ex. 1003, 9:2–3. Figures 6A and 6B also depict upper part 112, which Lindbo '178 teaches houses all of the significant bulky components including the motors for driving wheels 116, 118 and motors for driving lifting device 104, as well as sensors and electronics. *Id.* at 9:27–33.

2. *Effective Filing Date of Lindbo '178*

U.S. Patent Application No. 15/905,294 (“the ’294 application”), which issued as Lindbo ’178, was a continuation application of U.S. Patent Application No. 14/910,858, filed as PCT/GB2014/052273 on *July 24, 2014*. *Id.* at code (63). Additionally, on its face, Lindbo ’178 claims priority to Lindbo ’313, which is a United Kingdom patent application filed on *August 9, 2013*. *Id.* at code (30).

Petitioner asserts that Lindbo ’178 is entitled to the August 9, 2013 filing date⁸ because each claim of Lindbo ’178 is supported by the disclosure of Lindbo ’313. Pet. 4–6.

As stated in *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1381 (Fed. Cir. 2015), “[a] reference patent is only entitled to claim the benefit of the filing date of its [priority] application if the disclosure of the [priority] application provides support for the claims in the reference patent in compliance with § 112, ¶ 1.” To comply with the written description requirement of 35 U.S.C. § 112, each claim limitation must be expressly, implicitly, or inherently supported in the earlier-filed disclosure. *See Hyatt v. Boone*, 146 F.3d 1348, 1353 (Fed. Cir. 1998).

In the Petition, Petitioner provides a claim chart that lists citations to the disclosure of Lindbo ’313 that allegedly support each claim recited in Lindbo ’178. Pet. 4–5. At this stage, Patent Owner has not addressed Petitioner’s arguments or Lindbo ’178’s prior art status. *See Prelim. Resp.* 23 (“Patent Owner elects not to address the merits at this preliminary juncture of the proceeding, preferring to address (indeed, having already

⁸ On its face, the ’025 patent claims priority to Norwegian Application NO20140773 (Ex. 1009, “NO/773”), filed on *June 19, 2014*, which is after the August 9, 2013 filing date of Lindbo ’313. Ex. 1001, code (30).

largely addressed) the same invalidity issues presented here in a single forum: the ITC.”).

We have reviewed Petitioner’s arguments and Dr. Pfeifer’s Declaration and, on this record, find that they are sufficient for making a threshold showing that at least one claim in Lindbo ’178 is entitled to the priority to Lindbo ’313. *See* Pet. 4–5; Ex. 1008 ¶ 44. Nonetheless, the parties are invited to address this issue further during trial, to the extent necessary, taking into account the burden-shifting framework articulated in *Dynamic Drinkware*.

3. *Discussion*

Petitioner asserts claims 1 and 18–20 are anticipated by Lindbo ’178. Pet. 17–36. Patent Owner does not dispute Petitioner’s contentions at this time. *See* Prelim. Resp. 23 (“Patent Owner elects not to address the merits at this preliminary juncture of the proceeding, preferring to address (indeed, having already largely addressed) the same invalidity issues presented here in a single forum: the ITC.”).

Having considered the arguments and evidence before us, for the reasons below, we find that the record establishes a reasonable likelihood that Petitioner would prevail on this asserted ground of anticipation by Lindbo ’178.

a) *Claim 1*

(1) *Preamble*

Claim 1’s preamble recites “[a] remotely operated vehicle assembly for picking up storage bins from an underlying storage system.” Ex. 1001, 11:64–65.

Petitioner argues that Lindbo ’178 discloses “robotic devices for handling storage containers or bins in a store comprising a grid of stacked

units.” Pet. 19 (citing Ex. 1003, 1:8–10). Petitioner argues that the robots disclosed in Lindbo ’178 are “under the control of a central computer” and include “controllers and communications devices” that allow them to be remotely operated. *Id.* (citing Ex. 1003, 4:28–29, 9:30–31).

To the extent the preamble of claim 1 is limiting, we find Petitioner has shown sufficiently that Lindbo ’178 discloses the preamble.

(2) *Claim limitation 1[a]*⁹

Claim limitation 1[a] recites, “a vehicle body displaying a cavity for receiving a storage bin within the storage system.” Ex. 1001, 11:66–67.

For this limitation, Petitioner asserts Lindbo ’178’s Figure 6 shows the “robot includes a ‘cavity or recess [], known as a container receiving recess’ which is ‘sized to accommodate the bin.’” Pet. 19 (citing Ex. 1003, 5:22–24, 9:16–20).

At this stage, we find that Petitioner has shown sufficiently that Lindbo ’178 discloses claim limitation 1[a]. *See* Ex. 1003, Figs. 6A–6B; Ex. 1008 ¶ 76.

(3) *Claim limitation 1[b]*

Claim 1 further requires: “a vehicle lifting device connected to the vehicle body for lifting the storage bin into the cavity.” Ex. 1001, 12:1–2.

For this limitation, Petitioner contends Lindbo ’178’s vehicle lifting device includes a “winch and a ‘grabber plate 110 . . . configured to grip the top of the container 106 to lift it from a stack of containers.’” Pet. 20–21 (alteration in original) (citing Ex. 1003, 8:64–9:4).

⁹ Letter notations for claim limitations appear in the Petition and are referenced in this Decision for convenience.

At this stage, we find that Petitioner has explained sufficiently how Lindbo '178 discloses this limitation. For example, we note Lindbo '178 teaches that

FIG. 5 shows a load handling device 100 according to an embodiment of the invention. The load handling device 100 comprises a vehicle 102 equipped with a winch or crane mechanism 104 to lift a storage container or bin 106, also known as a tote, from above. The crane mechanism 104 includes winch cables 108 and a grabber plate 110. *The grabber plate 110 is configured to grip the top of the container 106 to lift it from a stack of containers 106 in a storage system*

Ex. 1003, 8:63–9:4 (emphasis added).

(4) *Claim limitation 1[c]*

Claim 1 further recites:

driving means comprising:

a first set of vehicle wheels connected to the vehicle body allowing movement of the vehicle along a first direction within the storage system during use, and

a second set of vehicle wheels connected to the vehicle body allowing movement of the vehicle along a second direction in the storage system during use, the second direction being perpendicular to the first direction[.]

Ex. 1001, 12:3–11.

Petitioner argues that the driving means limitation should be construed to mean that the robot includes two sets of wheels, arranged perpendicularly, that allow the robot to move laterally in X- and Y-directions. Pet. 21–22. Petitioner further contends that Lindbo '178 teaches two sets of wheels with one set arranged to engage the first set of rails for movement in a first direction and another set to engage a second set of rails for movement in a second direction. Pet. 22 (citing Ex. 1003, 5:54–59; Ex. 1008 ¶ 83).

Patent Owner does not, at this stage, challenge Petitioner's proposed construction or present arguments specific to this limitation. *See Prelim. Resp. 23.*

Based on the preliminary record, we observe Lindbo '178 teaches that:

The load handling device preferably includes a set of wheels for supporting the load handling device above the stacks. For example, lateral movement of the load handling device may be guided by rails disposed above the frame. The rails may be arranged in a grid pattern, allowing two-dimensional movement of the load handling device in the horizontal plane. *The wheels may engage with the rails. Two sets of wheels may be provided, with one set being arranged to engage with a first set of rails to guide movement of the load handling device in a first direction, and another set being arranged to engage with a second set of rails to guide movement of the load handling device in a second direction.*

Ex. 1003, 5:48–59 (emphases added). Based on at least this disclosure, we find that Petitioner has produced sufficient evidence that Lindbo '178 discloses this limitation for the purposes of this Decision.

(5) *Claim limitation 1[d]*

Claim 1 further recites:

a displacement arrangement coupled to the driving means comprising

a displacement motor configured to provide power to displace at least one of the first set of vehicle wheels and the second set of vehicle wheels means between a displaced state where the first or second set of vehicle wheels is displaced away from the underlying storage system during use, and a non-displaced state where the first or second set of vehicle wheels is in contact with the underlying storage system during use[.]

Ex. 1001, 12:14–25.

For this limitation, Petitioner provides Figure 9 of Lindbo '178 with annotations shown below:

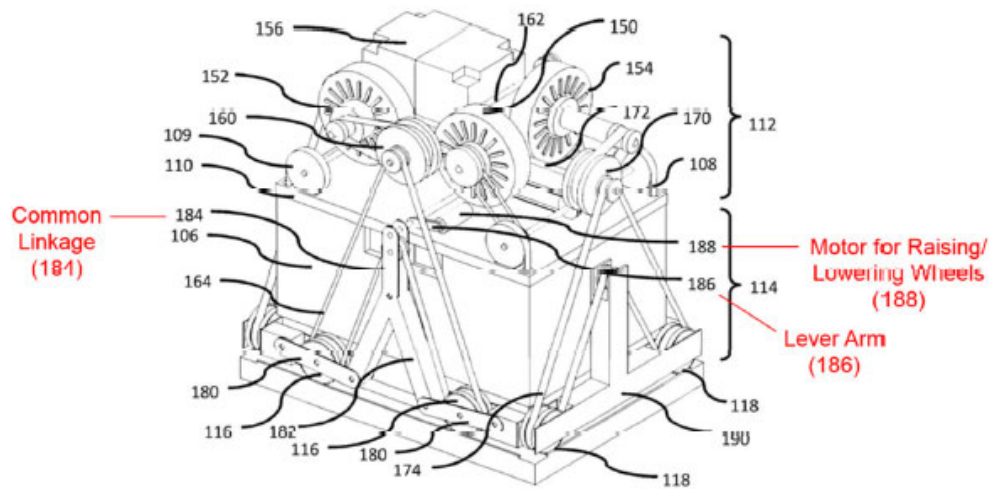


Figure 9

Pet. 23. Referring to the annotated Figure 9, Petitioner argues that “[e]ach wheel in the set is connected to an arm 180, and the arm for each wheel is connected to a ‘common linkage’ 184 ‘The upper end of the common linkage 184 is connected to a lever arm 186 that is moved by a motor 188.’”

Pet. 24 (citing Ex. 1003, 10:21–27; Ex. 1008 ¶ 88). Petitioner adds that Lindbo '178 discloses a motor that creates a force to pull or push the linkage, which moves the wheels up or down. *Id.* (citing Ex. 1008 ¶ 89).

Consistent with Petitioner’s arguments, we note that Lindbo '178 teaches that:

In this embodiment, the first set of wheels 116 can be raised clear of the rails or lowered onto the rails by means 20 of a wheel positioning mechanism, as shown most clearly in FIGS. 9, 11 and 12. Each wheel 116 is mounted on an arm 180 that is pivotally mounted at its outer end. An inner end of each arm 180 is connected to the lower end of a respective linkage 182. The upper ends of both linkages 182 are 25 connected to the lower end of a common linkage 184. In turn, *the upper end of the*

common linkage 184 is connected to a lever arm 186 that is moved by a motor 188. By operating the motor 188 to draw the common linkage 184 upwards, the first set of wheels 116 can be raised so that the 30 second set of wheels 118 alone is engaged with the rails, allowing movement of the vehicle 102 in the Y-direction. By operating the motor 188 to push the common linkage 184 downwards, the first set of wheels 116 move downwards to engage with the rails and to lift the vehicle so that the second 35 set of wheels 118 is lifted clear of the rails, as shown in FIGS. 9, 11 and 12. The vehicle 102 can then move in the X-direction.

Ex. 1003, 10:18–37 (emphases added). Based on at least this disclosure, we find that Petitioner has produced sufficient evidence that Lindbo ’178 discloses this limitation for the purposes of this Decision.

(6) *Claim limitation 1[e]*

Claim 1 also requires “wherein the displacement motor is situated in a lateral plane above the cavity.” Ex. 1001, 12:26–27.

Petitioner argues that Lindbo ’178 discloses “arranging the bulky components of the load handling device,” such as motors, “above the container-receiving space, the footprint of the load handling device is reduced.” Pet. 26 (citing Ex. 1003, 5:32–35). Petitioner’s declarant, Dr. Pfeifer, further testifies that “[a]s shown in Figure 12 and Figure 9 . . . , among the components placed above the cavity is the motor 188 . . . [that] corresponds to the displacement motor of claim 1 of the ’025 Patent.”

Ex. 1008 ¶ 94.

Based on the preliminary record, Petitioner’s arguments and associated evidence are sufficient for the purposes of institution. Pet. 26; *see also* Ex. 1003, Fig. 9.

(7) *Claim limitation 1[f]*

Claim 1 further recites that the displacement motor is “further configured to generate a power that is converted to a vertically directed pressure force acting on the first or second set of vehicle wheels.” Ex. 1001, 12:27–30.

Petitioner contends that Lindbo ’178 discloses this limitation because motor 188’s rotational power rotates the lever arm to pull and push the set of wheels up or down to engage with rails. *See* Pet. 27. Dr. Pfeifer further explains that “by operating the motor **188**, a connected lever arm “draw[s] the common linkage **184** upwards” and that this upward force “raise[s]” a set of wheels.” Ex. 1008 ¶ 99. Dr. Pfeifer adds that Lindbo ’178 “discloses the use of a motor’s rotational power, translated to a vertical force through the use of a lever and linkage, to draw the wheels of a robot up and away from the storage grid[.]” *Id.* ¶ 100.

For the purposes of this Decision, we find Petitioner’s arguments regarding this limitation sufficiently supported by the disclosure of Lindbo ’178 and Dr. Pfeifer’s testimony based on the same disclosure. *See* Ex. 1008 ¶¶ 99–100; Ex. 1003, 10:27–37.

b) *Claim 1 Conclusion*

For all of the foregoing reasons, based on the present record, we determine Petitioner has established a reasonable likelihood that it would prevail in showing Lindbo ’178 anticipates claim 1 of the ’025 patent.

c) *Claim 18*

Claim 18 recites:

18. A storage system for storage of bins, comprising:
the remotely operated vehicle assembly of claim 1;
a vehicle support comprising a plurality of crossing
supporting rails directed perpendicular to each other,

a bin storing structure supporting the vehicle support, the structure comprising a plurality of storage columns, wherein each of the plurality of storage columns is arranged to accommodate a vertical stack of storage bins.

Ex. 1001, 14:12–20.

Petitioner contends that Lindbo '178 teaches robotic devices for handling storage containers or bins in a store comprising a grid of stacked units. Pet. 29 (citing Ex. 1003, 1:8–10, 2:49–3:3, 5:7–15, 11:36–40). Further, Petitioner asserts that the rails or tracks forming the grid are arranged perpendicular to one another. *Id.*

For the purposes of this Decision, we find Petitioner's arguments sufficiently supported by the disclosure of Lindbo '178 and Dr. Pfeifer's testimony. *See* Ex. 1008 ¶¶ 103–104; Ex. 1003, 1:8–10, 2:49–3:3, 5:7–15, 11:36–40.

d) Claim 19

Claim 19 recites, “[t]he storage system in accordance with claim 18, wherein the plurality of crossing supporting rails are paired to comprise: a first and second rail in the first direction and a third and fourth rail in the second direction.” Ex. 1001, 14:21–24.

Petitioner relies on Dr. Pfeifer's testimony that Lindbo '178 discloses double track rails in Figure 7. “Figure 7 clearly discloses that each grid space is framed by dual tracks on a single rail member, and shows this allows robots can be positioned over adjacent grid spaces to pass one another on the dual track rail.” Pet. 32 (citing Ex. 1008 ¶¶ 110–111).

For the purposes of this Decision, we find Petitioner's arguments sufficiently supported at this stage of the proceeding. *See* Pet. 32.

e) Claim 20

Claim 20 recites:

20. The storage system in accordance with claim 18,

wherein the lateral cross sectional area of the remotely operated vehicle assembly occupies at most the lateral cross sectional area of one of the plurality of storage columns within the bin storing structure, where the lateral cross sectional area of one of the plurality of storage columns corresponds to the lateral area limited by the distance from a first supporting rail an adjacent supporting rail parallel to the first supporting rail, the distance being measured from the centre line of each rail.

Ex. 1001, 14:25–34.

For this claim, Petitioner argues that Lindbo '178 teaches that the load handling device occupies the space above only one stack of containers. Pet. 35 (citing Ex. 1003, 5:38–40, 7:22–24 (“[T]he load handling device has a footprint that occupies substantially only a single grid space in the storage systems.”)). Additionally, Petitioner contends that Figure 5 of Lindbo '178 shows a robot with a cross-sectional area limited to that of a single storage bin.

For the purposes of this Decision, we find Petitioner’s arguments sufficiently supported at this stage of the proceeding. *See* Ex. 1003, Fig. 5.

4. *Conclusion*

We have reviewed Petitioner’s assertions, prior art, and other evidence, as described above, and find them sufficiently persuasive on the present record. *See* Pet. 17–37. Accordingly, we are persuaded on the record before us that Petitioner has shown a reasonable likelihood that Lindbo '178 anticipates claims 1 and 18–20.

E. Obviousness over Lindbo '178 – Claims 1, 18–20

Petitioner asserts that claims 1 and 18–20 would have been obvious based on Lindbo '178. Petitioner relies on the same arguments discussed above. Pet. 17–37. Patent Owner does not present any arguments regarding

this challenge in its Preliminary Response. *See* Prelim. Resp. 23 (“Patent Owner elects not to address the merits at this preliminary juncture of the proceeding, preferring to address (indeed, having already largely addressed) the same invalidity issues presented here in a single forum: the ITC.”).

Because Petitioner relies on the same arguments provided for its anticipation challenge, there is some question as to what claim limitations Petitioner contends are not disclosed by Lindbo ’178.

Nevertheless, we note that if an *inter partes* review is instituted as to any challenged claims, we are compelled to institute trial on all claims. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018); TPG 64 (Nov. 2019) (“The Board will not institute on fewer than all claims or all challenges in a petition.”); *see also* 35 U.S.C. § 314(a) (requiring a showing of “a reasonable likelihood that the petitioner would prevail with respect to *at least 1 of the claims challenged*”) (emphasis added). As discussed above, we determine that Petitioner has shown a reasonable likelihood of proving that claims 1 and 18–20 are anticipated by Lindbo ’178. As a result, we would conclude that institution of an *inter partes* review is warranted as to all challenged claims on all challenged grounds.

F. Anticipation and Obviousness based on Lindbo ’313 – Claims 19, 20

Petitioner asserts that claims 19 and 20 are anticipated by or would have been obvious over Lindbo ’313. Pet. 37–50.

As noted above, Lindbo ’313 is Great Britian Patent Application No. 1314313.6 with a filing date of August 9, 2013. Ex. 1004, code (11). According to Petitioner, Lindbo ’313 was made available for public inspection on May 13, 2015. Pet. 6–7. Petitioner acknowledges that the inspection date is after the June 2014 priority date for claims 19 and 20 of

the '025 patent. *See id.* at 7, 38. Nonetheless, Petitioner argues that claims 19 and 20 are not entitled to the June 2014 priority date listed on the '025 patent. Pet. 38 (“The priority document to the '025 Patent, NO/773 (EX1009), does not disclose the inventions of claims 19-20, and thus these claims are not entitled to the NO/773 priority date of June 19, 2014. Specifically, there is no support in NO/773 for the double track rails or a single space robot. (PD ¶¶45 and 124-27.)”).

Patent Owner does not contest these assertions in its Preliminary Response. *See* Prelim. Resp. 23.

We note that if an *inter partes* review is instituted as to any challenged claims, we are compelled to institute trial on all claims. *See SASInst.*, 138 S. Ct. at 1359–60; TPG 64 (Nov. 2019) (“The Board will not institute on fewer than all claims or all challenges in a petition.”); *see also* 35 U.S.C. § 314(a) (requiring a showing of “a reasonable likelihood that the petitioner would prevail with respect to *at least 1 of the claims challenged*”) (emphasis added). As discussed above, we determine that Petitioner has shown a reasonable likelihood of proving that claims 1 and 18–20 are anticipated by Lindbo '178. As a result, we would conclude that institution of an *inter partes* review is warranted as to all challenged claims on all challenged grounds. However, the parties will have additional opportunities to address this issue after institution.

G. Obviousness over Lindbo '178 and Lindbo '104 – Claim 19

1. Overview of Lindbo '104

Lindbo '104 is Great Britan Patent Application No. GB2520104, filed on July 24, 2014, and published on May 13, 2015. Ex. 1005, codes (22), (43). Lindbo '104 further claims priority to Lindbo '313. *Id.* at code (30). Figure 7 of Lindbo '104 is reproduced below:

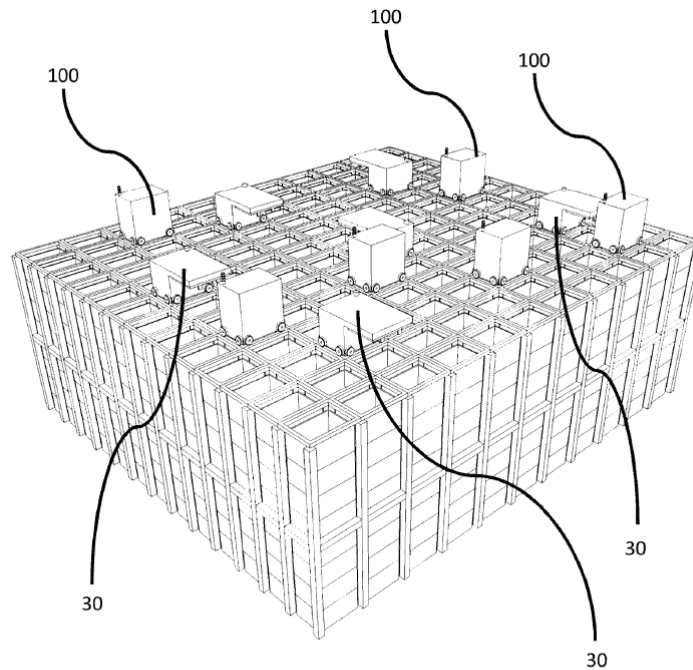


Figure 7

Figure 7 shows a schematic view of a storage system that includes a plurality of load handler devices. *Id.* at 10:20–22.

2. Discussion

Petitioner contends that claim 19 is “only entitled to an effective filing date of June 16, 2015” and that Lindbo ’104 is prior art as of its May 13, 2015 publication date. Pet. 50. Additionally, Petitioner contends that one of ordinary skill in the art would have understood Lindbo ’104’s Figure 7 to teach a double track construction shown in Petitioner’s annotated figure below:

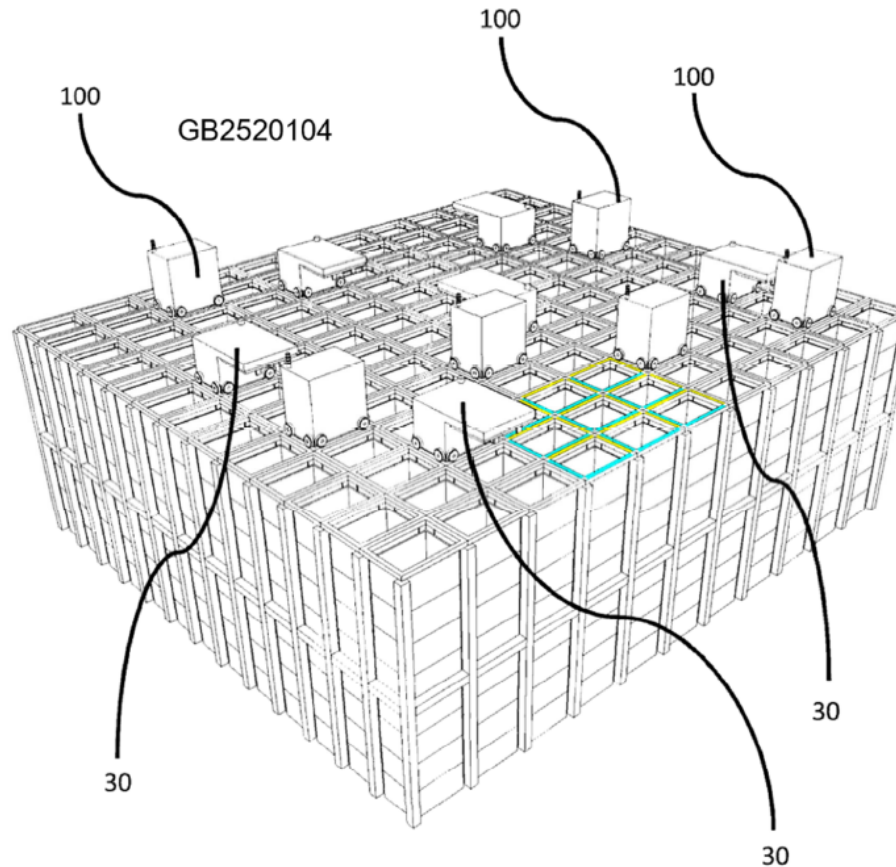


Figure 7

Pet. 51. In Petitioner's annotated figure, Petitioner asserts that the yellow and green annotations indicate double tracks. *Id.* at 51–52 (citing Ex. 1008 ¶¶ 169–170).

Patent Owner does not address these arguments in the Preliminary Response. Prelim. Resp. 23.

We note that if an *inter partes* review is instituted as to any challenged claims, we are compelled to institute trial on all claims. *See SAS Inst.*, 138 S. Ct. at 1359–60; TPG 64 (Nov. 2019); *see also* 35 U.S.C. § 314(a). As discussed above, we determine that Petitioner has shown a reasonable likelihood of proving that claims 1 and 18–20 are anticipated by

Lindbo '178. As a result, we would conclude that institution of an *inter partes* review is warranted as to all challenged claims on all challenged grounds. However, the parties will have additional opportunities to address this issue after institution.

H. Obviousness based on Lindbo '901 and Bianco – Claims 1, 18–20

1. Overview of Lindbo '901

Lindbo '901 relates generally to “systems and methods for handling containers processed by at least partially-automated storage and retrieval systems.” Ex. 1010 ¶ 2. Figure 4 is reproduced below:

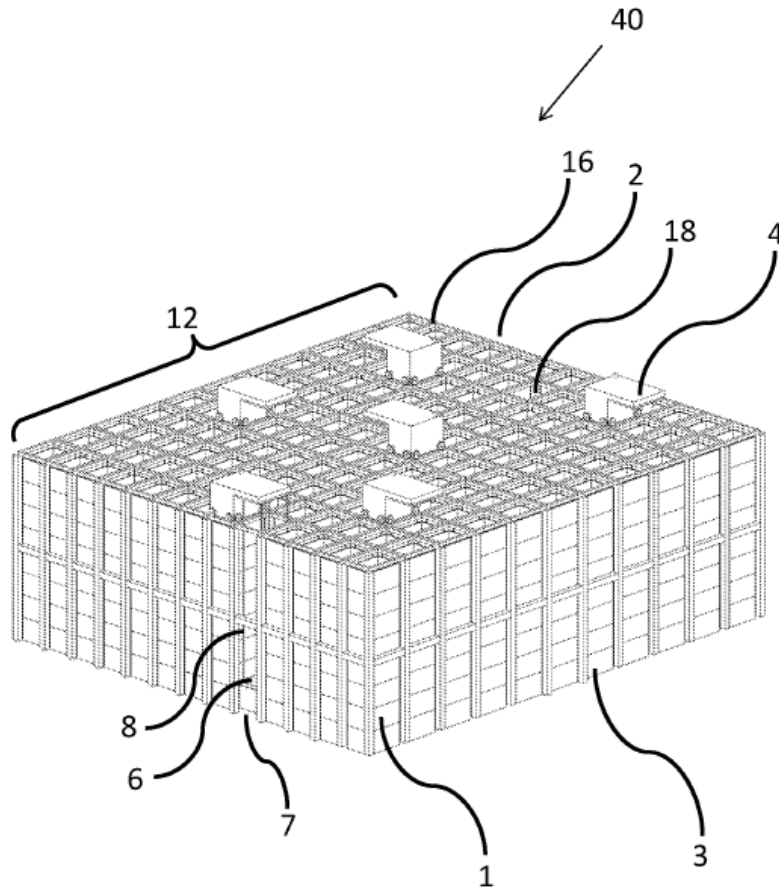


Figure 4

Figure 4 is a schematic diagram showing storage and retrieval system 40. *Id.* ¶¶ 28, 55. As shown in Figure 4, containers 1 are stored and retrieved from storage and retrieval system 40 by load handlers 4, which are configured to travel above grid 2 on rails 16. Load handler 4 may use hoist 8 to lower gripper 6 to engage and lift container 1 from the top of stack 3. *Id.* ¶ 55.

Figure 6 is reproduced below:

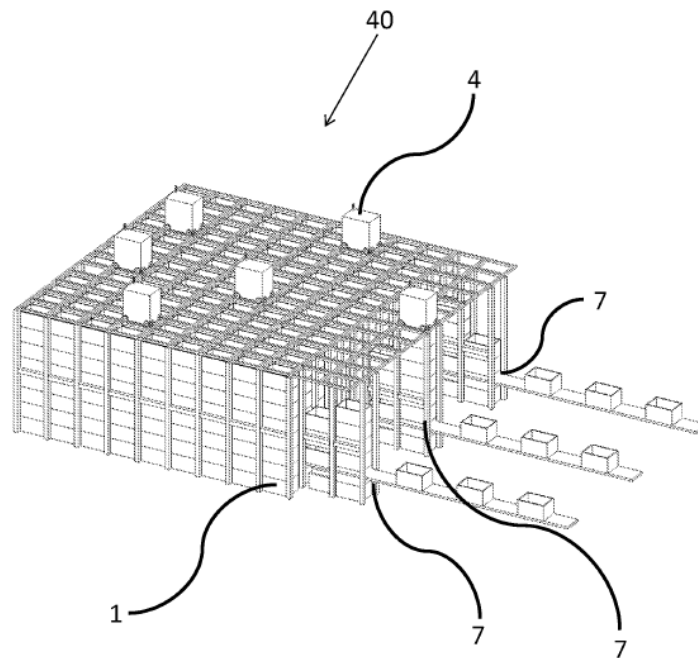
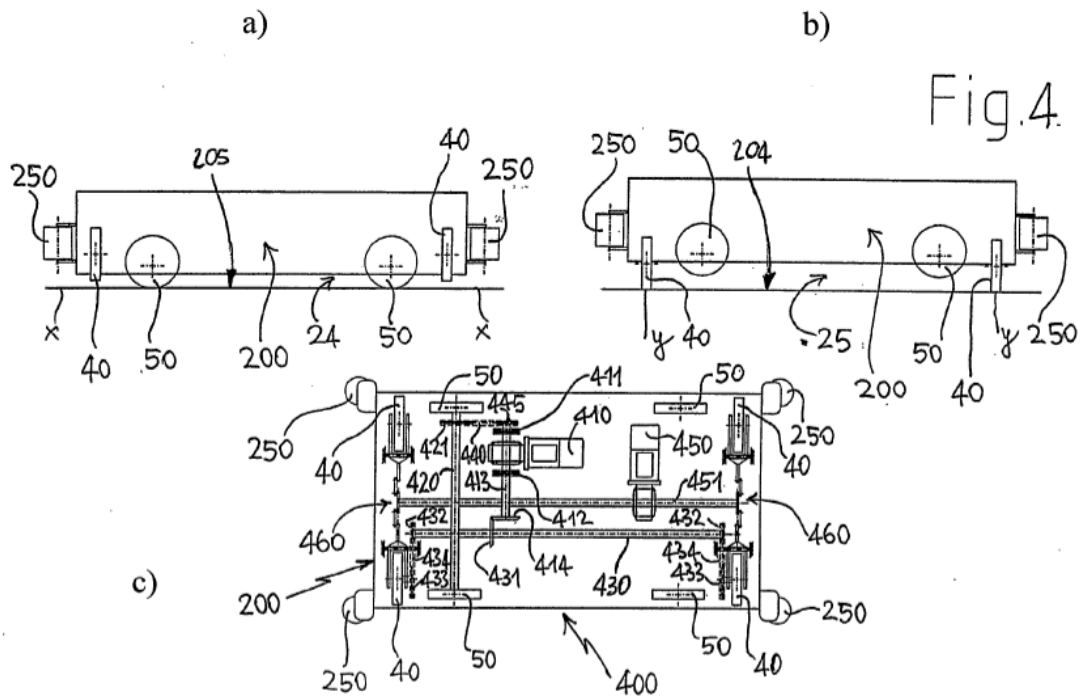


Figure 6

Figure 6 of Lindbo '901 shows another embodiment of system 40 with load handlers 4 and a plurality of buffering stack locations 7 for inducting and/or retrieving containers into and/or out of the storage and retrieval system 40. Ex. 1010 ¶ 106.

2. *Overview of Bianco*

Bianco is generally directed to an autonomous vehicle for transferring load units in a high-density storage warehouse. Ex. 1011, code (54), 1:5–7. Figures 4a–c are reproduced below:



Figures 4a and 4b are enlarged scale views of autonomous vehicles for transferring load units. Ex. 1011, 3:25–28. Figure 4c is a plan view of the vehicle shown in Figures 4a and 4b. *Id.* at 3:29–30. In Figures 4a–4c, vehicle 200 includes body 210, which carries wheels 40 “so that it can run parallel to the axis y and a system of wheels 50 so that it can run parallel to the axis x.” *Id.* at 6:3–6. According to Bianco, “[i]n the first and second configurations described above, the vehicle 200 runs by means of the system of wheels 40, whilst the system of wheels 50 is retracted.” *Id.* at 6:12–14.

3. Discussion

Petitioner asserts that claims 1 and 18–20 would have been obvious over Lindbo ’901 in combination with Bianco. Pet. 53–69. Patent Owner does not dispute Petitioner’s contentions at this time. Prelim. Resp. 23.

Having reviewed the parties’ arguments and evidence, we determine Petitioner has demonstrated a reasonable likelihood of prevailing on this challenge based on the arguments and evidence presented in the preliminary

record. *See* Pet. 53–69. Moreover, as discussed above, we determine that Petitioner has shown a reasonable likelihood of proving that claims 1 and 18–20 are anticipated by Lindbo ’178. As a result, we would conclude that institution of an *inter partes* review is warranted as to all challenged claims on all challenged grounds. However, the parties will have additional opportunities to address this issue after institution.

IV. APPOINTMENTS CLAUSE

Patent Owner contends that “Patent Owner objects to the institution of a proceeding which under current laws and regulations, absent settlement, will conclude at the Office with a final written decision entered by a panel of administrative patent judges who have not been nominated by the President and confirmed by the Senate in violation of the Appointments Clause of the Constitution.” Prelim. Resp. 24–25.

This constitutional issue was addressed by the Federal Circuit’s decision in *Arthrex*. *Arthrex, Inc. v. Smith & Nephew, Inc.*, 941 F.3d 1320, 1337 (Fed. Cir. 2019), *cert. granted sub nom. United States v. Arthrex, Inc.*, 141 S. Ct. 549 (Oct. 13, 2020) (“This as-applied severance . . . cures the constitutional violation.”); *see also Arthrex, Inc. v. Smith & Nephew, Inc.*, 953 F.3d 760, 764 (Fed. Cir. 2020) (Moore, J., concurring in denial of rehearing) (“Because the APJs were constitutionally appointed as of the implementation of the severance, *inter partes* review decisions going forward were no longer rendered by unconstitutional panels.”).

Accordingly, we do not consider this issue any further for this Decision.

V. CONCLUSION

Based on the evidence before us, we determine Petitioner demonstrates a reasonable likelihood of prevailing in its assertions that the

challenged claims of the '025 patent are unpatentable over the asserted prior art. Accordingly, *inter partes* review shall proceed in this case on all of the grounds raised in the Petition. *See SAS Inst.*, 138 S. Ct. at 1359–60 (holding that a decision to institute under 35 U.S.C. § 314 may not institute on fewer than all claims challenged in the petition); *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (stating the decision whether to institute *inter partes* review requires “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

Our determination in this Decision is not a final determination on either the patentability of any challenged claims or the construction of any claim term and, thus, leaves undecided any remaining fact issues necessary to determine whether sufficient evidence supports Petitioner’s contentions by a preponderance of the evidence in the final written decision. *See Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial”) (quoting 35 U.S.C. § 314(a) and comparing *id.* § 316(e)).

VI. ORDER

Upon consideration of the record before us, it is:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1 and 18–20 of U.S. Patent No. 10,294,025 B2 is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of U.S. Patent No. 10,294,025 B2 shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

IPR2021-00274
Patent 10,294,025 B2

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