

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ocado Group PLC,

Petitioner,

v.

AutoStore Technology AS,
Patent Owner

U.S. PATENT NO. 10,696,478 B2

Case No. PGR2021-00038

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	THE BOARD SHOULD DENY INSTITUTION UNDER § 324(a)	3
A.	Factor 1: Whether the Court Granted a Stay or Evidence Exists That One May Be Granted If a Proceeding Is Instituted.....	7
B.	Factor 2: Proximity of the Court’s Trial Date to the Board’s Projected Statutory Deadline for a Final Written Decision	10
C.	Factor 3: Investment in the Parallel Proceedings by the Court and the Parties	12
D.	Factor 4: Overlap Between Issues Raised in the Petition and in the Parallel Proceeding.....	16
E.	Factor 5: Whether the Petitioner and Defendant in the Parallel Proceeding are the Same Party.....	22
F.	Factor 6: Other Circumstances That Impact the Board’s Exercise of Discretion, Including the Merits	23
G.	The Totality of the <i>Fintiv</i> Factors Indicates that the Petition Should Not Be Instituted.....	24
III.	ADDITIONAL DISCRETIONARY GROUNDS WARRANT DENIAL OF INSTITUTION.....	26
A.	All Prior Art References Were Considered by the Office	27
B.	Petitioner Fails to Show that the Office Erred in a Manner Material to Patentability	31
C.	No Other Facts Support Institution	31
IV.	IN ADDITION TO DISCRETIONARY DENIAL, THE PETITION ALSO SUBSTANTIVELY FAILS	32
A.	The ’478 Patent	32
B.	Norwegian Patent No. NO317366B1	34

C.	AutoStore Logistics-Technical Presentation.....	36
D.	WO 2015/019055 A1	36
E.	Japanese Patent Appl. Pub. No. JPH10-203647A	36
F.	German Patent Appl. Pub. No. DE10200901724A1	38
G.	U.S. Patent No. 6,654,662	39
V.	PETITIONER FAILS TO PROPERLY SET FORTH ITS PROPOSED CLAIM CONSTRUCTIONS.....	41
VI.	THE PETITION ALSO FAILS TO DEMONSTRATE THAT IT IS MORE LIKELY THAN NOT THAT AT LEAST ONE CHALLENGED CLAIM IS UNPATENTABLE	42
A.	Grounds 1A and 1B Fail—WO/055 Is Not Prior Art	43
1.	Claim 19	44
B.	Grounds 2–4 Fail: NO/366, in Light of the AutoStore Presentation and any one of JP/647, DE/241, or the '662 Patent, Does Not Render Obvious Any Claim of the '478 Patent	50
1.	NO/366, alone or in combination with the AutoStore Presentation, JP/647, DE/241, and/or the '662 Patent, does not disclose or render obvious “[a] cavity arranged to receive a storage bin from a storage column” in Claim 19 of the '478 Patent.	52
2.	A POSITA Would Not Have Been Motivated to Combine NO/366 and/or the AutoStore Presentation with JP/647, DE/241, and/or the '662 Patent.....	56
C.	Ground 5 Fails Because the Inventions Described in the '478 Patent Were Not On-Sale More Than a Year Before the Priority Date of the Patent	60
D.	Grounds 6–8 Fail: Claim 19 Meets the Requirements of 35 U.S.C. § 112	61

1.	Ground 6 Fails Because Claim 19 Meets the Written Description Requirement.	61
2.	Ground 7 Fails Because Claim 19 Meets the Enablement Requirement.	64
3.	Ground 8 Fails Because Claim 19 Is Not Indefinite.....	68
VII.	THE BOARD SHOULD DENY INSTITUTION Under <i>Arthrex</i>	69
VIII.	CONCLUSION	70

TABLE OF AUTHORITIES

	Page(s)
Cases	
<i>3Shape A/S v. Align Tech., Inc.</i> , IPR2020-00223, 2020 WL 2738516 (P.T.A.B. May 26, 2020)	18
<i>Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH</i> , IPR2019-01469, Paper No. 6 (P.T.A.B. Feb. 13, 2020).....	26, 30
<i>Apple Inc., v. Parus Holdings, Inc.</i> , IPR2020-00686, Paper No. 12 (P.T.A.B. Nov. 18, 2020).....	9
<i>Apple, Inc. v. Fintiv, Inc.</i> , IPR2020-00019, Paper No. 11 (P.T.A.B. Mar. 20, 2020)	<i>passim</i>
<i>Ariad Pharm., Inc. v. Eli Lilly & Co.</i> , 598 F.3d 1336 (Fed. Cir. 2010)	43
<i>Arthrex, Inc. v. Smith & Nephew, Inc.</i> , 941 F.3d 1320 (Fed. Cir. 2019) <i>cert. granted sub nom. United States v. Arthrex, Inc., et al.</i> , 141 S.Ct. 549 (2020), and <i>cert. granted sub nom. Smith & Nephew, Inc., et al. v. Arthrex, Inc.</i> , et al., 141 S.Ct. 551 (2020), and <i>cert. granted sub nom., Smith & Nephew, Inc., et al. v. Arthrex, Inc., et al.</i> , 141 S. Ct. 551 (2020)	69
<i>Canon Inc. v. Optimum Imaging Techs. LLC</i> , IPR2020-01321, Paper 10 (Mar. 1, 2021)	25
<i>Cellco P’ship d/b/a Verizon Wireless v. Huawei Techs. Co.</i> , IPR2020-01356, Paper 13 (P.T.A.B. Mar. 5, 2021).....	24
<i>Certain Laser-Driven Light Sources, Subsystems Containing Laser- Driven Light Sources, and Prods. Containing Same</i> , Inv. No. 337-TA-983, Order No. 8 (U.S.I.T.C. Mar. 3, 2016).....	9
<i>Certain Memory Modules and Components Thereof</i> , Inv. No. 337-TA-1089, Order No. 49 (U.S.I.T.C. Apr. 11, 2019)	9

Case PGR2021-00038
U.S. Patent No. 10,696,478 B2

Cisco Sys., Inc. v. Monarch Networking Sols. LLC,
IPR2020-01227, Paper 11 (P.T.A.B. Mar. 4, 2021).....25

Comcast Cable Commc’ns, LLC v. Rovi Guides, Inc.,
IPR2020-00800, IPR2020-00801, IPR2020-00802 (P.T.A.B. Oct.
22, 2020)5

DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.,
567 F.3d 1314 (Fed. Cir. 2009)56

Fitbit, Inc. v. Koninklijke Philips N.V.,
IPR2020-00771, IPR2020-00772 (P.T.A.B. Oct. 19, 2020)5, 11, 16, 21

Ford Motor Co. v. Mass. Instit. of Tech.,
IPR2020-00011, Paper 10 (P.T.A.B. Mar. 26, 2020).....2, 41

Garmin Int’l, Inc. v. Koninklijke Philips N.V.,
IPR2020-00754 (P.T.A.B. Oct. 27, 2020)5

Google LLC v. EcoFactor Inc.,
IPR2020-00946, IPR2020-00947, IPR2020-00968 (P.T.A.B. Nov.
18, 2020)5

Intel Corp. v. Godo Kaisha IP Bridge 1,
IPR2018-00753, Paper 11 (PTAB Oct. 9, 2018).....30

Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.,
821 F.3d 1359 (Fed. Cir. 2016)20

InTouch Techs., Inc. v. VGO Commc’ns, Inc.,
751 F.3d 1327 (Fed. Cir. 2014)51

Johnson Worldwide Assocs., Inc. v. Zebco Corp.,
175 F.3d 985 (Fed. Cir. 1999)41

Juniper Networks, Inc. v. Mobile Telecomm. Techs., LLC,
IPR2017-00642, Paper 31 (PTAB Mar. 14, 2018).....31

KioSoft Techs. LLC v. PayRange, Inc.,
IPR2021-00086, Paper 12 (Mar. 22, 2021)18

Nintendo Co. v. Gamevice, Inc.,
IPR2020-01197 (P.T.A.B. Jan. 12, 2021).....5, 22

Case PGR2021-00038

U.S. Patent No. 10,696,478 B2

In re Ochiai,

71 F.3d 1565 (Fed. Cir. 1995)23

In re Owens,

710 F.3d 1362 (Fed. Cir. 2013)43

Philip Morris Prods., S.A. v. Rai Strategic Holdings, Inc.,

IPR2020-00919 (P.T.A.B. Nov. 16, 2020)5, 6, 10, 22

Philip Morris Prods., S.A. v. RAI Strategic Holdings, Inc.,

IPR2020-01097 (P.T.A.B. Jan. 19, 2021).....6

Philip Morris Prods., S.A. v. Rai Strategic Holdings, Inc.,

IPR2020-01602, Paper 9 (PTAB Apr. 2, 2021)19

Regeneron Pharms., Inc. v. Novartis Pharma AG,

IPR2020-01317 (P.T.A.B. Jan. 15, 2021).....5, 25

Renishaw PLC v. Marposs Societa’

per Azioni, 158 F.3d 1243 (Fed. Cir. 1998).....41

Samsung Elecs. Co. v. Clear Imaging Research, LLC,

IPR2020-01400, Paper 13 (Feb. 3, 2021)18

Samsung Elecs. Co. v. Dynamics, Inc.,

IPR2020-00504, 2020 WL 4690101 (P.T.A.B. Aug. 12, 2020).....18

*Sand Revolution II, LLC v. Continental Intermodal Group-Trucking
LLC,*

IPR2019-01393, Paper No. 24 (P.T.A.B. June 16, 2020)9

SK Innovation Co. v. LG Chem, Ltd.,

IPR2020-00981, IPR2020-00982, IPR2020-00987, IPR2020-
01036 (P.T.A.B. Nov. 30, 2020).....5

SK Innovation Co. v. LG Chem., Ltd.,

IPR2020-01239, IPR2020-01240 (P.T.A.B. Jan. 12, 2021).....5

Sotera Wireless, Inc. v. Masimo Corp.,

IPR2020-01019, Paper 12 (P.T.A.B. Dec. 1, 2020)20

Stanley Black & Decker, Inc. v. Zircon Corp.,

IPR2020-01701 (P.T.A.B. Apr. 19, 2021).....6, 25

Case PGR2021-00038	
U.S. Patent No. 10,696,478 B2	
<i>Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.</i> ,	
655 F.3d 1364 (Fed. Cir. 2011)	56
<i>Supercell Oy v. Gree, Inc.</i> ,	
PGR2020-00039 (P.T.A.B. Sept. 14, 2020)	4
<i>TCO AS v. NCS Multistage Inc.</i> ,	
PGR2020-00078, Paper No. 16 (P.T.A.B. Feb. 18, 2021)	23
<i>Teso LT, UAB v. Luminati Networks Ltd.</i> ,	
IPR2021-00122 (P.T.A.B. Apr. 20, 2021).....	6
<i>Unwired Planet, LLC v. Apple Inc.</i> ,	
829 F.3d 1353 (Fed. Cir. 2016)	62
<i>In re Wands</i> ,	
858 F.2d 731 (Fed. Cir. 1988)	64
Statutes	
19 U.S.C. § 1337(b)(1).....	8
35 U.S.C. § 324(a)	42
Other Authorities	
37 C.F.R. § 42.51(b)(2)(iii).....	58
83 Fed. Reg. 51340	18
83 Fed. Reg. 51342	18
M.P.E.P. § 609.02	28, 40
M.P.E.P. § 2163	43
M.P.E.P. § 2164.05(a).....	67
PTAB Consolidated Trial Practice Guide at 58 (Nov. 2019)	3

TABLE OF EXHIBITS

<u>Exhibit #</u>	<u>Description</u>
2001	Eastern District of Virginia Case Stay Order, Case 2:20-cv-00494, dated November 20, 2020
2002	ITC Order No. 4 - Procedural Schedule, dated December 4, 2020
2003	ITC Order No. 2 - ALJ Dee Lord Ground Rules, dated November 3, 2020 (Inv. No. 337-TA-1228)
2004	<i>Certain Laser-Driven Light Sources, Subsystems Containing Laser-Driven Light Sources, and Prods. Containing Same</i> , Inv. No. 337-TA-983, Order No. 8 (U.S.I.T.C. March 3, 2016)
2005	<i>Certain Memory Modules and Components Thereof</i> , Inv. No. 337-TA-1089, Order No. 49 (U.S.I.T.C. April 11, 2019)
2006	https://www.bizjournals.com/cincinnati/news/2021/03/04/kroger-opens-first-ocado-facility-in-greater.html , dated March 8, 2021
2007	https://www.supermarketnews.com/online-retail/kroger-plans-10th-ocado-automated-warehouse , dated November 30, 2020
2008	https://www.usitc.gov/press_room/featured_news/usitc_response_covid_19.htm#title-7 , dated July 20, 2020
2009	ITC Order No. 3 - Setting Target Date, Hearing Dates, and Preliminary Conference, dated November 16, 2020 (Inv. No. 337-TA-1228)
2010	Stipulations Among the Private Parties, dated December 22, 2020
2011	Ocado Respondents' Response to the Complaint and Notice of Investigation, dated November 30, 2020
2012	Appendices C-1, C-2, and C-3 to Respondents' Invalidation Contentions, dated May 2, 2021

<u>Exhibit #</u>	<u>Description</u>
2013	Ocado Group PLC, Ocado Central Services Ltd., Ocado Innovation Ltd., Ocado Operating Ltd., Ocado Solutions, Ltd., Ocado Solutions USA Inc., and Tharsus Group Ltd. Notice of Appearance and Designation of Lead Attorney for Service, dated November 5, 2020
2014	Printed Motion Works Ltd. Notice of Appearance and Designation of Lead of Attorney for Service, dated November 16, 2020
2015	<i>AutoStore Tech. AS v. Ocado Group PLC et al.</i> , Case No. 1:20-cv-01149, Dkt. 1 (Complaint) (filed Oct. 1, 2020) (E.D. Va.).
2016	ITC Order No. 6 - Denying Respondents' Motion for a Stay, dated March 9, 2021 (Inv. No. 337-TA-1228)
2017	ITC Order No. 12 - Denying Respondents' Motion to Extend the Procedural Schedule and Target Date, dated April 20, 2021 (Inv. No. 337-TA-1228)
2018	File history of U.S. Patent 9,422,108, which issued from Appl. Ser. No. 14/650,757 (produced in ITC Investigation No. 337-TA-1228) (version produced in ITC Inv. No. 337-TA-1228)
2019	June 14, 2013 Norwegian Search Report for Norwegian Patent Application No. 20121488 (<i>available from https://search.patentstyret.no/Patent/20121488/335839#case-history</i>)
2020	May 7, 2021 e-mail from D. Guzior attaching draft Respondents' Stipulation Regarding Certain Invalidity Defenses for U.S. Patent No. 10,696,478
2021	February 23, 2021 Parties' Proposed Constructions (Inv. No. 337-TA-1228)
2022	June 19, 2017 Letter and Annex from European Patent Office re: European Application No. 14 755 893.6
2023	October 26, 2017 Response from Ocado Innovation Ltd. to EPO re: European Application No. 14 755 893.6 (EP Phase of WO2015/019055)

<u>Exhibit #</u>	<u>Description</u>
2024	Excerpts from Webster's New Roget's A-Z Thesaurus
2025	Claim chart showing written description support for the Challenged Claim in NO/488 and in the '478 Patent.
2026	April 29, 2021 Joint Motion for Leave to Extend the Deadlines to Exchange Final Contentions and Expert Reports, Inv. No. 337-TA-1228
2027	ITC Order No. 14 - Granting Joint Motion for Leave to Extend Fact Discovery to Allow Parties to Exchange Final Contentions and Deadlines to Serve Expert Reports (Inv. No. 337-TA-1228)

I. INTRODUCTION

Petitioner's PGR petition against U.S. Patent No. 10,696,478 ("the '478 Patent") should be denied on multiple discretionary grounds *and* on the merits. In a parallel ITC Investigation, Patent Owner sued Petitioner for patent infringement shortly after it began importing infringing robots into the United States. The parties have since expended extraordinary resources in the ITC investigation, completing *Markman* briefing, a technology tutorial, and immense fact discovery—both written and testimonial. The Investigation is so advanced that one presiding ALJ has denied respondents' motion to stay the investigation and denied Petitioner's request to postpone the procedural schedule. Indeed, Petitioner itself has recently declared in a joint motion to the current ALJ that it does not intend to seek further delay. Trial commences on August 2, 2021, over a week *before* the Board issues its Institution Decision here. This, together with the significant overlap in this petition and the ITC—and the weak merits—warrant the Board's exercise of discretionary denial under *Fintiv*.

While *Fintiv* alone should end the inquiry, the Board should also deny institution under 35 U.S.C. § 325(d) because all of the prior art was already considered by the Patent Office, and Petitioner's non-prior art arguments have no merit. Moreover, Petitioner has not established that the Patent Office erred in allowing the Challenged Claim over these references. To proceed with a PGR under

such circumstances would be as inefficient a use of the Board's resources as one could imagine.

The petition is further defective because Petitioner has not offered proper claim constructions. Despite relying on claim construction positions, Petitioner neither identified any particular term for claim construction, nor proposed any such constructions. Rather, Petitioner attempts to "adopt" Patent Owner's parallel ITC infringement contentions as its "claim constructions," without identifying any specific term or construction to anchor them. The Board has denied institution in similar circumstances, when the petitioner failed to explain "why its proposed construction should be applied," and merely "adopt[ed] ... Patent Owner's construction" in related litigation. *See Ford Motor Co. v. Mass. Instit. of Tech.*, IPR2020-00011, Paper 10 at 14 (P.T.A.B. Mar. 26, 2020).

The petition also suffers on the merits. The Asserted Grounds do not disclose every limitation of any Challenged Claim. Grounds 1A–1B fail because WO/055 is not even prior art: WO/055 published in 2015; whereas the '478 Patent has a priority date years earlier, in 2012. Grounds 2–4 also fail for multiple reasons. First, the references, even if combined, lack critical elements of the claimed invention. Moreover, Petitioner has failed to explain why a person of ordinary skill in the art ("POSITA") would have been motivated to arrive at any of the asserted combinations. Not surprisingly. The references are non-analogous art. Ground 2,

for example, relies on a railway car patent, not a storage robot like that claimed in the '478 Patent. Ground 3 relies on a shuttle system with fundamentally different operations. And Ground 4's reference expressly disavows the claimed storage vehicle. This might explain why Petitioner itself has stated in other proceedings that the art it wishes to combine here is not susceptible to combination.

Grounds 5 through 8 fair no better. Ground 5, an alleged "on-sale bar," fails for the same reason as Grounds 1A–1B: The priority date of the '478 Patent is December 2012, well before the alleged date of sale. Grounds 6–7 fail because the specification of the '478 Patent provides an adequate and enabling written description of the Challenged Claim. Nor is claim 19 indefinite. Ground 8 thus fails, particularly where Petitioner and its expert have had no issue at the ITC understanding with reasonable particularity the meaning of "about the cavity" when referring to wheel placement.

The Board should deny institution.

II. THE BOARD SHOULD DENY INSTITUTION UNDER § 324(a)

The Board should decline to institute the Petition under 35 U.S.C. § 324(a) in light of the advanced proceeding in the parallel ITC Investigation (Inv. No. 337-TA-1228). The Board exercises its discretion under § 324(a) with "a balanced assessment of all relevant circumstances in the case" and "events in other proceedings related to the same patent, either at the Office, in district courts, or the

ITC.” PTAB Consolidated Trial Practice Guide at 58 (Nov. 2019). In deciding whether a discretionary denial is appropriate in light of a parallel proceeding, the Board considers the six factors set forth in *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper No. 11 (precedential) (P.T.A.B. Mar. 20, 2020):¹

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.

Id. at 6.

Fintiv dealt with the exact scenario before this panel; namely, co-pending ITC and district court cases addressing the challenged claims in which the *exact same* invalidity theories are at issue. The Board remarked:

¹ See *Supercell Oy v. Gree, Inc.*, PGR2020-00039 (P.T.A.B. Sept. 14, 2020) (applying *NHK* and *Fintiv* precedential decisions to PGR proceedings).

One particular situation in which stays arise frequently is during a parallel district court *and* ITC investigation involving the challenged patent. In such cases, the district court litigation is often stayed under 28 U.S.C. § 1659 pending the resolution of the ITC investigation. Regardless, even though the Office and the district court would not be bound by the ITC's decision, ***an earlier ITC trial date may favor exercising authority to deny institution under NHK if the ITC is going to decide the same or substantially similar issues to those presented in the petition.***

Fintiv at 8–9 (emphasis added).

Since *Fintiv*, the Board has denied institution in the vast majority of petitions where a parallel ITC proceeding dealing with the same validity issues is ongoing.²

² See, e.g., *Fitbit, Inc. v. Koninklijke Philips N.V.*, IPR2020-00771, IPR2020-00772 (P.T.A.B. Oct. 19, 2020); *Comcast Cable Commc'ns, LLC v. Rovi Guides, Inc.*, IPR2020-00800, IPR2020-00801, IPR2020-00802 (P.T.A.B. Oct. 22, 2020); *Garmin Int'l, Inc. v. Koninklijke Philips N.V.*, IPR2020-00754 (P.T.A.B. Oct. 27, 2020); *Philip Morris Prods., S.A. v. RAI Strategic Holdings, Inc.*, IPR2020-00919 (P.T.A.B. Nov. 16, 2020); *Google LLC v. EcoFactor Inc.*, IPR2020-00946, IPR2020-00947, IPR2020-00968 (P.T.A.B. Nov. 18, 2020); *SK Innovation Co. v. LG Chem, Ltd.*, IPR2020-00981, IPR2020-00982, IPR2020-00987, IPR2020-01036 (P.T.A.B. Nov. 30, 2020); *SK Innovation Co. v. LG Chem., Ltd.*, IPR2020-01239,

For example, in *Philip Morris*, a Board panel in similar circumstances as here denied institution under § 314(a) because the proximity of the anticipated hearing, combined with an anticipated final determination from the ITC prior to the Board's final written decision on validity of the claims, outweighed the relatively moderate investment in the PGR proceeding and the petitioner's diligence in filing the petition less than one month after the patent owner filed its complaints in the ITC and district court action. *See Philip Morris*, IPR2020-00919, Paper No. 9 at 12–13; *Stanley Black & Decker, Inc. v. Zircon Corp.*, IPR2020-01701, Paper No. 10 at 11–18 (P.T.A.B. Apr. 19, 2021) (denying institution in light, *inter alia*, of advanced stage of the parallel ITC litigation, substantially overlapping issues, as well as large investments by the parties in the parallel litigation). The same outcome is appropriate here. Evaluating the *Fintiv* factors confirms that the Board should deny institution.

IPR2020-01240 (P.T.A.B. Jan. 12, 2021); *Nintendo Co. v. Gamevice, Inc.*, IPR2020-01197 (P.T.A.B. Jan. 12, 2021); *Regeneron Pharms., Inc. v. Novartis Pharma AG*, IPR2020-01317 (P.T.A.B. Jan. 15, 2021); *Philip Morris Prods., S.A. v. RAI Strategic Holdings, Inc.*, IPR2020-01097 (P.T.A.B. Jan. 19, 2021); *Stanley Black & Decker, Inc. v. Zircon Corp.*, IPR2020-01701 (P.T.A.B. Apr. 19, 2021); *Teso LT, UAB v. Luminati Networks Ltd.*, IPR2021-00122 (P.T.A.B. Apr. 20, 2021).

A. Factor 1: Whether the Court Granted a Stay or Evidence Exists That One May Be Granted If a Proceeding Is Instituted

Petitioner filed a motion to stay the co-pending ITC proceeding on January 19, 2021, which the then-presiding Administrative Law Judge (“ALJ”) denied on March 9, 2021.³ (Ex. 2016.) In denying the requested stay, the ALJ emphasized the significant resources already expended on the ITC investigation. (*Id.* at 9.) The ALJ also explained that “the public interest in protecting significant domestic industries from unfair competition from abroad dominates. Delaying such protection to preserve the resources of respondents (or even the ITC itself) therefore cannot be approved routinely.” *Id.* at 11.

It is also highly unlikely that any future attempt to stay the ITC would succeed.⁴ The now-presiding Chief ALJ recently denied yet another motion by Petitioner to extend the procedural schedule. *See* Ex. 2017. And in the months since

³ The Eastern District of Virginia case (2:20-cv-00494) is stayed pursuant to 28 U.S.C. § 1659 so that the district court can await the ITC’s determination on the same invalidity issues presented here. Ex. 2001 (Stay Order).

⁴ Ocado recently launched a \$55 million Customer Fulfillment Center (Ex. 2006), accused in the ITC of infringement. And Ocado is rushing to establish even more CFC facilities by the end of 2021. (*See* Ex. 2007.) Given Petitioner’s race to import, the ITC is likely to deny any further request to stay.

Petitioner filed its stay motion, the ITC investigation has barreled forward towards the August 2–6, 2021 hearing. Not surprisingly. Section 337 requires the ITC to conclude its investigations “at the earliest practicable time” after the investigation is instituted—which occurred here *half a year ago*, on November 2, 2020. *See* 19 U.S.C. § 1337(b)(1). Consistent with its mandate, the ITC scheduled a merits hearing for August 2–6, 2021, less than three months from now, on all issues, including the invalidity arguments raised here by Petitioner. (Ex. 2002 at 3; Ex. 2009 at 2.) The initial determination will issue by November 5, 2021. (*Id.*) Nothing suggests that the Commission would stay the ITC investigation in the meantime.⁵ Fact discovery closed on April 30, and the Chief ALJ recently rejected Petitioner’s motion to delay the investigation by three months, commenting that the “deadline for the completion of fact discovery was proposed by the parties in their joint proposed procedural schedule, which was submitted on November 24, 2020.” (Ex. 2017 at 2.) The now-presiding Chief ALJ also maintained the August 2021 trial. And Petitioner itself represented just last week to the Chief ALJ in a motion to modify various “deadlines to serve final contentions and expert reports” that “th[e] request does not impact the deadline for motions for summary determination or the

⁵ COVID-19 has not slowed the ITC’s operations. Ex. 2008 (stating that “[t]he USITC remains open for business” during the pandemic).

hearing date.” (Ex. 2026 at 2.) Petitioner further confirmed, “they will not use the extensions ... in any future potential motion or argument to otherwise extend the procedural schedule,” (*id.*), a statement the Chief ALJ relied on in his Order granting the motion. (Ex. 2027 at 2) (“In addition, the parties represent that the requested extensions will not affect any other procedural schedule deadlines, including the hearing date....”).

To the extent Petitioner nevertheless contemplates yet another attempt to stay or delay the ITC investigation, it would be improper for the Board to speculate how the ITC “might” rule on a presumptive renewed motion to stay. *Apple Inc., v. Parus Holdings, Inc.*, IPR2020-00686, Paper No. 12 at 5 (P.T.A.B. Nov. 18, 2020) (citing *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper No. 24 at 7 (P.T.A.B. June 16, 2020 (informative))). Moreover, unlike some district courts, the ITC does not routinely stay cases for PTAB proceedings. Quite the opposite: the ITC has *rarely granted* stays for USPTO proceedings. Indeed, requests for stays at the ITC have been denied even where petitions were instituted before the ITC complaint was filed. *See, e.g., Certain Laser-Driven Light Sources, Subsystems Containing Laser-Driven Light Sources, and Prods. Containing Same*, Inv. No. 337-TA-983, Order No. 8 at 7–8 (U.S.I.T.C. Mar. 3, 2016) (“Delaying a final determination may mean that respondents would have years to import infringing products, where any importation of infringing

merchandise derogates from the statutory right, diminishes the value of the intellectual property, and thus indirectly harms the public interest.”) (Ex. 2004.) The ITC has also denied stay motions where final written decisions from the PTAB would issue before the evidentiary hearing. *See, e.g., Certain Memory Modules and Components Thereof*, Inv. No. 337-TA-1089, Order No. 49 at 3–4 (U.S.I.T.C. Apr. 11, 2019) (Ex. 2005).

Factor 1 strongly favors denying institution.

B. Factor 2: Proximity of the Court’s Trial Date to the Board’s Projected Statutory Deadline for a Final Written Decision

“If the court’s trial date is earlier than the projected statutory deadline [for completion of the PGR], the Board generally has weighed this fact in favor of exercising authority to deny institution.” *Fintiv* at 9.⁶ That is precisely the situation here. The ITC has set trial for August 2–6, 2021, whereas the projected statutory

⁶ Petitioner argues that the ITC hearing and initial determination dates should be compared against the date for an institution decision, rather than the date for a final written decision. *See* Paper 1 (“Pet.”) at 96-97. That is not the proper frame of reference. *See, e.g., Philip Morris*, IPR2020-00919, Paper No. 9 at 9 (finding this factor weighed in favor of denying institution where “the ITC is likely to reach a final determination ahead of the date of our final written decision”).

deadline for a final written decision in this PGR if instituted would not occur until August 2022—a *full year* later. This strongly favors denying institution.

Other important milestones at the ITC similarly favor denying institution. The Initial Determination is due by November 5, 2021—nine months prior to the final written decision deadline; and the target date for the Commission’s final determination is March 7, 2022—five months before the final written decision deadline. (*See Ex. 2002 at 3.*) Because the ITC’s initial and final determinations are due to be completed many months before the final written decision, this factor strongly favors denial of institution. *See Fitbit*, IPR2020-00772, Paper No. 14 at 23 (the fact that the ITC Final Determination would predate the final written determination by four months weighted against institution).

Petitioner argues that it “could not have reasonably filed [its petition] any sooner”⁷ and that “[d]enial would be tantamount to ruling that IPR is never available to a petitioner that is also a respondent to an ITC complaint, no matter how quickly

⁷ This suggestion is also belied by the facts—in Europe, Ocado has been able to promptly challenge AutoStore’s European patents (including in the same family as the ’478 Patent), and there is no reason why Ocado could not have done the same in the United States if it had so chosen.

the petitioner acted to seek IPR.”⁸ (Paper 1 (“Pet.”) at 95–96.) Not so. There *are* circumstances where a final written decision from the PTAB will issue before the target date in an ITC investigation, depending on when the petitioner files the IPR/PGR relative to the ITC complaint. Indeed, Petitioner has known of Patent Owner’s patents since at least 2018 (at least by way of discussions with Patent Owner concerning European and U.S. family members of the patents asserted at the ITC), but elected not to take any action at the PTAB until Patent Owner sued for infringement. Petitioner must live with the consequences of its tactical decision not to file its PGR petition sooner, such that the trial and decision dates in the ITC would substantially predate any final written decision that would issue here.

Factor 2 strongly favors denying institution.

C. Factor 3: Investment in the Parallel Proceedings by the Court and the Parties

The Commission and the parties have already invested significantly in the ITC proceedings and will continue to do so before an institution decision will even issue in this PGR. Patent Owner filed the ITC complaint *seven months ago*. Since then, the parties have *jointly agreed* to an extensive pretrial schedule that includes (among

⁸ Petitioner’s suggestion that the timing of its PGR favors *Fintiv* Factor 2 should be disregarded. Pet. at 96. The quoted text it relies on relates to *Fintiv* Factor 3. Patent Owner describes separately why Factor 3 favors denial.

others) the following key deadlines, most of which will have occurred before the Board even issues an institution decision on this petition:

Event	Date
First Settlement Conference	Completed
Submission of First Settlement Conference Joint Report	Completed
Initial responses to burden contention interrogatories	Completed
Initial responses to non-burden contention interrogatories	Completed
Exchange proposed claim constructions	Completed
Initial <i>Markman</i> briefs	Completed
Rebuttal <i>Markman</i> briefs	Completed
Reply <i>Markman</i> briefs and Technology Tutorial	Completed
Fact Discovery Cutoff and Completion	Completed
Exchange of Initial Expert Reports	Completed
Exchange of Rebuttal Expert Reports	May 21, 2021
Expert Discovery Cutoff and Completion	June 2, 2021
Deadline to File Summary Determination Motions	June 3, 2021
Exchange of Proposed Direct Exhibits, Including Witness Statements	June 15, 2021
Exchange of Proposed Rebuttal Exhibits, Including Witness Statements	July 1, 2021
Deadline for Motions <i>In Limine</i>	July 7, 2021
File Pre-Hearing Statements and Briefs	July 14, 2021
Hearing (Trial)	Aug. 2–6, 2021

(Ex. 2002; *see also* Ex. 2010.)

Even now, in mid-May 2021, the parties (and non-parties) have already undertaken significant efforts in this investigation—both procedural and discovery related—including, but not limited to:

- Preparing and filing ITC complaint;⁹
- Evaluating and denying Petitioner’s request to deny institution of the ITC investigation;
- Evaluating and denying Petitioner’s request for entry into the ITC’s early disposition program;
- Reviewing Petitioner’s statements regarding the public interest and declining to refer the issue to the ALJ;
- Serving and responding to 239 interrogatories (including validity contention interrogatories overlapping this petition);
- Serving and responding to over 407 requests for production;
- Serving and responding to 847 requests for admission;
- Producing tens of thousands of pages of documents;
- Negotiating and stipulating to two agreements governing the procedure in the ITC investigation (with two other stipulations pending)

⁹ As ALJ Lord stated in denying Petitioner’s motion to stay, “complainants in general, before filing at the ITC, must spend considerable resources pulling together a detailed complaint conforming to the Commission’s rules.” (Ex. 2016 at 9.)

- Serving third-party subpoenas on The Kroger Company, Nidec Motors, Osha Bergman Watanabe & Burton LLP, and Thomas Scherer;
- Receiving and responding to third-party discovery;
- Participating in biweekly Discovery Committee Meetings since November 2020;
- Submitting monthly Discovery Committee Reports to the ALJ;
- Filing a motion to amend the protective order to include protected health and European privacy information;
- Filing a motion for leave to amend responses to the complaint to add affirmative defenses;
- Completing *Markman* briefs;
- Filing Notice of Prior Art; and
- Briefing respondents' motion to extend the case schedule;
- Deposing expert witnesses regarding claim construction issues.
- Deposing 25 fact witnesses.

These significant efforts will continue unabated through August 10, 2021, the expected date of the Board's institution decision. That is the week *after* a full evidentiary trial at the ITC concludes.

Moreover, the Chief ALJ will have issued a claim construction ruling and summary determination decisions regarding the '478 Patent. Issuance of claim construction and/or substantive orders relating to the patent at issue in the petition favors denial of institution. *See Fintiv* at 9–10. And instituting the petition will not create efficiencies, as Petitioner argues, because these decisions—along with the ITC hearing, initial determination, and final determination that will issue before a final written decision—will address the exact same issues that will be raised in this proceeding *before* they are raised here.

Factor 3 strongly favors denying institution.

D. Factor 4: Overlap Between Issues Raised in the Petition and in the Parallel Proceeding

“[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial” because “concerns of inefficiency and the possibility of conflicting decisions [are] particularly strong.” *Fintiv* at 12. There is substantial overlap between Petitioner’s invalidity arguments here and at the ITC, as well as between the claim construction issues raised at the ITC and in the Petition, raising the specter of inconsistent decisions in both areas.

As for invalidity, all of Petitioner’s alleged grounds in its Petition are also raised in the ITC proceeding. *See Ex. 2011* at 27–30; *Ex. 2012*. The near-total overlap between Petitioner’s validity challenges in both forums weighs significantly

against institution. *See, e.g., Fitbit*, IPR2020-00772, Paper No. 14 at 18 (finding this factor weighed against institution where “the same grounds and claims are at issue in both proceedings”).

Petitioner contends that the invalidity issues should be resolved by the Board, because ITC final invalidity determinations do not cancel patent claims and do not have preclusive effect. Pet. at 98. That argument ignores *Fintiv*’s guidance that although the Board and the district court are not bound by an ITC decision, “as a practical matter, it is difficult to maintain a district court proceeding on patent claims determined to be invalid at the ITC[,]” such that the Board will assess “whether the patentability disputes before the ITC will resolve all or substantially all of the patentability disputes between the parties[.]” *Fintiv* at 8–9.

As to claim construction, the respondents at the ITC (including Petitioner) have advanced positions that directly contradict the constructions they propose to use for their Petition:

- Petitioner argues at the ITC that the ’478 Patent claims must be limited to a vehicle with at least one set of wheels arranged fully within the body, whereas here Petitioner assumes that the claims have no such requirement. (*Compare* Ex. 2021 at 1 *with* Pet. at 25–26.)

- Petitioner argues at the ITC that '478 Patent claims *cannot* cover a “single cell robot,” but here Petitioner assumes that the claims *do* cover such a robot. (*Compare* Ex. 2021 at 1 *with* Pet. at 25–26.)
- Petitioner has had *no difficulty* at the ITC understanding the phrase “about the cavity” in claims claim 19; whereas here Petitioner curiously argues that the phrase is *indefinite*. (*Compare* Ex. 2021 at 1–2 *with* Pet. at 91–92.)

Petitioner’s contradictory positions invite the ITC to construe the claims differently from the Board. If the Board and the ITC adopt the inconsistent constructions proposed by Petitioner, “the subsequent decisions issued in reliance on these inconsistent claim constructions may lack ‘uniformity’ between [the Board and the ITC] and may undermine the ‘predictability’ of the [’478] patent’s claim scope and the ‘integrity of the patent system’ overall.” *KioSoft Techs. LLC v. PayRange, Inc.*, IPR2021-00086, Paper 12 at 16 (Mar. 22, 2021) (quoting *Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board*, 83 Fed. Reg. 51,340, 51,342 (Oct. 11, 2018)); *see also Samsung Elecs. Co. v. Clear Imaging Research, LLC*, IPR2020-01400, Paper 13 at 23 (Feb. 3, 2021) (finding that overlapping claim construction issues weigh in favor of denying institution under *Fintiv* factor 4).

The other PTAB decisions cited by Petitioner do not require a different result. In both *3Shape A/S v. Align Tech., Inc.* and *Samsung Elecs. Co. v. Dynamics, Inc.*, factor 4 weighed against the denial of institution because different claims and other issues were raised in the parallel ITC and PTAB proceedings, such that there was not a risk of overlapping decisions or wasted judicial resources. *See 3Shape A/S v. Align Tech., Inc.*, IPR2020-00223, 2020 WL 2738516, at *15 (P.T.A.B. May 26, 2020) (discretionary denial not appropriate given “[t]he differences between the issues raised in the present Petition and in the parallel ITC Investigation” and because “the ITC Investigation will not resolve all claims at issue in this proceeding”); *Samsung Elecs. Co. v. Dynamics, Inc.*, IPR2020-00504, 2020 WL 4690101, at *5 (P.T.A.B. Aug. 12, 2020) (factor 4 weighed in favor of institution where the IPR petition challenged 11 claims that were not at issue in the ITC proceeding). By contrast, because Petitioner challenges here the *same claims* it challenges at the ITC and relies on the *same prior art* in both venues, the issues substantially overlap and thus weigh heavily against institution.

Petitioner’s proposed stipulation not to raise invalidity defenses *at the ITC* that were raised or reasonably could have been raised by this Petition does not—and should not—change the calculus. (*See Ex. 2020.*) Petitioner’s stipulation would be

effective **only if** the PGR were to be instituted.¹⁰ That would not happen, if at all, until **after** the ITC trial. Meanwhile, Petitioner plans to blaze ahead at the ITC with its duplicative (and more robust) invalidity defenses. And the Chief ALJ will be addressing claim construction (including Petitioner’s inconsistent constructions), expert discovery, and summary determination, all in advance of the fast-approaching August 2, 2021 trial. Finally, Petitioner has **not** committed not to raise in the parallel E.D. Va. district court litigation the invalidity defenses that are or could have been raised by this Petition. (*See Ex. 2020*) (limiting its conditional withdrawal to the ITC investigation.) Its “stipulation” would therefore leave it free to raise the same defenses there, once that case is unstayed. Thus, the efficiencies recognized by the Board in *Sotera* are significantly limited in this case due to the current advanced stage of the ITC proceeding—particularly in light of the institution date (after the scheduled trial at the ITC). *See Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 19–20 (P.T.A.B. Dec. 1, 2020). Moreover, even with Petitioner’s stipulation in place, there remains a significant risk of inconsistent

¹⁰ This conditional withdrawal stands in contrast to *Philip Morris Prods., S.A. v. RAI Strategic Holdings, Inc.*, where the Petitioner withdrew its overlapping invalidity defenses **before** the Board’s institution decision. *See IPR2020-01602*, Paper 9 at 12-14 (PTAB Apr. 2, 2021).

decisions from the Board, the ITC, and the district court with respect to claim construction (which was not at issue in *Sotera*). This further differentiates the Petition from *Sotera*.

Second, although Petitioner knew or should have known of *Sotera* before it filed its Petition, it did not offer this stipulation for another five months, providing Patent Owner less than one business day to address this issue in response. *See* Ex. 2020. This is problematic on two levels. First, Petitioner should have included its *Sotera* position in its Petition. *Sotera* issued on December 1, 2020, and became precedential on December 17, 2020. Petitioner filed its petition over a month later on January 18, 2021. No justifiable excuse explains the delay. The Petition controls the scope of the trial, and Petitioner's *Sotera* stipulation was not part of it. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (Board justified in disregarding issues not raised in the Petition that were raised for the first time in reply). So, the stipulation should be rejected. Further, Petitioner's tactical decision to delay its *Sotera* stipulation until ***after business hours*** on Friday, May 7 (at 7:06 PM ET), ***less than*** one business day before Patent Owner's Response was due on Monday, May 10, wreaks of gamesmanship—likely intended to gain a reply brief or some leverage in its ITC case that might prompt withdrawal

of its Petition.¹¹ Moreover, in the months since Petitioner filed its petition, Complainants have spent significant resources preparing responses to Respondents' invalidity contentions in the ITC (including the same grounds raised here) and preparing expert reports addressing many of the same issues.

Factor 4 favors denying institution.

E. Factor 5: Whether the Petitioner and Defendant in the Parallel Proceeding are the Same Party

Petitioner is a respondent in the ITC action and a defendant in the parallel (stayed) E.D. Va. action. This alone favors denial of institution, as Petitioner can present—indeed is presenting—its invalidity defenses in the ongoing ITC proceeding. *See Fitbit*, IPR2020-00772, Paper No. 14 at 19 (finding this factor weighed against institution where the same parties were involved at the ITC and before the PTAB); *Philip Morris*, IPR2020-00919, Paper No. 9 at 12 (same); *Nintendo*, IPR2020-01197, Paper No. 13 at 19 (same).

Moreover, Petitioner, Ocado Group PLC, is just one of a plurality of respondents and defendants in these respective actions. In addition to Ocado Group PLC, the ITC respondents include several additional Ocado entities as well as

¹¹ Petitioner was clearly waiting to ambush with its drafted stipulation at the very last minute, as evident from the header indicating prior ALJ Lord's name even though the case has been assigned to Chief ALJ Bullock since April 5, 2021.

Tharsus Group Ltd. and Printed Motor Works, Ltd. The same counsel represents all respondents in the ITC action and Petitioner here. (*Compare* Ex. 2011 at 1 *with* Ex. 2013.) The E.D. Va. complaint names Ocado entities as defendants, but not Tharsus Group Ltd. or Printed Motor Works, Ltd. (*See* Ex. 2015 at 1.) None of the additional respondents/defendants in the parallel proceedings has filed a PGR petition challenging the asserted claims. This favors denial because the ITC is the only venue where all validity issues can be resolved by all of the involved parties in an efficient manner. While it is true that the additional defendants and respondents can file their own PGR petitions, the window for doing so closed nine months after the '478 Patent issued, March 30, 2021. As discussed above, by August 2021 the ITC and the involved parties will have invested significant resources in litigating the same exact validity issues presented here, including by conducting a trial.

This factor thus strongly favors denying institution.

F. Factor 6: Other Circumstances That Impact the Board's Exercise of Discretion, Including the Merits

The ITC proceeding has enabled (and will continue to enable) the parties to litigate claim construction, finish expert discovery, and present their cases with live witnesses, and detailed post-trial briefing to the Commission for additional review. The ITC will resolve the same invalidity issues presented here well before the Board would be required to do so. And validity—of the wide-ranging bases presented by Petitioner—is best resolved at the ITC. The obviousness theories Petitioner raises

here and at the ITC cannot be resolved without evaluating extensive fact and expert discovery regarding objective evidence of non-obviousness. While the ultimate question of obviousness is one of law, the test for obviousness including consideration of objective evidence of non-obviousness is particularly fact intensive. *See, e.g., In re Ochiai*, 71 F.3d 1565, 1571 (Fed. Cir. 1995) (“[S]ection 103 requires a fact-intensive comparison of the claimed process with the prior art rather than the mechanical application of one or another per se rule.”). The scope of nearly complete discovery at the ITC encompasses interrogatories and documents establishing the nexus between the claims and the evidence of non-obviousness, none of which Petitioner presented here. Compared with the fulsome evidentiary record already established at the ITC, the limited discovery afforded by the PTAB would be a poor substitute. *See TCO AS v. NCS Multistage Inc.*, PGR2020-00078, Paper No. 16 at 20 (P.T.A.B. Feb. 18, 2021).

This too weighs strongly against institution.

G. The Totality of the *Fintiv* Factors Indicates that the Petition Should Not Be Instituted

The Board must take “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Fintiv* at 6. “[N]o single factor is determinative” of whether the Board should deny institution. *See Cellco P’ship d/b/a Verizon Wireless v. Huawei Techs. Co.*, IPR2020-01356, Paper 13 at 19 (P.T.A.B. Mar. 5, 2021). Taken together, the *Fintiv* factors weigh strongly

in favor of denying institution in view of the ALJ's stay denial; the Chief ALJ's denial of Petitioner's motion to extend the ITC procedural schedule; the imminent August 2021 ITC trial (commencing *before* the Board's institution deadline here); the parties' significant investment in the ITC proceeding, which will continue unabated between now and the institution deadline; the significant overlap of issues (such as claim construction and invalidity) even if Petitioner withdraws certain invalidity defenses *after* trial; and the real potential for inconsistent claim construction rulings from the Board and at the ITC.

Considering *all* of these factors together, the Board should exercise its discretion under § 324(a) to deny institution. *See Celco* at 19 (denying institution where “Factors 2, 3, 5, and 6 weigh in favor of exercising discretion to deny,” even though “Petitioner’s stipulation and Patent Owner’s election of asserted claims reduce[d] concerns regarding overlapping issues raised in the Petition and in the parallel litigation” under Factor 4); *Regeneron Pharms., Inc. v. Novartis Pharma AG*, IPR2020-01317, Paper No. 15 at 24 (P.T.A.B. Jan. 15, 2021) (denying institution where “the weight of the evidence sufficiently tips the balance in favor of exercising ... discretion to deny institution under § 314(a)[,]” even though Petitioner stipulated to not raise the same invalidity arguments raised in its petition in a parallel ITC proceeding); *Cisco Sys., Inc. v. Monarch Networking Sols. LLC*, IPR2020-01227, Paper 11 at 16 (P.T.A.B. Mar. 4, 2021) (denying institution where

“factor 4 weighs marginally against denying institution, factors 2, 3 and 5 weigh more significantly in favor of denying institution, and factors 1 and 6 are neutral”); *Canon Inc. v. Optimum Imaging Techs. LLC*, IPR2020-01321, Paper 10 at 12 (Mar. 1, 2021) (denying institution where factors 1, 2, 3, and 5, “taken together, outweigh the remaining considerations discussed in factors 4 and 6,” including the entry of a stipulation that limited overlap between the proceedings); *Stanley Black & Decker*, IPR2020-01701, Paper No. 10 at 8-19 (denying institution where factors 1, 3, and 5 weighed against institution, factors 2 and 3 weighed “slightly” against institution, and factor 5 was neutral).

For the reasons set forth in *Fintiv* alone, the Board should deny the petition.

III. ADDITIONAL DISCRETIONARY GROUNDS WARRANT DENIAL OF INSTITUTION

Although the *Fintiv* factors more than suffice to deny institution, the Board should also deny institution under 35 U.S.C. § 325(d) because proceeding with a PGR would be an inefficient use of the Board’s resources where, as here, all of the prior art was considered by the Patent Office, and Petitioner has not established that the Patent Office erred.

Discretionary denial under § 325(d) follows a two-step test:

- (1) whether the *same or substantially the same art* previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and

(2) if either condition of [the] first part of the framework is satisfied, whether *the petitioner* has demonstrated that the Office erred in a manner material to the patentability of challenged claims.

Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH, IPR2019-01469, Paper No. 6 at 8 (P.T.A.B. Feb. 13, 2020) (precedential) (emphasis added).

Both steps support denial: **First**, except for one reference—WO/055, which is not even prior art—all other references asserted in the Grounds were either before the Examiner during prosecution of the '478 Patent (three of four) or were substantially the same as those that were (one of four). **Second**, Petitioner entirely fails to show that the Office erred in a manner material to patentability when it allowed the '478 Patent over the already considered references.

A. All Prior Art References Were Considered by the Office

Three of the five prior art Grounds in the Petition (Grounds 2–4) rely on prior art the Examiner either considered and rejected during prosecution or was cumulative of art considered and rejected. The remaining two prior art Grounds (1A–1B) are based on a reference that is not prior art to the '478 Patent. *See* § VI.A *infra*.

Petitioner's Grounds 2–4 combine NO/366 (the primary reference) with non-analogous secondary references to suggest that the challenged claim is obvious. Pet. at 42–75. But the '478 Patent identifies NO/366 as prior art and explicitly

distinguishes over it. (Ex. 1001 at 1:25–62, 4:3–14, Figs. 1–2.) The '478 specification identifies the disclosure of a “three dimensional storage grid” with “remotely operated vehicles, or robots,” each of which is “equipped with a lift for picking up, carrying, and placing bins that are stored inside the storage grid”:

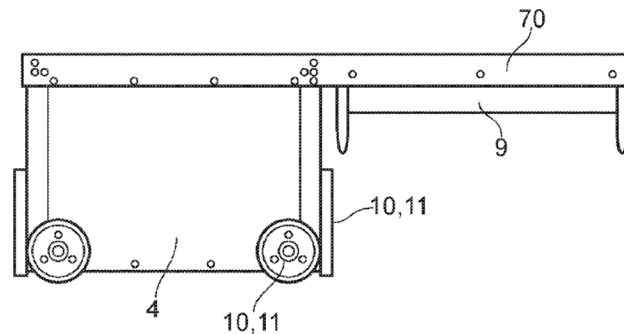


FIG. 2 (Prior Art)

(Ex. 1001 at Fig. 2.) Petitioner relies on the *identical* disclosure. (Pet. at 42–75.) Further, the '478 Patent explains the “important disadvantage[s]” of this system, and goes on to disclose a new robot that avoids these problems. (See Ex. 1001 at 1:46–62, 3:47–4:2.) Thus, the Examiner was fully aware of and considered NO/366 during prosecution—and allowed the claims.

The secondary references in Grounds 2–4 were also either considered during prosecution or are cumulative of the references that were:

'662 Patent (Ground 4): Ground 4 relies on the '662 Patent for its alleged disclosure of a “central cavity,” which Petitioner admits is missing from NO/366. (Pet. at 60–61.) Yet, as Petitioner correctly concedes, the parent application of the '662 Patent—WO/075, which shares the same disclosure—is discussed at length in

the '478 Patent's specification. (*See* Ex. 1001 at 1:23–62, Fig. 1 (referring to WO 98/49075).) The Examiner knew of and considered WO/075, and nonetheless found the claims patentable. Specifically, WO/075 was disclosed in an IDS filed during prosecution of the '478 Patent's original U.S. parent, Appl. Ser. No. 14/650,757 ("the '757 Application"); the Examiner subsequently initialed the references cited therein, confirming that he considered the references. (Ex. 2018 at AS-ITC_00612080 (Examiner initialing next to reference WO98/49075).) All prior art references cited during the prosecution of parent applications are considered to be cited in the prosecution of children applications and need not to be cited again by the applicant. Indeed, the M.P.E.P. "strongly discourage[s] [applicants] from submitting a list that includes copies of PTO/SB/08 or PTO-892 forms from other applications," as that "information will likely confuse the record." M.P.E.P. § 609.02.

JP/647: This reference, too, was cited to the Examiner during the prosecution of the '757 Application multiple times. First, AutoStore disclosed the reference in its original language, with an English translation of its Abstract (which included an identical copy of the figure Petitioner relies upon), in the same IDS disclosing WO98/49075. (Ex. 2018 at AS-ITC_00611706-16 (reference in original language), AS-ITC_00611717 (English translation of the Abstract), AS-ITC_00612079 (Examiner initialing next to reference JP H10-203647).) Second, this reference was

Case PGR2021-00038

U.S. Patent No. 10,696,478 B2

disclosed in the International Preliminary Report on Patentability (“IPRP”) for NO/488 as the “closest prior art,” and AutoStore submitted the IPRP to the Examiner during prosecution of the ’757 Application. (*Id.* at AS-ITC_00611946 (the IPRP appears in Ex. 2018 at AS-ITC_00611943–47), AS-ITC_00612080 (showing Examiner initial next to the IPRP entry, indicating that he considered it).)

DE/241: AutoStore also disclosed this reference to the Examiner. (Ex. 2018 at AS-ITC_00612080 (Examiner initialing next to reference DE 10 2009 017241).) Moreover, AutoStore submitted the Norwegian Search Report (Ex. 2019) to the Examiner, and that report listed DE/241 along with NO/366 as references considered by the Norwegian Patent Office. (Ex. 2019 at 2; Ex. 2018 at AS-ITC_00612080 (showing Examiner initial next to the entry for the Norwegian Search Report, indicating that he considered it).)

The AutoStore Presentation: Petitioner also relies on an AutoStore Presentation for Grounds 2–4. (Pet. at 42.) But as Petitioner acknowledges, the AutoStore Presentation merely “shows how NO/366’s robots operate,” and is thus cumulative of NO/366 itself. And NO/366 had been fully considered. *See supra*.

Moreover, as explained below, Petition’s obviousness combinations are based on impermissible hindsight. For example, Petitioner completely fails to explain *why* a POSITA would have been motivated to combine NO/366 with JP/647 or DE/241. *See infra* § VI.B. Likewise, both NO/366 and the ’662 Patent (via its parent

application WO/075) are discussed and distinguished at length in the '478 Patent's specification. *Id.*

B. Petitioner Fails to Show that the Office Erred in a Manner Material to Patentability

Because all the prior art Petitioner relies on was before the Examiner, Petitioner bears the burden to demonstrate how the Patent Office erred in a material way. *Advanced Bionics*, IPR2019-01469, Paper No. 6 at 8. But Petitioner completely fails to meet this requirement of the *Advanced Bionics* test: It altogether fails to contend, let alone explain why, the Examiner may have erred in allowing the '478 Patent claims over the '662 Patent's parent (WO/075), NO/366, and DE/241. *See Intel Corp. v. Godo Kaisha IP Bridge 1*, IPR2018-00753, Paper 11 at 20 (PTAB Oct. 9, 2018) (finding factor (e) favored denying institution because "Petitioner does not make any express arguments regarding Examiner error in its Petition[s]"). Having failed to even address the issue of material error, the Board should deny the petition.

C. No Other Facts Support Institution

Petitioner cites no additional evidence for Ground 2–4 that warrant reconsideration of the references that the Examiner already considered and rejected. The only potentially "additional" evidence that the Petition cites is its expert declaration. (*See* Pet. at 65; Ex. 1014.) But Petitioner's "declaration alone is insufficient." *Juniper Networks, Inc. v. Mobile Telecomm. Techs., LLC*,

IPR2017-00642, Paper 31 at 23 (PTAB Mar. 14, 2018). To matter, the declaration must set forth additional facts and evidence—here, explaining why the Office was wrong in its prior consideration of the same or cumulative art. The declaration fails to do so. It relies on the same combination of elements on which the Petition relies, which, as explained above, includes the same disclosures and arguments the Examiner was aware of during prosecution, and rejected. Petitioner’s failure to set forth a basis to reevaluate that which the Office already evaluated supports denial of the petition.

Further, as explained below, Grounds 5–8 may also be dismissed as a matter of law, without the need to expend effort on a fact finding proceeding and trial.

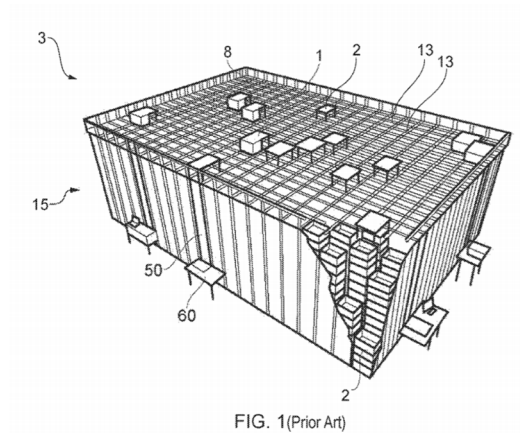
IV. IN ADDITION TO DISCRETIONARY DENIAL, THE PETITION ALSO SUBSTANTIVELY FAILS

The Board need proceed no further in its evaluation of the Petition given the strong discretionary grounds weighing against institution. But the Petition also fails on the merits.

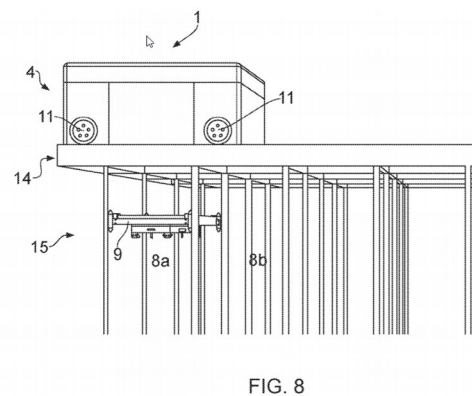
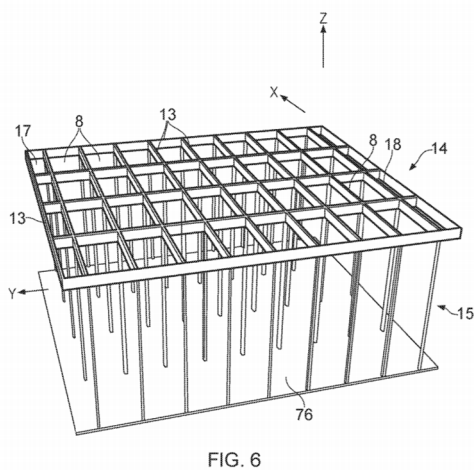
A. The ’478 Patent

The ’478 Patent is a continuation that claims priority to Norwegian patent application NO20121488 (“NO/488”). The ’478 Patent concerns a remotely operated robot for retrieving storage bins. The robots sit atop of a grid-based storage system, which includes “a bin storing structure ... comprising a plurality of storage columns,” where each storage column “is arranged to accommodate a vertical stack

of storage bins,” and “supporting rails forming a two dimensional matrix of guiding meshes.” (Ex. 1001 at 3:19–37.) Figure 1 shows the prior art bin storing structure:



The remotely operated robotic vehicles move in two directions (X and Y) and can lift bins from the underlying stacks and move the bins to other locations. (E.g., Ex. 1001 at 3:27–43.) Figure 6 shows an embodiment of the storage structure, and Figure 8 shows an embodiment of the inventive robot on the structure:



Prior art storage grids used robotic vehicles that lifted and held storage bins using a lifting device beside the main body, held by an “overhang” extending from

the body. (Ex. 1001 at Fig. 2 (showing body 4, overhang 70, and lifting device 9); see also *id.* 1:28–33 (referencing WO 98/49075 and NO 317366 as prior art systems).)

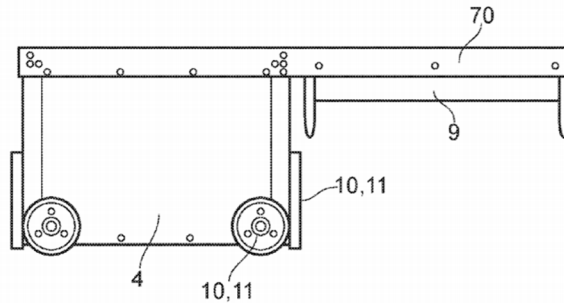
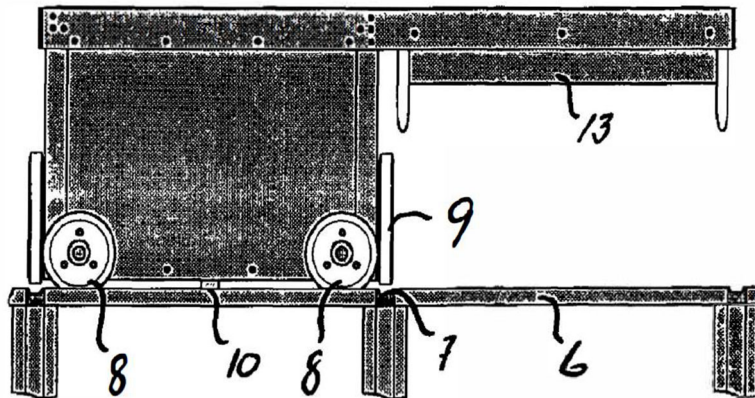


FIG. 2 (Prior Art)

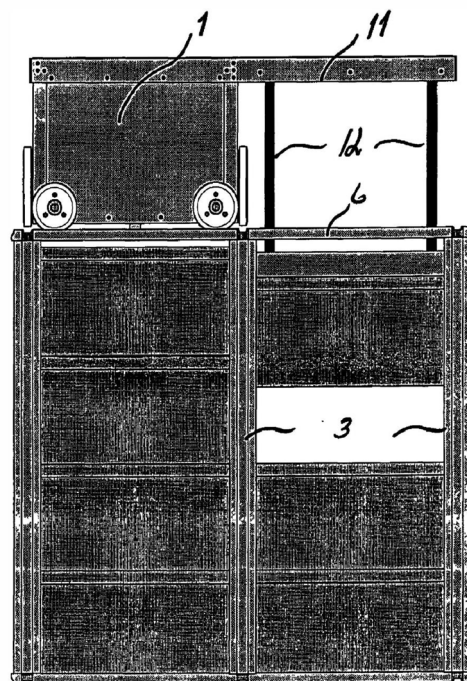
B. Norwegian Patent No. NO317366B1

NO/366 issued to the inventor of the '478 Patent, Ingvar Hognaland, and is assigned to Patent Owner. It is discussed at length in the '478 Patent specification as prior art distinguished by the '478 Patent. (*E.g.*, Ex. 1001, 1:31–2:3, 4:11–21, Figs. 1–2.) The patent is directed to “a storage facility with remotely controlled carriages[,]” *e.g.*, robots. (Ex. 1005 at 1.) The patent discloses “a remotely controlled cart ... which represents the surface area of two deep stack columns” and which “may move freely both horizontally in the X-axis and the Y-axis.” (*Id.* at 4.) The NO/366 robots “move on two sets of wheels which are alternately lifted up to or lowered down” such that “the carts may be run alternately on the rails in the X- or Y-direction.” (*Id.* at 6.) NO/366 further discloses that the robots “are equipped

with gripping and lifting devices” for taking out/moving the “storage units.” (*Id.* at 6–7.) An example of the robot disclosed in NO/366 is shown in Figure 2:



(*Id.* at Fig. 2.) NO/366 also discloses “a storage facility” in which the “storage units are stacked on top of each other in tightly spaced vertical columns (deep stacked) and the single storage unit is led out of the storage by being lifted up by a cart on top of a column”:



C. AutoStore Logistics-Technical Presentation

The AutoStore Presentation is a video that was created by Patent Owner to illustrate its system described in NO/366. Using both computer animation and footage of a warehouse, the AutoStore Presentation illustrates the system and robots described in NO/366 in action. The robots shown in the AutoStore Presentation contain the same disadvantages the '478 Patent identifies in the NO/366 robots, in particular, the disadvantages associated with its cantilever design. Because it presents nothing new over NO/366, the '662 Patent is cumulative of what the Examiner already considered.

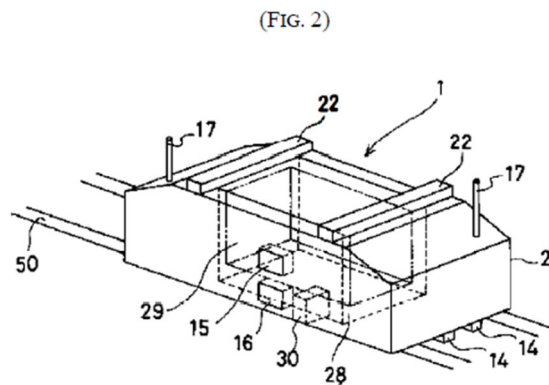
D. WO 2015/019055 A1

Publication WO 2015/019055 (“WO/55”) is a PCT patent application filed by Ocado Innovation Limited on July 24, 2014, and claims priority to Great Britain patent application GB 1314313.6 filed on August 9, 2013. As explained below, the earliest possible effective date for WO/55 is *later* than the NO/488 application priority date. WO/055 discloses a grid-based storage system and a “load handling device” for lifting and moving containers in the storage system.

E. Japanese Patent Appl. Pub. No. JPH10-203647A

JPH10-203647A (“JP/647”) relates to “a transportation system for the transportation of a cargo-loading/unloading transport car between undercar stations along a railway line with junctions.” (Ex. 1008, (0001); *see also id.* at (0006).) The

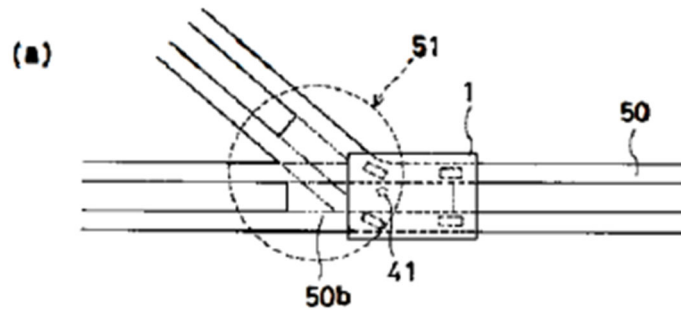
reference was before the Examiner during the prosecution of the grandparent of the '478 Patent; in addition, the Examiner received a translation of the patent's abstract, which contains the same figure (below) relied upon by Petitioner. JP/647 discloses a "transport car" for use in a railway line, traveling from a "loading point to an unloading point":



(*Id.* at (0006), Fig. 1.) The "transport car" contains an "opening provided on the underside of the aforesaid transport car" which can be used to raise and lower "cargo." (*Id.* at (0006).)

According to JP/647, it was necessary in "complex railway line(s)" that involved multiple "change points" or "junctions," to provide multiple "switching devices" to allow the rail car to change directions. (*Id.* at (0004).) Two problems with these prior art "railway line(s)," however, were "that doing so ... increases [the] malfunction incidence in the transportation system," and "increase(s) ... the cost of the transportation system as a whole." (*Id.*)

JP/647 solves this problem “by eliminating the need for switching devices.” (*Id.* at (0005).) Specifically, the rail car has a “steering mechanism” that allows the car to “autonomously change direction at a junction,” as illustrated in Figure 7:



(*Id.* at (0006), Fig. 7.) In between “junctions,” the transport car can only travel in a straight line along the railway. (*Id.*)

F. German Patent Appl. Pub. No. DE10200901724A1

DE/241 refers to “a storage system for storing goods in storage positions that can be reached by service vehicles.” (Ex. 1010, [0001].) This patent was also before the Examiner during the prosecution of the grandparent of the ’478 patent. “[T]he goal of the [DE/241] invention is to create a solution, which allows for extremely flexible storage and distribution of goods and the use of shuttle vehicles, which, in particular, can reach practically every storage point independently from each other.” (*Id.* at [0004].) DE/241 discloses that this is achieved using multiple “storage planes” between which “service vehicles” drive:

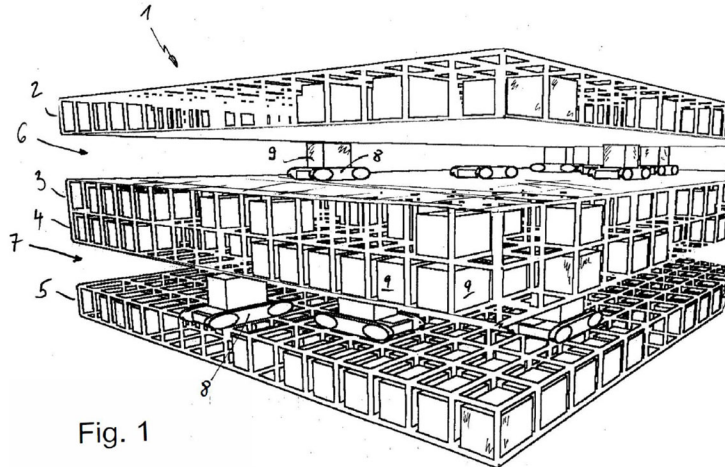
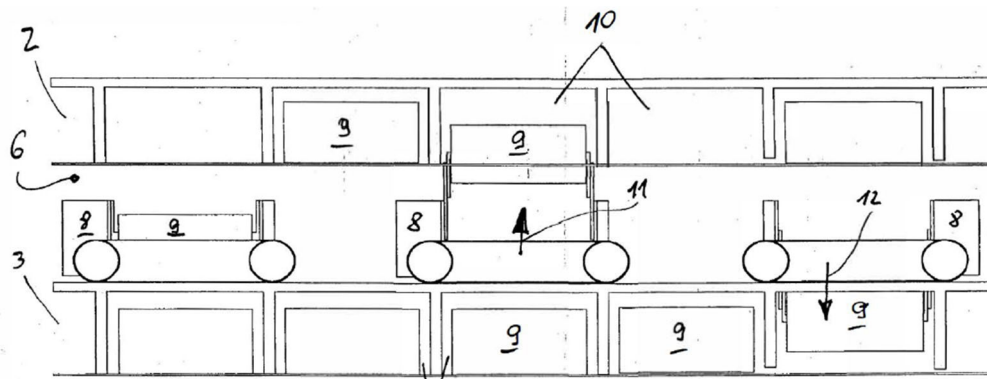


Fig. 1

(*Id.* at Fig. 1, [0020].) A key aspect of DE/241 is that the “service vehicles” can move “storage container[s]” up or down between the “storage planes” through an aperture in the vehicle:



Id. at Fig. 2.

G. U.S. Patent No. 6,654,662

The '662 Patent—like the '478 Patent—also issued to Ingvar Hognaland. It relates to “a method for organizing the flow of goods for a horizontally layered and deep-stacked stock of goods with heterogeneous units.” (Ex. 1012, 1:4–6.) The '662 Patent was originally filed as PCT/NO98/00136 and published as

Case PGR2021-00038

U.S. Patent No. 10,696,478 B2

WO98/49075. (*Id.* at Cover.) This publication was cited to the Examiner during the prosecution of the grandparent of the '478 Patent. (*See* Ex. 2018 at AS-ITC_00612080.) It is thus prior art of record considered by the Examiner of the '478 Patent. *See* M.P.E.P. § 609.02.

The '662 Patent notes that “[p]roduction and trading companies often have substantial storage space requirements, and it is essential to be able to make the most effective use possible of available space.” (Ex. 1012 at 2:1–3.) The '662 Patent recognized a problem in the prior art that “volume utilization for modern wholesale stores where the staff require access to the stored units show a utilization factor of only 15–20%.” (*Id.* at 2:39–41.)

The '662 Patent solves this problem with “a thoroughly compact assembly of standardised containers in a vertical framework.” (*Id.* at 3:7–8.) A “lifting device” can be used to retrieve the containers. (*Id.* at 3:40–53.) While the '662 Patent illustrates the lifting device with a “crane device,” the “design of the lifting devices 5 is *not a part* of [the] invention.” (*Id.*) (emphasis added).

Like NO/366 (and, by proxy, the AutoStore Presentation), the '662 Patent is discussed at length in the '478 Patent’s Specification. (*E.g.*, Ex. 1001, 1:31–2:3, Fig. 1 (referring to WO 98/49075).)

V. PETITIONER FAILS TO PROPERLY SET FORTH ITS PROPOSED CLAIM CONSTRUCTIONS

As an initial matter—and yet another *independent* reason to deny the petition—Petitioner has failed to follow PTAB guidelines in its proposed approach to claim construction. Despite clear guidance from the Board, Petitioner purports to construe the claims in its Petition but does so without identify *any specific limitations* to be construed to support its proposed constructions, nor what specifically its proposed constructions are. *See* PTAB Consolidated Trial Practice Guide at 44 (explaining that the Petition must identify proposed construction(s) of *any particular claim elements* and the intrinsic and/or extrinsic evidence that support that meaning). *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998) (“[T]he claim construction inquiry ... begins and ends in all cases with *the actual words of the claim.*”) (emphasis added); *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 990 (Fed. Cir. 1999) (“[T]here must be a textual reference in the actual language of the claim with which to associate a proffered claim construction.”). Thus, the petition is defective on its face and should be denied on this independent ground as well, regardless of the fact that Petitioner “adopts” (Pet. at 26) Patent Owner’s infringement contentions. *See Ford Motor Co. v. Mass. Instit. of Tech.*, IPR2020-00011, Paper 10 at 14 (P.T.A.B. Mar. 26, 2020) (denying institution of IPR because Petitioner, who bore the burden of demonstrating a reasonable likelihood of success, failed to explain “why its

proposed construction should be applied,” where, as here, Petitioner “adopt[ed] Patent Owner’s construction in a related ... litigation”).

But even if the Board permits Petitioner to proceed on these inadequate claim construction positions, Petitioner incorrectly interprets the claims as (i) requiring at least one set of the wheels to be arranged fully within the body of the robot and (ii) excluding single-cell robots (*i.e.*, robots that “occupy[] a single grid space in both lateral directions”). Pet. at 25–26. Patent Owner contends in the ITC that these interpretations are wrong because they deviate from the plain and ordinary meaning of the claim terms. In other words, the claims do not require at least one set of wheels to be arranged fully within the body, and the claims do encompass single cell robots. To the extent the Board does engage in claim construction, it should adopt Patent Owner’s proposed constructions from the ITC, if for no other reason than Petitioner, who bears the burden of persuasion, also “adopts” Patent Owner’s interpretation of the claims. *See* Pet. at 25–26.

VI. THE PETITION ALSO FAILS TO DEMONSTRATE THAT IT IS MORE LIKELY THAN NOT THAT AT LEAST ONE CHALLENGED CLAIM IS UNPATENTABLE

The Petition fails to demonstrate that it is more likely than not that at least one challenged claim is unpatentable. 35 U.S.C. § 324(a). Petitioner argues that the ’478 Patent’s parent applications do not support the December 2012 priority from NO/488 under pre-AIA law. Pet. at 15. But NO/488 provides written description

support for all elements of the '478 Patent claims. *See infra* § VI.A. And, thus, pre-AIA law applies. WO/055 is not prior art. And Grounds 1A–1B fail.

A. Grounds 1A and 1B Fail—WO/055 Is Not Prior Art

Grounds 1A–1B rely on WO/055, which is not prior art. The international application, which issued as WO/05, was filed on July 24, 2014; whereas the '478 Patent's priority date is December 10, 2012, based on its Norwegian parent NO/488. Pre-AIA law applies. And Grounds 1A–1B fail.

The '478 Patent claims priority under 35 U.S.C. § 120 to Application Ser. No. 14/650,757 (“the '757 Application”), the national stage of PCT Application No. PCT/EP/2013/075671 (“PCT '671”). (Ex. 1001 at (63).) The '757 Application and the continuation applications share the same specification. PCT '671 in turn claims priority to NO/488 under 35 U.S.C. § 365(b). To be entitled to an earlier priority under 35 U.S.C. § 365, each claim limitation must have written description support in NO/488. *In re Owens*, 710 F.3d 1362, 1366 (Fed. Cir. 2013) (“To be entitled to a parent’s effective filing date, a continuation must comply with the written description requirement of 35 U.S.C. § 112, ¶ 1.”); *see also* M.P.E.P. § 2163. The test for determining the sufficiency of the written description “is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010)

(en banc). As explained below, claim 19 of the '478 Patent is supported by the disclosure of NO/488, no new matter has been claimed. Exhibit 2025 is a claim chart providing the full written description support in NO/488 for each claim element of the '478 Patent.

1. Claim 19

a. **Claim limitation 19 (preamble)**

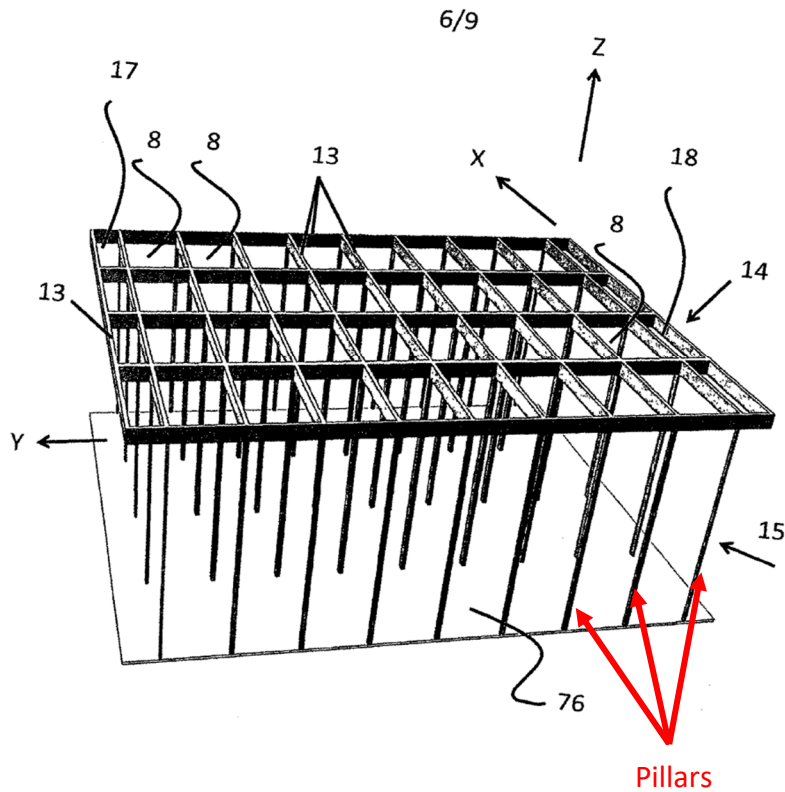
NO/488 discloses “a three-dimensional storage structure.” For instance, NO/488 discloses that “[t]he present invention also concerns a storage system which comprises a remotely operated vehicle” (Ex. 1002 at 3; *see also* Fig. 1.)¹²

b. **Claim limitation 19(a)(i)**

NO/488 discloses “a plurality of pillars which are positioned with internal distances and in a rectangular arrangement, wherein the rectangular arrangement of the pillars define storage columns for the storage of a plurality of vertically-stacked storage bins.” The application discloses that the inventive robots move on a three-dimensional storage structure with pillars in a rectangular arrangement that define storage columns for bins. For example, Figure 6 shows a three-dimensional bin storage structure grid (15) with vertical pillars in a rectangular arrangement that

¹² Citations to Exhibit 1002 refer to the page numbers of the patent application specification (appearing in the top-middle of the pages of the specification) beginning on page 5 of Ex. 1002.

define storage columns (8). The application explains that “[t]he rectangular arrangements of four adjacent pillars therefore constitute a storage column 8.” (*Id.* at 6.)



c. Claim limitation 19(a)(ii)

NO/488 teaches “supporting rails arranged in a two-dimensional matrix on the pillars, said supporting rails arranged in a first direction and a second direction orthogonal to the first direction, the supporting rails defining openings for the storage columns.” Figure 6 shows supporting rails (13) on top of the pillars. (*Id.* at 6, 8.) “The supporting rails 13 form a two dimensional matrix of rectangular meshes.” (*Id.* at 6.)

The application further explains that the supporting rails provide support for the rolling members to move on. (*See id.* at 3 (“The present invention also concerns a storage system which comprises ... a vehicle support comprising a plurality of supporting rails forming a two dimensional matrix of guiding meshes, wherein the vehicle support is configured to guide the movements of the vehicle in the first direction (X) and the second direction (Y) during use.”).) Elsewhere, the application further explains that “both sets [of vehicle rolling means] have an exterior design matching a corresponding exterior design on supporting rails constituting the vehicle support in order to provide increased lateral stability when interconnected.” (*Id.*)

NO/488 also discloses that the supporting rails define openings for the storage columns. Figure 6 shows storage columns 8 with openings that are bounded by the supporting rails 13. In that regard, NO/488 teaches “a bin storing structure or grid supporting the vehicle support comprising a plurality of storage columns, wherein each of the storage columns is arranged to accommodate a vertical stack of storage bins and wherein the main part of the bin storing structure coincides with positions on the vehicle support where the supporting rails are crossing.” (*Id.* at 3.)

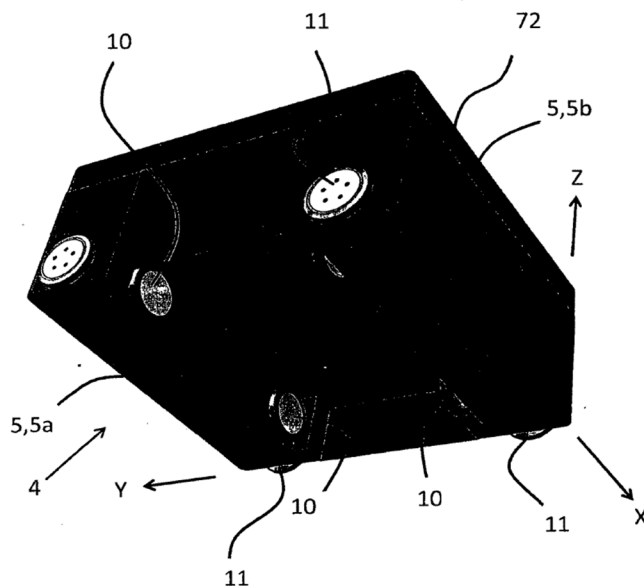
d. **Claim 19 limitation 19(b)**

NO/488 discloses “a plurality of remotely controlled robot vehicles.” For example, Fig. 1 discloses the grid on which the inventive robots operate. NO/488

also explains that “[t]he present invention relates to a remotely operated vehicle or robot for picking up storage bins from a storage system.” (Ex. 1002 at 1.)

e. **Claim 19 limitation 19(b)(i)**

NO/488 discloses a “robot vehicle[] comprising ... a vehicle body.” NO/488 discloses a “robot vehicle” that comprises “a vehicle body.” NO/488 states that “[t]he inventive vehicle or robot comprises a vehicle body, which vehicle body” (*Id.* at 2.) Figure 3 of NO/488 (which also appears as Figure 3 of the ’525 Patent) shows an embodiment of the vehicle body as item 4:



f. **Claim limitation 19(b)(ii)**

NO/488 also discloses a “robot vehicle[] comprising ... [a] cavity arranged to receive a storage bin from a storage column.” The application explains that “[t]he inventive vehicle is characterized in that the second section comprises a cavity arranged centrally within the vehicle body. This cavity has at least one bin receiving

opening facing towards the underlying storage columns during use.” (*Id.* at 2.)

Figure 3 shows the cavity in the center of an embodiment of the robot disclosed by NO/488. NO/488 describes the benefits of having a cavity placed internally within the vehicle body as, inter alia: (1) improving stability by removing undesired torque; (2) a lifting and transporting process having a weight distribution with a high degree of symmetry; (3) maintaining full or nearly full lifting speed; and (4) initiation of stable bin transportations towards the delivery station prior to a fully completed bin lifting from a storage column. (*Id.* at 4.)

g. Claim limitation 19(b)(iii)

NO/488 also discloses a “robot vehicle[] comprising ... a plurality of rolling members attached to the vehicle body about the cavity, arranged for travelling along the storage structure in the first and second directions.” The application explains that the vehicle includes:

a first set of vehicle rolling means connected to the vehicle body in order to allow movement of the vehicle along a first direction (X) within the storage system during use and a second set of vehicle rolling means connected to the vehicle body in order to allow movement of the vehicle along a second direction (Y) in the storage system during use. The second direction (Y) is oriented perpendicular to the first direction (X).

(*Id.* at 2.) Figure 3 shows an embodiment wheels as the rolling members attached to the vehicle body (4): One set of wheels (10) are arranged for traveling in one

direction (the “Y” direction in the figure); another set of wheels (11) are arranged for traveling in a perpendicular direction (the “Y” direction in the figure). (*See id.* at 5 (describing Figs. 3 and 4).) NO/488 explains elsewhere that the rolling members may have different embodiments:

In order to inter alia allow high vehicle stability both sets of vehicle rolling means [are] preferably arranged symmetrically around the cavity, for example near the lower corners of the robot. At least one, and most preferably both, set(s) of vehicle rolling means may comprise at least four wheels. Other embodiments such as the use [of] two perpendicular oriented caterpillar belts may be envisaged.

(*Id.* at 3.)

h. Claim limitation 19(b)(iii)(1)

NO/488 also discloses “whereby the robot vehicle can move along the storage structure to position the cavity within the cross-sectional area of the storage column to receive the storage bin into the cavity for further transport along the storage structure.” As explained above, NO/488 discloses that the robotic vehicle can move on top of the grid using wheels and/or other rolling members. The robotic vehicle also has “a vehicle lifting device which is at least indirectly connected to the vehicle body in order to lift the storage bin into the second section [of the vehicle, which includes a cavity].” (*Id.* at 2.) The application discloses that the cavity has “at least one bin receiving opening facing towards the underlying storage columns during

use.” NO/488 further explains that “allow easy entrance of the storage bin into the central cavity, its volume should be larger than the largest storage bin intended to be picked from the storage system. Likewise, the cross sectional area of at least one of the at least one bin receiving opening should be larger than the cross sectional area of the storage bin walls oriented parallel to the cavity opening(s).” (*Id.*) The application also provides an example of how the vehicle lifts a bin from a cavity: “Fig. 8 shows the robot 1 in a lifting position above a central storage column 8a adjacent to the border area 17,18 of the grid assembly. The vehicle lifting device 9 is in this embodiment lowered a distance into the central storage column 8a in order to hook onto and lift up the underlying storage bin 2.” (*Id.* at 6.)

* * *

Thus, NO/488 provides written description support for elements of claim 19 of the '478 Patent.

B. Grounds 2–4 Fail: NO/366, in Light of the AutoStore Presentation and any one of JP/647, DE/241, or the '662 Patent, Does Not Render Obvious Any Claim of the '478 Patent

Petitioner’s proposed obviousness combinations (Grounds 2–4) also fail for at least two reasons. *First*, none discloses a robot with an internal *cavity* (required by the claims of the '478 Patent); instead, all disclose machines (in the case of JP/647, a rail car) with thru-channels. *Second*, the asserted combinations are based on impermissible hindsight. NO/366 and the '662 Patent (via its parent application

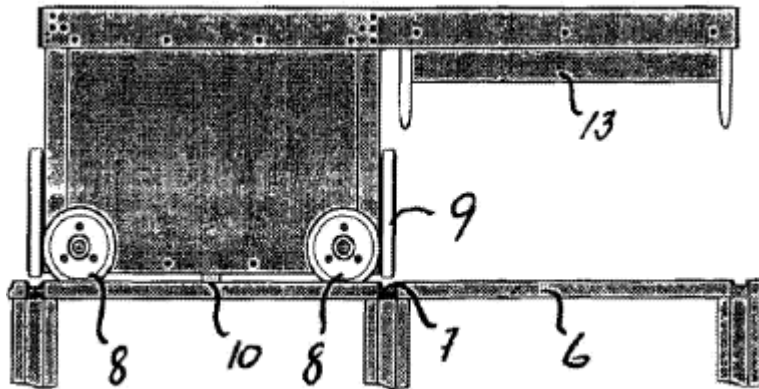
WO/075) are discussed and distinguished at length in the '478 Patent's specification.

And the AutoStore Presentation merely illustrates the systems fully described in NO/366 and the '662 Patent. (*E.g.* Pet. at 50 (“The AutoStore Presentation shows how NO/366’s robots operate”).) The '478 Patent specification states that these prior art systems “suffer[] from several important disadvantageous [sic] during their operation,” and that the goal of the '478 Patent’s invention “is to solve, or at least substantially alleviate, the above-described disadvantageous [sic].” (Ex. 1001, 1:53–2:9.) The '478 Patent explains that the claimed invention achieves this goal, at least in part, through its innovation of a remotely-controlled vehicle with “a cavity arranged centrally within the vehicle body” that “has at least one bin receiving opening facing towards the underlying storage columns.” (*Id.* at 2:34–38.)

Petitioner fails to adequately explain why a POSITA would be motivated to make the combinations it proposes with these prior art systems and instead, its “combinations” with NO/366 impermissibly use the '478 Patent itself as a “roadmap” for putting “pieces of a ‘jigsaw puzzle’ together.” *InTouch Techs., Inc. v. VGO Commc’ns, Inc.*, 751 F.3d 1327, 1351–52 (Fed. Cir. 2014) (holding that no motivation to combine existed because expert “succumbed to hindsight bias” and “relied on [the patent] itself as her roadmap for putting what she referred to as pieces of a ‘jigsaw puzzle’ together”).

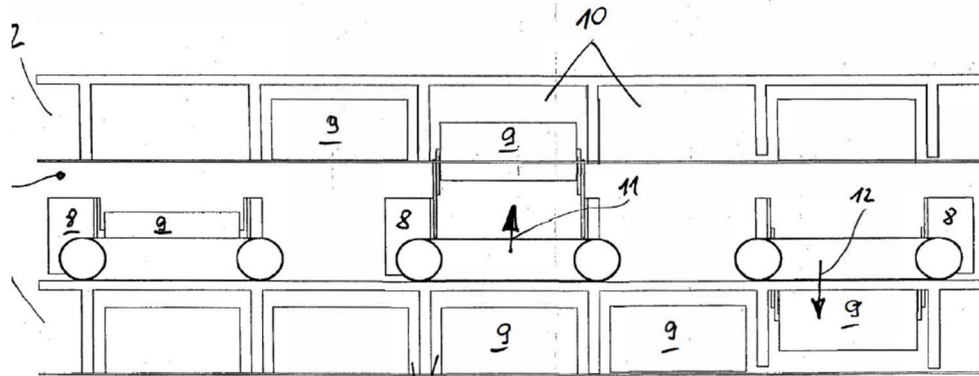
1. NO/366, alone or in combination with the AutoStore Presentation, JP/647, DE/241, and/or the '662 Patent, does not disclose or render obvious “[a] cavity arranged to receive a storage bin from a storage column” in Claim 19 of the '478 Patent.

Petitioner admits that neither NO/366, nor the AutoStore Presentation disclose “[a] cavity arranged internally within the vehicle body arranged to receive a storage bin from a storage column”. (See Pet. at 56 (arguing that “[t]his limitation is disclosed in JP/647, DE/241, and the '662 Patent”).) Indeed, NO/366 and the AutoStore Presentation only disclose a robot with a cantilevered “yoke/overhang” projecting away from the vehicle:

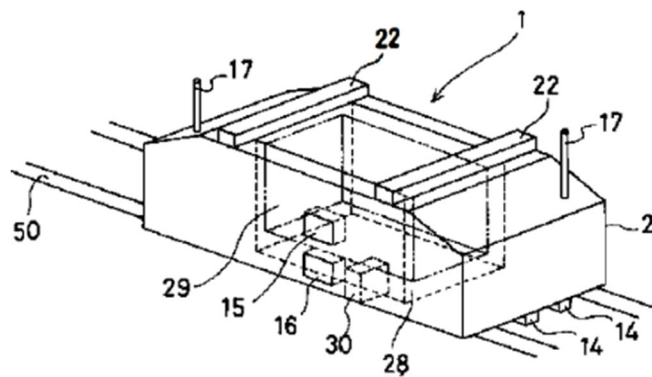


(Ex. 1005 at Fig. 2; see also Ex. 1013.) This “yoke/overhang” was a problem identified by the '525 Patent with the prior art robots. (Ex. 1001, 1:46–62.)

Nor do JP/647, DE/241, or the '662 Patent disclose the “cavity” limitation. The embodiments described in JP/647 and DE/241 do not contain a “cavity,” but rather, an “aperture” in the center of the vehicle (DE/241) or railway car (JP/647) through which containers can be lifted:



Ex. 1010, Fig. 2.



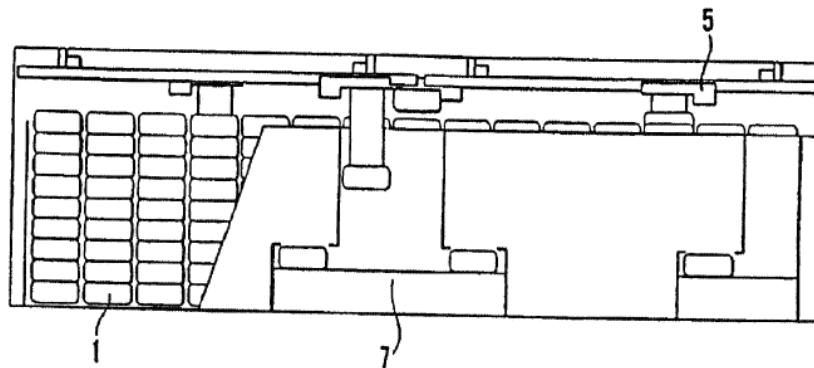
(Ex. 1008, Fig. 2.) A POSITA would have known that an aperture is not the same as a cavity. An aperture is an opening or open space, while a cavity is a hollow space. (See Ex. 2024 at 3 (synonym for “aperture” is an “opening”), 4 (“cavity” means “sunken area”; its synonym including “hollow” or “hollow place in a tooth”).)

Additionally, it would not have been obvious to a POSITA to modify an open aperture to be a hollow cavity. Nor does Petitioner advance this theory at all. Indeed, DE/241 teaches away from such a modification. DE/241 explains that the key advantage of the disclosed invention is that it allows the robots to “drive a storage container 9 *up* to one of the storage positions 10 according to arrow 11 *or down* to

a storage position according to arrow 12.” (Ex. 1010, [0022] (emphasis added).)

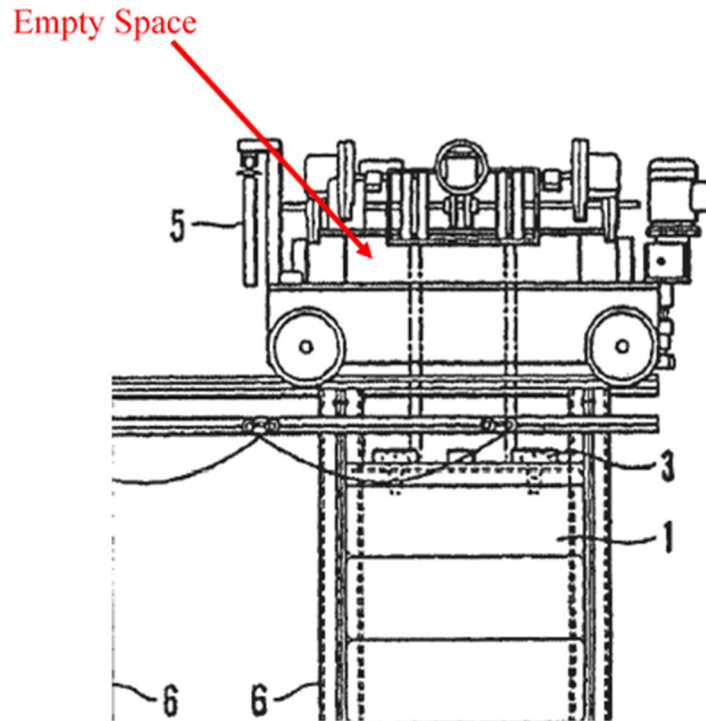
For obvious reasons, a robot with a closed-top *cavity* instead of an open-top aperture *cannot* accomplish this goal. Thus, a POSITA would not have found it obvious to modify DE/241 to modify the aperture to a cavity. JP/647 likewise teaches a railway car with an open-top aperture (e.g., “storage bay 28”), and a POSITA would not have found it obvious to modify the railway car to have a closed top for the same reasons.

The ’662 Patent also does not disclose or render obvious the claimed “cavity.” The “lifting device” (a “crane”) shown in the ’662 Patent does not include a cavity that is open only on one side (bottom); it has an *empty space* that is open on three sides, much like the prior art vehicle in NO/366:



(Ex. 1012 at Fig. 2a; *see also id.* at 2:59–61 (“Fig. 2 and Fig. 2a are a side view of a part of a store as illustrated in Fig. 1, with a possible design of a lifting device.”); *compare* Ex. 1012 at Fig. 2 *with* Ex. 1005 at Fig. 2 .) To the extent Petitioners rely on Figure 2 of the ’662 Patent to show the purported “cavity,” this does not help them. (*See* Pet. at 60.) Figure 2 of the ’662 Patent does not show a “cavity.” It

merely illustrates “a crane device” that lifts the containers and contains empty space on the sides:



(Ex. 1012, Fig. 2 (annotated).) Indeed, the '662 Patent expressly states that, because the “design of the lifting devices 5 is not a part of this invention ... as an embodiment we have chosen to employ a crane device.” (Ex. 1012, 3:51–53.) What is clear from Fig. 2 of the '662 Patent is that the disclosed device is a crane and moves in one direction (*i.e.*, it is not a grid-based device, as is required by claim 19 of the '478 Patent).

Because neither JP/647, DE/241, nor the '662 Patent discloses “[a] cavity arranged internally within the vehicle body arranged to receive a storage bin from a storage column,” NO/366, alone or in combination with the AutoStore Presentation,

JP/647, DE/241, and/or the '662 Patent, do not disclose or render obvious this limitation.

2. A POSITA Would Not Have Been Motivated to Combine NO/366 and/or the AutoStore Presentation with JP/647, DE/241, and/or the '662 Patent

To make out its obviousness Grounds, Petitioner must prove that a POSITA, without knowledge of the claimed invention and without hindsight, would have been motivated to combine the prior art to practice the claimed invention and would have had a reasonable expectation of success in doing so. *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1374–75 (Fed. Cir. 2011); *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1326–28 (Fed. Cir. 2009). Here, Petitioner fails to show that a POSITA would have been motivated to combine the references in Grounds 2–4 to reach the claimed invention. Petitioner’s rationale for combining NO/366 with each of JP/647, DE/241, or the '662 Patent is that they are directed to “similar technological problems.” Pet. at 17. This is both incorrect and nowhere sufficient, as explained below.

a. Petitioner has not articulated a proper motivation to combine NO/366 with JP/647.

JP/647 relates to “a transportation system for the transportation of a cargo-loading/unloading transport car between undercar stations along a railway line with junctions.” (Ex. 1008, (0001); Abstract (“As a railway line becomes more complex, it becomes necessary to use a plurality of switching devices... Storing

cargo 29 together with a loading means in a storage bay 28 enables a transport vehicle 1 to autonomously change direction at a junction by turning a steering mechanism. Thus, even in instances where a great number of junctions are required due to the complexity of the railway line, dispensing with the need for switching devices helps suppress increase in both cost and malfunction incidence in the transportation system as a whole”), (0010) (“The transportation system of the present embodiment, as shown in FIG. 1, comprises a transport car 1 that travels on a railway line”).)

Petitioner fails to carry its burden to prove why a POSITA would have been motivated to look to the railway transport cart in JP/647 to solve a problem in the very different grid-based system of the '478 Patent. *See* Pet. at 51–53. It glosses over this point by relying on an expert declaration that includes misleading alterations and omissions. (*E.g.*, Pet. at 51 (citing to expert declaration, Ex. 1014, ¶110, which replaces “transport car” (a railway car) in a quotation from JP/647 with “[robot]”).) Indeed, given the substantial differences between a railway transport car and the AS/RS system taught by NO/366, a POSITA would not have been motivated to combine NO/366 with JP/647.

A POSITA would have recognized many practical problems with using a railway transport car with the AS/RS system taught by NO/366, such as: JP/647 does not disclose a grid-based system; the size and weight of JP/647’s railway car on the

grid, that the railway cars taught by JP/647 are not remote controlled (*e.g.* JP/647 at (006)), and that the railway cars taught by JP/647 can only travel in one direction.

The Board can rely on Petitioner’s own words for this point. During the prosecution of the EP Phase of WO/055, the European Patent Office (“EPO”) asserted against WO/055 the *same combination of NO/366 and JP/647* that Petitioner asserts here. (Ex. 2022 at 6 (Sheet 5) ¶ 4.5 (asserting the combination of JP/647 (“D1”) and NO/366 (“D2”).) In response, Petitioner took a position inconsistent to the one being taken in this proceeding, urging that JP/647 is not the “closest prior art,” discloses a “non-grid based [] system,” and that “[n]on-grid based systems ... would [not] have *realistically* been considered *in the circumstances*” as options for “grid-based systems,” such as WO/055. (Ex. 2023 at 4.) The ’478 Patent, as Petitioner has recognized, is *also* a grid-based system.¹³ (*See* Pet. at 41 (acknowledging that WO/055 shows “the same type of stacked-bin storage system disclosed in the ’478 Patent”).)

¹³ In contravention of its duty to the Board, Petitioner failed to disclose the inconsistent position in the Petition. *See* 37 C.F.R. § 42.51(b)(2)(iii) (“Unless previously served, a party must serve relevant information that is inconsistent with a position advanced by the party during the proceeding concurrent with the filing of the documents or things that contains the inconsistency.”)

- b. Petitioner has not articulated a proper motivation to combine NO/366 with DE/241.

The system described in DE/241 is also fundamentally different from that described in NO/366. The DE/241 system includes a low cart that travels in only one direction (not two); the cart does not travel on top of a grid) but instead in rows between storage locations above and below it; and it has a through aperture to allow containers (that are taller than the cart) to be transferred to storage locations above and below. Nor does DE/241 show “stacks” of containers. Critically, DE/241 solves the problem of two-directional travel in a completely different way than NO/366: It uses different direction vehicles (specific north-south and east-west carts), and a system for providing a zig-zag path of dropping off a container into a space immediately above or below and picking it up with the next robot travelling in the perpendicular direction. (Ex. 1010, Fig. 1.) The DE/241 vehicle also requires telescopic arms mounted on two sides. (Ex. 1010, [0025], Figs. 2–3.) NO/366 on the other hand can work with rectangular containers; the lifting device it discloses is a crane-like system only suitable for storage grids arranged below the vehicle, and the height of the vehicle is taller than the container it carries. Nor does Petitioner explain how the DE/241 system would be adapted for stacks of containers rather than the solution proposed in DE/241. Indeed, there is no such motivation, particularly where DE/241 already solves the problem of two directional movement in a different way and the lifting devices operate so differently.

- c. Petitioner has not articulated a proper motivation to combine NO/366 with the '662 Patent.

Petitioner again fails to address why a POSITA would have been motivated to look to the '662 Patent to modify the NO/366 robot (*see* Pet. at 55–57), especially when the '662 Patent expressly states that the design of the “lifting device ... is not a part of this invention.” (Ex. 1012 at 3:51–53.) At least because of this express restriction from the '662 Patent, a POSITA would not have combined the “lifting device” shown in the '662 Patent with the AS/RS system taught by NO/366. Moreover, like JP/647, '662 Patent at best discloses a non-grid based, crane device having a single direction of movement. Petitioner provides no evidence why a POSITA would have looked to this source to solve a problem in grid-based storage systems, which require vehicles moving in two dimensions.

C. Ground 5 Fails Because the Inventions Described in the '478 Patent Were Not On-Sale More Than a Year Before the Priority Date of the Patent

Petitioner argues that claim 19 is invalid under AIA § 102(a) because the invention was sold to the Central Bank of Russia as of 2014. Pet. at 66–81. This argument fails at the outset because, as explained above, the '478 Patent is entitled to the December 2012 priority date of its Norwegian grandparent application. *See*

supra § VI.A.¹⁴ Thus, Ground 5 should be dismissed for the same reason that Grounds 1A–1B should be dismissed.

D. Grounds 6–8 Fail: Claim 19 Meets the Requirements of 35 U.S.C. § 112

1. Ground 6 Fails Because Claim 19 Meets the Written Description Requirement.

- a. **The specification provides written description support for a robot without at least one set of wheels fully within the body.**

The specification of the '478 patents provides written description support for a “vehicle body” that does not necessarily have at least one set of wheels “arranged fully within the vehicle body.”

The specification provides no express definition of “vehicle body” that includes such a requirement, and provides exemplary embodiments without it. For example, the specification describes an embodiment with “perpendicular []

¹⁴ Even Petitioner does not contend that the inventions described in the Norwegian grandparent are invalid under the on-sale bar provision of pre-AIA § 102. Pet. at 77 (“Petitioner does not contend ... that AutoStore’s contract (or the negotiations that led to it) would establish an on-sale bar with respect to a patent that was entitled to the filing date of NO/488.”) It hinges on the incorrect on-sale bar Ground that the '478 Patent is not entitled to the December 10, 2012 priority date.

caterpillar belts.” This embodiment is silent as to the location of its wheels placement, and as to whether it uses wheels at all. ’478 Patent at 3:9–10. Even with embodiments that expressly refer to wheels, the specification remains silent about whether the wheels are “fully within the vehicle body.” *See, e.g., id.* at 2:57–3:3 (describing a “preferred embodiment” but not reciting this feature), 3:4–7 (describing another preferred embodiment in which the wheels are “arranged symmetrically around the cavity, for example near the lower corners of the vehicle” to allow for “high vehicle stability”).

The specification refers to the “inventive vehicle” as having “a cavity arranged centrally within the vehicle body.” Although the specification also refers to an embodiment as having “vehicle rolling means [] arranged fully within the vehicle body,” *see id.* at 2:34–39, it does not specify that feature as a requirement of the invention. *See Unwired Planet, LLC v. Apple Inc.*, 829 F.3d 1353, 1358 (Fed. Cir. 2016) (ruling that reference to the “present invention” in one sentence of the paragraph does not limit the invention to the features recited in the rest of the paragraph).

The specification also explains that the features of the invention that solve the main disadvantages of the prior art and provide benefits such as enhanced stability and time efficiency are: (i) the placement of the central cavity, and (ii) the placement of the body surrounding the cavity. *See* ’478 Patent at 3:55–4:10. Although the

“rolling means fully within the vehicle body” feature provides “additional stability” (*id.* at 4:11–21) and perhaps additional advantages in some cases, a POSITA would have understood that this feature is not required to solve the problems in the prior art that the patent has identified—the specification describes that all of those problems are solved by the placement of the cavity. *See id.* at 1:46–62, 3:56–4:10.

b. The specification provides written description support for a single-space robot.

The specification of the ’478 Patent provides written description support for a single-space robot. The specification consistently describes the body as just the “body” or “framework” of the robot, without reference to any “first section for storing vehicle driving means” and a separate “second” section. *E.g.*, ’478 Patent at 4:58–60, 5:64–65, 6:49. The specification does not specify that the “vehicle body” must comprise “a first section for storing vehicle driving means and a second section for receiving [a] storage bin.” There is no disavowal of other types of vehicle bodies. For instance, the embodiments described at column 2, line 57 to column 3, line 3 do not clearly contain any division between the “first” and “second” sections, nor any specific requirement that the “driving means” be placed in the “first” section.

Regardless, Petitioner’s proposed restriction that the “vehicle body” comprise “first” and “second” sections—to the extent it is adopted by the Board—does not “necessarily require that the vehicle body extend laterally over more than one grid space in at least one direction.” In particular, the two sections may be lateral to each

other (even though Complainants dispute that is a requirement at all) and still all fit within a single grid space (including the tracks) in both lateral directions, such that the robot would not interfere with robots moving through adjacent cells.

The features that Petitioners allege are “important” to the invention to achieve its stated benefits, *i.e.*, the “first” and “second” sections, are not necessary at all. The specification explains that the inventive robot has “higher stability properties, higher maximum handling weights, a more effective use of available space during operation and a less time consuming lifting and transporting process of storage bins” as compared with the prior art. ’478 Patent at 2:7–12. The specification attributes none of these benefits to any purported division of the body between “first” and “second” sections, but rather to the placement of the central cavity in the vehicle body. *See, e.g.*, ’478 Patent at 3:56–4:21.

2. Ground 7 Fails Because Claim 19 Meets the Enablement Requirement.

The specification of the ’478 Patent provides an enabling disclosure of claim 19 under the factors identified in *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

Quantity of Experimentation. The specification does not discourage a POSITA from creating a single-space robot without at least one set of wheels

arranged fully within the body.¹⁵ As described above, the specification provides written support for a robot without the features that Petitioner reads into it. The specification also explains that the benefits of the invention (in improved weight handling, stability, and efficiency) are conferred by (i) the placement of the central cavity and (ii) the placement of the body surrounding the cavity. '478 Patent at 3:56–4:10. The specification does not teach that the two requirements Petitioner seeks to read into claim 19 are required to confer these advantages.

Direction / Guidance. As to Petitioner's alleged requirement that at least one set of wheels be arranged fully within the vehicle body, while the specification describes embodiments with that feature, it does not characterize it as a necessary part of the invention. The specification provides other examples of the vehicle using a variety of mechanisms that may not even use wheels and that at any rate may not be fully within the vehicle body. *E.g.*, '478 Patent at 3:7–10 (“At least one, and most preferably both, set(s) of vehicle rolling means may comprise at least four wheels.

¹⁵ Even Petitioner's proposed construction (with which AutoStore disagrees), contrary to their assertion, does not require that the resulting robot “cover[] more than one grid space.” A robot having a “first section for storing vehicle driving means” that is lateral to a “second section” comprising the cavity need not take more than one grid space in either lateral direction.

Other embodiments such as [] two perpendicular oriented caterpillar belts may be envisaged.”).

In addition, the specification does not explain that having at least one set of wheels fully within the vehicle body is necessary to achieve the benefits of the invention over the prior art. Rather, the necessary feature for achieving these benefits is “[t]he central arrangement of the cavity in the vehicle body” and “[t]he presence of the cavity surrounding body.” ’478 Patent at 3:56–4:10. The placement of at least one set of wheels fully within the vehicle body is an embodiment that may confer “additional advantage.” *See id.* at 4:11–21.

Contrary to Petitioner’s contention, the specification does not explain that a robot encompassing more than a single grid space is “critical to achieving the goals of the invention.” *See Pet.* at 88. Indeed, the specification explains that the benefits of the invention (in improved weight handling, stability, and efficiency) are conferred by (i) the placement of the central cavity and (ii) the placement of the body surrounding the cavity. ’478 Patent at 3:56–4:10. The specification expressly describes an embodiment of a robot covering a single cell in one direction, *e.g., id.* at 2:57–61, and there is no exclusion or teaching away from an embodiment that is limited to a single cell in both lateral directions.

The Nature of the Invention. Although Petitioner focuses on purported limitations imposed by the specification on the scope of the invention,¹⁶ the proper *Wands* inquiry under this factor is “the subject matter to which the claimed invention pertains. The nature of the invention becomes the backdrop to determine the state of the art and the level of skill possessed by one skilled in the art.” *See* M.P.E.P. § 2164.05(a). Petitioner provides no discussion of the subject matter of the invention—instead, in circular reasoning, it claims this factor is met because the invention is limited to how it seeks to limit the claims. As explained previously, the specification does not so limit the scope of the claims.

The State of the Prior Art. The transition from the prior art robotic vehicles to a single-space robot that meets the other limitations of the claims of the '478 Patent would not have required undue experimentation given the disclosure in the specification. As explained, the specification teaches that the wheels must be placed on tracks and that the cavity may be dimensioned to be equal to or larger than the size of the storage opening. Petitioner and its expert provide no factual evidence that a POSITA would have had to perform undue experimentation to create this robot. *See* Pet. at 89–90 (discussion of “The State the Prior Art”); Ex. 1014 ¶ 157.

¹⁶ As already explained, AutoStore disagrees with this characterization of the invention.

Relative Skill in the Art / Unpredictability of the Art. As discussed above, the specification does not teach away from a single-cell robot, going so far as to expressly describe a single-space robot in some of the dependent claims of related patent (*e.g.*, claim 3 of U.S. Patent No. 10,093,525). Petitioner and its expert provide not factual evidence that the specification would “teach away” from a single-space robot. *See* Pet. at 90; Ex. 1014 ¶ 158.

The Breadth of the Claims. As described above, the specification does not identify the two features that Petitioner seeks to impose as necessary to address the disadvantages of the prior art and to achieve the stated benefits of the invention. Thus, no “undue experimentation” would be required to address the problems identified in the prior art with, for example, a single-cell robot having a cavity within the body, given the disclosure of the ’478 Patent.

3. **Ground 8 Fails Because Claim 19 Is Not Indefinite.**

Petitioner argues claim 19 is indefinite because the term “about the cavity” does not inform a POSITA of the scope of the claim “with respect to the location of the rolling members/wheels of the robot[s].” Pet. at 92. This argument fails.

Simply put, Petitioner puts forward no evidence that a POSITA cannot understand the meaning of “about the cavity.” It simply parrots its expert’s conclusory statement that the term has no “particular meaning” to a POSITA beyond an “unspecified” relationship between location of the wheels and the cavity (*see* Pet.

at 92; Ex. 1014 ¶ 161). Indeed the specification and the claim make the meaning clear—that the wheels be arranged around the cavity. The relevant claim limitation recites “a plurality of rolling members attached to the vehicle body about the cavity, arranged for travelling along the storage structure in the first and second directions.”

In the embodiment of Figure 3, one set of wheels (10) is arranged inside but on the corners of the cavity, and another set (11) is arranged in the corners of the cavity but on the outside. Figures 4–5 (another embodiment) show one set of wheels (11) in the corners of the robot and around the cavity (which is in the center). The relationship between the wheels and the cavity is clear: the wheels must surround the cavity to stabilize the robot’s weight and to allow the robot to move.

VII. THE BOARD SHOULD DENY INSTITUTION UNDER *ARTHREX*

This petition should also be denied under *Arthrex, Inc. v. Smith & Nephew, Inc.*, 941 F.3d 1320 (Fed. Cir. 2019) *cert. granted sub nom.*, *United States v. Arthrex, Inc., et al.*, 141 S.Ct. 549 (2020), and *cert. granted sub nom.*, *Smith & Nephew, Inc., et al. v. Arthrex, Inc., et al.*, 141 S. Ct. 551 (2020), to the extent the Supreme Court’s decision therein is applicable to any Final Written Decision entered here. In particular, 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

Case PGR2021-00038

U.S. Patent No. 10,696,478 B2

not been nominated by the President and confirmed by the Senate in violation of the Appointments Clause of the Constitution.

VIII. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution of Petitioner's PGR petition.

Date: May 10, 2021

Respectfully submitted,

/s/ W. Todd Baker

W. Todd Baker (Reg. No. 45,265)
KIRKLAND & ELLIS LLP
1301 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Telephone: (202) 389-5000
Facsimile: (202) 389-5200
Email: AutoStore_PTAB@kirkland.com

Joseph A. Loy (Reg. No. 51,972)
Arun P. Swain (Reg. No. 71,356)
KIRKLAND & ELLIS LLP
601 Lexington Avenue
New York, NY 10022
Telephone: (212) 446-4800
Facsimile: (212) 446-4900
Email: AutoStore_PTAB@kirkland.com

*Attorneys for Patent Owner
AutoStore Technology AS*

CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

Under the provisions of 37 C.F.R. § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Patent Owner Preliminary Response totals 14,848 words as counted by Microsoft Word 2016, the word-processing system used to prepare this paper, which is less than the 18,700 words allowed under 37 C.F.R. §§ 42.24(a)(1)(ii) and 42.24(b)(1), exclusive of caption page, the table of contents, the table of authorities, the certificates of service and of word count, and the table of exhibits.

Date: May 10, 2021

Respectfully submitted,

/s/ W. Todd Baker

W. Todd Baker (Reg. No. 45,265)
KIRKLAND & ELLIS LLP
1301 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Telephone: (202) 389-5000
Facsimile: (202) 389-5200
Email: AutoStore_PTAB@kirkland.com

Case PGR2021-00038
U.S. Patent No. 10,696,478 B2

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a complete copy of the foregoing document was served on May 10, 2021 on counsel of record for the Petitioner via email to the following addresses:

Stephen J. Elliot
Raffaele A. DeMarco
Sullivan & Cromwell LLP
125 Broad Street
New York, NY 10004
elliotts@sullcrom.com
demarcor@sullcrom.com

Date: May 10, 2021

/s/ Joseph A. Loy

Joseph A. Loy
KIRKLAND & ELLIS LLP
601 Lexington Avenue
New York, NY 10022
Telephone: (212) 446-4800
Facsimile: (212) 446-4900
Email: AutoStore_PTAB@kirkland.com