

Filed August 18, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

FREIGHTCAR AMERICA, INC.,

Petitioner,

v.

NATIONAL STEEL CAR LIMITED,

Patent Owner

Case IPR2025-01047

Patent No. 8,132,515

PATENT OWNER'S REQUEST FOR DISCRETIONARY
DENIAL OF INSTITUTION

On behalf of National Steel Car Limited
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2008	Petitioner's Invalidity Contentions from No. 24-cv-00594-JLH-CJB (D. Del.)
2009	Petitioner's <i>Sotera</i> Stipulation
2010	Portions of United States District Courts—National Judicial Caseload Profile for 12-month period ending March 31, 2025; available at https://www.uscourts.gov/data-news/reports/statistical-reports/federal-court-management-statistics
2011	Time to Milestones for the District of Delaware, DocketNavigator
2012	U.S. Provisional Application No. 61/977,753
2013	WIPO Publication No. WO2015/157734
2014	U.S. Patent No. 10,017,191
2015	Inventor's Declaration from file history of U.S. Patent No. 10,017,191
2016	Information Disclosure Statement Dated October 10, 2016 from File History for the Application that Issued as U.S. Patent No. 10,017,191
2017	U.S. Patent No. 10,710,612
2018	Inventor's Declaration from file history of U.S. Patent No. 10,710,612
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Pursuant to the United States Patent and Trademark Office’s March 26, 2025 Memorandum titled “Interim Processes for PTAB Workload Management” (“March 26 Memorandum”) and in accordance with 37 C.F.R. § 42.24, Patent Owner National Steel Car Ltd. (“Patent Owner”) respectfully submits this brief in support of discretionary denial of institution of Petitioner FreightCar America, Inc.’s (“Petitioner’s”) Petition for *Inter Partes* Review (Paper 1, hereinafter “Petition”) of U.S. Patent No. 8,132,515 (the “’515 Patent”) under 35 U.S.C. § 314(a). The Director, in consultation with the Patent Trial and Appeal Board (“PTAB” or “Board”), retains broad discretion to deny institution where considerations of efficiency, fairness, and the integrity of the patent system so warrant.

This proceeding presents precisely the type of circumstances that justify discretionary denial. As detailed below, the factors articulated in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, and further clarified in subsequent guidance from the Director, weigh heavily against institution. Among other things, Petitioner’s delay in filing this Petition despite long-standing knowledge of the ’515 Patent undermines the efficiency and fairness goals that discretionary denial is designed to protect and demonstrates the parties’ strong settled expectations regarding the patent; the parallel district court litigation is well advanced, and the parties and the court have invested substantial resources in the co-pending litigation; and the issues raised in the Petition substantially overlap with those before the district court.

I. Introduction

Petitioner seeks to burden the Board and Patent Owner with its challenge to the validity of the '515 Patent that should have been brought years ago. The '515 Patent issued on March 13, 2012, more than 13 years before the filing of the Petition. Petitioner demonstrably knew of the '515 Patent at least as early as 2014, when first it cited to the '515 Patent in its own patent applications and Information Disclosure Statements ("IDSs"). That knowledge was reinforced when Petitioner measured and copied Patent Owner's patent-practicing rail cars, [REDACTED]

[REDACTED]. Yet, Petitioner chose not to challenge the '515 Patent *until the last possible day – more than thirteen years later*, thereby indicating Petitioner's strong settled expectation regarding the validity of the patent. Patent Owner's (and, arguably, Petitioner's) strong settled expectations and Petitioner's lack of persuasive reasoning why an IPR is an appropriate use of Board resources under circumstances, therefore, overwhelmingly favor denial.

Moreover, Petitioner's challenge is duplicative. Patent Owner sued Petitioner for infringement based at least on its use and importation of its infringing rail cars from its manufacturing facility in Mexico in *National Steel Car Limited v. FreightCar America, Inc. et al.*, No. 24-00594-JLH-CJB (the "District Court Litigation"). The Court has already scheduled a jury trial on January 11, 2027, mere

weeks after the expected date of the Final Written Decision in this IPR of December 18, 2026. While Petitioner has entered a *Sotera*-style stipulation, it ignores that much of the alleged prior art (hereinafter, the “asserted art”) is both based on printed publications *and* the products described therein. Thus, Petitioner will be free to bring substantively the same challenges in the District Court. Maintaining this proceeding when the validity of the ’515 Patent will be decided at the District Court on the same prior art is an inefficient use of the PTO’s and parties’ time and resources.

Petitioner’s asserted art is also cumulative to what has already been considered by the Examiner during prosecution. Thus, it is a waste of the Board’s resources to reconsider art that was previously before the Office.

Accordingly, the Petition should be discretionarily denied institution.

II. The Director Should Exercise Discretion and Deny Institution

The America Invents Act (or AIA) allows the Director to exercise her full discretion, free of appellate review, to determine whether to institute an IPR. 35 U.S.C. § 314(a). Resultingly, “[t]he PTO is permitted, but never compelled, to institute an IPR proceeding.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016). The Director has considered six factors in determining whether discretionary denial due to efficiency considerations relating to parallel proceedings is appropriate (the “*Fintiv* factors”):

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner(s) 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.

Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv I*”); *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 7-8 (PTAB May 13, 2020) (informative, designated July 13, 2020) (denying institution) (“*Fintiv II*”).

The March 26 Memorandum provided additional relevant considerations, including:

- The strength of the unpatentability challenge;
- The extent of the petition's reliance on expert testimony;
- Settled expectations of the parties, such as the length of time the claims have been in force;

- Any other considerations bearing on the Director's discretion; and
- The ability of the PTAB to comply with pendency goals for *ex parte* appeals, its statutory deadlines for AIA proceedings, and other workload needs. *See* 35 U.S.C. § 316(b).

March 26 Memorandum at 2-3.

Here, all *Fintiv* factors and the additional considerations enumerated in the March 26 Memorandum weigh in favor of discretionary denial: the '515 Patent's claims have been in force for over 13 years, the Petition relies on asserted art previously considered by the Office during prosecution, and Petitioner's *Sotera*-type stipulation fails to meaningfully reduce the issues in the District Court case. Against this backdrop, Petitioner will not be able to provide any persuasive reasoning why an *Inter Partes* Review is an appropriate use of Board resources.

Patent Owner respectfully requests that the Director deny institution of the IPR.

A. Patent Owner's Strong Settled Expectations and Petitioner's Inaction Despite Knowledge of '515 Patent for More than 11 Years

Petitioner knew of the '515 Patent for at least two years after it issued, but waited until the patent was more than *thirteen years old* to bring this challenge, suggesting a strong settled expectation of Petitioner regarding the validity of the patent. *See, e.g., Datadome S.A. v. Arkose Labs Holdings, Inc.*, IPR2025-00693,

Paper 13 at 2-3 (petitioner's own evaluation of a patent is not enough overcome Patent Owner's strong settled expectations). During those thirteen years, Petitioner cited the '515 Patent in its own patent applications,¹ [REDACTED] [REDACTED] copied Patent Owner's patented rail car, and was involved in multiple patent lawsuits with Patent Owner. And notably, in the pending District Court Litigation, the Court has already found that Petitioner likely knew of the '515 Patent prior to the lawsuit. Ex. 2005 (Report and Recommendations Denying FreightCar's Motion to Dismiss ("Defendant—i.e., a party that had every reason to be highly attuned to the ins and outs of the intellectual property portfolio of its fierce competitor, one with whom it frequently litigates in the patent space—knew of the asserted patents and their content prior to suit."); Ex. 2006 (adopting Report and Recommendations in Ex. 2005). Petitioner's behavior further solidified strong settled expectations regarding the '515 Patent that should not be disturbed.

¹ JAC Operations Inc. is the assignee of each of the applications and patents described as being owned by Petitioner in this section. JAC Operations Inc. is a wholly-owned subsidiary of Petitioner and is identified as a real party-in-interest. *See* Ex. 2007 at ¶ 10 ("FreightCar America admits that JAC Operations, Inc. is wholly owned by FreightCar America, Inc."); Petition at 124.

1. Petitioner Knew of the 13-Year Old '515 Patent for at least Eleven Years, Including from the “U.S. AND OTHER PATENTS PENDING” Markings on the Patented Rail Cars Petitioner Copied

The '515 Patent's claimed inventions are rooted in open-top, bottom discharge rail cars (colloquially referred to as “jennies”) sold and manufactured between 2008 and 2009. Ex. 2004, Second Amended Complaint at ¶ 21. The patented jennies were sold by Patent Owner to Canadian National Railway Company (“CN”) for use on the Duluth, Missabe and Iron Range (“DMIR”) railway. *Id.* These rail cars were and remain marked “U.S. AND OTHER PATENTS PENDING”:



Id. at ¶ 26. [REDACTED]

[REDACTED] Ex. 2028² ([REDACTED]

[REDACTED]); Ex. 2033 at 3. As part of the quotation processes, Petitioner would have seen that jennies made by Patent Owner were all marked “U.S. AND OTHER PATENTS PENDING.” Ex. 2004 at ¶26. [REDACTED]

[REDACTED] Ex. 2007 at ¶¶68-69.

[REDACTED] Petitioner measured and copied Patent Owner’s commercial embodiments of the ’515 Patent claims to within manufacturing tolerances. Ex. 2004 at ¶¶59-71.

It is no wonder that the allegedly infringing rail cars are near duplicates, within manufacturing tolerances, of Patent Owner’s patent-practicing products and the inventions in the ’515 Patent.

² “FCA” is a common term for FreightCar America, which it itself uses. *See* Ex. 2032 at 7.

2. Petitioner Had Reviewed and Understood the '515 Patent for More than Eleven Years Before Filing the Petition

Petitioner publicly acknowledged to the USPTO that it had reviewed and understood the '515 Patent more than a decade before filing the Petition but took no steps to challenge the '515 Patent until the submission of the Petition to the PTAB on May 27, 2025—more than eleven years after explicitly incorporating the '515 Patent in at least one of Petitioner's own patent applications.

Petitioner filed U.S. Provisional Application No. 61/977,753 on April 10, 2014, which purports to incorporate the entirety of the '515 Patent in its specification by reference, thereby making the disclosure part of Petitioner's own patent application:

cars to high-sided gondolas. Using a gondola, the railroads are able to haul a larger amount of coal per car. For examples of gondola cars see U.S. Patents 4,212,252; 4,361,097; 4,911,082; 5,253,593; 5,335,603; 5,488,912; 5,813,353; 6,148,735; 6,978,720; 8,132,515; 8,240,256, which patents are incorporated herein by reference.

Ex. 2012 at ¶ [0005] (annotated to highlight '515 Patent). Petitioner's subsequent applications claiming priority to this provisional application include nearly the same language. *See, e.g.*, Ex. 2013 at ¶ [0006], WIPO Publication No. 2015/157734; Ex. 2014 at 1:30-41, U.S. Patent No. 10,017,191; Ex. 2017 at 1:36-46, U.S. Patent No. 10,710,612. In each of the subsequent applications Petitioner filed declarations on behalf of the inventors attesting that the application "was made or authorized to be

made by me.” Ex. 2015; Ex. 2018. IDSs were filed in the applications leading to Petitioner’s patents, Nos. 10,017,191 and 10,710,610, including on October 10, 2016 and July 10, 2018. Ex. 2016; Ex. 2019. These IDSs specifically identify the ’515 Patent. *Id.*

Petitioner again incorporated the ’515 Patent by reference in the specification of U.S. Provisional Application No. 62/650,472, filed March 30, 2018. Ex. 2020 at ¶ [0071]. The same incorporation by reference was repeated in WIPO Publication No. 2019/191762 (Ex. 2021 ¶ [0074]), filed April 1, 2019 and U.S. Application No. 17/038,205 (Ex. 2022 ¶ [0073]), filed September 30, 2020. Petitioner again filed declarations on behalf of the inventors attesting that the applications “were made or authorized to be made by me.” Ex. 2023. Petitioner’s awareness of the ’515 Patent and failure to seek early review of the patent favors denial.

Patent owners have been found to have strong settled expectations where petitioners demonstrated knowledge of the challenged patents solely by having filed IDSs over a decade before filing their petitions. *iRhythm Tech. v. Welch Allyn, Inc.*, IPR2025-00363, Paper 10 at 3 (June 6, 2025) (granting request for discretionary denial where patents were in force since 2012 and Petitioner submitted IDS in its own patent application identifying Patent Owner’s application) (Director review denied, Paper 13 (August 5, 2025)). In addition, long knowledge of a patent and patented technology weighs in favor of denial. *Amazon.com, Inc. v. Audio Pod IP*,

LLC, IPR2025-00757, Paper 15 at 2-3 (PTAB Aug. 14, 2025) (denying institution where there is no trial date set, and petitioner first learned of the patents and patented technology over a decade before). Here there is considerably more evidence of Petitioner's long-standing and detailed knowledge of the patent. For at least this reason, review should be denied.

3. Petitioner and Patent Owner Have Been in Serial Litigations for Petitioner's Infringement of Patent Owner's Other Patents

Petitioner is a serial infringer of Patent Owner's patents, and, with its demonstrable knowledge of the '515 Patent, should have known that Patent Owner would assert its rights for any infringement of its patents, at least because of the long history of litigation between the parties. The Court in the District Court Litigation, in denying a motion to dismiss Patent Owner's willfulness claim based on Petitioner's knowledge of the '515 Patent, characterized Petitioner as "a party that had every reason to be highly attuned to the ins and outs of the intellectual property portfolio of its fierce competitor, one with whom it frequently litigates in the patent space." Ex. 2005.

Patent Owner has sued Petitioner for infringement three times since 2011 regarding seven different patents. Ex. 2024; Ex. 2025; Ex. 2026. In 2011, Patent Owner sued Petitioner for infringement of U.S. Patent Nos. 8,047,140 and 8,065,964 relating to railroad hopper cars. Ex. 2024. In 2015, Patent Owner filed two lawsuits

against Petitioner for infringement of five U.S. Patents relating to gondola cars – Nos. 7,434,519, 7,461,600, 7,878,125 8,025,014, and 7,757,611. Ex. 2025; Ex. 2026. Petitioner was aware that it had an opportunity to investigate and challenge the '515 Patent at least eight years ago when Petitioner filed IPRs against two of the patents in the 2015 cases, notwithstanding that it ultimately was unable to prove invalidity in final written decisions by the PTAB. *FreightCar America, Inc. v. National Steel Car Limited*, IPR2016-00787, Paper 35 (PTAB Sept. 22, 2017); *FreightCar America, Inc. v. National Steel Car Limited*, IPR2016-00788, Paper 34 (PTAB Sept. 25, 2017).

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Petitioner is a sophisticated competitor of Patent Owner that could have sought early *Inter Partes* Review of the '515 Patent, of which it demonstrably had knowledge for more than eleven years.

Given the age of the '515 Patent and the absence of any prior challenges, Patent Owner's strong settled expectations regarding the patent's validity, enforceability, and value are firmly established. Institution at this juncture would disrupt the settled expectations that have accrued over the patent's life and undermine the fairness principles embedded in the AIA. Discretionary denial is warranted and should be granted.

4. The Petition Offers No Reason for Not Challenging the Validity of the '515 Patent for More than Eleven Years

Petitioner has not offered any explanation for its delay in filing the Petition, despite having more than eleven years to challenge the validity of the '515 Patent.

For instance, Petitioner could have done so when Petitioner: [REDACTED]

[REDACTED] (2) affirmed its knowledge of the '515 Patent by incorporating the '515 Patent by reference in its own patent applications between 2014 and 2020; (3) was involved in other patent litigation and IPRs with Patent Owner between 2011 and 2017; or (4) actively copied Patent Owner's patented rail car between 2019 and 2023.

Instead, Petitioner waited until the last possible day permitted under law to file its IPR Petition. Additionally, nowhere in its Petition does Petitioner claim the Office made any mistake in granting the '515 Patent. Instead, Petitioner only argues that the claims of '515 Patent were allowed "because the Examiner was unaware that slope-sheet support beams and open machinery spaces were already incredibly old in 2009." As explained below in Section II.J.3, the Office did not err in granting the patent.

Thus, Patent Owner's strong settled expectations regarding the validity of the '515 Patent overwhelmingly favor discretionary denial of the Petition and IPR.

B. Petitioner has Not Sought a Stay, Favoring Denial (*Fintiv* Factor 1)

The first *Fintiv* factor – whether a stay exists or is likely to be granted if a proceeding is instituted – either weighs in favor of denial because Petitioner has not sought a stay, or is neutral due to inappropriate speculation. The underlying litigation was filed in May 2024 and remains pending. Petitioner has not filed a motion to stay pending the IPR.

Courts in Delaware have denied stays even when *Inter Partes* Reviews have been instituted, where the parties are competitors like Petitioner and Patent Owner here, to maintain parity across proceedings. *See, e.g., Siemens Indus., Inc. v. Westinghouse Air Brake Techs. Corp.*, No. 16-cv-00284-LPS, 2018 WL 3046511, at *2 (D. Del. June 20, 2018); *N. Atl. Imports, LLC v. LoCo-Crazy Good Cookers, Inc.*, No. 23-cv-999-GBW-SRF, 2024 WL 4827250, at *4 (D. Del. Nov. 19, 2024).

To the extent the Director is unpersuaded regarding whether a stay would or would not be granted where no stay has been sought by Petitioner, any evidence on this factor is at best neutral. *Fintiv II* cautions against speculating whether the District Court would grant a stay if one were requested. IPR2020-00019, Paper 15 at 12.

Finally, even when parallel litigations have been stayed, the Director has found discretionary denial appropriate based on other factors, such as the settled expectations of the patent owner based on a ten-year-old patent, and Petitioner’s knowledge of the

patents for six years. *See, e.g., Google LLC v. Soundclear Technologies LLC*, IPR2025-00344, Paper 15 at 2-3 (PTAB Aug. 4, 2025). *see also Yangtze Memory Techs. Co., Ltd. v. Micron Tech., Inc.*, IPR2025-00498, Paper 11 at 2 (PTAB Aug. 14, 2025) (finding settled expectations based on patents ten, six, and six years old weighed in favor of denial where there is no parallel proceeding.); *Hs Hyosung Advanced Materials Corp. v. Kolon Indus., Inc.*, IPR2025-00662, Paper 12 at 2-3 (PTAB Aug. 14, 2025) (stayed litigation did not outweigh strong settled expectations and lack of adequate stipulation to address concerns of duplicative efforts and conflicting decisions). Here, the patent has been in force for more than 13 years, and Petitioner has known about the patent since at least 2012.

Thus, *Fintiv* factor 1 favors denial.

C. Proximity of Trial Weighs in Favor of Denial (*Fintiv* Factor 2)

Trial in the District Court Litigation is scheduled for January 11, 2027. The Director “generally take[s] courts’ trial schedules at face value absent some strong evidence to the contrary.” *Fintiv II*, Paper 15 at 13. However, the current median time to trial in the District of Delaware is thirty-three (33) months. Ex. 2010 at 1; and Ex. 2011 (since 2021, the median time to a jury trial is 31.7 months). These statistics suggest that the trial would occur at nearly the same January 2027 date as scheduled. Thus, both the actual scheduled trial date in the District Court Litigation and the

median time-to-trial statistics for the District of Delaware consistently place the trial in or around January 2027.

If instituted, the Board is required to issue a Final Written Decision by December 18, 2026. Thus, because Petitioner waited until the last possible day to file its Petition, there is a mere twenty-four (24) days (over the holidays and weekends) between the expected Final Written Decision and District Court Litigation trial. The close proximity of the final written decision to the trial date would, if institution is not denied, result in the significant duplication of resources, efforts, and expenses for the parties, and risk inconsistent decisions between the PTAB and Court. Thus, granting institution here would frustrate a primary objective of the AIA, that is a “quick and cost-effective alternative[] to [parallel] litigation.” H.R. Rep. No. 112-98, part 1, at 48 (2011), *see* S. Rep. No. 110-259, at 20 (2008) (explaining that the “post-grant review system . . . will give third parties a quick, inexpensive, and reliable alternative to district court litigation to resolve questions of patent validity”).

Moreover, to the extent that a trial date is “at or around the same time as the projected statutory deadline . . . , the decision whether to institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding.” *Fintiv I*, IPR2020-00019, Paper 11 at 9. The Director has recently denied institution in an IPR where parallel litigation was stayed and there is

no trial date, finding that patent owner's strong settled expectations based on at least decade-old patents and petitioner's knowledge of the patents for six years makes discretionary denial appropriate. *See, e.g., Amazon.com*, IPR2025-00757, Paper 15 at 2-3; *Google*, IPR2025-00344, Paper 15 at 2-3; *see also Yangtze*, IPR2025-00498, Paper 11 at 2; *Hs Hyosung*, IPR2025-00662, Paper 12 at 2-3. The facts in the instant IPR are even more compelling for denying institution.

Thus, *Fintiv* factor 2 weighs in favor of denial.

D. The Parties and the Court are Far Into Litigation, Favoring Denial (*Fintiv* Factor 3)

Significant amounts of work have already been completed in the District Court Litigation. Petitioner's motion to dismiss the complaint was denied. Ex. 2005, Ex. 2006. The parties have exchanged their invalidity and infringement contentions. Ex. 2002 at 18. The parties have also exchanged interrogatories, requests for production, received documents in response to third-party subpoenas, and Letters of Request (also known as Letters Rogatory) to CN. Ex. 2003 at D.I. 34, 35, 46, 47, 48, 50, 57, 64, 65, 66, 70, 73, 77, 78, 79, 81, 82, 85, and 86. Disputes regarding discovery between the parties have been brought to the Court. *Id.* at D.I. 87, 88, 89, 97, and 98. The parties have substantively completed claim construction briefing. Ex. 2002 at 18; Ex. 2003 at D.I. 38, 75, 76, 80, 84, 94, and 100.

By the expected December 18, 2025 institution decision date, the parties will have (1) substantially completed document production, (2) supplemented the accused products and invalidity references, and (3) held the claim construction hearing (and may have received the Court's *Markman* Order). Ex. 2002 at 18. The majority of the fact discovery will be completed in the District Court Litigation by the expected time of the institution decision on December 18, 2025. *See Fintiv II*, 14 (“based on the level of investment and effort already expended on claim construction and invalidity contentions in the District Court, this factor weighs somewhat in favor of discretionary denial in this case.”). And shortly after the expected institution decision, the parties would have finalized their invalidity and infringement contentions (January 29 and February 12, 2026, respectively), completed fact discovery (February 26, 2026), and will be entering expert discovery with the service of opening reports on March 19, 2026, (Ex. 2002 at 18-19), which is a day after when a Patent Owner Response would be due (*i.e.*, March 18, 2026, assuming a December 18, 2025 institution decision on the merits), further demonstrating the expected substantial level of investment by the parties in the District Court Litigation.

Petitioner is solely responsible for this course of events. Petitioner waited until the final day of the one-year statutory deadline before filing this IPR and, in doing so, allowed the parallel District Court Litigation to advance substantially ahead of the expected schedule of this IPR. Moreso, Petitioner's invalidity contentions were

due on April 10, 2025 in the District Court Litigation. There was no reason for Petitioner to wait until May 27, 2025, nearly seven weeks later, to file this IPR, especially when all but two of the nine references asserted in the grounds were included in Petitioner's invalidity contentions in the District Court Litigation. It would be unfair to require Patent Owner to duplicate work that has already been done in the parallel litigation because of Petitioner's delays. *See Fintiv II* at 14.

Thus, *Fintiv* factor 3 weighs in favor of denial.

E. Overlap of Issues Weighs in Favor of Discretionary Denial (*Fintiv* Factor 4)

“[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.” *Fintiv I* at 12. In this IPR, the Petition challenges each of the '515 Patent claims that are (1) asserted by Patent Owner and (2) challenged by Petitioner in the District Court Litigation. Thus, there is complete overlap of the principal patentability issues in this IPR that would, if instituted, be relitigated in the parallel litigation. Thus, this IPR would not be a “true alternative” to the District Court Litigation.

Petitioner's *Sotera* stipulations state that Petitioner “will not pursue, in the [District Court Litigation], the same invalidity grounds for the challenged claims raised in the Petition for IPR2025-01047 or any grounds against the challenged

claims that [Petitioner] reasonably could have raised in that Petition.” Ex. 2009. But the *Sotera* stipulations do not address and instead reserve Petitioner’s right to assert invalidity of any ’515 Patent claims based on any other grounds in the District Court Litigation. Notably, this includes grounds relying on *the same prior art raised in the Petition*.

Petitioner’s *Sotera*-type stipulation will not mitigate the concerns of overlap and relitigation of the asserted art in the District Court Litigation. As demonstrated by the particular language in Petitioner’s stipulation, it intends to relitigate the same asserted art in the District Court Litigation that it cited in the Petition. Petitioner has identified the cited art as including the printed publications and patents cited in the Petition, as well as the physical rail cars and features described therein. As the Federal Circuit has held, IPR estoppel does not preclude Petitioner from presenting system prior art theories to the district court based on patents and printed publications previously presented to the Board in an IPR, which in the instant case would include the rail cars and features described or mentioned in the asserted art patents and printed publications. *Ingenico Inc. v. IOENGINE, LLC*, 136 F.4th 1354, 1366 (Fed. Cir. 2025) (limiting IPR estoppel under 35 U.S.C. § 315(e)(2) to “grounds” which could have been raised in the IPR). Petitioner has thus preserved its opportunity to relitigate substantially the same art in the District Court Litigation

despite the stipulation – *i.e.*, the actual rail cars and features described in the asserted art cited in the Petition.

Thus, Petitioner’s *Sotera*-type stipulations: (1) will not prevent Petitioner from presenting arguments in the District Court Litigation that are substantially duplicative to those presented in the Petition because Petitioner will be able to rely on the physical rail cars and features described in the patents and printed publications cited as asserted art in the Petition, either alone or in combination with the same asserted art presented in the Petition; and (2) will not ensure that the IPR would be a “true alternative” to the District Court Litigation because the Petitioner’s invalidity contentions in the District Court Litigation are much more expansive than the grounds presented in this Petition. Moreover, Petitioner’s real parties-in-interest, who are also Defendants in the District Court Litigation, do not make similar stipulations, raising a further likelihood of relitigation.

This case is analogous to *SAP America* where the Board found:

the [*Sotera*] stipulation has limited practical effect in reducing the overlapping efforts here and in the Texas litigation. Petitioners’ *Sotera* stipulation would not prevent Petitioners from asserting invalidity based on public use or sale of the [] system. Although such an invalidity challenge would be based on the system rather

than publications about the system, the same publications asserted here describe how that system operated.

SAP Am., Inc. v. Cyandia, Inc., IPR2024-01432, Paper 14 at 9-10 (PTAB Apr. 7, 2025). The PTAB in *SAP America* found the *Sotera* stipulation would not ensure that the IPR would be a “true alternative” to the parallel litigation and concluded that *Fintiv* factor four favored discretionary denial.

Further, “Petitioner’s invalidity arguments in the district court [] are more expansive” than those advanced in the Petition, and include physical systems (including rail cars and related features) described in printed publications and patents, including those used in the Petition. *See, e.g., Samsung Elecs.*, IPR2025-00065, Paper 16 at 14-15 (PTAB Jun. 6, 2025) (finding *Fintiv* factor four weighed strongly in favor of discretionary denial where *Sotera* stipulation did not ensure that IPR would be a “true alternative” because Petitioner’s invalidity arguments in the district court were more expansive and included combinations of the prior art asserted in the IPR with unpublished system prior art, which petitioner’s stipulation is not likely to moot); *Shenzen Tuozhu Tech. Co., Ltd. v. Stratasy, Inc.*, IPR2025-00354, Paper 11 at 2 (PTAB Jun. 12, 2025); *see also Motorola Sols. v. Stellar, LLC*, IPR2024-01205, Paper 19 at 4 (PTAB Mar. 28, 2025).

Petitioner’s invalidity contentions in the District Court Litigation identify twenty-one different physical systems:

Prior Art System	Date of Offer for Sale / Information Became Known
Enterprise 75-Ton Ore Car	1946 or earlier
Pressed Steel DM&IR Ore Car	1946 or earlier
Cambria Steel Ore Car	1909 or earlier
NSC 50-Ton Ore Car	1946 or earlier
Bethlehem Steel B.C.I.M. Ore Car (1954)	1954 or earlier
1955 Bethlehem Steel I.C.O.M.I. Ore Car (1955)	1955 or earlier
1965 Bethlehem Steel I.C.O.M.I. Ore Car (1965)	1965 or earlier
Bethlehem Steel L.S.&I. Ore Car (1965)	1965 or earlier
M&SP Ore Car	1906 or earlier
Kilbourne & Jacobs Hopper Car	1912 or earlier
Gregg Co. Hopper Car	1922 or earlier
Enterprise 75-Ton Ore Car	1946 or earlier
BP Chemicals Hopper Car	1984 or earlier
Tarmac PGA Stone Wagon	2004 or earlier
British Steel Hopper Car	1989 or earlier
L&Y Wagon	2006 or earlier
BR Shildon Hopper Car	1968 or earlier
Marcroft Hopper Car (1993)	2008 or earlier
Tomlinson Iron Ore Wagon	2004 or earlier
Steetley Hopper Car	1989 or earlier
Comeng Mineral Hopper Wagon	1967 or earlier

Ex. 2008 at 11. These twenty-one physical systems are defined as being from various documentary references, including those cited in the grounds for invalidity in the Petition. *Id.* at 6-10. Troublingly, the Petitioner can, despite the *Sotera* stipulation, relitigate each of the physical systems described in the cited asserted art references, as well as combinations with any or all of the asserted art in this IPR.

For example, Petitioner extensively charts the Bethlehem Steel L.S.&I. Ore Car (1965) system in its invalidity contentions in the District Court Litigation but does not cite this reference in this IPR. Each of the grounds in the IPR rely at least on one reference Petitioner contends describes system prior art in the District Court

Litigation.³ Thus, the asserted art from Petitioner’s IPR remains available to Petitioner for relitigation in the District Court Litigation, despite its *Sotera* stipulation.

It is well established that where a petitioner’s *Sotera* stipulations have limited or no practical effect in reducing the overlapping efforts in the IPR and in the parallel litigation, as is the case here, “Petitioner’s stipulation does not ensure that [this] IPR proceeding[] would be a ‘true alternative’ to the district court proceeding.” *Motorola Sols.*, IPR2024-01205, Paper 19 at 3-4; *see also SAP Am.*, IPR2024-01432, Paper 14 at 9-10. On the contrary, Petitioner’s particular language in its *Sotera*-stipulation makes clear that it intends, or at minimum preserves its right, to litigate substantially the same invalidity grounds in both this IPR and the District Court Litigation using substantially the same cited art (and likely the same arguments), and to present

³ Ratcliffe I (Ex. 1017), though not included in Petitioner’s invalidity contentions, is used by Petitioner in Grounds 8 and 9 for its description of Tarmac Roadstone rail cars with stencil numbers 14900-921. A reference in Petitioner’s invalidity contentions called Tarmac PGA Stone Wagons describes the same rail cars. Ex. 2030; Dr. Viz Declaration Ex. 2001 at ¶¶ 64-66. Thus, Petitioner will likely seek to add Radcliffe I as a description of this system prior art in the District Court Litigation.

substantial additional grounds in the District Court Litigation far more expansive than those in the present Petition. *See Samsung Elecs.*, IPR2025-00065, Paper 16 at 15.

Fintiv factor 4 therefore strongly favors the Director exercising her discretion against institution.

F. The Same Parties are in the District Court Litigation, Favoring Denial (*Fintiv* Factor 5)

The parties here are the same as the parties in the District Court Litigation. *Fintiv II* at 15 (“Because the Petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.”). The District Court Litigation is before a judge who has extensive experience with patent disputes, having been involved in nearly 400 patent cases since joining the bench as a Magistrate Judge in June 2020. Ex. 2029. There is no basis to take away Patent Owner’s constitutional right to a trial on the merits of its claims. Moreover, proceeding in parallel with the District Court Litigation is an inefficient use of PTAB time and resources.

Fintiv factor 5 strongly favors denial.

G. The Additional Factors Discussed Herein Favor Denial (*Fintiv* Factor 6)

Fintiv further provides for the analysis of “other factors.” Such other factors include those identified in the March 26 Memorandum. In addition to strong settled expectations regarding the ’515 Patent, the other factors overwhelmingly favor denial. As discussed in more detail below, the Petition: (1) presents asserted art that is cumulative of, and substantially the same as, the prior art considered by the Office during prosecution of the patent, and does not establish that the Examiner materially erred; (2) is weak with regards to its substance, including because the Petition relies upon ancient asserted art references; (3) is confusing and lacks specificity; (4) over-relies on cross-references within Petition; and (5) over-relies on expert testimony.

Patent Owner is not aware of any other considerations that might be relevant to an analysis of *Fintiv* factor 6. Neither the Board nor any other forum has previously adjudicated the validity or patentability of the ’515 Patent; there have been no changes in the law that might affect patentability since the patent issued; and the parties have strong settled expectations regarding the patent, as discussed above. Finally, there is no compelling economic, public health, or national security interest that would preclude denial of institution.

Even if a *Fintiv* factor is found to favor not exercising the Director’s discretion to deny institution of the IPR, the balance of the factors still weigh strongly in favor of denial.

H. Petitioner Has Not Shown Any Justification for Multiple IPR Petitions

Petitioner filed two Petitions for IPR of the ’515 Patent. The Director has confirmed that “the practice of the same party filing multiple petitions challenging the same patent ... is disfavored.” *Comcast Cable Commc’ns, LLC v. Entropic Commc’ns, LLC*, IPR2025-00183, Paper 11 at 2 (June 25, 2025). The Board has made clear that “multiple petitions by a petitioner are not necessary in the vast majority of cases.” Consolidated Trial Practice Guide, PTAB at 59 (Nov. 2019), <https://www.uspto.gov/TrialPracticeGuideConsolidated> (last visited August 3, 2025).

This IPR is not one of those “rare” cases. Petitioner has not demonstrated a reasonable basis for burdening the Board and Patent Owner with two separate IPR petitions containing voluminous and redundant grounds that could have been presented in a single IPR petition. While the removal of the asserted art that is cumulative or redundant would not alter the shortcomings of either Petition’s stated grounds, it is noted that the stated grounds could have been pared down by removing arguments and asserted art references that are cumulative or redundant. As

demonstrated by the fact that both Petitions challenge the same claims of the '515 Patent, as well as the redundant nature of the arguments and asserted art evinced by the ubiquitous cross-referencing between sections (and grounds) in each Petition, the second IPR Petition for the '515 Patent was unwarranted and should be denied at least for these reasons.

Petitioner filed a Notice Ranking Petitions in which it ranked IPR2025-01047 first and IPR2025-01048 second. Notice of Ranking, Paper 2, at 5. Per Petitioner's Notice of Ranking, the only distinctions between the two petitions are the (1) dates of the primary asserted art references and (2) the roles played by the primary asserted art references. Yet, each Petition is based on ancient asserted art references that fail to meaningfully show how a person of ordinary skill in the art ("POSITA") in or around 2009 would have understood the entirety of any challenged claim in the '515 Patent, or the claimed features therein. While Petitioner alleges that the roles of the two sets of primary asserted art references in the two petitions are different, Petitioner fails to support this argument in its Notice of Ranking. In fact, Hart and the 1946 Cyclopedia, and systems like the ones disclosed therein, are cumulative to the prior art cited by Patent Owner and considered by the Examiner during prosecution.

Petitioner argues that instituting both petitions is warranted because a "large number" of claims is asserted. But both Petitions independently challenge precisely

the same claims of the '515 Patent, including all claims asserted in the District Court Litigation. Thus, should either petition be instituted, no asserted claim will go unchallenged, demonstrating the lack of any justification for overburdening the Board with multiple petitions. *See, e.g., Apple Inc. v. SEVEN Networks, LLC*, IPR2020-00254, Paper 13 at 9-10 (July 28, 2020) (denying parallel petition where petitioner “was able to address all 50 claims ... in each of its Petitions,” so even though only one parallel petition was instituted, “none of the claims . . . goes unchallenged”); *Comcast Cable Commc'ns, LLC, v. Rovi Guides, Inc.*, IPR2019-01377, Paper 9 at 9 (Feb. 10, 2020) (denying 2 of 3 petitions on 30 claims, where instituted petition “includes at least one ground challenging each of the claims challenged in this Petition, so no claim ... goes unchallenged.”). The Petitions being highly duplicative weighs strongly against institution.

Moreover, the Petitions rely on overlapping asserted art, and use the primary asserted art references Hart, the 1946 Cyclopedia, and Lindström in both Petitions, further reinforcing that two petitions are not appropriate. *DISH Network LLC v. Broadband iTV, Inc.*, IPR2020-01360, Paper 15 at 6 (Feb. 15, 2021) (rejecting second petition where same secondary references are employed and the same claims are challenged); *Applied Materials, Inc. v. Demaray LLC*, IPR2021-00105, Paper 13 at 10 (May 12, 2021) (“Patent Owner’s arguments illustrate that there are more similarities than material differences between the challenges set forth in the

petitions. Petitioner’s arguments highlight these similarities.”) (rejecting second petition).

Thus, if the Board is inclined to institute both IPR Petitions, one should be denied.

I. The Petitioner’s Patentability Challenge is Weak and Should be Denied Under 35 U.S.C. § 312(a)(3)

A Petition must identify “with particularity each claim challenged, the grounds on which the challenge is based, and the evidence that supports the ground.” 35 U.S.C. § 312(a)(3). To ensure that the Patent Owner and the Board have a clear, complete, and specific understanding of the challenge at the institution stage, the Federal Circuit has held that “[i]t is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for the challenge to each claim.’” *Intelligent Bio-Sys., Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016); *see also Apple Inc. v. Gesture Tech. Partners, LLC*, 129 F.4th 1367, 1375 (Fed. Cir. 2025) (“Ultimately, it is the petitioner’s burden to present a clear argument.”).

The Petition fails to meet the particularity requirements of Section 312(a)(3). On the contrary, the Petition presents confusing obviousness combinations of the asserted art based on ancient documents without explaining with particularity how

each of those combinations of the asserted art map to each of the specific limitations of the challenged claims, or why a POSITA at the relevant time would have combined the asserted art as proposed in the Petition. Additionally, the Petition improperly over-relies on incorporation by reference of both its expert's declaration and internal cross-references. These defects prevent the Board from making a threshold determination of patentability under Section 314(a) and thus necessitate denial of institution.

1. The Petition's Obviousness Combinations are Confusing and Lack Specificity

37 C.F.R. § 42.104(b)(4) requires that Petitioner explain with particularity “where each element of the claim is found in the prior art patents or printed publications relied upon.” The Board has interpreted this to require that the Petition “(1) specify sufficiently where each element of the claims is found in the applied references, and (2) include a detailed explanation of the significance of the quotations and citations from the applied references.” *Cisco Sys., Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12 at 11 (PTAB Aug. 29, 2014); *see also* Consolidated Trial Practice Guide, at 39 (Petitioner should “avoid submitting a repository of all the information that a judge could possibly consider, and instead focus on concise, well-organized, easy-to-follow arguments supported by readily identifiable evidence of record.”).

The Petition is not “concise, well-organized, [or] easy-to-follow,” especially for, but not limited to, the discussion of independent claims 1, 7, 18, 20, 24, and 32. By presenting excessive grounds that are based on redundant and cumulative art, the Petition does not—and cannot—provide a sufficiently particularized explanation to support each ground. The Board strongly disfavors petitions, like the instant Petition, that combine many references or alternative theories without clearly delineating how each one applies to each relevant claim element. *See, e.g., Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 at 16-18 (PTAB Mar. 6, 2019). “The statutory requirement for particularity in a petition for IPR takes on heightened importance when considered in conjunction with [the Board’s] ‘all-or-nothing’ approach” to institution, whereby “the Board is required to make ‘a binary choice—either institute review or don’t.’” *Id.* at 16-17 (citing *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1355 (2018)). “Because the Board’s practice . . . is to institute on all grounds asserted in a petition, the Board may consider whether a lack of particularity as to one or more of the asserted grounds justifies denial of an entire petition.” *Id.* at 17. The Board should be especially reluctant to institute “a petition [that] contains voluminous or excessive grounds” because such petitions contain grounds unsupported by a sufficiently particularized explanation. *Id.*

The Petition is just the kind of petition that the Board disfavors. It is barely under the word count⁴ and Petitioner provides only high-level assertions about how the asserted art relates to many critical claim elements, relying on generic statements instead of mapping each feature in the asserted art to a corresponding claim limitation. The alleged motivations to combine the asserted art are generic and lack

⁴ While the Petition certifies that the word count is 85 words under the limit, the Petition reaches that count by impermissible reliance on conclusory arguments and extensive incorporation-by-reference to the expert declaration (as well as extensive internal cross-referencing). *See Nearmap US, Inc. v. Pictometry Int’l Corp.*, IPR2024-00729, Paper 9 at 20-21 (PTAB Oct. 10, 2024) (denying institution for failure to plead with particularity and improper incorporation by reference where “the only way to potentially understand Petitioner’s proposed unpatentability challenges is to wade through the 85,000+ words of [the expert’s] Declaration, which dwarfs the 14,000 words granted to petitioners”); *Elite Performance Footwear, LLC v. Reebok Int’l Ltd.*, IPR2017-01680, Paper 38 at 33 (PTAB Jan. 9, 2019) (“The Office has imposed word limits on the length of a petition requesting an IPR. To avoid self- help attempts to increase the length of the petition, our rules prohibit incorporation by reference of arguments in one document into another[.]”) (citations omitted).

substance, and rely heavily on unsupported expert testimony and “common knowledge” that is not used as a basis for a ground, and not the asserted art. They are also undercut by asserted art references that are the same or substantially the same as the prior art considered by the Office during prosecution of the patent. Thus, “the Petition places a significant and unfair burden on the Patent Owner to respond adequately to underdeveloped arguments for numerous asserted grounds.” *Zetec, Inc. v. Westinghouse Elec. Co., LLC*, IPR2014-00384, Paper 10 at 14 (PTAB July 23, 2014) (denying institution). “[U]nder these circumstances, attempting to evaluate fully the numerous grounds and underdeveloped assertions in the Petition to determine whether Petitioner has shown that it would be likely to prevail in any unpatentability challenge would place a significant burden on the Board and contravene the efficient administration of the Office.” *Id.* at 15; *see also Microsoft Corp. v. FG SRC, LLC*, 860 Fed. App’x 708, 713 (Fed. Cir. 2021) (“It is not the Board’s job to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner’s arguments. Arguments in a petition must be made with particularity, not opacity[.]”).

The Petition repeatedly cites to asserted art references and figures from those references without specifying which portions of the references or figures render anticipated or obvious which specific claim elements of the challenged claims —

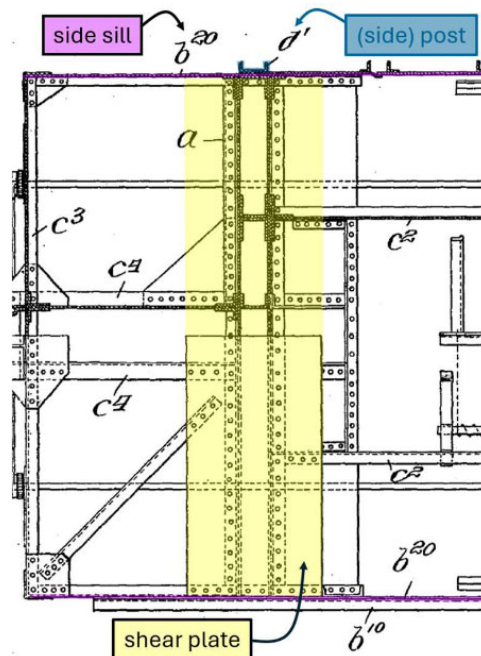
much less specifying how any combination of the asserted art would render obvious any challenged claim as a whole. This impermissibly leaves the Board and Patent Owner to guess at Petitioner's case.

For example, claim limitation [1d] requires "said first end slope sheet of said hopper over hanging said shear plate of said first end section." The Petition's treatment of this claim term merely states "[a]s shown above, Hart's end slope sheet over hangs the shear plate." Petition at 36. Yet, there is no explanation of this position and, thus, Patent Owner and the Board are left to guess at what is meant by "as shown above." The Petition's argument is insufficiently particularized.

As another example, claim limitation [1h] requires that "said bolster has first and second laterally outboard distal ends, and said hopper car has corner posts extending upwardly from said distal ends of said bolster to said first end slope sheet." Petitioner's entire treatment of this claim limitation is ten words, with two pictures, and states only that "Hart discloses the claimed corner posts, denominated "supporting post d'." Petition at 48. However, the shown "corner post" does not extend "to said first end slope sheet," but extends beyond the same to the top chord.

As yet another example, claim limitation [1i] requires a "machinery space [that] is free of any other primary structure," and is "bounded by" four elements, including "said corner posts." The relevant section of the Petition fails to address each of the claim elements in this limitation but, instead, cross references to other

portions of the Petition, the expert declaration, and nebulous portions of the Petition, summarily relying on the statement “as discussed above.” Even worse, the Petition fails to show that the limitation [1i] claim elements are met by Hart. For instance, the Petition takes the position that Hart’s corner posts d’ are laterally outside of the side sill b20:



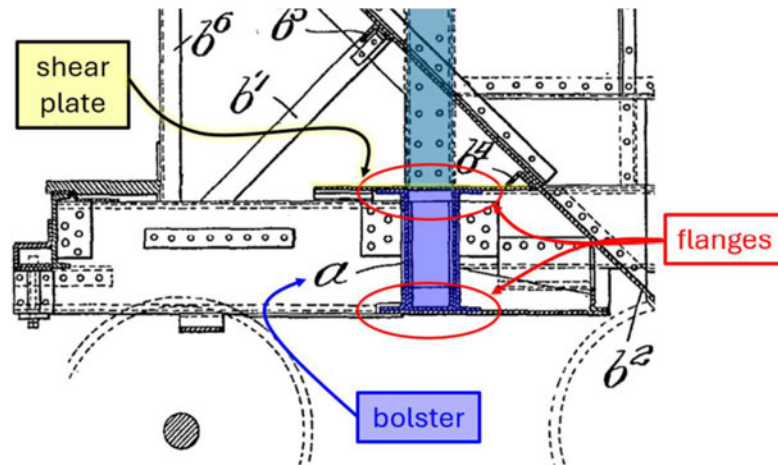
Petition at 39.

The Petition conclusorily asserts that “Hart’s hopper car has no primary structure within the the [sic] area defined by the shear plate, slope sheet, corner posts and end post.” However, the Petition also asserts that “inclined brace b7 is mounted to the side sill and extends upwards in a vertical plane,” (Petition at 40), and that the side sill is provided by b20 (*id.* at 55). Thus, under Petitioner’s own interpretation of

Hart, inclined brace b7, which is a primary structure, is within the machinery space, as it is laterally inward of the alleged corner posts.

Petitioner argues that “it would have been obvious to shift Hart’s corner posts or inclined braces slightly outward, as the precise positions and points of attachment of these structures is a matter of design choice.” Petition at 49-50. However, the Petition does not provide any basis or support for this argument, but, instead, ignores the plain language of the claims. Indeed, a careful study of the asserted art confirms that there is nowhere to move the corner posts or the inclined braces further outward in Hart. Thus, the Petition is unclear and fails to show how the claim is anticipated or rendered obvious by the asserted art.

The Petition presents grounds for claim limitations [5a] and [5b] that are further confusing. Claim limitation [5a] requires that “said shear plate is mounted above, and to, said main bolster and defines an upper flange thereof.” The Petition fails to explain how Hart’s shear plate forms an upper flange of the main bolster. Petition at 54. Claim limitation [5b] requires that the “said main bolster has a lower flange downwardly spaced from said upper flange.” The Petition states that “Hart’s bolster has upper and lower flanges”:



Petition at 54-55. The Petition however does not explain how both the shear plate and the upper flange of bolster both satisfy the claimed upper flange of the bolster. Patent Owner and the Board should not have to guess as to Petitioner's interpretation of the asserted art or its theories.

Regarding claim limitation [32h], the Petition merely cites Lindström's Figures 1 and 6, with no corresponding description of why, or what in, these Figures teach this claim limitation. Though the claim limitation requires that "said first end wall includes a panel extending downwardly from said cross-wise running top chord," the Petition does not identify corresponding structure in the asserted art for the claimed "panel."

Therefore, as discussed above, the Petition fails to adequately map the asserted art references to all the claim elements in any one singled challenged claim, much less all the challenged claims, with particularity. As the Board has repeatedly held, this failure warrants denying institution. *See Cisco*, IPR2014- 00454, Paper 12

at 10-13; *Shenzhen Jimuyida Tech. Co., Ltd, v. Artec Europe S.A.R.L.*, IPR2023-01148, Paper 6 at 18 (PTAB Jan. 16, 2024) (denying institution because, “[i]nstead of a meaningful element-by-element analysis with a substantive discussion and explanation of how the prior art teaches or suggests each element,” Petitioner offered claim charts “paired with conclusory statements that the reference teaches the element, followed by block quotes and/or string cites from each prior art reference”).

2. The Petition’s Particularity Problems are Exacerbated by its Overreliance on Overlapping Grounds and Internal Cross-References.

The Petition overindulges in internal cross-referencing, thereby confirming that the Petition’s stated grounds, as well as the arguments and asserted art referenced in support of the grounds, are cumulative and redundant. Petitioner chose to assert multiple grounds that cover overlapping sets of claims with different combinations of asserted art references. The Petition, however, does not explain with particularity how each asserted art combination covers each claim element, much less any challenged claim as a whole. Instead, in an apparent effort to cram as many arguments into the Petition as possible, the Petition resorts to incorporating large portions of argument by internal cross-references, even when those incorporated arguments relate to different claim limitations, different claims, or even different grounds.

In total, there are over one-hundred and twenty instances of cross-reference in the Petition. The cross-references themselves require careful scrutiny. For example, the Petition asserts that Hart and Wong disclose the limitations of claim 33 in Ground 8 (Lindström, Wong, Ratcliffe 1 and Hart.). Petition at 102. But rather than explain with particularity how these references teach or render obvious this claim, the Petition cross-references to its reasoning in Ground 5, despite the reference combination there being Hart in view of the 1906 Cyclopedia and Wong. *Id.* at 70-72.

The Petition's internal cross-referencing impermissibly forces the Board and Patent Owner to piece together scattered portions of the Petition (and exhibits) and attempt to glean an understanding of the stated grounds in the Petition. Therefore, as discussed above, the Petition fails to adequately map the asserted art to each of the claim elements, much less the entirety of any single challenged claim, with particularity. As the Board has repeatedly held, the failure to adequately map the asserted art to the claim elements warrants denying institution. *See Valeo N. Am., Inc. v. Magna Elecs., Inc.*, IPR2014-01206, Paper 13 at 15 (PTAB Dec. 23, 2014) (denying institution where Petitioner “fails to state explicitly the differences between the [prior art] and the claimed subject matter, does not explain persuasively the relevance of the evidence, and presents conclusory assertions regarding how the references are combined”); *Supercell OY v. Gree, Inc.*, IPR2021-00500, Paper 7 at 12 (PTAB Aug. 16, 2021) (“Merely identifying where limitations may be found in

several prior art references is not sufficient to demonstrate a reasonable likelihood of success in showing the obviousness of the claims, without articulating how and why specific teachings of the references would have been combined.”).

Moreover, the stated grounds in the Petition are incomplete. For example, in Ground 1 (Hart and the 1906 Cyclopedia) Petitioner addresses claims 1 and 2, while in Ground 2 Petitioner addresses claim 3 (adding Schuller), which depends from claim 1. But Petitioner’s Ground 2 analysis for claim 3 does not explain how the asserted art meets the limitations of claim 3 as incorporated from claim 1. Petition at 50-53. Instead, the Petition presumably expects the Board and Patent Owner to import that explanation from Ground 1, despite not including an internal cross-reference to those arguments. *Id.*

3. The Petition Over-Relies on Expert Testimony

The Petition violates 37 C.F.R. § 42.6(a)(3) and the Board’s guidance by relying too heavily on the Ahmadian expert declaration. “Arguments must not be incorporated by reference from one document into another.” 37 C.F.R. § 42.6(a)(3); *see also Intelligent Bio-Systems, Inc.*, 821 F.3d at 1366 (petition “ran afoul of § 42.6(a)(3) by improperly incorporating by reference arguments and evidence from the expert declaration”). Ahmadian’s declaration is 125 pages and is cited by the Petition over 75 times, not including the ubiquitous cross-references between

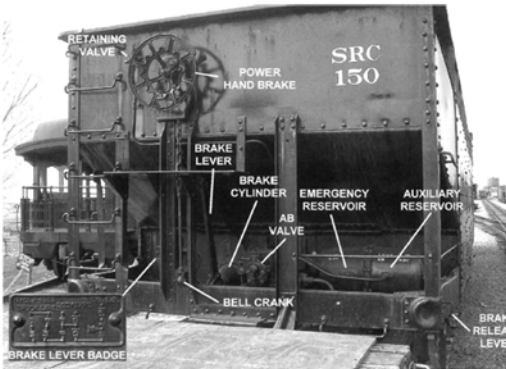
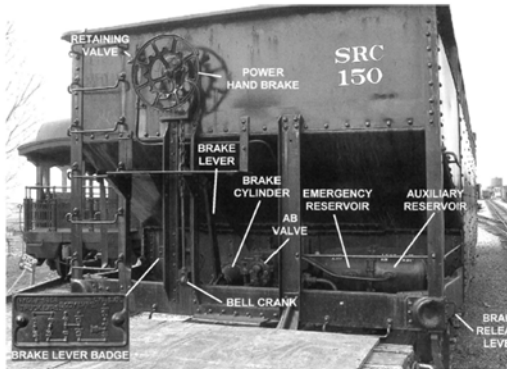
sections of the Petition. This suggests that the Ahmadian expert declaration is nothing more than an attempt to expand the word limit and fill gaps in the Petition.

This usage of the language of Ahmadian’s declaration by Petitioner – or vice-versa – undercuts the Petition and weighs in favor of discretionary denial. *See, e.g., Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15–17 (PTAB Aug. 24, 2022) (according “little weight” to testimony that contained a “verbatim” restatement of a petition’s conclusory assertions without additional supporting evidence or reasoning); *Wowza Media Sys., LLC v. Adobe Sys. Inc.*, IPR2013-00054, Paper 12 at 12 (PTAB Apr. 8, 2013) (“The Declaration is 100 pages in length and appears, for the most part, simply to track and repeat the arguments for unpatentability presented in the Petition. The lengthy Sherman Declaration is therefore no more helpful tha[n] the Petition in determining where the challenged recitation is found in the references.”).

Here, Patent Owner anticipates providing an expert declaration with its preliminary response to rebut Ahmadian’s conclusory opinions, likely creating disputes between the experts. The Board’s own guidance thus supports discretionary denial, as “[w]hile the Board may consider expert testimony, as a matter of efficiency, extensive reliance on expert testimony and/or disputes between experts on dispositive issues may suggest that the questions are better resolved in an Article III court.” FAQs for Interim Processes for PTAB Workload Management, PTAB,

Question 21, <https://www.uspto.gov/patents/ptab/faqs/interim-processes-workload-management> (last visited August 18, 2025); *see also* March 26 Memorandum at 3 (“the extent of the petition’s reliance on expert testimony” is a basis for denying IPR institution). In short, the Petition must be a self-contained submission of Petitioner’s arguments and evidence, within the 14,000-word limit set in 37 C.F.R. § 42.24. Petitioner cannot circumvent word limits, or avoid stating its case with particularity in the Petition, by referencing the expert declaration for a given claim element.

Still, the Petition does not just cite Ahmadian. It lifts wholesale language from Ahmadian’s declaration, often without any changes other than to cite to Ahmadian’s declaration in the Petition:

Petition at 53	Ahmadian Declaration ¶¶ 98-99
Lodging the brake reservoir in the machinery space has been conventional for decades. EX1003, ¶ 98. For example, Karig discloses multiple hopper cars with this conventional configuration. <i>See, e.g.</i>, EX1016 at 127, 129. One example is shown below. 	Lodging the brake reservoir in the machinery space has been conventional for decades. For example, Karig discloses multiple hopper cars with this conventional configuration. <i>See, e.g.</i>, EX1016 at 127, 129. One such example is shown below. 

<i>Id.</i> at 129 (annotations in the original). By 2009, it would have been obvious to use a conventional air brake system in Hart’s design, and to lodge the brake reservoir in the conventional place: the machinery space at one end of the rail car. EX1003, ¶ 99. So modified, Hart’s design would embody Claim 4.	<i>Id.</i> at 129 (annotations in the original). By 2009, it would have been obvious to use a conventional air brake system in Hart’s design, and to lodge the brake reservoir in the conventional place, <i>i.e.</i> , in the machinery space at one end of the rail car. So modified, Hart’s design would embody the limitation of claim 4.
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These are not one-time occurrences; the language of the Petition and declaration are nearly identical throughout. *Compare, e.g.:*

Petition <i>with</i>	Ahmadian Declaration	Petition <i>with</i>	Ahmadian Declaration
Claim limitation 1a	¶¶61-62	Claim limitation 5a	¶100
Claim limitation 1c	¶64	Claim limitation 5b	¶101
Claim limitation 1f	¶¶76-81	Claim limitation 5c	¶¶102-103
Claim limitation 1g	¶¶82-83, 89-90	Claim limitation 5d	¶104
Claim limitation 1i	¶¶93-94	Claim limitation 5e	¶105
Claim limitation 3	¶¶95-97	Claim limitation 7h	¶¶106-108
Claim limitation 4	¶¶98-99	Claim limitation 9	¶¶109-110

Institution should thus be denied.

J. The Board Should Deny Institution as to All Grounds Under 35 U.S.C. § 325(d)

Section 325(d) reflects a strong “commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Advanced*

Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH, IPR2019-01469, Paper 6 at 8-9 (PTAB Feb. 13, 2020) (precedential). The Board should deny institution under 35 U.S.C. § 325(d) because every ground of the Petition is based on the same or substantially the same prior art or arguments that were presented to the Office, considered, and overcome during prosecution, and the Petition fails to show that the Office made any material error.

Section 325(d) provides that the Board may reject a petition if, as is the case in this Petition, “the same or substantially the same prior art or arguments previously were presented to the Office.” The Board applies a two-step test when deciding whether to deny institution pursuant to Section 325(d). *Advanced Bionics*, IPR2019-01469, Paper 6 at 8-9. First, the Board determines whether the Petition presents the same or substantially the same art or arguments previously presented to the Office. *Id.* If so, the Board asks whether the Petition demonstrates that the Office materially erred in its consideration of that same art. As the Board emphasizes, “[i]f reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred.” *Id.* at 9. When applying the two-part *Advanced Bionics* test, the Board also considers the non-exclusive *Becton, Dickinson* factors, which assist in the evaluation of whether the same or substantially the same prior art or arguments were previously presented to the Office. *Advanced Bionics*, IPR2019-

01469, Paper 6 at 7; *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17-18 (PTAB Dec. 15, 2017).

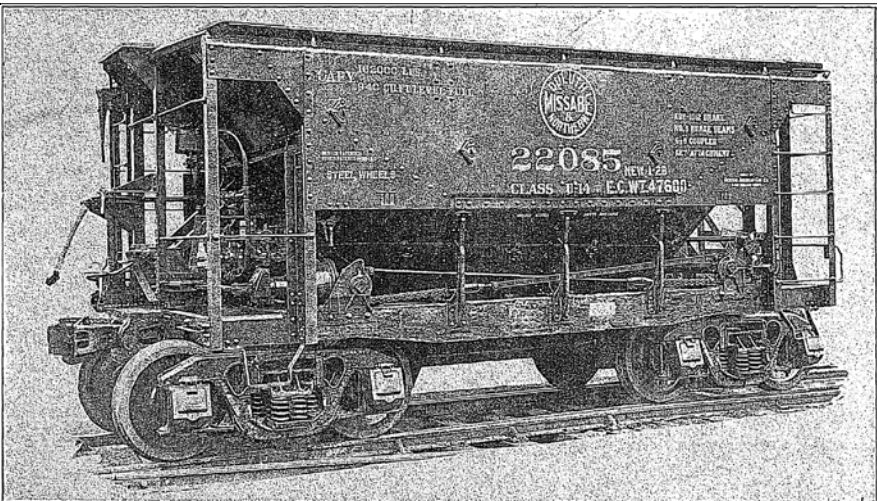
1. The Examiner Considered Dozens of Substantially the Same Prior Art Rail Cars During Prosecution

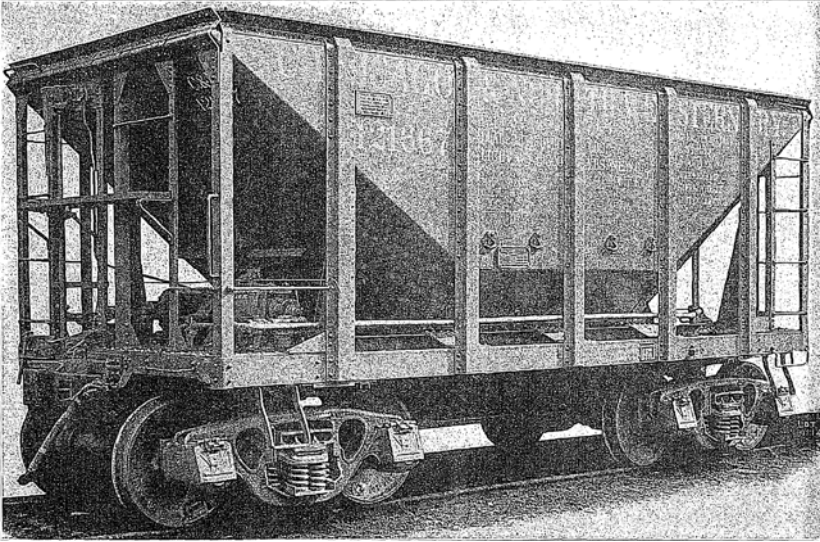
During prosecution, Patent Owner presented numerous Cyclopedias (historical books showing systems, including rail cars, that provide a snapshot of the technology in use at the time) and schematics of ore cars to the Office for consideration, in addition to numerous patents and patent applications. The prior art provided by Patent Owner shows dozens of rail cars, including rail cars that are the same or substantially the same as those in the asserted art, some of which are over a century old. For instance, Patent Owner provided:

1. FREIGHT CARS: Hopper, Ore; Car Builders' Cyclopedia, 1937, pp. 313-320, 14th ed. (“1937 Cyclopedia”);
2. A.C.F. Covered and Open Top Hopper Cars; Car Builders' Cyclopedia, 1943, pp. 281-289, 16th ed. (“1943 Cyclopedia”);
3. Reproduction of Design Drawing of Dulth [sic], Missabi & Iron Range (DM&IR) Open Topped Ore Hopper Car General Arrangement Drawing 8760 Drawn April 8, 1950, (Quality Poor in Original);
4. FREIGHT CARS: Hopper, Ore, Class HMA; Car Builders' Cyclopedia, 1957, pp. 265-272, 20th ed. (“1957 Cyclopedia”);

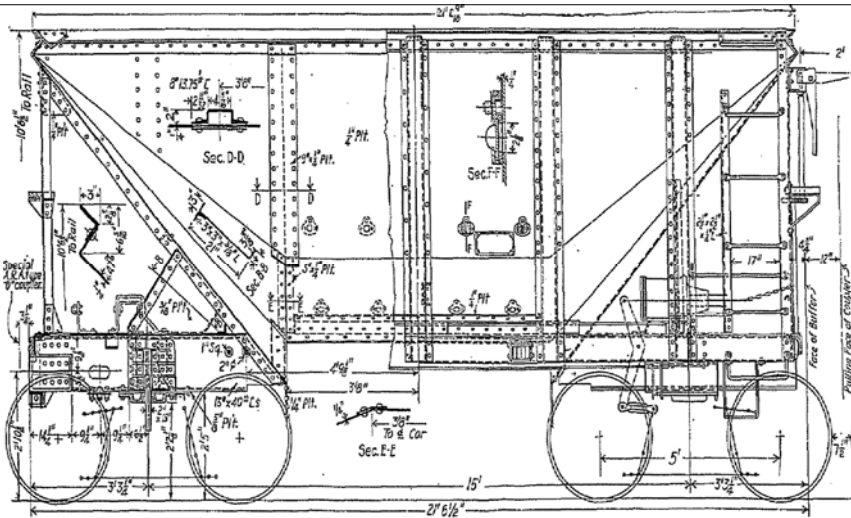
5. FREIGHT CARS: Hopper, Ore, Class HMA; Car Builders' Cyclopedia 961, pp. 246-258, 21st ed. (“1961 Cyclopedia”);
6. Car and Locomotive Cyclopedia, 1966, 10 pages, 1st ed. (“1966 Cyclopedia”);
7. 5 Photographs of Quebec Iron and Titanium (QIT) ore hopper car No. 556, dated August 15, 2007 (the “2007 QIT rail car”);
8. Drawing of QIT car dated August 27, 2007; and
9. 2 Sheets of Details of End Structure Showing End Post, Lateral Intermediate Stub Wall, Elephant Ears Arrangement and End Slope Sheet to Shear Plate Connection from at least January 1, 2001.

These references show a plethora of varied rail cars, including the following pictures and drawings of rail cars:

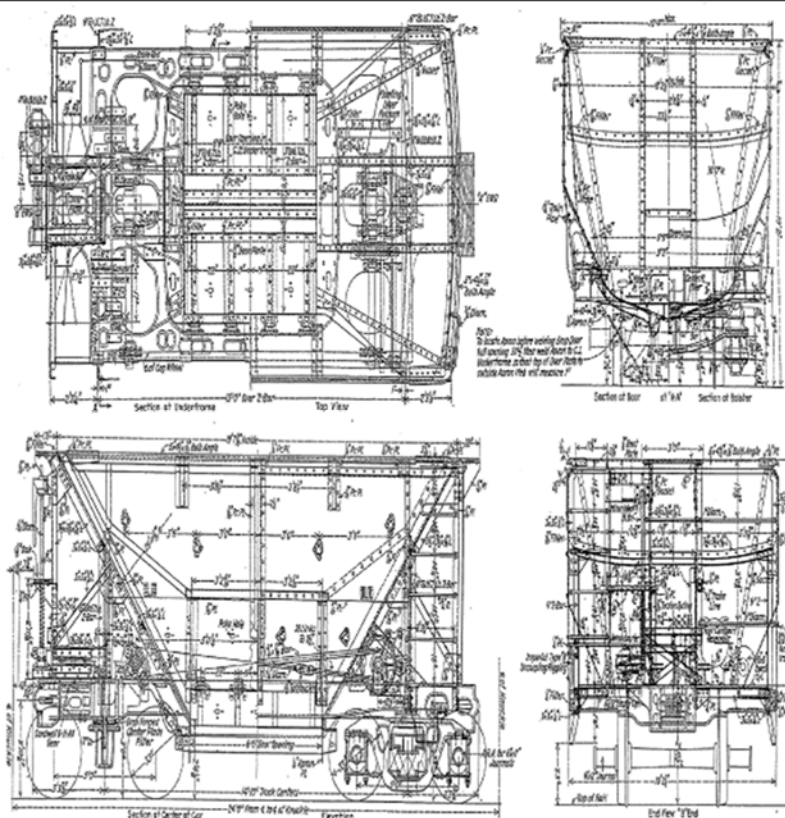
Picture	Citation to Ex. 1002
 A black and white photograph of a hopper car, identified by the number 556 and the letters QW. The car is shown from a side-rear perspective, highlighting its hopper structure and the rear end. The car is on a gravel surface.	219
 A black and white photograph of a hopper car, identified by the number 22085 and the letters MISSADE. The car is shown from a side-rear perspective, highlighting its hopper structure and the rear end. The car is on a gravel surface.	233



233



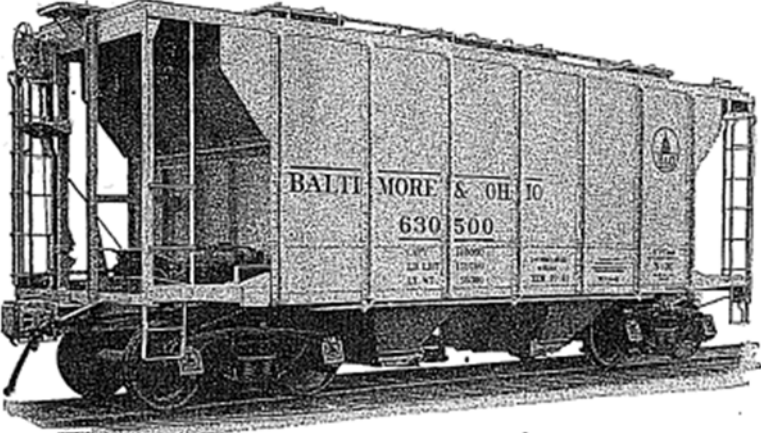
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More rail cars are shown and described in the prior art disclosed to and considered by the Examiner. Notably, many of the rail cars shown in the Cyclopedias were used on the DMIR, and it was Patent Owner's patented rail cars that were the first new batch of rail cars purchased for that railroad in over 50 years.

Patent Owner did not merely submit an IDS, but directed the Office to the references therein, which Patent Owner admitted were prior art. Ex. 1002 at 287 (“The Applicant draws the Examiner's attention to the non-patent references. The original search in this matter may not necessarily have included comparable materials.”); *id.* (“The Applicant has submitted a fairly extensive listing of [IDS] materials herewith. These materials are intended to include: (a) non-patent admitted prior art, including photographs and drawings of cars built and operated in public before the date of the present invention; and (b) patent references relating to hopper car cars and gondolas.”).

The Examiner acknowledged consideration of the same. *See* Ex. 1002 at 332-38 (indicating that “ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.C.S.,” with no references lined through). While the Examiner did not write about many of these references or the disclosures therein, the Examiner did indicate that he considered each of these prior art references. *Id.* The Examiner thus allowed the claims after having considered this prior art.

Petitioner tries to rebut this conclusion by suggesting that the Examiner did not properly consider the prior art. Petition at 21 (“The ’515 patent was granted only because the Examiner was unaware that slope-sheet support beams and open machinery spaces were already incredibly old in 2009.”). Petitioner is incorrect. Just because the Examiner did not write about those prior art references does not alter the

fact that they were “presented to the Office” per the plain language of Section 325(d) and acknowledged to have been considered by the Examiner. Listing a prior art reference in an IDS is sufficient to show that the reference was considered during prosecution, even where an Examiner did not make a rejection or otherwise characterize a reference. *See, e.g., Advanced Bionics*, IPR2019-01469, Paper 6 at 7-8 (“Previously presented art includes art . . . provided to the Office by the applicant such as on an [IDS]”); *Google LLC v. Valtrus Innovations Ltd.*, IPR2022-01197, Paper 18 at 15 (PTAB June 13, 2023) (“providing a document to the Office in an [IDS] is sufficient to satisfy prong one of the *Advanced Bionics* analysis”); *Microsoft Corp. v. Koninklijke Philips N.V.*, IPR2018-00279, Paper 11 at 7 (PTAB June 8, 2018) (denying institution under 325(d) where Examiner reported in the prosecution history that he had discussed with applicant “art available in the parent prosecution history”).

The Board’s recent precedential opinion in *Ecto World* undermines Petitioner’s conclusion. There, the patent applicant submitted an IDS that contained over 1,000 prior art references and the Examiner requested that the applicant identify references “to which the examiner should pay particular attention.” *Ecto World, LLC v. Rai Strategic Holdings*, IPR2024-01280, Paper 13 at 2 (PTAB May 19, 2025) (precedential) . But the applicant never responded to the Examiner’s request. *Id.* at 2. Here, in contrast, there is not an overwhelming volume of references and the

Patent Owner directed the Examiner's attention specifically to this prior art. *See id.* The facts presented in this IPR, therefore, provide compelling grounds for Section 325(d) denial, especially when compared to *Ecto World*.

Even where specific asserted art in the Petition was not presented to the Examiner, its absence does not alter the Board's analysis under the first step of its two-step analysis. First, the asserted art is largely cumulative to the prior art considered by the Examiner during prosecution of the patent, as it merely shows rail cars that are cumulative of those described in the prior art considered by the Examiner during prosecution. *Ivantis, Inc. v. Sight Scis., Inc.*, IPR2022-01530, Paper 14 at 29 (PTAB Mar. 27, 2023) (denying institution under § 325(d) where "[t]he asserted art is either the same as, or cumulative to, the prior art that Examiner has already considered during prosecution"); *ClearH2O, Inc. v. Ceva Animal Health Inc.*, IPR2020-00039, Paper 21 at 25 (PTAB Mar. 18, 2020) ("Although the examiner did not consider [these] secondary references . . . during prosecution, because Petitioner's primary references . . . were also the primary references involved during the original examination, this factor weighs in favor of denying institution.").

In sum, the Petition does not present any asserted art references that include any substantive or material information not already considered by the Examiner during prosecution of the patent.

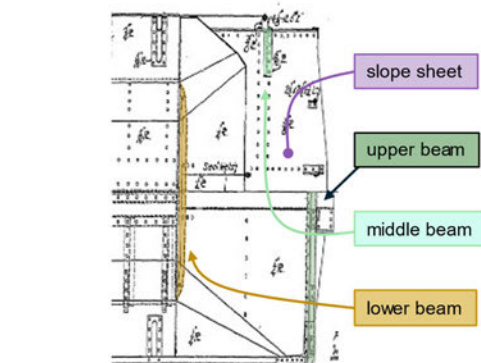
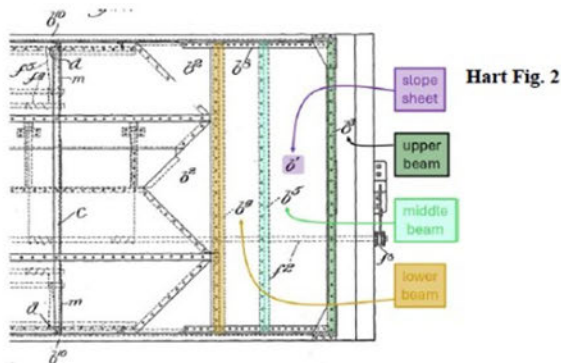
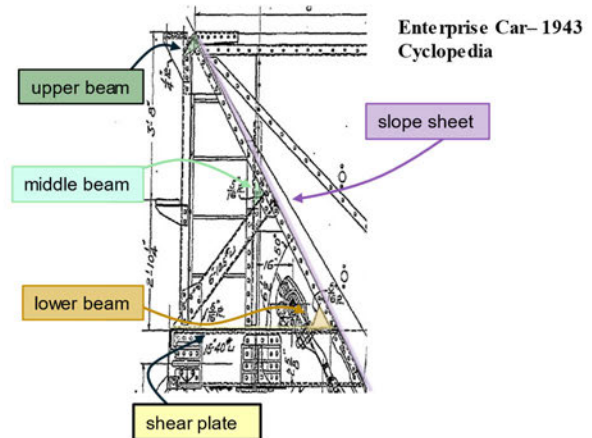
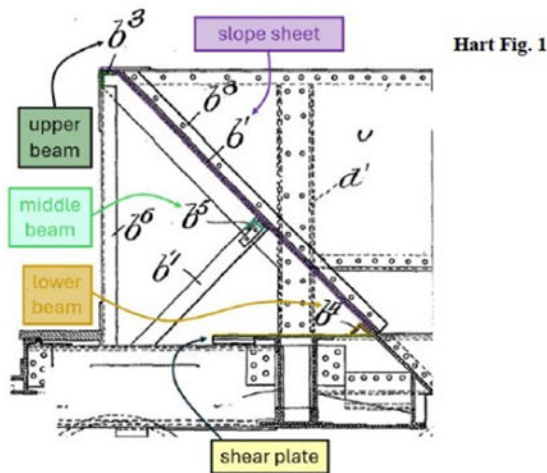
2. Specific Features of the Asserted Art that the Petition Relies on are the Same or Substantially the Same Art as the Prior Art that the Examiner Already Considered

The art asserted in the Petition is cumulative to the prior art considered by the Examiner during prosecution of the '515 Patent. Notably, each of Petitioner's asserted art references are technologically the same or substantially the same as the prior art considered by the Office during examination of the '515 Patent—and Petitioner provides no additional evidence or facts that warrant reconsideration of the cumulative prior art. The declaration and testimony of Dr. Mark J. Viz, Ph.D., P.E. is provided to assist the Director with analysis in this section. Ex. 2001.

Petitioner argues that its asserted art references are important for the Board to consider because the “Examiner was unaware that slope-sheet support beams and open machinery spaces were already incredibly old in 2009.” Petition at 21. Petitioner relies on Hart, the 1906 Cyclopedia, Lindström, and various other images of rail cars as allegedly teaching these features. Yet, during prosecution of the '515 Patent, the Examiner was made aware not only of similarly old references showing dozens of rail car designs, but of references that contain the exact same design features.

For example, Hart is asserted in the Petition as teaching claimed cross-wise beams at the ends of the claimed hopper car. The 1943 Cyclopedia was provided to the Office by Patent Owner in an IDS and considered by the Office during

prosecution Ex. 1002 at 237-44, 335. Cross-wise beams are clearly shown in the 1943 Cyclopedia considered by the Examiner (Ex. 1002 at 241, 335):



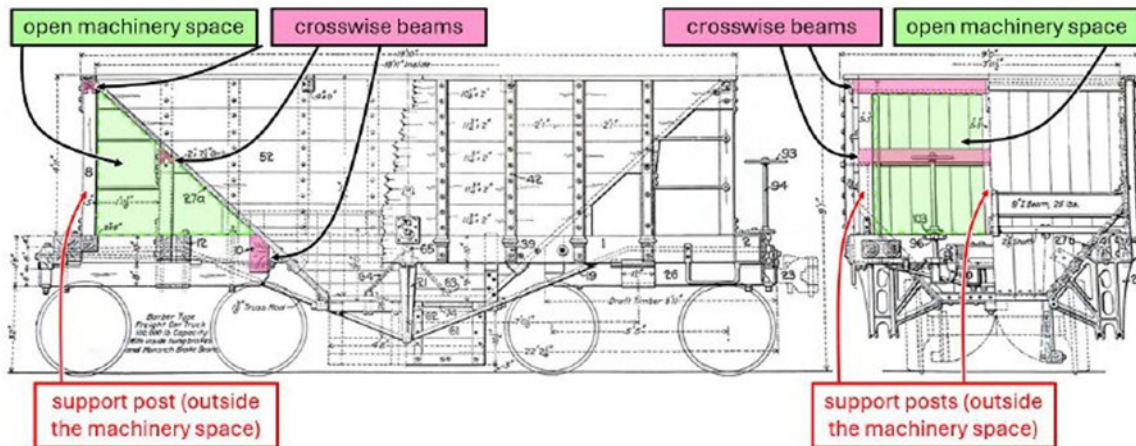
**Hart Patent
(Dr. Ahmadian Prior Art)**

**Enterprise Car – 1943 Cyclopedia
(Prior Art to Examiner)**

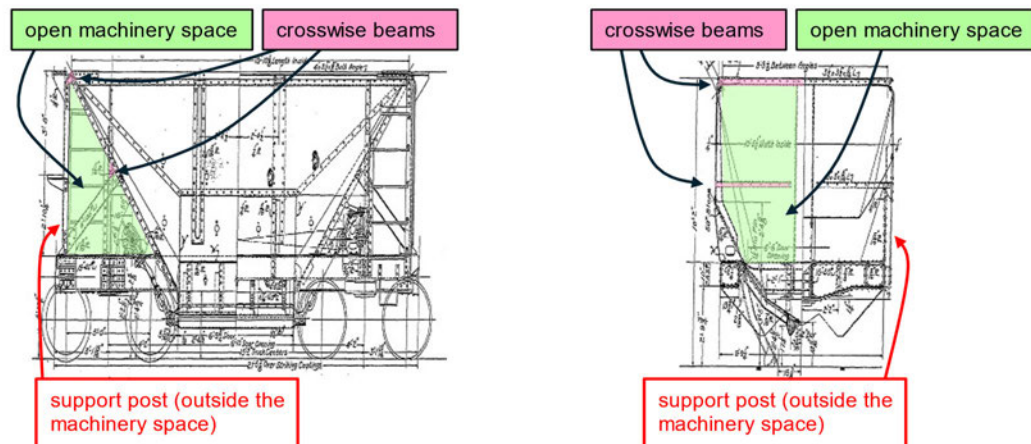
Dr. Viz Declaration, Ex. 2001 at ¶¶42-44 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶68 with Ex. 1002 at 241 (annotated)).

As another example, Petitioner relies on an “M&SP Ore Car” from the 1906 Car Builder’s Dictionary for features such as “crosswise beams,” a “support post (outside the machinery space)” and an “open machinery space.” Substantially the

same features are taught by the 1943 Cyclopedia that was considered by the Examiner (Ex. 1002 at 241, 335):



M&SP Ore Car – 1906 Cyclopedia (Dr. Ahmadian Prior Art)

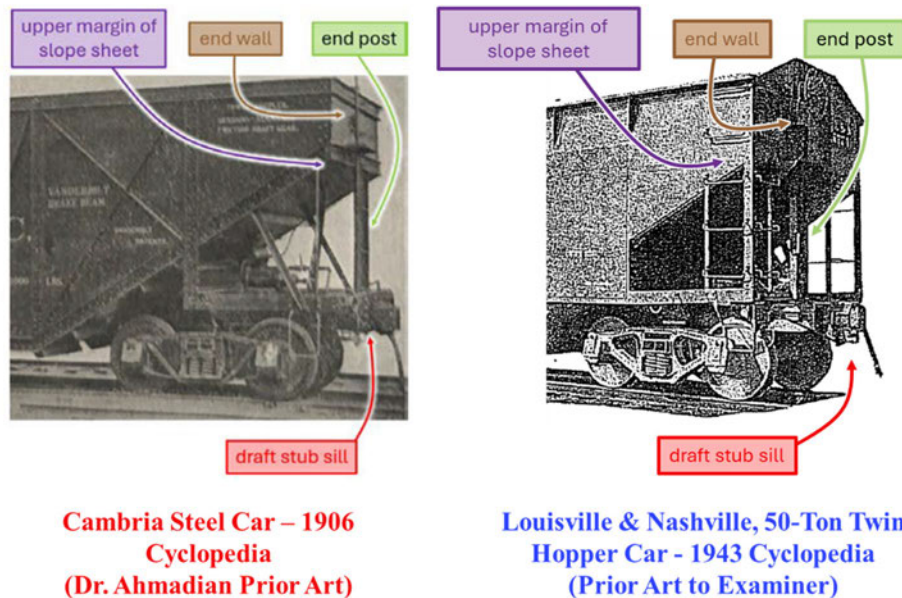


Enterprise Car – 1943 Cyclopedia (Prior Art to Examiner)

Dr. Viz Declaration, Ex. 2001 at ¶¶45-49 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶38 with Ex. 1002 at 241 (annotated)).

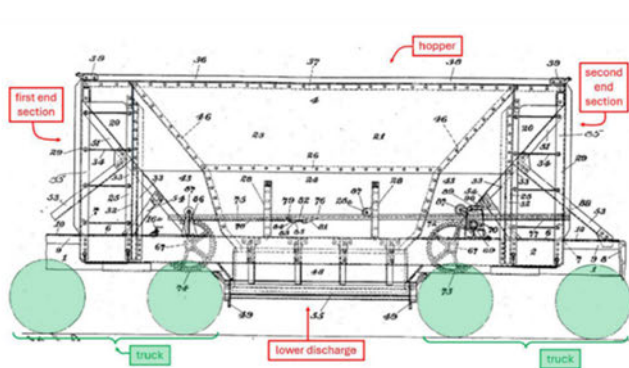
As yet another example, Petitioner relies on a “Cambria Steel Car” from the 1906 Car Builder’s Dictionary as allegedly teaching an “upper margin of slope sheet,” “end wall,” “end post,” and “draft stub sill.” Substantially the same features

are taught in at least the 1906 Cyclopedia's photograph of the Louisville & Nashville, 50-Ton Twin Hopper Car from the 1943 Cyclopedia that was considered by the Examiner (Ex. 1002 at 238, 335):

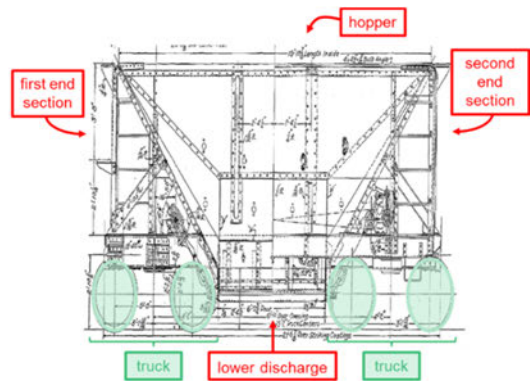


Dr. Viz Declaration, Ex. 2001 at ¶¶50-54 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶76 with Ex. 1002 at 238 (annotated)).

As another example, the Petition relies on Lindström as a primary reference to show a number of asserted art features. However, the asserted art features are substantially the same as those in the 1966 Cyclopedia's Enterprise rail car that was considered by the Examiner. Ex. 1002 at 262-71, 267, 336. For example, both Lindström and the Enterprise rail car teach substantially the same features, including first and second end sections, a hopper, and a lower discharge:

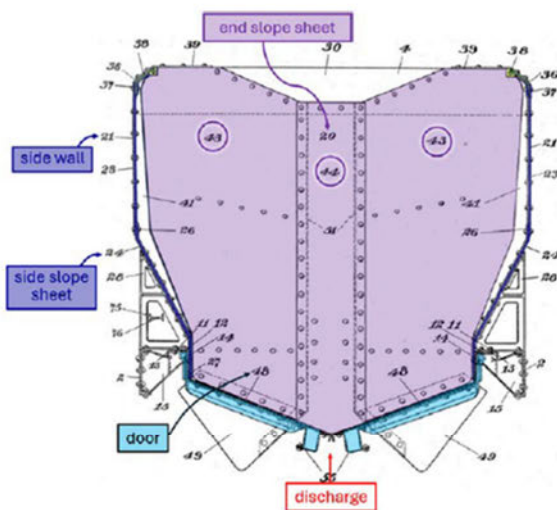


Lindstrom
(Dr. Ahmadian Prior Art)



Enterprise Car
1966 Cyclopedia
(Prior Art to Examiner)

Dr. Viz Declaration, Ex. 2001 at ¶¶55-57 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶118 with Ex. 1002 at 267 (annotated)). Both Lindström and the Enterprise rail car teach substantially the same features, including a discharge, a door, a side slope sheet, a side wall, and an end slope sheet:

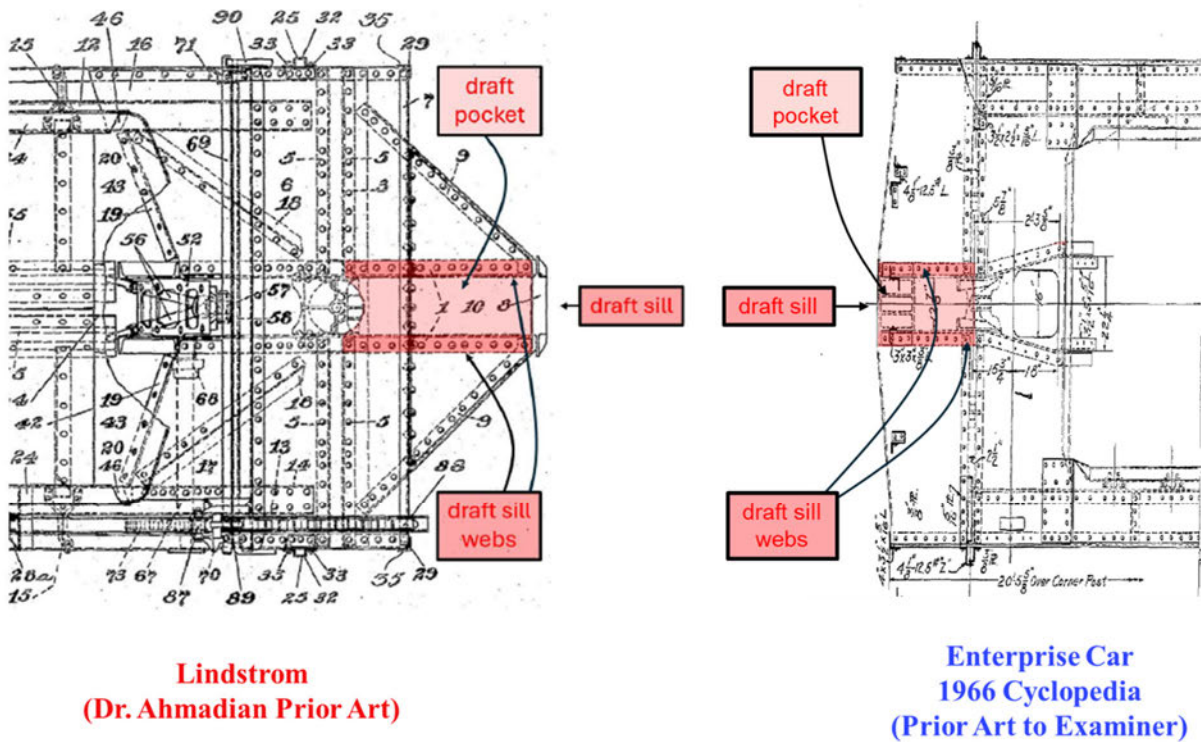


Lindstrom
(Dr. Ahmadian Prior Art)

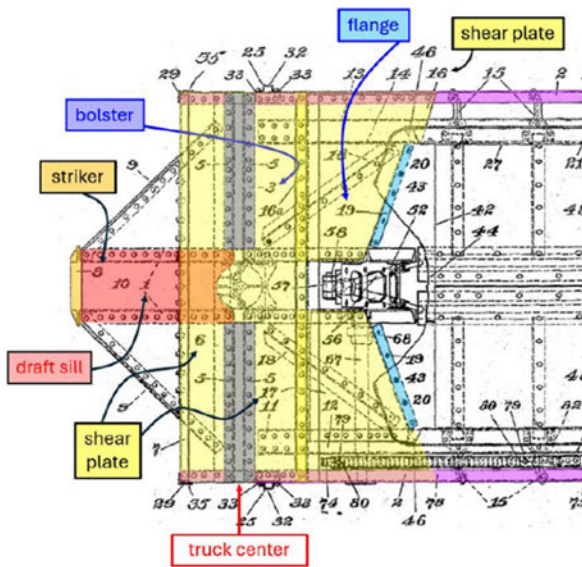


Enterprise Car
1966 Cyclopedia
(Prior Art to Examiner)

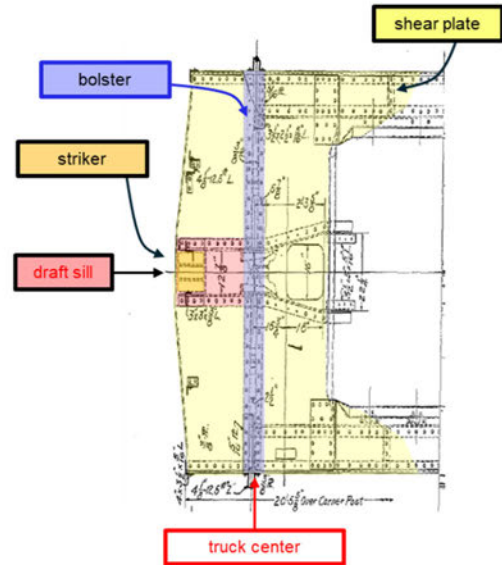
Dr. Viz Declaration, Ex. 2001 at ¶¶55-57 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶119 with Ex. 1002 at 267 (annotated)). Both Lindström and the Enterprise rail car teach substantially the same features, including a draft pocket, draft sill, and draft sill webs:



Dr. Viz Declaration, Ex. 2001 at ¶¶55-57 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶120 with Ex. 1002 at 267 (annotated)). Both Lindström and the Enterprise rail car teach substantially the same features, including a truck center, draft sill, striker, bolster, and shear plate:

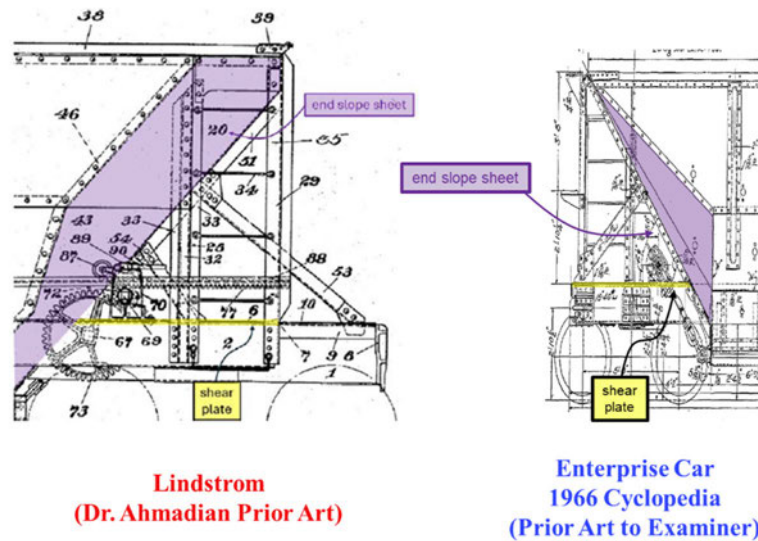


Lindstrom
(Dr. Ahmadian Prior Art)



Enterprise Car
1966 Cyclopedia
(Prior Art to Examiner)

Dr. Viz Declaration, Ex. 2001 at ¶¶55-57 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶121 with Ex. 1002 at 267 (annotated)). Both Lindström and the Enterprise rail car teach substantially the same feature of a shear plate:



Dr. Viz Declaration, Ex. 2001 at ¶¶55-57 (comparing annotated figures from: Dr. Ahmadian Declaration, Ex. 1003 at ¶123 with Ex. 1002 at 267 (annotated)).

The Petition mistakenly attempts to make it seem like “open machinery spaces” would be a new concept to the Office (Petition at 24-28) but rail cars with open ends were cited to, and considered by, the Examiner during prosecution, including in the 1937 and 1943 Cyclopedias, and the 2007 QIT rail car (Ex. 1002 at 223 (QIT rail car), 233 (Chicago and North Western 70-Ton Capacity Hopper Ore Car), 244 (Bulk Commodity Covered Hopper Car), 335.) However, none of these rail cars’ machinery spaces meet the limitations of the claims.



Dr. Viz Declaration, Ex. 2001 at ¶¶58-63 (comparing annotated figures from Ex. 1003 at ¶¶37-38 with Ex. 1002 at 223 (QIT rail car) (annotated), 233 (Chicago and North Western 70-Ton Capacity Hopper Ore Car) (annotated), 244 (Bulk Commodity Covered Hopper Car) (annotated)).

Thus, the first step of the Board's two-step analysis for denying institution under the *Advanced Bionics* framework is satisfied.

3. The Petition Fails to Show that the Office Materially Erred

Because the Petition relies on the same or substantially the same prior art that the Office considered during prosecution of the '515 Patent, the burden is on the Petitioner to demonstrate that the Office materially erred. *Advanced Bionics*, IPR2019-01469, Paper 6 at 8. Material error is a high bar that the Petition has failed to meet. The Petition must identify specific errors by the Office, such as “misapprehending or overlooking specific teachings of the relevant prior art where those teachings impact patentability of the challenged claims.” *Id.* at 8 n.9. The Petition cannot simply identify room for reasonable disagreement with the Office’s reasoning. Absent clear and material error, the Board will not second-guess the Office. *See id.* at 9 (“If reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability . . . this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.”).

The Petition fails to carry its heavy burden. The mere assertion that the Office could or should have made an obviousness rejection based on the prior art is insufficient to demonstrate clear material error. This is especially true here, where Petitioner’s assertion fails to take into consideration any single challenged claim as a whole and is paired with only a cursory explanation about what Petitioner believes the

Examiner should have done, without identifying any material error by the Examiner, or providing any explanation of what mistake the Examiner is alleged to have made. *See Ecto World*, IPR2024-01280, Paper 13 at 5 (holding that “a petitioner must provide an analysis” specific to step two of the *Advanced Bionics* test). Section 325(d) requires more than just mere disagreement with the Examiner’s decision. *Advanced Bionics*, IPR2019-01469, Paper 6 at 10-11. The Petition thus fails to show clear error. Petitioner’s hindsight-driven disagreement with the Examiner’s judgment is insufficient.

Petitioner ignores that the Office explicitly considered prior art rail cars that are substantially the same as those in the asserted art and concluded that each claim as a whole is patentable over the prior art. Petitioner attempts to cobble together its asserted art with hindsight. This is undoubtedly impermissible hindsight.

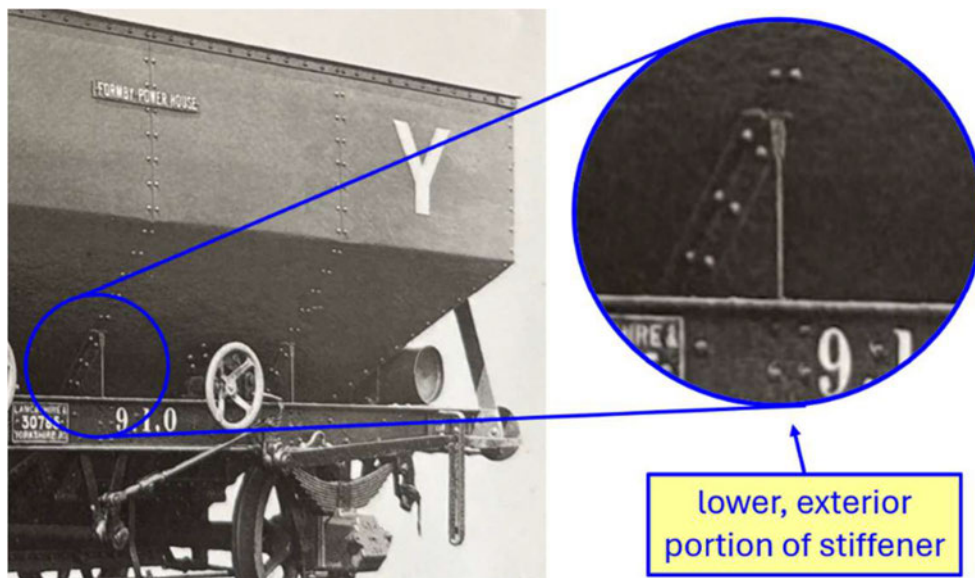
For example, the Petition identifies a number of prior rail cars with what Petitioner terms “machinery spaces” but fails to account for the structure that gives rise to the claimed “machinery space.” That structure, which is based at least in part on the claimed “shear plate,” “end slope sheet,” “corner posts” and “end post” does not appear together in any of the asserted art. In addition, features such as the “crosswise beams” allow the claimed “machinery space” to exist by removing the need for primary structure such as elephant ears and struts to hold up the end slope sheet by transferring load from the end slope sheet down into rail car’s

understructure. The claims do not generally recite open-end sections, but require specific structure that, taken as a whole, is not disclosed in, nor would have been found obvious to a POSITA based on, the prior art.

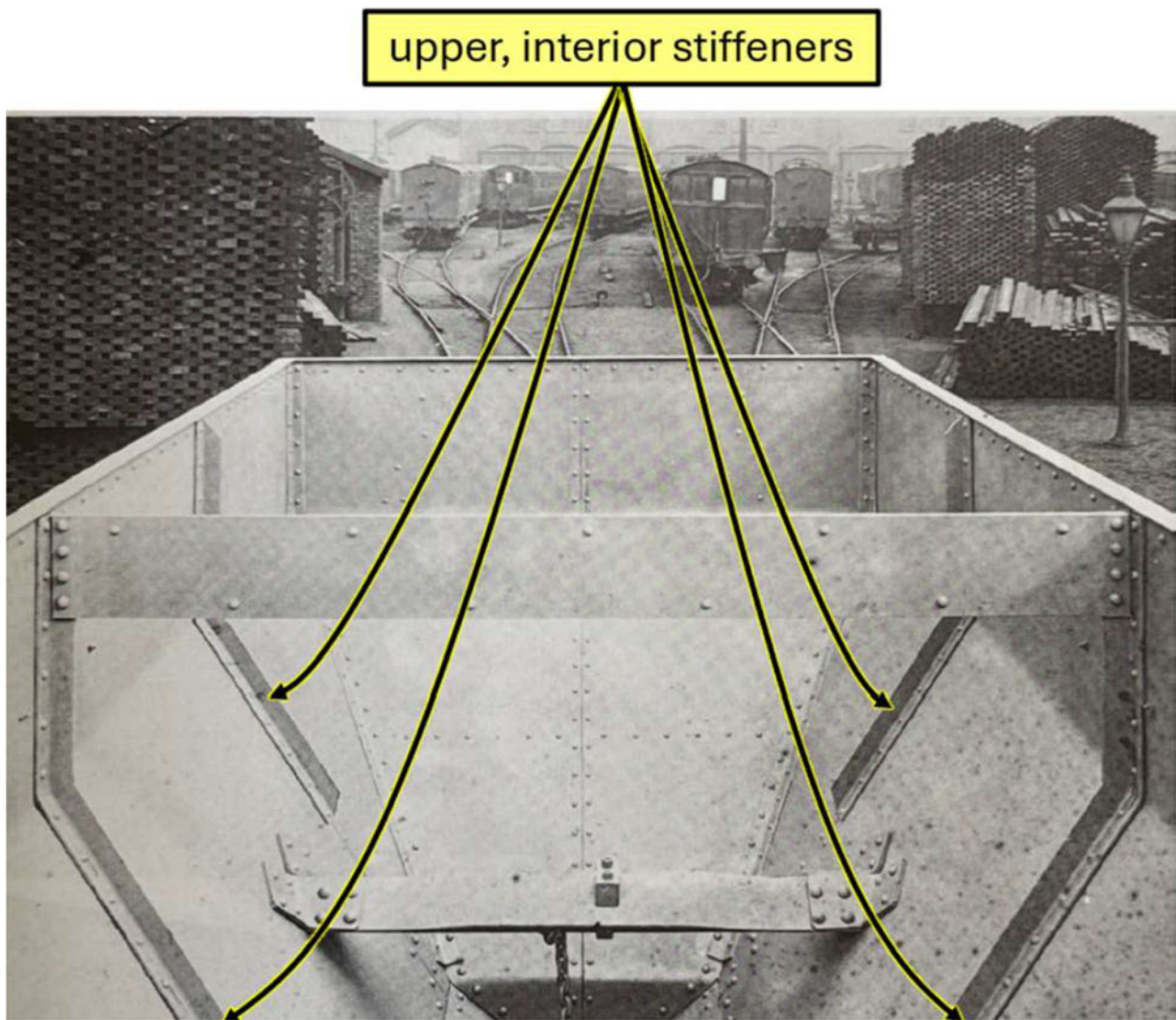
Petitioner provides no motivation to attempt, much less make, the sweeping, wholesale changes to the asserted art references, which would upend the asserted art's suitability for its intended purposes. Instead, Petitioner relies on the say-so of its expert, Dr. Ahmadian. Adding or removing steel features, moving connection points, and changing geometries on rail cars alters significantly, among other things, the performance, quality, and other characteristics of the rail cars such that additional weight, lading distribution, and other considerations arise, which the Petition fails to address because it is focused on using the '515 Patent claims as a roadmap to improperly pick and choose features from the prior art in an attempt to arrive at the claimed subject matter of the challenged claims.

Moreover, Petitioner ignores that the Examiner explicitly considered prior art sidewall stiffeners and understood that the claim included the limitation "said sidewall stiffener *having web continuity* between said first and second portions thereof" (emphasis added). Instead, the Petitioner tries to make hay with L-brackets and equate such structures to the claimed "sidewall stiffener having web continuity between said first and second regions thereof." While using L-brackets, as was done in the L&Y Hopper Car (shown below), was known to provide localized

reinforcement, especially at points of high stress or load transfer, they do not provide continuous structural support along the wall. Rather, they provide discrete structure support locations at the rivet points. On the other hand, the claimed sidewall stiffener having web continuity is integrated into the wall structure and extend continuously along the web of the wall panel or side sheet, thereby providing distributed and continuous reinforcement across the entire height/length of the wall. The patented design reduces localized stress and enhances structural integrity and resistance to fatigue and deformation under repeated loading.



Ex. 1007 at 1 (annotated).



Ex. 1007 at 1 (annotated).

The following table summarizes some key differences between the use of L-brackets in the asserted art and the claimed sidewall stiffener having web continuity:

Differences: L-Brackets vs Sidewall Stiffener Having Web Continuity

Feature	L-Brackets (Prior Art)	Claimed Sidewall Stiffener
Structure	Discrete, angular	Integrated, continuous
Load Handling	Localized	Distributed
Attachment Mechanism	Riveted with wall	Integrated/welded with wall
Stress Management	High at ends	Evenly spread

The Petition fails to address key differences between the L-brackets used in the cited art and the claimed sidewall stiffener having web continuity. Moreover, the Petition fails to show that the Examiner made a mistake in assessing, or failing to consider, the prior art. Indeed, after having considered the prior art, which included the same or substantially the same rail car designs as the L&Y Hopper Car with L-brackets, the Examiner allowed the claims of the '515 Patent. The Petition fails to present any asserted art that teaches, suggests, or would have rendered obvious the claimed “sidewall stiffener having web continuity” together with the remaining elements and limitations in claims 40-44 of the '515 Patent.

Therefore, with both steps of the two-step analysis instructing denial of the IPR, the Board should deny institution under Section 325(d).

III. Conclusion

For the foregoing reasons, institution should be denied.

Respectfully Submitted,

Date: August 18, 2025

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

I hereby certify that the foregoing complies with the type-volume limitation of 37 C.F.R. § 42.24 and contains 12,943 words based on the word count indicated by the word-processing system used to prepare the paper, excluding the table of contents, table of authorities, exhibit list, certificate of service, certificate of word count, and signature block.

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S REQUEST FOR DISCRETIONARY DENIAL OF INSTITUTION** was served electronically in its entirety on August 18, 2025 via electronic mail to the following attorneys of record:

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