

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FRAMELESS HARDWARE COMPANY LLC,
Petitioner,

v.

C.R. LAURENCE CO., INC.,
Patent Owner.

IPR2022-00356¹
Patent 9,074,413 B1

Before FRANCES L. IPPOLITO, ERIC C. JESCHKE, and
PAUL J. KORNICZKY, *Administrative Patent Judges*.

IPPOLITO, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining Some Challenged Claims Unpatentable
Dismissing Patent Owner's Motion to Exclude
35 U.S.C. § 318(a), 37 C.F.R. § 42.64(c)

¹ The Board previously consolidated IPR2022–00356 with IPR2022–00620. IPR2022–00620 was terminated upon consolidation with IPR2022–00356. IPR2022–00356, Paper 27, 4, 6.

I. INTRODUCTION

We have jurisdiction to hear this *inter partes* review under 35 U.S.C. § 6, and this Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons set forth below, we determine that Frameless Hardware Company LLC (“Petitioner”) has established by a preponderance of the evidence that claims 1, 5, 7, and 8 of Patent Owner C.R. Laurence Co., Inc.’s U.S. Patent No. 9,074,413 B1 (Ex. 1001², “the ’413 patent”) are unpatentable but has not established by a preponderance of the evidence that claim 4 of the ’413 patent is unpatentable. We additionally dismiss as moot Patent Owner’s Motion to Exclude Evidence.

A. Procedural History

Petitioner filed a first Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1, 4, 5, 7, and 8 of the ’413 patent on six grounds. That Petition included a declaration by Steven M. Tipton, Ph.D. (Ex. 1007). Patent Owner filed a Preliminary Response (Paper 9, “Prelim. Resp.”) accompanied by a supporting declaration from J. Michael McCarthy, Ph.D. (Ex. 2002). Petitioner later withdrew Ground 6 from the first Petition (Paper 8).

After the Institution Decision (Paper 11, “Dec. on Inst.”) in this proceeding, Petitioner filed a second petition requesting *inter partes* review of claim 8 of the ’413 patent. IPR2022-00620, Paper 2. In the second petition, Petitioner presented five grounds against claim 8. *Id.* These grounds include those based on prior art asserted in IPR2022-00356. *Id.* On

² Unless otherwise noted, cited exhibit numbers come from exhibits in the IPR2022-00356 proceeding.

September 13, 2022, we instituted review based on all grounds presented in the second petition. IPR2022-00620, Paper 8.

On September 28, 2022, the parties filed a joint request to consolidate IPR2022-00356 and IPR2022-00620. IPR2022-00356, Paper 26; IPR2022-00620, Paper 11 (“Joint Request”). On October 5, 2022, we granted the Joint Request, ordering that the grounds of unpatentability asserted in both IPR2022-00356 and IPR2022-00620 be addressed together in one proceeding, that all future filings be made in IPR2022-00356, and that IPR2022-00620 be terminated as a separate proceeding. IPR2022-00356, Paper 27, 4, 6.

As such, we have instituted *inter partes* review on the following grounds:

Claim(s) Challenged	35 U.S.C. §³	Reference(s)/Basis
1, 5, 7	102	Sprague ’905 ⁴
4	103	Sprague ’905, Garrett ⁵
8	103	Sprague ’905
1, 5, 7	102	Girardy ⁶

³ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. The filing date for the application that issued as the ’413 patent is July 10, 2014. Ex. 1001, code (22). Because the parties have not disputed that the earliest claimed priority date of the ’413 patent is after March 16, 2013, we apply the AIA version of § 103. *See, generally* Pet.

⁴ U.S. Patent No. 6,434,905 B1, issued Aug. 20, 2005 (Ex. 1003).

⁵ U.S. Patent No. 7,493,673 B2, issued Feb. 24, 2009 (Ex. 1006).

⁶ French Patent Appl. Publ. No. 2367178 A1, published May 5, 1978 (“Girardy”). Petitioner provides a certified English-language translation of

4	103	Girardy, Garrett
8	103	Sprague '905, Trainor ⁷
8	103	Sprague '905, Sprague '780 ⁸
8	103	Girardy, Trainor
8	103	Girardy, Sprague '780
8	103	Girardy, Sprague '905

Subsequently, on October 21, 2022, Patent Owner filed a Patent Owner Response (Paper 28 (“PO Resp.”)), which was accompanied by a supporting declaration from J. Michael McCarthy, Ph.D. (Ex. 2022). Petitioner filed a Reply to Patent Owner’s Response on January 20, 2023 (Paper 35 (“Reply”)) supplemented by a second declaration from Steven M. Tipton, Ph.D. (Ex. 1018). On March 10, 2023, Patent Owner filed a Sur-reply to Petitioner’s Reply. Paper 41 (“Sur-reply”). Because Patent Owner raised arguments regarding Dr. Steven M. Tipton’s testimony in its Sur-reply, we authorized additional briefing for each party. Paper 38. In response, Petitioner filed a Sur-sur-reply (Paper 45, “Sur-sur-reply”) and Patent Owner filed a Sur-sur-sur-reply (Paper 48, “Sur-sur-sur-reply”).

Girardy (Ex. 1005). Any reference to Girardy hereinafter will be to this English-language translation. The untranslated French version of Girardy is provided at Exhibit 1004.

⁷ U.S. Patent No. 5,069,010, issued Dec. 3, 1991 (IPR2022-00620, Ex. 1012).

⁸ U.S. Patent No. 7,302,780 B2, issued Dec. 7, 2007 (IPR2022-00620, Ex. 1013) (“Sprague '780”).

On April 6, 2023, Patent Owner filed a Motion to Exclude Evidence (Paper 49 (“Mot.”)), which Petitioner opposed (Paper 50). Patent Owner also responded to Petitioner’s opposition. Paper 51.

Thereafter, the parties presented oral arguments on May 1, 2023, and the Board entered a transcript into the record. Paper 54 (“Tr.”).

B. Related Matters

The parties indicate that the ’413 patent has been asserted in *C.R. Laurence Co., Inc. v. Frameless Hardware Company LLC, et al.*, No. 2:21-cv-01334-JWH-RAO (C.D. Cal.) filed February 12, 2021 (“District Court Litigation”). Pet. 2; Paper 5, 1.

C. The ’413 Patent

The ’413 patent “relates to vertical and horizontal framing members for framing glass doors, wall partitions and like structures, and in particular to framing insulated glass panels comprised of two panes of glass separated by spacers.” Ex. 1001, 1:8–11. The ’413 patent discloses that glass panels for such doors or wall partitions typically have bottom and top edges that are secured within horizontal rails and framing members, and are typically provided with decorative finishes or covers to create a pleasing ornamental appearance. *Id.* at 1:14–22. However, glass panel framing systems are limited due to the difficulty and cost of installation or the inconvenience of repairing a damaged or marred glass framing member after initial installation. *Id.* at 1:23–27. The ’413 patent indicates that to address some of these disadvantages, “designs that clamp onto the glass panels have been developed” in which a clamping force is applied to retain a glass panel within a channel that forms part of the framing member and a “clamping action is typically produced either by screws bearing directly against

clamping strips which bear against the glass panes or by wedging action whereby wedge blocks are pulled downwardly or pushed upwardly against mating angled walls to force the blocks inwardly against the glass panels to create clamping pressure.” *Id.* at 1:42–56.

According to the '413 patent, a drawback in these clamping systems is the inability to precisely control the degree of clamping force applied to the panes, which is relevant because the two glass panes are separated by a spacer and are thin and, therefore, more subject to cracking. *Id.* at 1:57–2:2. The '413 patent purports to solve these problems by providing a rail assembly having a “geometry that utilizes wedging action to convert an axial force into a perpendicular clamping force against the faces of the panel to be secured.” *Id.* at 2:3–7, 2:22–25.

Figure 2, reproduced below, shows such a rail assembly.

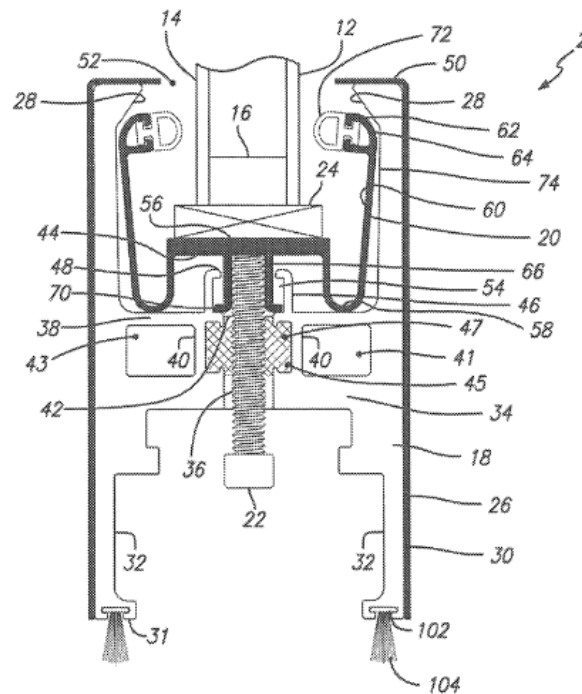


FIG. 2

Figure 2 above is an exemplary end view of a horizontal rail assembly, in an unclamped position, of the '413 patent. *Id.* at 3:19–21. Rail assembly 2 is designed to clamp and secure glass panel 12, which can comprise two panes 14 separated by spacer 16. *Id.* at 4:6–14. Rail assembly 2 includes rail body 18, spring action clamping member 20 and clamp screws 22. *Id.* at 4:21–23. Rail body 18 has angled upper surfaces 28, which are angled inwardly with respect to the vertical direction of the panes 14. Glass receiving space 52 houses spring action clamping member 20, glass panel support spacer 24, and glass panel 12. *Id.* at 4:25–27, 4:36–38. Rail body 18 further includes lower compression member 34, which has threaded holes 36 located at intervals to accommodate clamp screws 22 such that the ends of clamp screws 22 abut abutment surface 44 located on spring action clamping member 20. *Id.* at 4:44–51. In regard to clamping screws 22, the '413 patent discloses that, “[a]s is common in clamping applications, threaded fasteners are the preferred method of actuating the rail assembly components to generate clamping forces.” *Id.* at 6:56–60. Spring action clamping member 20 includes glass panel support base 56 connected to mutually opposed U-shaped sections 58, which are connected to spring walls 60. *Id.* at 4:58–61. Outwardly-directed spring force is created by U-shaped sections 58 towards spring walls 60 and the degree of outwardly-directed spring force may be varied by varying the bend radius of U-shaped sections 58. *Id.* at 5:44–49. Upper ends 62 of spring walls 60 include sliding surfaces 64 that slideably engage with top portions or angled upper surfaces 28 of rail body 18. Surrounding rail body 18 is decorative cladding member 26. *Id.* at 4:24–25, 6:45–47.

D. Challenged Claims

Petitioner challenges claims 1, 4, 5, 7, and 8. Of the challenged claims, claim 1 is independent. Claim 1 is reproduced below:

1. A rail assembly for releasably securing a panel, the rail assembly comprising:

a rail body having mutually opposed inclined surfaces, angled inwardly towards the panel to be secured;

a spring action clamping member, having mutually opposed walls, the walls having mutually opposed upper ends, the upper ends configured to slide against the inwardly inclined surfaces of the rail body;

wherein the spring action clamping member is movable between an open position wherein the panel to be secured may be freely removed from the rail body and a closed position wherein the panel to be secured is clamped within the rail body;

a screw engaged with the rail body having an end in contact with the spring action clamping member; and

wherein actuation of the screw from the open position causes the clamping member to move upwardly causing the upper ends of the mutually opposed walls of the clamping member to slide upwardly against the mutually opposed inclined surfaces of the rail body, said upward motion causing the upper ends to translate inwardly, applying clamping pressure to each side of the panel to be secured.

Ex. 1001, 10:34–56.

II. ANALYSIS

A. Assignor Estoppel

Patent Owner contends that the inventions claimed in the '413 patent were invented by Gary Sprague while he was employed by Patent Owner C.R. Laurence Co., Inc. PO Resp. 7. Patent Owner further asserts that at the time Mr. Sprague executed his assignment of the '413 patent application, he

had knowledge of the two primary references used in all of Petitioner's asserted grounds. *Id.* at 7. Patent Owner adds that "[Mr.] Sprague is now [Petitioner's] employee and the principal designer of [Petitioner's] accused product." PO Resp. 7; Ex. 2005 ¶¶ 113–143 (Count III, Patent Infringement)); Ex. 1011.

In the Decision on Institution, the Board declined to apply assignor estoppel to this proceeding to maintain consistency with binding, precedential decisions. Dec. on Inst. 7–10. However, Patent Owner urges us to reconsider denying to apply assignor estoppel in view of the decision in *Minerva Surgical, Inc. v. Hologic, Inc.*, 141 S. Ct. 2298 (2021). PO Resp. 4–7.

As discussed in the Decision on Institution, our reviewing court has determined that the doctrine of assignor estoppel does not bar an assignor from filing a petition for an *inter partes* review, nor does it bar the Board from instituting a proceeding based on that petition. *Arista Networks, Inc. v. Cisco Sys., Inc.*, 908 F.3d 792, 804 (Fed. Cir. 2018). This holding in *Arista* is binding upon the Board. The holding was based on 35 U.S.C. § 311(a), which provides "a person who is not the owner of a patent may file with the Office a petition to institute an inter partes review of the patent," which the Federal Circuit concluded "unambiguously leaves no room for assignor estoppel in the IPR context." *Arista*, 908 F.3d at 801–04.

The Board has followed this precedent, which is consistent with its own precedential decision holding:

Under the AIA, "a person *who is not the owner of a patent* may file with the Office a petition to institute an *inter partes* review of the patent." 35 U.S.C. § 311(a) (emphasis added). Consequently, under the statute, an assignor of a patent, who is

no longer an owner of the patent at the time of filing, may file a petition requesting *inter partes* review. This statute presents a clear expression of Congress's broad grant of the ability to challenge the patentability of patents through *inter partes* review.

Athena Automation Ltd. v. Husky Injection Molding Sys. Ltd., IPR2013-00290, Paper 18 at 12–13 (PTAB Oct. 25, 2013) (precedential as to § II.A).

We have, additionally, reviewed the Supreme Court decision in *Minerva Surgical, Inc. v. Hologic, Inc.*, 141 S. Ct. 2298 (2021). There, the Supreme Court “clarif[ied] that [assignor estoppel] reaches only so far as the equitable principle long understood to lie at its core”; that is, the assignor is estopped from raising patent invalidity as a defense “when, but only when, the assignor’s claim of invalidity contradicts explicit or implicit representations he made in assigning the patent.” *Id.* at 2302. Moreover, the Court determined that “[a]ssignor estoppel applies when an invalidity defense in an *infringement suit* conflicts with an explicit or implicit representation made in assigning patent rights. But absent that kind of inconsistency, an invalidity defense raises no concern of fair dealing—so assignor estoppel has no place.” *Id.* at 2311 (emphasis added).

We note that *Minerva* involved a district court infringement suit, not an *inter partes* review. Further, we discern nothing in the Supreme Court decision that clearly abrogates or otherwise conflicts with the holdings in *Arista* and *Athena*, identified above. See PO Resp. 7 (“The panel in this proceeding should recognize that the Board’s *Athena* decision and the Federal Circuit’s *Arista* decision are in conflict with the Supreme Court’s *Minerva* decision and apply assignor estoppel here.”). For example, the Supreme Court did not address the language of 35 U.S.C. § 311(a). Therefore, Patent Owner has not presented persuasive arguments that we

should decline to follow binding, precedential decisions that directly address the situation here. Accordingly, we decline to apply assignor estoppel to dismiss this proceeding.

B. Gamesmanship

Patent Owner asserts that Petitioner is engaging in improper gamesmanship because Petitioner claimed in the related infringement District Court Litigation that the proposed construction “purportedly dictates that [the] ‘spring action clamping member’ is actually subject to 35 U.S.C. § 112(f).” PO Resp. 2 (citing Ex. 2021, 4). Patent Owner contends that Petitioner “was under an obligation to identify its belief that ‘spring action clamping member’ is a means-plus-function term when it filed its Petitions.” *Id.* (citing 37 C.F.R. § 42.104(b)(3)). Patent Owner alleges that Petitioner, by putting forth different claim standards in the two venues, “seeks to treat this term like a ‘nose of wax’ to be twisted different ways in separate venues to achieve its desired results, without regard to proper functioning of the legal system.” *Id.* at 2–3 (citing *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001)). Thus, Patent Owner argues that the Board “can and must” dismiss the proceeding. *Id.* at 4 (citing *Kiosoft Techs., LLC v. PayRange, Inc.*, IPR2021-00086, Paper 12 (PTAB Mar. 22, 2021)).

Petitioner disputes this characterization. Petitioner contends that Patent Owner did not “cite any relevant post-institution authority” for dismissing the proceeding. Reply 2. Petitioner further notes that “the Board only needs to construe terms ‘that are in controversy, and only to the extent necessarily to resolve the controversy,’” (*id.* at 2–3 (quoting Dec. on Inst. 17)) and Petitioner notes that there is no controversy as it adopted Patent

Owner’s claim construction of “spring action clamping member” “[w]ithout waiving its right to argue for a different construction in the Related Litigation.” *Id.* at 4. Additionally, Petitioner argues that both parties are “free to rely upon [the *Williamson*] presumption,” which states that limitations that do not use the word “means” are not presumed to be means-plus-function terms under 35 U.S.C. § 112(f). *Id.* at 3 (citing *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed Cir. 2015) (en banc in relevant part)). Petitioner also contends that Patent Owner’s concerns about inconsistent results between the two fora are “speculative and misplaced” as the parallel proceeding in the district court “has been stayed without a claim construction ruling.” *Id.* Further, Petitioner argues that there is no precedent that “requires the Board to dismiss an instituted IPR proceeding where the petitioner initially relied upon the presumption.” *Id.* (citing *Philip Morris Prods., S.A. v. RAI Strategic Holdings, Inc.*, IPR2020-00921, Paper 13 at 43 (PTAB Aug. 5, 2021) (“Numerous decisions have held that [37 C.F.R. § 42.104(b)(3)] does not require a petitioner to express a subjective belief in the correctness of its proffered claim constructions, nor prohibit a petitioner from relying on claim constructions that it believes are incorrect.”)).

In its Sur-reply, Patent Owner reiterates its previous arguments and further contends that Petitioner proposes a different construction of “releasably secur[e] a panel” that requires no tools be used. Sur-reply 5–6 (citing Ex. 2021, 4; Ex. 2024, 19–23). Patent Owner calls the alleged differing claim constructions “contradictions” and argues that Petitioner “was required to propose proper constructions and identify any claim terms subject to Section 112(f) in its original Petition, and [Petitioner] undeniably violated these requirements.” *Id.* at 6 (citing 35 U.S.C. § 312(a)(3); 37

C.F.R. §§ 42.104(b)(3), (4)). Further, Patent Owner claims that “Dr. Tipton has similarly disavowed his constructions and analyses—or, at a minimum, acknowledged that they are materially incomplete—and indicated that his new declaration in the pending litigation actually expresses his views on the ’413 Patent’s claims.” *Id.* at 7 (citing Ex. 2025, 25:10–29:14, 30:4–32:17). Patent Owner also asserts that Petitioner’s expert concedes that “Sprague ’905 and Girardy fail to disclose the structures required by his and [Petitioner]’s new means-plus-function analysis of ‘spring action clamping member’” and that Dr. Tipton failed to submit a new declaration “analyzing the claims under either [Patent Owner]’s proposed constructions or [Petitioner’s] newly proposed constructions in District Court.” *Id.* at 7–8 (citing Ex. 2025, 50:2–11).

Petitioner responds by asserting that neither party “has argued in this IPR proceeding that ‘spring action clamping member’ is a means-plus-function term” nor has either party “asked the Board to find that the presumption against means-plus-function treatment under *Williamson*.” Sur-sur-reply 1. Petitioner also reiterates that Patent Owner

has cited no precedent in the Board’s jurisprudence for dismissing an instituted IPR proceeding due to an alleged divergence with a petitioner’s claim construction position in district court litigation, and [Petitioner] is not aware of any. Moreover, this is not a situation where the IPR petitioner is proffering a construction that contradicts a construction already entered by the district court.

Id. at 2. Petitioner further notes that the district “court stayed all proceedings without ruling on claim construction.” *Id.* at 3. Petitioner states that “there is no controversy about what [‘releasably’ and ‘open position’] mean, only whether they are taught by the prior-art references.” *Id.* at 4.

Petitioner also asserts that Patent Owner “mischaracterizes the record” by stating that Petitioner imposed a requirement that no tools be used to releasably secure the panel. *Id.* at 6. Petitioner claims that Dr. Tipton “testified in the related litigation that you ‘don’t need any special tools,’” meaning that a person could use tools but “you ‘don’t have to pry [the panel] out.” *Id.* (citing Ex. 2024; Ex. 2027, 21:11–22:4, 22:16–20, 23:5–11).

Additionally, Petitioner contends that “Dr. Tipton was clear that the claim construction positions that he offered in the litigation and in this IPR proceeding ‘are both true’ and ‘are both correct’” and “Dr. Tipton thus has been wholly consistent in his proposed claim constructions between this IPR proceeding and the related litigation.” *Id.* at 9–12 (citing, e.g., Ex. 2025, 13:1–20, 15:1–22, 23:21–24:2, 43:17–23, 45:6–46:17; Ex. 1007 ¶¶ 43–45; Ex. 2026 ¶¶ 41–42, 47–48). Petitioner asserts that “there is more than enough testimony from Dr. Tipton” “between Dr. Tipton’s original declaration [(Ex. 1007)], his supplemental declaration on August 5, 2022 [(Ex. 1018)], his original cross-examination on September 15, 2022 [(Ex. 2019)], his litigation declaration on October 21, 2022 [(Ex. 2026)], his litigation deposition on December 9, 2022 [(Ex. 2027)], and now his supplemental cross-examination on February 23, 2023” to construe the claims. *Id.* at 12.

In its Sur-sur-sur-reply, Patent Owner contends that “it is not correct . . . that [Petitioner] can continue in this proceeding with a free hand to contradict itself in the future in district court litigation.” Sur-sur-sur-reply 2. Patent Owner argues that the “Federal Circuit has confirmed that the Board retains the power to dismiss an IPR after institution for a petitioner’s failure to comply with the governing regulations.” *Id.* at 4 (citing

Medtronic, Inc. v. Robert Bosch Healthcare Sys., Inc., 839 F.3d 1382 (Fed. Cir. 2016)). Further, Patent Owner asserts that despite the lack of precedent for post-institution dismissal due to claim construction differences in parallel proceedings, “a lack of precedent is not a lack of power.” *Id.* at 5. Patent Owner also notes that it is “irrelevant” that the District Court Litigation has been stayed and that “neither party is advocating that ‘spring action clamping member’ is subject to § 112(f) in this proceeding.” *Id.*

We decline to dismiss or terminate this proceeding on this basis. Patent Owner has not provided us any controlling authority that prevents a petitioner from advancing one construction in the District Court Litigation as an infringement defendant and a different construction as a Petitioner before the Board.

Further, we note that 37 C.F.R. § 42.100(b) provides that the Board shall use the same claim construction *standard* as the courts, not that the Board shall use the *same construction*. The Board does, however, “consider[.]” prior claim constructions by a district court. *See* 37 C.F.R. § 42.100(b). In any event, the related District Court Litigation here has been stayed; there is no court construction before us, only the parties’ proposals. Sur-sur-sur-reply 5; *see* Tr. 67:22–68:4 (“JUDGE IPPOLITO: And the related district court proceeding, by my recollection, has been stayed without the claim construction hearing; is that correct? MR. FRANKLIN: That’s correct. It was stayed without a claim construction hearing, without a claim construction order, without a tentative claim construction order, and for that matter, without the briefing on claim construction having been completed.”). Thus, to the extent that Patent Owner contends there is danger of inconsistent results, that danger is mitigated by the stay.

Patent Owner's reliance on *Kiosoft Techs., LLC v. PayRange, Inc.*, IPR2021-00086, Paper 12 (PTAB Mar. 22, 2021) is unpersuasive. There, the panel exercised their discretion to deny under 35 U.S.C. § 314(a). *Id.* at 7–17. In addressing the discretionary factors, the panel noted that the related district court proceeding was not stayed and that inconsistent claim constructions may lack uniformity. *Id.* at 9, 16. In contrast, the related district court proceeding for the instant case has been stayed.

While there is no requirement that once instituted, IPRs must proceed through final written decisions (*see, e.g.*, 37 C.F.R. § 42.72), Patent Owner has not persuaded us that there is a persuasive basis to dismiss or terminate this proceeding.

C. *Level of Ordinary Skill in the Art*

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

Petitioner contends that a person of ordinary skill in that art “would have had a bachelor’s degree in mechanical engineering or an equivalent field, plus at least two years of experience working in the field of mechanical design and product testing.” Pet. 7 (citing Ex. 1007 ¶¶ 34–36). Patent Owner does not dispute this level of skill. *See generally* PO Resp. For purposes of this Decision, we adopt Petitioner’s proposal as reasonable and consistent with the prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350,

1355 (Fed. Cir. 2001) (the prior art may reflect an appropriate level of skill in the art).

D. Principles of Law

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

In *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long-felt but unsolved needs, failure of others, etc.” *Id.* at 17–18. “While the sequence of these questions might be reordered in any particular case,” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007), the Federal Circuit has “repeatedly emphasized that an obviousness inquiry requires examination of all four *Graham* factors and that an obviousness determination can be made only after consideration of each factor,” *Nike, Inc. v. Adidas AG*, 812 F.3d 1326, 1335 (Fed. Cir. 2016).

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

E. Claim Construction

For petitions filed on or after November 13, 2018, the “broadest reasonable interpretation” standard has been replaced with the federal court claim construction standard that is used to construe a claim in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b). This is the same claim construction standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and its progeny.

“In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). Extrinsic evidence is “less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’” *Phillips*, 415 F.3d at 1317 (citations omitted).

Any special definition for a claim term must be set forth in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

We construe only those claim terms that require analysis to determine whether to institute *inter partes* review. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (holding that “only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy”).

Petitioner proposes construction for the following claim terms:

(1) “a rail body having mutually opposed inclined surfaces, angled inwardly towards the panel to be secured” recited in claim 1; (2) “a spring action

clamping member, having mutually opposed walls, the walls having mutually opposed upper ends, the upper ends configured to slide against the inwardly inclined surfaces of the rail body” recited in claim 1; (3) “a screw engaged with the rail body having an end in contact with the spring action clamping member” recited in claim 1; (4) “each of the mutually opposed walls of the spring action clamping member includes a u-shaped element, wherein the u-shaped element acts as a spring member” recited in claim 4; and (5) “decorative cladding” recited in claim 8. *See* Pet. 12–18.

“a spring action clamping member”

Patent Owner disputes Petitioner’s construction for claim term (2) and advances its own construction for “a spring action clamping member.” *See* PO Resp. 26–31. We address each parties’ arguments below.

Claim 1 recites “a spring action clamping member, having mutually opposed walls, the walls having mutually opposed upper ends, the upper ends configured to slide against the inwardly inclined surfaces of the rail body.” Ex. 1001, 10:38–41.

Petitioner proposes that this claim term requires “a clamping member having mutually opposed walls, the mutually opposed upper ends of which are bent inwardly when slid against the inwardly inclined surfaces of the rail body to create an outwardly directed spring force.” Pet. 14.

In the Decision on Institution, the Board declined to adopt this construction and determined that it was “unnecessary . . . to construe this limitation beyond its plain and ordinary meaning other than to note that the spring action clamping member provides a spring action force.” Dec. on Inst. 17.

In its Response, Patent Owner contends that “spring action clamping member” should be construed as “a clamping member that includes a spring” because “the ’413 Patent does not merely describe a ‘clamping member’ that is flexible or ‘springy’—it describes a clamping member that *includes a spring*. That is, the spring action clamping member itself has a *spring* that ‘provides a spring action force,’ without resort to other structures in the rail assembly.” PO Resp. 26 (emphasis added (citing Ex. 2022 ¶¶ 20, 27)). Patent Owner claims that a “person of ordinary skill understands that a structure is a ‘spring’ when the material and physical dimensions of that structure provide a desired force-deflection relationship in the field of art in which the structure is applied.” *Id.* at 28 (citing Ex. 2022 ¶ 27).

In its Reply, Petitioner chose to adopt Patent Owner’s construction for this proceeding. Reply 15. However, at the hearing, Petitioner noted that using the construction the Board adopted at institution will yield the same outcome:

JUDGE IPPOLITO: When I look at the claim language, I don't see that it's needed for us to determine the spring constant or determine deflection or determine the shape of a spring or determine even if there is a spring, or what kind of a spring it is. I see the language as spring action clamping member, so I just want to make sure [w]hat your position isn't or is. Do we need to decide all these particular properties of the prior art in order to determine whether or not there is a spring taught in the prior art versus a spring action clamping member that provides a spring force[?]

MR. FRANKLIN: You don't have to determine all of that. The spring constant is not in the claims. The particular shape of the spring is not -- excuse me -- is not the -- is not in claim 1, and all those other considerations, you're correct; they're not in the claim. *If the Board finds that the clamp member 204 in figure 12*

of Sprague '905 has spring action, that should be enough for you to find that the claim is anticipated.

Tr. 16:10–16 (emphasis added).

Having reviewed the parties’ arguments and evidence, we maintain our construction from the Decision on Institution that it is “unnecessary . . . to construe this limitation beyond its plain and ordinary meaning other than to note that the spring action clamping member provides a *spring action force*.” Dec. on Inst. 17 (emphasis added).

We begin with the claim language. Patent Owner’s proposed construction proffers language that is not expressly recited in the claim. In particular, claim 1 does not recite a “spring.” Ex. 1001, 10:34–56. Nor does a “spring” appear in the other limitations of any claims. Thus, the express claim language does not require more than spring *action*.

Our reading of claim 1 is consistent with the ’413 patent’s Specification that describes the operation of a spring action force clamping member, but does not describe a clamping member with *a spring* that specifically provides the spring force. In other words, while we agree that the spring action clamping member is recited as providing “spring action,” we are, however, not persuaded that this limitation requires a “spring.” As noted in the Specification, Figures 2 and 3 of the ’413 patent teach that an outwardly directed spring force may be created by U-shaped sections 58 of the spring action clamping member. Ex. 1001, 5:44–47. The ’413 patent further discloses that “[t]he degree of outwardly directed spring force may be varied by varying the bend radius of the U-shaped sections 58.” *Id.* at 5:47–49. As such, the outwardly directed spring action force is disclosed in these sections as being generated by U-shaped sections of the spring action clamping member interconnecting with walls 60 shown in Figure 2. *Id.* at

5:44–47. The Specification does not disclose a specific type of spring structure, nor does it define the U-shaped sections of the spring action clamping member interconnecting with walls 60 as a “spring.”

Additionally, the prosecution history is not instructive in this regard. The ’413 patent was filed as U.S. Patent Application No. 14/328,592 (“the ’492 Application”). Ex. 1002, 67. After filing, the examiner issued a restriction requirement on January 2, 2015. *Id.* at 57–62. The Applicant elected pending claims 1–19 and withdrew pending claims 20–37. *Id.* at 36–52. Subsequently, the examiner issued a notice of allowability. *Id.* at 20–22. In the notice of allowability, the examiner stated that “[t]he prior art of record fails to disclose a rail assembly and a stile assembly, alone or in combination, having the claimed configuration and components.” *Id.* at 21. Neither the examiner, nor the rest of the prosecution history, addresses the limitation at issue.

Outside of the intrinsic evidence, “extrinsic evidence i[s] general[ly] [viewed] as less reliable than the patent [itself] and its prosecution history in determining how to read claim terms.” *Phillips*, 415 F.3d at 1318. Here, Patent Owner relies on certain extrinsic evidence and contends that a POSITA would have understood that “the spring action clamping member itself has a spring that ‘provides a spring action force,’ without resort to other structures in the rail assembly.” PO Resp. 26 (citing Ex. 2022 ¶ 20). For example, with reference to paragraphs 21–26 of Dr. McCarthy’s testimony, Patent Owner contends that in the ’413 patent, “springs” of the spring action clamping member 20 keep the upper ends 62 of the mutually opposed walls 60 of the spring action clamping member 20 engaged with the

interior surfaces 28, 74 of the rail body 18 in a cam-follower arrangement.

Id. at 27 (citing Ex. 2022 ¶¶ 21–26).

Dr. McCarthy relies on textbooks for the proposition that the

[i]n an embodiment described in the '413 Patent, the spring that maintains each cam-follower (a sliding surface 64 at an upper end 62 of a wall 60) in contact with the cam (an interior wall 74 and adjoining inwardly angled wall 28) is one of the U-shaped section 58 (which is coupled to the wall 60). Specifically, *in this disclosed embodiment the U-shaped sections 58 function as cantilever or leaf springs.*

Ex. 2022 ¶ 24 (emphasis added). Be that as it may, Dr. McCarthy's testimony is consistent with the notion that the U-shaped sections 58 function as springs, but are not per se "springs." In other words, the U-shaped sections 58 function as springs to provide spring force action.

Moreover, assuming that U-shaped sections 58 could be categorized as having the function of a cantilever or leaf spring (*see* Ex. 2022 ¶¶ 22–25), we are mindful that even if the Specification disclosed this embodiment as a "spring" structure, "it is important not to import claim limitations that are not a part of the claim." *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). "[A] particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment." *Id.*

Independent claim 1 recites "spring action clamping member," but does not recite U-shaped sections or U-shaped structures. Ex. 1001, 10:34–56. As such, Dr. McCarthy's testimony regarding springs, U-shaped sections, and reliance on reference materials are unpersuasive in light of the intrinsic evidence, e.g., express claim language and Specification of the '413 patent.

Accordingly, we further decline to adopt Patent Owner’s construction because it improperly reads into claim 1 a requirement that the Specification and claim language do not support.

That being the case, we conclude it is unnecessary to construe this limitation beyond its plain and ordinary meaning other than to note that the spring action clamping member provides a spring action force.

We also do not expressly construe any other terms. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017)) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’”) (citing *Vivid Techs.*, 200 F.3d at 803).

F. Overview of the Prior Art

1. Summary of Sprague ’905 (Ex. 1003)

Sprague ’905 is a patent entitled “Door Rail System.” Ex. 1003, code (54). The rail system is “for holding a plate glass pane in a doorway and/or wall partition.” *Id.* at 1:3–6. Sprague ’905 discloses that when a rail is permanently attached to a pane, that makes it difficult or impossible to remove the rail from the pane, which is disadvantageous “at least from the perspective of glaziers and installers.” *Id.* at 1:17–28. Sprague ’905 provides a solution to this problem including providing a rail system that is easier to assemble and disassemble. *Id.* at 1:42–2:50.

Figure 12, reproduced below, shows such a rail system.

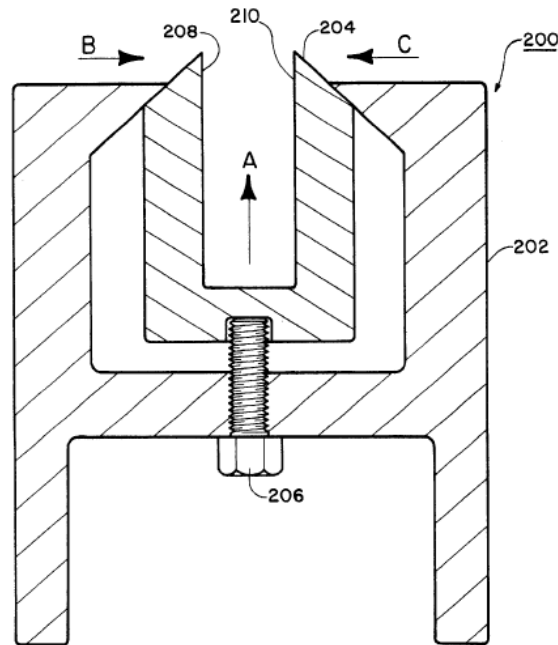


FIG. 12

Figure 12 above is a transverse cross-sectional view of an embodiment of Sprague '905's rail system. *Id.* at 3:57–59. Rail system 200 includes housing 202, clamp member 204, and screw 206, in which clamp member 204 has arms 208, 210. *Id.* at 6:47–54. Screw 206 is a threaded member. *Id.* at 4:13–15. Sprague '905 discloses that “[a]s screw 206 is tightened, it forces clamp member 204 to move generally in the driven direction of arrow A” and “[b]ecause housing 202 and clamp member 204 are in contact at surfaces inclined with respect to the screw-tightening direction A, this causes the arms 208, 210 of clamp member 204 to move toward each other (in the clamping directions respectively shown by arrows B and C) to provide clamping force on a pane (not shown).” *Id.* at 6:49–57. In another embodiment, Sprague '905 discloses that pads 110 (shown in Figure 2) are “interposed” between a clamp member and a pane and “serve to accommodate warping and uneven surfaces” of the pane and clamp

members and to “more evenly distribute clamping force along” the pane. *Id.* at 6:5–13.

2. *Summary of Garrett (Ex. 1006)*

Garrett is a patent entitled “Notchless Glass Plate Clamp.” Ex. 1006, code (54). Garrett relates to “a clamp that does not require a notch or drilled hole in the glass plate or panel.” *Id.* at 1:14–16.

Figure 4, reproduced below, shows an enlarged elevational end view of a clamp of Garrett. *Id.* at 2:22–23.

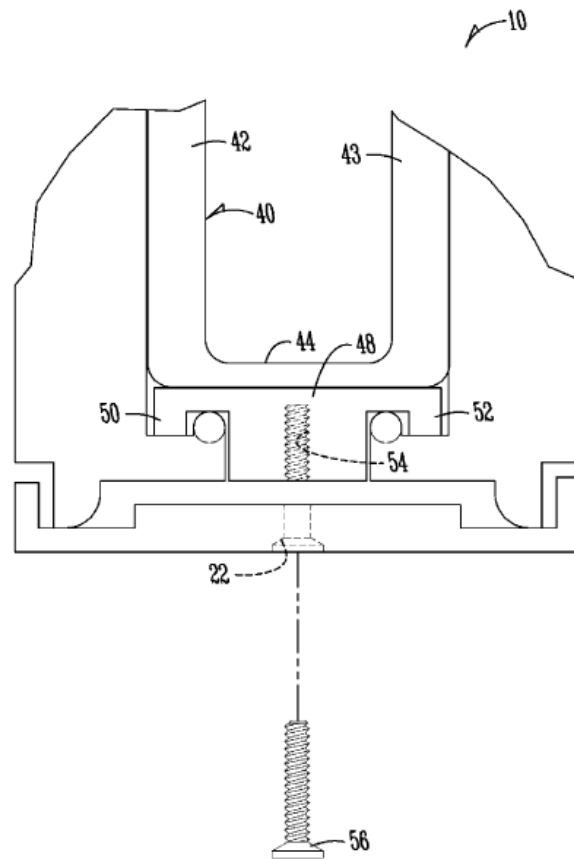


Fig. 4

Figure 4 above shows clamp 10 having counter-sunk bore 22 that “extends through it in two positions” and unitary U-shaped-in-cross-section gasket 40

that has first side 42, a second side 43, and an intermediate portion 44. *Id.* at 2:57–61, 3:15–16. Gasket 40 “fits into each respective gasket pocket” in clamping halves 24 and 26 (labeled in Figure 3) with the intermediate portion extending therebetween. *Id.* at 3:17–19. The edge of a glass panel fits inside gasket 40 and retainer 46 (labeled in Figure 3), which has center portion 48, is positioned under gasket 40. *Id.* at 3:19–21. Blind, threaded bore 54 extends partially through center portion 48 of retainer 46. *Id.* at 3:22–23. Hex head machine screw 56 extends through counter-sunk bore 22 and blind bore 54 so that retainer 46 holds clamp halves 24 and 26. *Id.* at 3:28–30.

Figures 5–7, reproduced below, show the clamping action of Garrett’s clamp. *Id.* at 2:25.

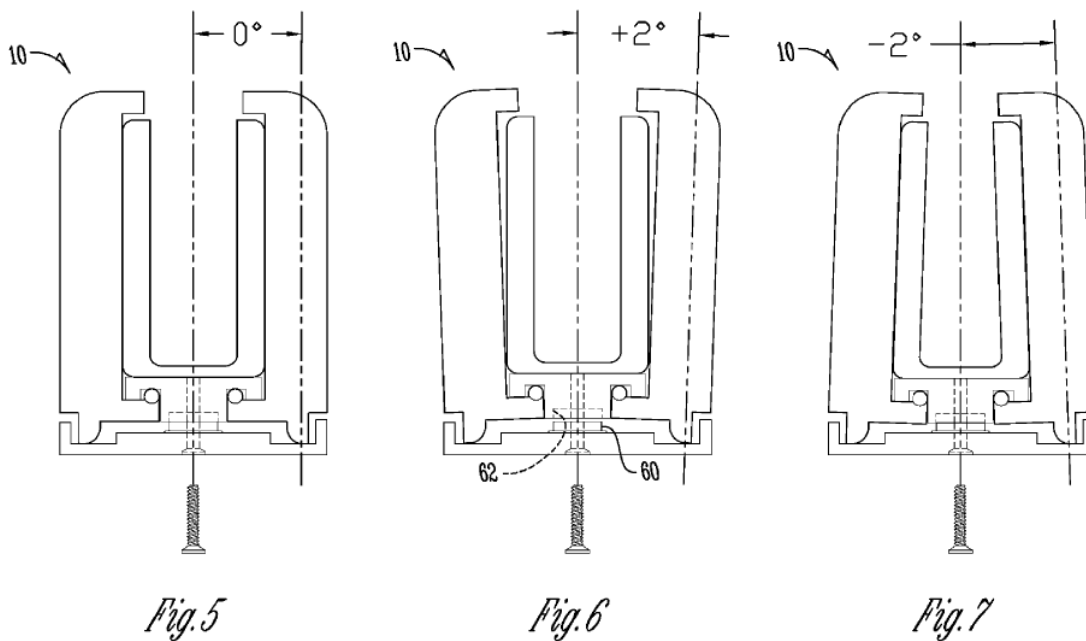


Figure 6 shows that when clamp 10 is preliminarily assembled, its clamp halves “can be splayed outwardly.” *Id.* at 3:26–28. Figure 5 shows that when machine screw 56 is turned into blind bore 54, retainer 46 is pulled towards clamp 10’s base and “puts downward force on both arms” of clamp

10, thereby urging clamp 10's halves to converge and cause clamping action on a glass plate that is placed between the clamp halves. *Id.* at 3:32–38.

Figure 7 shows an exaggerated form of the convergence of the clamping halves. *Id.* at 3:39–41. Garrett discloses that to release clamp 10, machine screws 56 “merely have to be backed out sufficiently” so that the clamping action is released enough and “clamp 10 can be slid off of the glass panel.” *Id.* at 3:43–45.

3. Summary of Girardy (Ex. 1005)

Girardy is a patent titled “Metal frame for doors and walls made of tempered glass and similar.” Ex. 1005, code (54). Girardy “relates to a metal fitting for doors and walls made from tempered glass plates (safety glass)” in which such “fittings may in particular comprise plinths, hinges, hinge pins, gusset plates, handles, angle hinges, etc.” *Id.* at 1:1–4. Girardy purports to provide fittings that are less costly and easier to assemble. *Id.* at 1:21–22.

Figure 1, reproduced below, shows a fitting according to an exemplary embodiment.

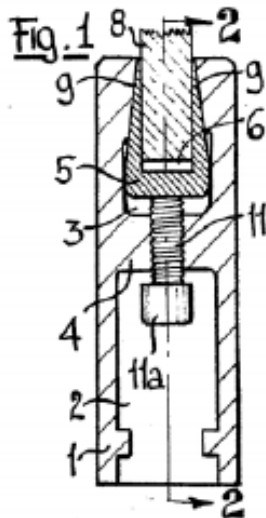


Figure 1 above is a cross-section “of a first embodiment forming a plinth.” *Id.* at 1:32–33. The plinth includes body 1 that has an H-shaped straight section with lower longitudinal grooves 2 and upper longitudinal grooves 3 separated from each other by central branch 4. *Id.* at 2:10–14. Upper longitudinal groove 3 “has side walls sloping in opposite directions converging on the mouth of the groove” and houses clamping element 5 “with a U-shaped straight section,” which comprises central slot 6 that accommodates an edge of tempered glass plate 8. *Id.* at 2:15–18. Clamping element 5 has flanges 9 with “outer surfaces sloping in opposite directions, converging on the mouth” of central slot 6 and which “rest against the converging sloping walls of groove 3.” *Id.* at 2:19–22. The plinth also has screws 11, with heads 11a, which can be accessed from the lower bracket of the profile of the plinth and “which are screwed into threaded through-bore holes” in central branch 4 of body 1. *Id.* at 2:23–26. This configuration makes it possible to move clamping element 5 “upwards to tighten its two flanges 9 due to the wedge effect created by the sloping surfaces, in order to clamp the glass plate” in slot 6 “so as to fasten the plinth to the tempered glass plate.” *Id.* at 2:26–29.

4. *Summary of Trainor (IPR2022-00620, Ex. 1012)*

Trainor is a reference entitled “Glass Door or Partition Support Rail.” Ex. 1012, code (54). Trainor “relates to support rails which attach to the top and the bottom of a glass panel to enable the glass panel to be mounted within a door frame or the like.” *Id.* at 1:7–10.

Figure 2, reproduced below, shows an exploded isometric view of the end portion of Trainor's support rail. *Id.* at 3:50–51.

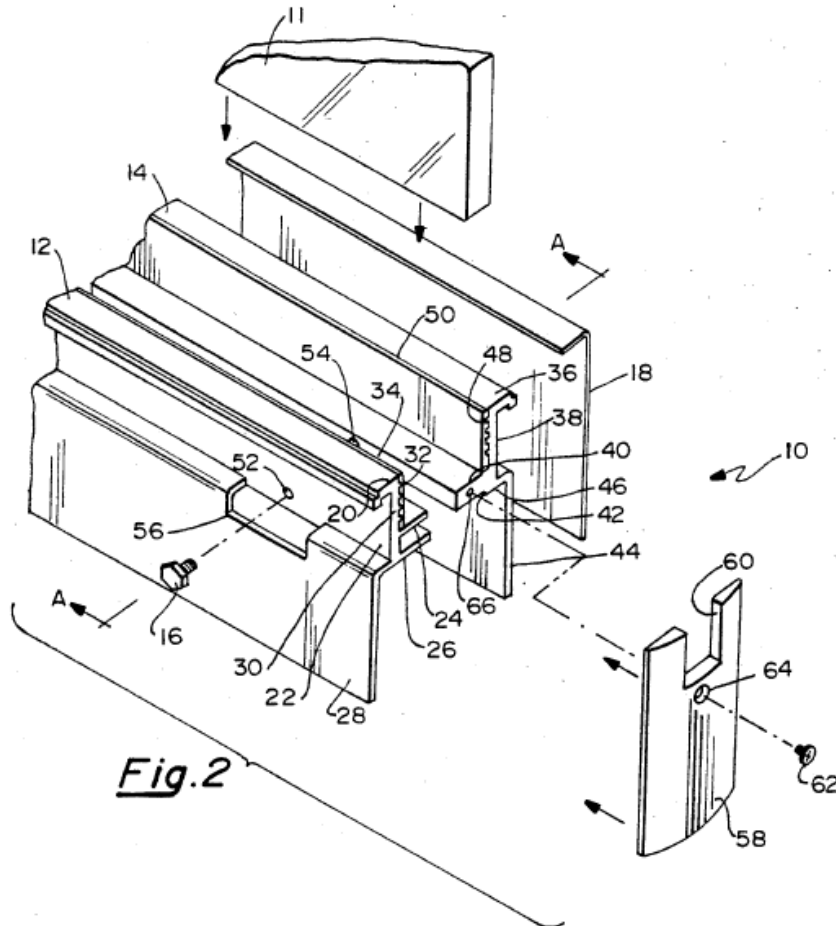


Figure 2 above shows elongated rail 10 for mounting the bottom edge of a pane of glass 11. *Id.* at 3:57–59. Support rail 10 includes longitudinally extending female rail section 12, longitudinally extending male rail section 14, screws or adjustable fastening or clamping means 16 transverse to rail sections 12 and 14, and a pair of longitudinally extending side cladding members or rail cover members 18 (only one is shown in Figure 2 whereas both are shown in Figure 3). *Id.* at 4:1–8. Female rail section 12 has upper mounting section 20 and vertical mounting section 28, and similarly, male rail section 14 has upper mounting section 26 and vertical mounting section

44 for mounting clad members 18 via “an adhesive or any suitable means.” *Id.* at 4:12–41, 6:36–39. Mounting clad members 18 provide support rail “with a clean, finished appearance.” *Id.* at 6:33–36.

5. *Summary of Sprague ’780 (IPR2022-00620, Ex. 1013)*

Sprague ’780 is a reference entitled “Modular Rail System.” Ex. 1013, code (54). The modular rail system is used to hold panels, “such as panes of glass.” *Id.* at 1:5–11.

Figure 1, reproduced below, shows an embodiment of such a rail system.

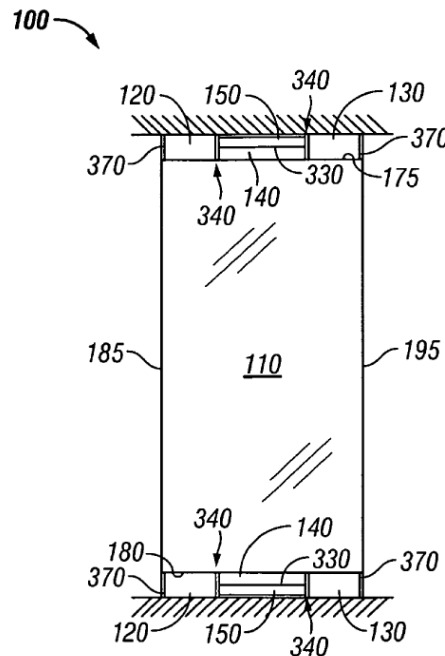


FIG. 1

Figure 1 above shows a front view of Sprague ’780’s modular rail system 100 for holding panel 110. *Id.* at 2:9–10, 2:26–27. Modular rail system 100 includes first clamping column 120, second clamping column 130, first rail 140, and second rail 150, in which first and second rails 140, 150 are positioned between first and second columns 120, 130. *Id.* at 2:34–39.

Figure 3, reproduced below, shows a clamping column of Sprague '780.

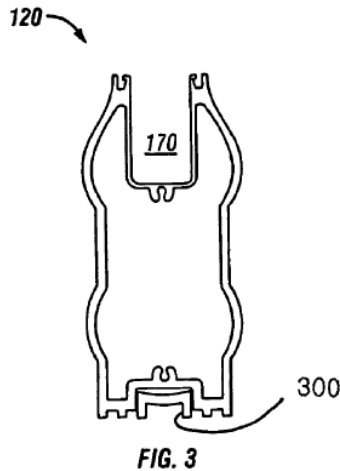


Figure 3 above shows a cross-sectional view of a clamping column used in Sprague '780's rail system shown in Figure 1. *Id.* at 2:12–13. Clamping column 120 (and similarly, clamping column 130) includes recess 170 that is structured to secure to bottom edge 180 of panel 110 (shown in Figure 1). *Id.* at 2:42–44. Sprague '780 discloses that first and second columns 120, 130 are formed of aluminum but that “it is preferable to use an attractive finish.” *Id.* at 3:6–10. According to Sprague '780, “[a]lternatively, conventional cladding, such as brass plates, may be placed over the exposed surfaces” by conventional means, such as an adhesive. *Id.* at 3:11–13.

G. Anticipation by Sprague '905 – Claims 1, 5, and 7

Petitioner asserts claims 1, 5, and 7 are anticipated by Sprague '905. Pet. 27–41.

Patent Owner opposes. PO Resp. 7–34. Having considered the arguments and evidence before us, we find that Petitioner has demonstrated by a preponderance of the evidence that claims 1, 5, and 7 are anticipated by Sprague '905.

1. *Independent Claim 1*

a) *a rail assembly for releasably securing a panel, the rail assembly comprising: a rail body having mutually opposed inclined surfaces, angled inwardly towards the panel to be secured*

Claim 1 is directed to a rail assembly for releasably securing a panel. The recited rail assembly includes “a rail body having mutually opposed inclined surfaces, angled inwardly towards the panel to be secured.”
Ex. 1001, 10:34–37.

For these limitations, Petitioner refers to an embodiment disclosed in Sprague '905's Figure 12. Pet. 27. Sprague '905's Figure 12 is reproduced below:

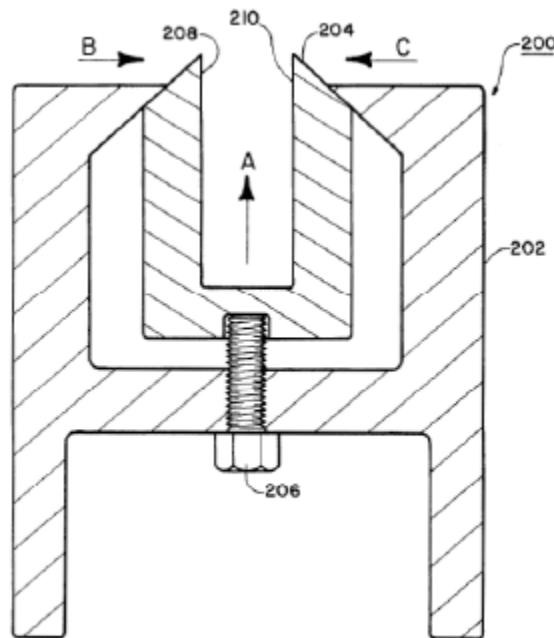


FIG. 12

Figure 12 provides a cross-sectional view of rail system 200 with housing 202, clamp member 204, and screw 206. Ex. 1003, 6:47–48. With reference to Figure 12, Petitioner contends that Sprague teaches rail system 200 (i.e., rail assembly) designed to releasably clamp a pane. Pet. 27 (citing Ex. 1003,

2:49–50, 2:66–3:2, 6:47–48, Fig. 12). Petitioner adds that housing 202 has mutually opposed inclined surfaces at the opposed upper ends of the housing 202. *Id.* at 29.

Patent Owner contends that the preamble, “[a] rail assembly for releasably securing a panel,” is limiting and not taught by the embodiment described in Figure 12 of Sprague ’905. PO Resp. 14. Patent Owner further argues that there is no discussion in Sprague ’905 that rail system 200 releases the pane from the clamp member 204. *Id.* In addition, Patent Owner asserts that the cited passages of Sprague ’905 “never describe[] the clamp member 204 moving from the ‘closed position wherein the panel to be secured is clamped within the rail body’ back to ‘an open position wherein the panel to be secured may be freely removed from the rail body.’” *Id.* Patent Owner argues that the embodiment in “Figure 12 of Sprague ’905 attempts to use wedges to permanently secure the clamp, and does not reflect any consideration of (let alone engineering and disclosure of) a spring action clamping member that achieves a releasable clamp.” *Id.* at 15.

Petitioner has persuasively explained how Sprague ’905 teaches “[a] rail assembly for releasably securing a panel” even if the preamble is limiting. Therefore, we need not, and do not, determine whether the preamble is, in fact, limiting for the purposes of this Decision.

Turning to Petitioner’s arguments, we note that Sprague ’905 teaches “rail systems for holding panels in place, and more particularly to door and/or partition rail systems for holding a plate glass pane in a doorway and/or wall partition.” Ex. 1003, 1:3–6. Sprague ’905 further teaches that having a rail permanently attached to the pane is disfavored and “makes it difficult or impossible to remove the rail from the pane, and this is generally

considered to be a disadvantage of these permanent attachment designs.” *Id.* at 1:19–22. To address these and other issues, Sprague ’905 provides “a rail system that facilitates easy field maintenance and replacement . . . to provide a rail system that is *removable from a pane* without disassembly of the rail system.” *Id.* at 2:45–46, 2:49–50 (emphasis added).

This disclosure in the “Summary of the Invention” of Sprague ’905 is consistent with the description of the embodiment shown in Figure 12. For example, Sprague ’905 discloses an unclamped position where clamp member arms 208, 210 have not been moved in directions B and C as shown in Figure 12. *See id.* at 6:48–57, Fig. 12. Sprague ’905 further discloses a clamped position in which “screw 206 is tightened, [and] . . . forces clamp member 204 to move generally in the driven direction of arrow A” and “[b]ecause housing 202 and clamp member 204 are in contact at surfaces inclined with respect to the screw-tightening direction A, this causes the arms 208, 210 of clamp member 204 to move toward each other (in the clamping directions respectively shown by arrows B and C) to provide clamping force on a pane (not shown).” *Id.* at 6:49–57.

We observe also that Sprague ’905’s “Summary of the Invention” teaches that screw heads, i.e., screw 206, are an example of fastening members that allow for releasable securing of panels. More specifically, Sprague ’905 teaches “a rail system that is easier to assemble and disassemble because of easy accessibility of fastening members (e[.]g[.], *screw heads*).” Ex. 1003, 2:39–41 (emphasis added).

Patent Owner’s expert, Dr. McCarthy, testifies in his second declaration that

Sprague '905's description of the second embodiment (FIG. 12), found in column 3, lines 57-59, and in column 6, lines 47-61 of that reference, only refers to the installation of the rail system 200 in which the clamp member 204 (which Dr. Tipton asserts to be the claimed "spring action clamping member") is clamped to a pane and says nothing about clamp member 204 being movable back to "open position wherein the panel to be secured may be freely removed from the rail body."

Ex. 2022 ¶ 30.

However, Petitioner points out that the Summary of the Invention indicates the disadvantages of permanent rail systems and provides "a rail system that facilitates easy field maintenance and replacement . . . to provide a rail system that is *removable from a pane* without disassembly of the rail system." *See* Pet. 27; Ex. 1003, 2:45–46, 2:49–50. Moreover, Sprague '905 expressly teaches "a rail system that is easier to assemble and disassemble because of easy accessibility of fastening members (e[.]g[.], *screw heads*)."
Ex. 1003, 2:39–41 (emphasis added). In other words, Sprague '905 teaches that a screw, such as screw 206, facilitates the assembly and disassembly of the rail system. *Id.* Thus, Petitioner's arguments regarding the preamble are better supported by the complete record.

Other than its arguments concerning the preamble, Patent Owner does not present arguments regarding the limitation "a rail body having mutually opposed inclined surfaces, angled inwardly towards the panel to be secured," recited in claim 1. *See* PO Resp. 10–17. Nonetheless, we note that Sprague '905 discloses that

[t]he elongated housing includes a first inclined surface and a second inclined surface. The first inclined surface of the elongated housing is oriented to be generally inclined with respect to the vertical direction. The second inclined surface of

the elongated housing is oriented to be generally inclined with respect to the vertical direction.

Ex. 1003, 3:3–8. This disclosure is consistent with housing 202 shown in Figure 12, which also depicts inclined upper ends. *Id.* at Fig. 12.

b) spring action clamping member

Claim 1 further recites

a spring action clamping member, having mutually opposed walls, the walls having mutually opposed upper ends, the upper ends configured to slide against the inwardly inclined surfaces of the rail body;

wherein the spring action clamping member is movable between an open position wherein the panel to be secured may be freely removed from the rail body and a closed position wherein the panel to be secured is clamped within the rail body.

Ex. 1001, 10:38–46.

(1) Petitioner's Contentions

For these limitations, Petitioner argues, among other things, that Sprague '905's clamp member has mutually opposed arms 208, 210 that have mutually opposed upper ends configured to slide against the inwardly inclined surfaces of the housing 202. Pet. 31 (citing Ex. 1003, Fig. 12, 6:49–57; Ex. 1007 ¶ 84). Petitioner adds that “[b]ecause housing 202 and clamp member 204 are in contact at surfaces inclined with respect to the screw-tightening direction A, this causes the arms 208, 210 of clamp member 204 to move toward each other (in the clamping directions respectively shown by arrows B and C) to provide clamping force on a pane.” *Id.* at 32 (citing Ex. 1007 ¶ 84).

Additionally, Petitioner asserts that a spring action force is present when arms 208 and 210 are slid against the inwardly inclined surfaces of

housing 202. Pet. 32. Relying on the testimony of Dr. Tipton, Petitioner also argues that “a POSITA would have understood that a U-shaped extruded aluminum clamp would necessarily produce an outwardly directed spring force when the ends of the clamp are driven toward each other as shown in Figure 12.” *Id.* (citing Ex. 1007 ¶ 85).

Petitioner further argues that Sprague ’905’s clamp member 204 is movable between an open position (the clamp member 204 is lowered) and a closed position (the clamp member 204 is raised in the direction of arrow A shown in Figure 12) with the panel clamped into housing 202. Pet. 34–35 (citing Ex. 1003, 2:49–50, 6:49–57, Fig. 12; Ex. 1007 ¶ 90).

(2) *Patent Owner’s Contentions*

In its Response, Patent Owner contends that Sprague ’905 teaches that arms 208, 210 of clamp member 204 move toward each other to provide a *clamping force* on a pane, but does not discuss arms 208, 210 moving away from one another. PO Resp. 15 (citing Ex. 1003, 6:54–57). According to Patent Owner, “all that is expressly described in Sprague ’905 is deformation of the clamp member 204, and deformation alone is not ‘spring action’ or a ‘spring action force.’” *Id.* (citing Ex. 2022 ¶ 31). Additionally, Patent Owner contends that the ’413 patent “does not merely describe a ‘clamping member’ that is flexible or ‘springy’—it describes a clamping member that *includes a spring*. That is, the spring action clamping member itself has a spring that ‘provides a spring action force,’ without resort to other structures in the rail assembly.” *Id.* at 26 (citing Ex. 2022 ¶ 20).

Patent Owner further argues that the rail systems described in Sprague ’905 clamp via a wedging action of the clamping arms against angled walls, which is a distinctly different from spring action. PO Resp. 30 (“As Dr.

McCarthy explains, a person of ordinary skill in the art would understand the phrase ‘spring action’ to have meaning in describing the ‘clamping member,’ and to distinguish prior art clamps and wedges like those of Sprague ’905 and Girardy.”) (citing Ex. 2022 ¶¶ 28, 34, 47). Patent Owner further relies on Dr. McCarthy’s testimony that

the person of ordinary skill understands that a structure is a “spring” when the material and physical dimensions of that structure provide *a desired force-deflection relationship in the field of art in which the structure is applied*. For example, a particular structure may be useful as a “leaf spring” for nail clippers, but that same structure would not be considered useful as a “leaf spring” for the suspension of an automobile.

Ex. 2022 ¶ 27 (emphasis added).

(3) Discussion

Based on the complete record, we are persuaded by Petitioner that Sprague ’905 teaches these limitations. To start, as discussed in our claim construction above, we have not adopted Patent Owner’s proposed construction that requires a “spring action clamping member” to include a “spring.” *See supra* Sect. II.E. Rather, we have construed the plain and ordinary meaning of “spring action clamping member” to be that the “spring action clamping member provides a spring action force.”

In this way, we are not persuaded that claim 1 requires a “spring” that requires material and physical dimensions according to Patent Owner’s proposed definition. *See* Ex. 2022 ¶ 27. This is particularly so when the express claim term is broader, requiring only a spring action force, and the Specification of the ’413 patent does not support Patent Owner’s narrower construction.

With this construction in mind, we find Sprague '905 teaches these contested limitations. In particular, Sprague '905 discloses that the tightening of screw 206 *forces* clamp member 204 to move in the driven direction of arrow A shown in Figure 12. Ex. 1003, 6:50–51. Sprague '905 teaches this forced movement brings clamp member 204 into contact with housing 202 at inclined surfaces that cause arms 208, 210 to move toward each other and “provide clamping force.” *Id.* at 6:51–57. Moreover, Sprague '905 further discloses that the rail system is “easier to assemble and disassemble” and “facilitates easy field maintenance and replacement.” *Id.* at 2:39–42, 2:45–46. We find that this disclosure is consistent with the notion that screw 206 can be untightened to release clamp member 204 and move arms 208, 210 away from each other.

Patent Owner contends that this disclosure in Sprague '905 only teaches a wedge block, which is disfavored by the '413 patent in lieu of a spring. PO Resp. 26–28. Specifically, Patent Owner asserts that

[t]he clamp member 204 of Sprague '905 is simply a “wedge block” (like the prior art distinguished in the background of the '413 Patent, col. 1, ll. 51-60) and not a “spring action clamping member,” i.e., a clamping member that includes a spring, as claimed in claim 1 of the '413 Patent. (Ex. 2022 at ¶ 34.) *Although a wedge may be loaded with enough force to cause deflection, this is not a necessary property of the wedge block disclosed in Sprague '905 (id. at ¶ 32), and a person of ordinary skill in the art would not view this deflection as transforming the wedge into a “spring” or providing the wedge with “spring action.” (Id. at ¶ 34.)*

PO Resp. 28.

We understand Patent Owner to argue that Sprague '905's clamp member is nothing more than a wedge block, which Patent Owner contends is distinct from a spring action clamping member because “a wedge may be

loaded with enough force to cause deflection, [but] this is not a necessary property of the wedge block disclosed in Sprague '905.” See PO Resp. 28.

Nonetheless, Patent Owner’s position ignores Sprague '905’s disclosure that clamp member 204 is “unitary” and “*flexes* to provide the clamping force.” Ex. 1003, 6:57–59 (emphasis added). For example, in paragraph 34 of his second declaration, Dr. McCarthy testifies that illustration 10, provided below, demonstrates the wedge effect of Sprague '905’s structure.

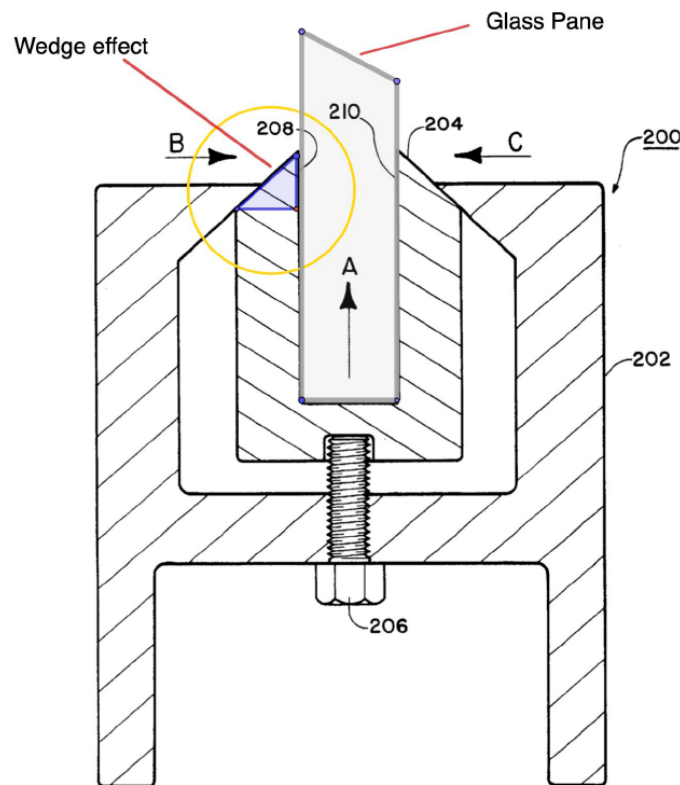


FIG. 12

Illustration 10, provided above, is Figure 12 from Sprague '905 that includes Dr. McCarthy’s annotations in blue marking “Wedge effect” and the glass pane. Ex. 2022, 39 (Illustration 10). In Illustration 10, Dr. McCarthy has

marked a portion of clamp member 204 as the wedge or wedging effect. *Id.* However, the structure of clamp member 204 is more than the area marked in blue by Dr. McCarthy. Indeed, Sprague '905 teaches that clamp member 204 is “unitary” and contains arms 208 and 210 that *flex* to provide the clamping force. Ex. 1003, 6:57–59. We find Dr. McCarthy’s testimony does not adequately consider that Sprague '905 explicitly discloses that the structure of clamp member 204 *flexes*, i.e., allows deflection.

Dr. McCarthy’s reliance on textbook definitions of wedges is also unpersuasive. For example, in Illustration 11 of his declaration, he relies upon *The Elements of Practical Mechanism and Machine Tools*. Ex. 2022, 40. There, the textbook excerpt provides that the “wedge may be considered as a movable inclined plane, or rather as a double inclined plane.” *Id.* But Sprague '905’s clamp member 204 is not solely a movable inclined plane or double inclined plane. *See* Ex. 1003, Fig. 12. Clamp member 204 is a unitary structure that includes arms 208 and 210, and a base that engages with screw 206. *Id.* Thus, while the textbook excerpt describes wedges, we are not persuaded that this description accurately describes Sprague '905’s clamp member.

In fact, we observe that Sprague '905’s clamping member essentially satisfies even Patent Owner’s proposed construction for a spring action clamping member. Patent Owner contends that “a structure is a ‘spring’ when the material and physical dimensions of that structure provide a desired force-deflection relationship in the field of art in which the structure is applied.” PO Resp. 28 (citing Ex. 2022 ¶ 27). In this regard, Sprague '905’s clamp member provides a desired force deflection in the field of art in which the clamp member is applied. Sprague '905 explicitly teaches that

clamp member 204 is unitary, flexes, and provides a clamping force via arms 208 and 210. Ex. 1003, 6:47–61. As such, we note that Sprague ’905’s disclosure would also satisfy the limitation at issue even under Patent Owner’s definition of a spring.

Patent Owner further contends that “an understanding of ‘spring action’ that covers any structure that deflects but can return to its original shape (like that applied by Dr. Tipton) effectively renders this term meaningless since so many structures behave in this way.” PO Resp. 26–27 (citing Ex. 2022 ¶ 19). Patent Owner adds that the definition of “spring action” would cover prior art systems distinguished in the background of the ’413 patent. *Id.* at 27. But, at the oral hearing, Patent Owner confirmed that there was no disavowal or disclaimer of claim scope. Tr. 33:9–12. As such, we are not persuaded that the term “spring action clamping member” expressly excludes wedges. Further, even if “wedges” are distinguished by the ’413 patent, we observe, as we have done above, that Sprague ’905’s clamp member contains additional structures beyond what Dr. McCarthy has identified as a wedge. *See* Ex. 2022, 39. Thus, we are not persuaded that the Specification’s discussion of prior art systems is controlling on our reading of Sprague ’905.

According for the reasons above, we find, based on the complete record, that Petitioner has demonstrated by a preponderance of the evidence that Sprague ’905 anticipates the subject matter of these limitations.

c) a screw engaged with the rail body having an end in contact with the spring action clamping member . . .

Additionally, claim 1 further recites

a screw engaged with the rail body having an end in contact with the spring action clamping member; and

wherein actuation of the screw from the open position causes the clamping member to move upwardly causing the upper ends of the mutually opposed walls of the clamping member to slide upwardly against the mutually opposed inclined surfaces of the rail body, said upward motion causing the upper ends to translate inwardly, applying clamping pressure to each side of the panel to be secured.

Ex. 1001, 10:47–56.

Petitioner asserts that Sprague’s screw 206 is a threaded fastener with an upper end that abuts clamp member 204. Pet. 36. According to Petitioner, tightening screw 206 moves clamp member 204 to move in drive direction of arrow A as shown in Figure 12. *Id.* at 37. The upward movement causes the upper ends of the arms 208 and 210 of the clamp member 204 to slide upwardly against the mutually opposed inclined surfaces of the housing 202. *Id.* at 38 (citing Ex. 1003, Fig. 12, 6:51–57; Ex. 1007 ¶ 96). And, this upward motion in the direction of arrow A causes the upper ends of the arms 208 and 210 to translate inwardly in the directions of arrows B and C, applying clamping pressure to each side of the panel to be secured. *Id.*

We find that Petitioner has shown that Sprague ’905 discloses these limitations. Sprague ’905 teaches that “[a]s screw 206 is tightened, it forces clamp member 204 to move generally in the driven direction of arrow A” and “[b]ecause housing 202 and clamp member 204 are in contact at surfaces inclined with respect to the screw-tightening direction A, this causes the arms 208, 210 of clamp member 204 to move toward each other (in the clamping directions respectively shown by arrows B and C) to provide clamping force on a pane (not shown).” *Id.* at 6:49–57.

Patent Owner does not present any arguments specific to these limitations, separate from those we have considered above. Those arguments are not persuasive for the reasons discussed.

d) Conclusion as to Claim 1

For the foregoing reasons, and based on the record, we conclude Petitioner has provided sufficient argument and evidence to demonstrate by a preponderance of the evidence that claim 1 is anticipated by Sprague.

2. Claim 5

Claim 5 depends from claim 1 and further recites “the rail body and the spring action clamping member are configured to include a positive stop feature which limits upward travel of the spring action clamping [me]mber.” Ex. 1001, 11:3–7.

a) Petitioner’s Contentions

For claim 5, Petitioner argues that when Sprague ’905’s screw 206 has been tightened so that its head abuts the middle (horizontal) branch of housing 202, screw 206 can no longer turn in the tightening direction within the threaded hole formed in the housing. Pet. 39 (citing Ex. 1003, Fig. 12; Ex. 1007 ¶ 102). According to Petitioner, “[t]his positively stops the upward travel of the screw, and thus the upward travel of the clamp member 204.” *Id.* at 40.

In its Reply, Petitioner explains that Sprague ’905 teaches that both the rail body and spring action clamping member “are configured so that the upward travel of the clamp member 204 is limited.” Reply 29. Specifically, Petitioner argues that “when the screw 206 has been tightened so that its head abuts the middle (horizontal) branch of the housing 202, the screw 206 can no longer turn in the tightening direction” in Sprague ’905. *Id.* (citing

Ex. 1007 ¶ 102; Ex. 1003, Fig. 12). Because screw 206 can no longer turn, Petitioner notes, this “stops the upward travel of the screw, and thus the upward travel of the clamp member 204.” *Id.* (citing Ex. 1007 ¶ 102).

b) Patent Owner’s Contentions

In its Response, Patent Owner contends that Petitioner “fails to show how the clamp member 204 of Sprague ’905’s second embodiment (FIG. 12), which [Petitioner] asserts to be the claimed ‘spring action clamp member,’ is configured to include a positive stop feature which limits upward travel of the clamp member 204.” PO Resp. 32. Patent Owner argues that Petitioner and its expert “point to the head of the screw 206 abutting the housing 202 (which [Petitioner] asserts to be the claimed ‘rail body’) as providing a ‘positive stop feature.’” *Id.* (citing Ex. 1007 ¶ 102; Pet. 40). Because “both the rail body and the spring action clamping member” must be “configured to include the recited positive stop feature,” Patent Owner believes that “no feature of the clamp member 204 of Sprague ’905 . . . limit[s] its upward travel.” *Id.* (citing Ex. 2019, 170:13–16).

Patent Owner adds that “claim 5 adds the requirement that the ‘rail body **and** the spring action clamping member are configured to include a positive stop feature.’” PO Sur-reply 27 (citing Ex. 1001, 11:3–7). Patent Owner alleges that Petitioner’s argument “means the alleged positive stop feature is provided solely via the interaction of the rail body and the screw—the spring action clamping member plays no role.” *Id.* This is contrary to the plain language of the claim, Patent Owner argues, because “[b]oth the ‘rail body’ and the ‘spring action clamping member’ must be configured to provide a positive stop.” *Id.* at 27–28.

c) Discussion

Based on the complete record, we determine that Petitioner has the better position.

We understand Petitioner's position to be that the design and configuration of Sprague '905's clamp member 204 engages with screw 206 such that screw 206 controls the travel of clamp member 204 vertically in the rail housing 202. We agree.

Sprague '905 discloses that screw 206 engages both housing 202 and clamp member 204. Ex. 1003, Fig. 12. In other words, both structures are configured to receive and interact with screw 206. *Id.* Moreover, Sprague '905 discloses that screw 206 may move vertically through housing 202 and force upward travel by clamp member 204. *Id.* at 6:47–51; Fig. 12. And, the combination and cooperation of the middle branch of housing 202 and the structure of clamp member 204 allows for the head of screw 206 to positively stop the upward travel of clamp member 204 when screw 206 can no longer move upward. *See id.*

Thus, based on the full record and evidence, we determine that Petitioner has shown by a preponderance of the evidence that Sprague '905 anticipates claim 5.

3. Claim 7

Claim 7 depends from claim 1 and further recites “the screw is engaged with the rail body by means of threads formed in the rail body.” Ex. 1001, 11:22–24.

Petitioner asserts that Sprague '905's screw 206 is engaged with housing 202 via a threaded hole formed in the middle (horizontal) branch of the housing 202. Pet. 41 (citing Ex. 1003, Fig. 12; Ex. 1007 ¶ 105).

Patent Owner does not present any arguments specific to these limitations, separate from those we have considered above. *See* PO Resp. 33–34. Based on the record, these arguments are not persuasive for the reasons discussed.

Petitioner’s arguments are persuasive. Sprague ’905’s screw 206 tightens to force clamp member 204 upwards. Ex. 1003, Fig. 12. As shown in Figure 12, screw 206 engages with rail housing 202 via a threaded hole. *Id.*

For the foregoing reasons, and based on the evidence, we determine that Petitioner has shown by a preponderance of the evidence that Sprague ’905 anticipates claim 7.

H. Obviousness based on Sprague and Garrett and Obviousness based on Girardy and Garrett – Claim 4

Claim 4 depends on claim 1 and further recites “each of the mutually opposed walls of the spring action clamping member includes a u-shaped element, wherein the u-shaped element acts as a spring member.” Ex. 1001, 10:67–11:2.

Petitioner asserts claim 4 would have been obvious based on the teachings of Sprague ’905 and Garrett (Pet. 41–55) and on the teachings of Girardy and Garrett (Pet. 59–62). Petitioner contends Garrett discloses a clamping assembling with mutually opposed clamp walls connected to U-shaped gasket 40. Pet. 42–43 (citing Ex. 1006, Abstract, 2:57–60, 2:65–66, 3:15–20, Figs. 1–7; Ex. 1007 ¶ 109).

In the Petition, Petitioner’s analysis and discussion is based on a claim construction that requires only a *single* u-shaped element. Specifically, Petitioner proposes that this claim term requires “each of the mutually

opposed walls of the spring action clamping member is connected to a u-shaped element, which may be the same element.” Pet. 16–17.

Patent Owner contends that “[t]he plain language of claim 4 requires that ‘*each*’ of the two walls ‘includes a u-shaped element,’ i.e., that each wall has its own u-shaped element.” PO Resp. 35.

After institution, Petitioner changed course and adopted Patent Owner’s proposed construction. At the hearing, Petitioner noted that “if [Patent Owner] is willing to confirm here that claim 4, in fact, requires that a U-shaped element comprises part of each of the mutually opposed walls of the spring action clamping member since there are two U-shaped elements, one for each wall, then we can withdraw claim 4.” Tr. 21:25–22:3.

Patent Owner confirmed, stating that

Petitioner agreed with the construction that we’ve given here, that there are two U-shaped elements in the spring action clamping member. So . . . I believe it's pretty clear that claim 4 is patentable over the prior art. I don't believe that the Petitioner has advanced any argument that having two U-shaped elements would be obvious over the prior art they've asserted.

Tr. 45:14–20. Patent Owner further noted that Petitioner’s own opening claim construction brief in the related district court matter also construes claim 4 to require two U-shaped elements. Ex. 2024, 29 (“As an initial matter, [Patent Owner] appears to agree with [Petitioner] that there are two u-shaped elements, one for each of the mutually opposed walls of the spring action clamping member. [Petitioner]’s proposed construction, however, is more explicit and therefore will better aid.”).

Based on the complete record, we observe that Petitioner now agrees with Patent Owner that claim 4 requires two U-shaped elements and that, based on this construction, Petitioner has affirmatively withdrawn its

unpatentability challenges of claim 4. Tr. 21:16–22:3, 44:17–45:20.

Moreover, we agree with Patent Owner that Petitioner’s challenges in the Petition were based on Petitioner’s previously proposed construction. As such, Petitioner did not present arguments or evidence as to how a POSITA would have used Garrett’s unitary U-shaped gasket 40 to modify Sprague ’905’s rail system to include more than one U-shaped element. *See* Pet. 59–62.

For these reasons, we determine that Petitioner has not shown by a preponderance of the evidence that the combinations of Sprague and Garrett or Girardy and Garrett would have rendered obvious claim 4.

I. Obviousness based on Sprague ’905 and Trainor – Claim 8

Claim 8 depends from claim 1 and further recites “the rail body is surrounded by decorative cladding.” Ex. 1001, 11:25–27. Petitioner asserts that claim 8 would have been obvious based on the combination of Sprague ’905 and Trainor. IPR2022-00620, Paper 2 at 40–44. Patent Owner opposes. PO Resp. 43–49.

Petitioner further argues that “[i]t also would have been obvious for a POSITA to have used the pair of longitudinally extending side cladding members or rail cover members 18 taught in Trainor with the embodiment of Figure 12 of Sprague ’905.” IPR2022-00620, Paper 2 at 41 (citing Ex. 1007 ¶ 104). Petitioner adds that Trainor teaches elongated support rail 10 is surrounded by decorative cladding/cover members 18. *Id.* (citing Ex. 1012, 6:33–36, Figs. 2–3; Ex. 1007 ¶ 104). In addition, Petitioner reasons that

[a] POSITA would have been motivated to combine the decorative cladding taught in Trainor with the embodiment of Figure 12 of Sprague ’905 in order to enhance the aesthetics of the Figure 12 embodiment. Ex. 1007 ¶ 106. Although the

cladding adds some expense and an additional assembly step, these considerations are no different than those involved with the embodiments of Trainor. Ex. 1007 ¶ 106. Trainor teaches that the cladding members 18 “provide support rail 10 with a clean, finished appearance” Ex. 1012, 6:33-36, and a POSITA looking to enhance the aesthetics of the Figure 12 embodiment of Sprague ’905 or simply change the look of the Figure 12 embodiment would have been motivated to surround the housing 202 with the cladding members 18 taught in Trainor. Ex. 1007 ¶ 106.

IPR2022-00620, Paper 2 at 42–43.

Aside from the arguments we have considered above, Patent Owner further alleges that a POSITA would not have been motivated to apply a decorative cladding to Sprague ’905. *See* PO Resp. 46–49. Patent Owner contends that Petitioner and its expert “*assume*, without evidentiary support, that a POSITA would be looking to ‘enhance the aesthetics’ or ‘change the look’ of Sprague ’905’s second embodiment (FIG. 12).” *Id.* at 47 (citing IPR2022-00620, Ex. 1007 ¶ 117). Further, Patent Owner argues that “there is no teaching or suggestion in Sprague ’905 . . . (or any other contemporaneous evidence) that the aesthetics of either device needed to be enhanced or changed at all.” *Id.* Patent Owner also asserts that Petitioner’s arguments are “based on the false premise that Sprague ’905’s second embodiment (FIG. 12) and . . . [is] made of aluminum.” *Id.* at 48 (citing Pet. 47). Patent Owner explains that “Sprague ’905 does not teach any particular material for the housing 202” but Petitioner “simply assumes it to be so to support of its alleged motivation to combine.” *Id.* at 49 (citing Ex. 1003, 6:47–61).

In its reply, Petitioner contends that Patent Owner has not submitted any evidence rebutting Dr. Tipton’s testimony that

a POSITA looking to enhance the aesthetics of . . . Figure 12 of Sprague '905 . . . or simply change the look of those rail assemblies (such as from aluminum to brass), would have been motivated to surround the rail body with the decorative cladding taught in Figures 2-11 of Sprague '905.

Reply 32 (citing Ex. 1007 ¶ 118). Petitioner also argues that altering architectural hardware aesthetics is “the mere application of a known technique.” *Id.* at 33–34 (quoting *KSR*, 550 U.S. at 417). Petitioner points to examples such as Trainor and Sprague '905 to illustrate that a POSITA would have known that adding decorative cladding is a technique that changes hardware aesthetics. *Id.* at 32 (“Trainor teaches that the cladding members 18 ‘provide support rail 10 with a clean, finished appearance.’” (quoting IPR2022-00620, Ex. 1012, 6:33–36)); *id.* (“Sprague '780 teaches ‘conventional cladding, such as brass plates’ to decorate the otherwise dull extruded aluminum of the clamping columns/rails.” (quoting IPR2022-00620, Ex. 1013, 3:6–13)).

In its Sur-reply, Patent Owner argues that Sprague '905's device is “specifically designed to put [its] screws and other mechanisms out-of-sight—[it] already present[s] a clean, finished appearance.” Sur-reply 29 (citing Ex. 1003, Fig. 12). Because Sprague '905 already has a clean appearance, Patent Owner asserts, Petitioner has not established that a “POSITA would be looking to ‘enhance the aesthetics’ or ‘change the look’ of Sprague '905's Figure 12 embodiment.” *Id.* at 30.

Based on the complete record, Petitioner has the better position. Patent Owner contends that “there is no teaching or suggestion in Sprague '905 or Girardy (or any other contemporaneous evidence) that the aesthetics of either device needed to be enhanced or changed at all.” PO Resp. 47. However, Sprague '905 teaches that “conventional cladding, such as brass

plates, may be placed over the exposed surfaces of housing 102 by conventional means, such as an adhesive.” Ex. 1003, 4:49–52. Although Sprague ’905 provides this teaching in reference to the embodiments disclosed in Figures 2–11, we understand Sprague ’905 to generally teach that cladding may be placed over exposed surfaces of housings. Further, we agree with Petitioner that Trainor teaches that cladding members 18 “provide support rail 10 with a *clean, finished appearance*.” IPR2022-00620, Ex. 1012, 6:33–36. As such, we agree with Petitioner that Trainor teaches cladding may be decorative in providing a clean, finished appearance.

Moreover, we determine that the use of cladding to provide a clean, finished appearance provides an adequate “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” based on Petitioner’s proposed modification. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in KSR*, 550 U.S. at 418. Indeed, “any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *KSR*, 550 U.S. at 420.

Here, Trainor teaches that cladding satisfies the need of providing a clean finished appearance for exposed housings. Ex. 1012, 6:33–36. And Sprague ’905 teaches that conventional cladding may be placed over the exposed surfaces of rail housings. Ex. 1003, 4:49–52. Based on these, we agree with Dr. Tipton’s testimony that

a POSITA looking to enhance the aesthetics of the Figure 12 embodiment of Sprague ’905 or simply change the look of the Figure 12 embodiment would have been motivated to surround the housing 202 with the cladding members 18 taught in Trainor.

IPR2022-00620, Ex. 1007 ¶ 106.

Based on our review of the full record and evidence, we determine that Petitioner has shown by a preponderance of the evidence that the combination of Sprague '905 and Trainor would have rendered obvious claim 8.

J. Remaining grounds

As noted above, Petitioner asserts that claims 1, 5, and 7 are anticipated by Girardy. Pet. 47–59. Petitioner additionally asserts that claim 8 would have been obvious based on (1) Sprague '905 alone, and the combinations of (2) Sprague '905 and Sprague '780, (3) Girardy and Trainor, (4) Girardy and Sprague '780, and (5) Girardy and Sprague '905. *Id.* at 46–48; IPR2022-00620, Paper 2, 28–66.

We do not reach Petitioner's remaining grounds as we have already determined that Petitioner has shown by a preponderance of the evidence that claims 1, 5, and 7 are anticipated by Sprague '905 and that claim 8 would have been obvious in view of Sprague '905 and Trainor (as discussed above). *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding that a petitioner "is entitled to a final written decision addressing all of the claims it has challenged"); *see also Bos. Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App'x 984, 990 (Fed. Cir. 2020) (non-precedential) (recognizing that the "Board need not address issues that are not necessary to the resolution of the proceeding" and, thus, agreeing that the Board has "discretion to decline to decide additional instituted grounds once the petitioner has prevailed on all its challenged claims").

III. MOTION TO EXCLUDE

Patent Owner moves to exclude paragraphs 69–77, 86, 87, 97, 98, 122–127, 136, 137, 147, and 148 from Exhibit 1007 and any mentions of models or photographs of models from Exhibit 1018. *See* Mot. 1, 1 n.1. Exhibit 1007 is a Declaration of Steven M. Tipton, Ph.D. and Exhibit 1018 is a Supplemental Declaration of Steven M. Tipton, Ph.D. in Support of the Petition. Patent Owner argues that the declarations improperly refer to models that do not qualify as prior art and are “irrelevant, prejudicial, and not a proper basis for expert testimony in this case.” Mot. 5; *see also* Paper 51.

Petitioner asserts that Dr. Tipton’s declarations rely on physical models “to demonstrate what a person of ordinary skill in the art would have already understood just by reading Sprague ’905 and Girardy.” Paper 50, 1. Additionally, Petitioner notes that the models referenced in Dr. Tipton’s declarations are extrinsic evidence “to interpret the allegedly anticipating reference and [to] shed light on what it would have meant to [a person of ordinary skill in the art]” and not prior art. *Id.* at 2 (quoting *Monsanto Tech. LLC v. E.I. DuPont de Nemours & Co.*, 878 F.3d 1336, 1345 (Fed. Cir. 2018)).

We do not rely on the above-listed paragraphs in Exhibit 1007 or on any of Exhibit 1018 in this Decision. Therefore, we dismiss the Motion to Exclude as moot.

IV. CONCLUSION⁹

In summary:

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1, 5, 7	102	Sprague '905	1, 5, 7	
4	103	Sprague '905, Garrett		4
8	103	Sprague '905 ¹⁰		
1, 5, 7	102	Girardy		
4	103	Girardy, Garrett		4
8	103	Sprague '905, Trainor	8	
8	103	Sprague '905, Sprague '780		
8	103	Girardy, Trainor		
8	103	Girardy, Sprague '780		
8	103	Girardy, Sprague '905		
Overall Outcome			1, 5, 7, 8	4

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has shown by a preponderance of the evidence that claims 1, 5, 7, and 8 of the '413 patent are unpatentable; and

⁹ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

¹⁰ As explained above (*see* § II.J), we do not reach any of the grounds other than those based on (1) Sprague '905, (2) Sprague '905 and Garrett, and (3) Sprague '905 and Trainor.

FURTHER ORDERED that Petitioner has not shown by a preponderance of the evidence that claim 4 of the '413 is unpatentable; and

FURTHER ORDERED that Patent Owner's Motion to Exclude is dismissed; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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