

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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TRICAM INDUSTRIES, INC.,  
Petitioner,

v.

LITTLE GIANT LADDER SYSTEMS, LLC,  
Patent Owner.

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PGR2021-00044  
Patent 10,767,416 B2

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Before BARBARA A. PARVIS, GEORGE R. HOSKINS, and  
ERIC C. JESCHKE, *Administrative Patent Judges*.

PARVIS, *Administrative Patent Judge*.

DECISION  
Denying Institution of Post-Grant Review  
*35 U.S.C. § 324*

## I. INTRODUCTION

Tricam Industries, Inc. filed a Petition (Paper 2 (“Pet.”)) requesting post-grant review of claims 1–5 (“challenged claims”) of U.S. Patent No. 10,767,416 B2 (Ex. 1001, “the ’416 patent”). Little Giant Ladder Systems, LLC (“Patent Owner”) filed a Preliminary Response. Paper 9 (“Prelim. Resp.”).

After considering the parties’ arguments and all supporting evidence, we determine the Petition does not demonstrate that the ’416 patent is eligible for post-grant review. Thus, we do not institute post-grant review of the challenged claims of the ’416 patent.

## II. BACKGROUND

### A. *Real Parties-in-Interest*

Petitioner identifies itself as the real party-in-interest; Patent Owner names itself and Ladder Holdings, Inc. Pet. 1; Paper 5, 1.

### B. *Related Matters*

Each party identifies a judicial matter that would affect, or be affected by, a decision in this proceeding. In particular, the parties inform us that the ’416 patent is asserted in the following district court case: *Little Giant Ladder Systems, LLC v. Tricam Industries, Inc.*, Case No. 0:20-cv-02497 (D. Minn.). Pet. 1; Paper 5, 1.

### C. *The ’416 Patent*

The ’416 patent relates to “ladders, ladder systems, and ladder components and related methods and, more specifically, to adjustable rail configurations, rail structures, locking mechanisms, trays and platform configurations, hinge configurations and related methods of manufacturing and operating the same.” Ex. 1001, 1:26–31.

The '416 patent describes the following:

In one embodiment, a ladder includes a first assembly having a pair of inner rails and a pair of outer rails. The pair of inner rails is slidably coupled with the pair of outer rails. At least one locking mechanism is coupled to an outer rail, the locking mechanism including a lever and an engagement pin coupled therewith. The lever is located and configured to pivot relative to the outer rail such that, upon application of a force to a portion of the lever in a first direction towards the outer rail, the engagement pin is retracted in a direction that is different from the first direction. In one embodiment, the engagement pin is pivotally coupled with the lever.

*Id.* at 2:25–38.

In accordance with the '416 patent, the locking mechanism may include additional components and features, such as “a detent or retaining mechanism.” *Id.* at 7:58–60. The “detent or retaining mechanism” holds the lever, and thus the pin, “in either, or each, of the first or second positions” until a desired level of force is applied to the lever. *Id.* at 7:60–64.

#### *D. Illustrative Claims*

Petitioner challenges claims 1–5 of the '416 patent. Pet. 1. Claim 1 is the independent claim. Claims 2–5 depend, directly or indirectly, from claim 1. Independent claim 1, reproduced below, is illustrative of the claimed subject matter.

1. A ladder comprising:
  - a first assembly having a first pair of rails including a first rail and a second rail, and a second pair of rails including a third rail and a fourth rail, the first pair of rails being slidably coupled with the second pair rails; and
  - a first locking mechanism comprising:
    - a first bracket coupled with the first rail,
    - a first component rotatable about a defined axis,
    - a first engagement pin coupled with the first component,
    - wherein the first locking mechanism is configured

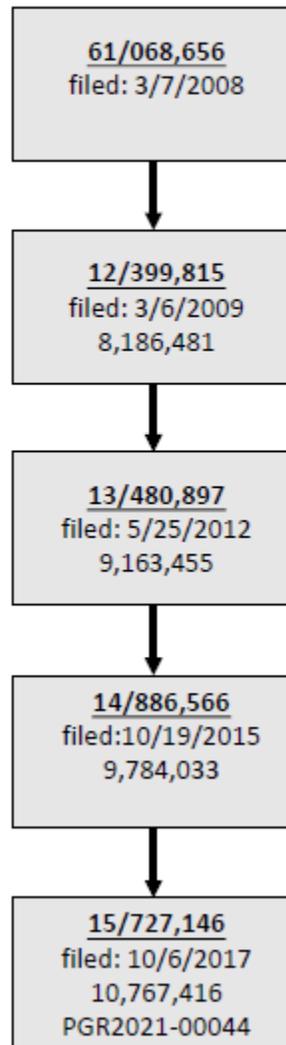
so that the first component is rotatable from a first rotational position to a second rotational position, wherein, when the first component is in the first rotational position, a substantial amount of the first bracket is disposed within a cavity defined by the first component and the first engagement pin extends through a pair of aligned openings including a first opening formed in the first rail and a second opening formed in third rail, and wherein, when the first component is in the second rotational position, the first engagement pin is withdrawn from at least one of the first opening and the second opening, at least one retaining mechanism configured to maintain the first component in the first rotational position until application of a first force is applied to the first component to displace it towards the second rotational position, and wherein the at least one retaining mechanism is further configured to maintain the first component in the second rotational position until application of a second force is applied to the first component.

Ex. 1001, 10:30–63.

*E. Prosecution History*

The '416 patent claims priority through a series of four U.S. patent applications. A diagram showing the series of applications follows.

## Series of Applications



As shown in the diagram above, the '416 patent issued September 8, 2020, from U.S. Application No. 15/727,146 (“the '146 application”), filed

October 6, 2017. Ex. 1001, codes (45), (21), (22). The '146 application was filed as a continuation of U.S. Application No. 14/886,566 (“the '566 application”), filed on October 19, 2015. *Id.* at code (63). The '566 application was filed as a continuation of U.S. Application No. 13/480,897 (“the '897 application”), filed on May 25, 2012. *Id.* The '897 application was filed as a continuation of U.S. Application No. 12/399,815 (“the '815 application”), filed on March 6, 2009. *Id.* The '815 application claims priority to provisional Application No. 61/068,656 (“the '656 provisional application”), filed March 7, 2008. *Id.* at code (60).

#### *F. Asserted Grounds*

Petitioner asserts that the challenged claims of the '416 patent are unpatentable based on the following grounds summarized below:

<b>Claims Challenged</b>	<b>35 U.S.C. §<sup>1</sup></b>	<b>References/Basis</b>
1–5	112(a)	Lack of Written Description
1–5	112(a)	Lack of Enablement
1–5	112(b)	Indefiniteness

Petitioner relies on the Declaration of Mr. Jon Ver Halen (Ex. 1035) as supporting that the challenged claims are unpatentable. Patent Owner relies on the Declaration of Mr. Fred P. Smith (Ex. 2002).

### III. ANALYSIS

#### *A. Level of Ordinary Skill in the Art*

Petitioner asserts the following:

A person of ordinary skill in the art relevant to the '416 patent would hold a Bachelor's degree in mechanical

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<sup>1</sup> The grounds identified are those set forth in the Petition. Pet. 57. As discussed herein, we determine that the challenged claims of the '416 patent have an effective filing date prior to March 16, 2013, so the '416 patent is not eligible for post-grant review.

engineering, industrial engineering or a related field, and 3 to 5 years of experience as an engineer doing mechanical design work, including at least two years specifically in the field of ladder design. A person having more education, such as a Master’s degree, would require less experience, and a person not having at least a Bachelor’s degree would need more experience.

Pet. 49 (citing Ex. 1035 ¶ 15).

Patent Owner asserts “Petitioner’s proposed level of ordinary skill is quite high, and it is not supported by a factual analysis.” Prelim. Resp. 23. Patent Owner asserts that “a POSITA<sup>[2]</sup> would have a bachelor’s degree in engineering or other technical field of study, or at least four years’ experience in product design or development.” *Id.* at 22 (citing Ex. 2002 ¶¶ 7–13). Patent Owner also asserts that “[m]ore industry experience could reduce the amount of educational experience required.” *Id.*

Patent Owner’s proposal includes persons having experience in any “product design or development” and, therefore, does not reflect sufficiently that the technical field of the ’416 patent is ladder design. *Id.* Patent Owner’s proposal that the skilled artisan’s educational experience would have been “a bachelor’s degree in engineering or other technical field of study” does not remedy that deficiency. *Id.* On the current record, we determine Petitioner’s proposal is consistent with the level of skill reflected in the ’416 patent Specification and the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We, therefore, adopt Petitioner’s proposal.

*B. Claim Construction—“retaining mechanism”*

The dispute between the parties pertains to the claim construction for a single term: “retaining mechanism.” We discuss the parties’ arguments regarding that term below.

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<sup>2</sup> POSITA is person having ordinary skill in the art.

1. *The parties' positions*

Petitioner asserts that “the lack of any structural language surrounding ‘retaining mechanism’ in the claims of the ‘416 patent compels the conclusion that ‘retaining mechanism’ is correctly construed as a § 112(f) limitation.” Pet. 56. Petitioner further asserts that “[s]ince no corresponding structure is disclosed in the ‘416 patent specification and drawings,” claims 1–5 are indefinite. *Id.* at 56, 70–73. Petitioner alternatively asserts that “retaining mechanism” is indefinite for not apprising the skilled artisan of the outer bounds of the scope of the claim term. *Id.* at 74–75.

Patent Owner responds that “[b]ecause the term ‘retaining mechanism,’ when read in the context of the specification, is a known term of art that denotes structure,” “Section 112(f) does not apply.” Prelim. Resp. 33. Patent Owner also asserts “the file history informs a POSITA that the claimed ‘retaining mechanism’ refers to known detent retaining mechanisms that include spring-biased elements extending into a notch or the like.” *Id.* at 29. Patent Owner argues that ‘416 patent claims are not indefinite (*id.* at 65–68) and asserts that “the plain and ordinary meaning of ‘retaining mechanism’ to one of ordinary skill in the art is: *a mechanism that holds one mechanical part in relation to another through biasing a surface into engagement with another surface.*” *Id.* at 32–33 (citing Ex. 2002 ¶ 46).

2. *Legal Standards*

Because the Petition was filed after November 13, 2018, we construe the challenged claims by applying the standard used in federal courts, in other words, “the claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b),” which is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b) (2020). Under the standard set forth in *Phillips*, 415 F.3d

at 1312–19, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *See Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012).

“[T]he use of the word ‘means’ in a claim element creates a rebuttable presumption that § 112[(f)] applies. . . . Applying the converse, [the Federal Circuit has] stated that the failure to use the word ‘means’ also creates a rebuttable presumption—this time that § 112[(f)] does not apply.”

*Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015) (en banc in relevant part). Nevertheless, the Federal Circuit emphasizes that “the essential inquiry is not merely the presence or absence of the word ‘means’ but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Id.* at 1348. To overcome the presumption that § 112(f) does not apply, the burden is on Petitioner to “demonstrate[] that the claim term fails to ‘recite sufficiently definite structure’ or else recites ‘function without reciting sufficient structure for performing that function.’” *Id.* at 1349; *see Advanced Ground Info. Sys., Inc. v. Life360, Inc.*, 830 F.3d 1341, 1347 (Fed. Cir. 2016) (explaining that in determining whether the presumption has been rebutted, the challenger must establish that the claims are to be governed by § 112(f)); *see also Diebold Nixdorf, Inc. v. Int’l Trade Comm’n*, 899 F.3d 1291, 1299–1300 (Fed. Cir. 2018) (“[I]n appropriate cases, a party advocating that a claim limitation that does not recite the word ‘means’ is subject to § 112[(f)] can overcome the presumption against its application solely by reference to evidence intrinsic to the patent.”).

### 3. *Analysis*

We agree with Patent Owner that the term “retaining mechanism” as understood in light of the ’416 patent Specification and prosecution history is not a means-plus-function term and does not invoke § 112(f). Because “retaining mechanism” does not use the word “means,” the burden is on Petitioner to overcome the presumption that § 112(f) does not apply.

Petitioner asserts that “mechanism” has been recognized as a “nonce word” and “retaining” is a statement of function. Pet. 50–51. Regarding the ’416 patent Specification’s description that “locking mechanism 104 may include a detent or retaining mechanism” (Ex. 1001, 7:59–60),<sup>3</sup> Petitioner asserts that “only the single word ‘detent’” “might connote some kind of structure.” Pet. 53. Petitioner, however, asserts that the term “‘detent’ is separated from ‘retaining mechanism’ by the disjunctive ‘or,’ implying that ‘detent’ means something different from ‘retaining mechanism.’” *Id.*

Patent Owner disputes Petitioner’s assertion and asserts to the contrary that

[t]hese terms are described as alternative names for the same device performing the same functions recited in the patent specification, they are described as a single device in the patent specification, and are understood in the art to synonymously describe a class of hardware solutions to perform the positioning functions claimed in claim 1.

Prelim. Resp. 67 (citing Ex. 2002 ¶¶ 31–46).

We consider the ordinary and customary meaning of “retaining mechanism,” as the term would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language

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<sup>3</sup> The same disclosure is found in the earliest of the series of applications leading to the ’416 patent. Ex. 1002 ¶ 49.

of the claims, the specification, and the prosecution history of record. Petitioner's position that "detent" means something different from "retaining mechanism" and that "retaining mechanism," therefore, is not structure is conclusory and does not take into account sufficiently the intrinsic evidence of record. Importantly, the '416 patent Specification disclosure is consistent with Patent Owner's argument that terms "detent" and "retaining mechanism" are described as alternative names for the same device, which is a structure. For instance, the Specification describes "a detent or retaining mechanism 250," which is illustrated schematically as a single structure. Ex. 1001, 7:59–61. In particular, Figures 13C and 13D illustrate "detent or retaining mechanism 250" in first and second positions, respectively. *Id.* at 4:22–24, Figs. 13C, 13D. Also, the '416 patent Specification states that the disclosure of "U.S. Pat. No. 4,407,045 to Boothe"<sup>4</sup> "is incorporated by reference herein in its entirety." Ex. 1001, 9:53–54.<sup>5</sup> Boothe describes "[a] pair of detent balls 108' and spring 106'," i.e., a single structure for the "detent or retaining mechanism." Ex. 2001, 8:43.

Furthermore, the prosecution history of the '416 patent confirms that a person having ordinary skill in the art would have understood that the terms "detent or retaining mechanism" are alternative names for the same structural device. Applicant's arguments during prosecution reflect Applicant's understanding of the terms as alternative names for the same thing. *See, e.g.*, Ex. 1011, 8–9, 19–20. Also during prosecution, the Examiner stated "[t]he Examiner agrees that a 'detent or retaining mechanism' is an art recognized definition." Ex. 1014, 18. The Examiner

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<sup>4</sup> U.S. Patent No. 4,407,045 (Ex. 2001) is referred to herein as "Boothe."

<sup>5</sup> The same disclosure is found in the earliest of the series of applications leading to the '416 patent. Ex. 1002 ¶ 56.

further stated that “in this case” the “detent or retaining mechanism” is a “spring and ball system,” i.e., a single structure. *Id.* The Examiner’s remarks are consistent with Patent Owner’s position that “detent or retaining mechanism” are alternative names for the same structural device.

The extrinsic evidence provides further support that the term “retaining mechanism” is not a means-plus-function term and does not invoke § 112(f). Mr. Smith testifies that “retaining mechanism” is used as a term of art in the ladder industry for a structural device and he provides as support his analysis of prior art patent documents. Ex. 2002 ¶¶ 43–44. Mr. Ver Halen’s testimony, in contrast, is conclusory and does not disclose the underlying facts or data on which his opinion is based. Ex. 1035 ¶¶ 19–25. As a result we give Mr. Ver Halen’s testimony little to no weight. *See* 37 C.F.R. § 42.65(a).

As understood in light of the intrinsic and extrinsic evidence, the term “retaining mechanism” has a generally understood meaning in the art as a structure. As noted above, the Examiner stated that the “detent or retaining mechanism” is a “spring and ball system.” Ex. 1014, 18. Applicant noted during prosecution “that U.S. Patent No. 4,407,045 to Boothe is incorporated by reference and describes in detail one or more detent mechanisms.” Ex. 1011, 9. Boothe describes “[a] pair of detent balls 108' and spring 106'.” Ex. 2001, 8:43. We, therefore, agree with Patent Owner that the term “retaining mechanism,” as understood in light of the '416 patent Specification and prosecution history is not a means-plus-function term and does not invoke § 112(f). *See Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580, 1583–84 (Fed. Cir. 1996) (explaining that the term “detent mechanism” in an unrelated patent is not subject to the provisions of 35 U.S.C. § 112, paragraph six because “[w]hat is important is not simply that a

‘detent’ or ‘detent mechanism’ is defined in terms of what it does, but that the term, as the name for structure, has a reasonably well understood meaning in the art”)

We turn to Petitioner’s alternative assertion that “retaining mechanism” is indefinite for not apprising the skilled artisan of the outer bounds of the scope of the claim term. Pet. 74–75. Petitioner submits the testimony of Mr. Ver Halen that various designs other than a ball and spring detent are possible. Ex. 1035 ¶ 21. But that does not render the claim term indefinite. Mr. Ver Halen’s remaining testimony is conclusory and does not disclose the underlying facts or data on which his opinion is based. *See generally* Ex. 1035. As a result we give Mr. Ver Halen’s testimony little to no weight. *See* 37 C.F.R. § 42.65(a). We, therefore, are not persuaded by Petitioner’s alternative assertion that “retaining mechanism” is indefinite for not apprising the skilled artisan of the outer bounds of the scope of the claim term. Pet. 74–75.

Upon consideration of the arguments and evidence of record including the ’416 patent Specification and prosecution history, we are persuaded that Patent Owner’s proposed construction for “retaining mechanism” is the plain and ordinary meaning of the term. We, therefore, adopt Patent Owner’s proposed construction that “the plain and ordinary meaning of ‘retaining mechanism’ to one of ordinary skill in the art is: *a mechanism that holds one mechanical part in relation to another through biasing a surface into engagement with another surface.*” Prelim. Resp. 32–33 (citing Ex. 2002 ¶ 46). Furthermore, as explained above, we agree with Patent Owner that the term “remaining mechanism” is not a means-plus-function term and does not invoke § 112(f).

C. *Eligibility for Post-Grant Review*

1. *Legal Standards*

As a threshold matter, we must determine whether the '416 patent is eligible for post-grant review. Petitioner has the burden of establishing eligibility for post-grant review. *See Commonwealth Sci. & Indus. Res. Org. v. BASF Plant Sci. GmbH*, PGR2020-00033, Paper 11, 7 (PTAB Sept. 10, 2020); *Mylan Pharms. Inc. v. Yeda Res. & Dev. Co.*, PGR2016-00010, Paper 9, 10 (PTAB Aug. 15, 2016); *US Endodontics, LLC v. Gold Standard Instruments, LLC*, PGR2015-00019, Paper 17, 9–12 (PTAB Jan. 29, 2016).

The post-grant review provisions set forth in section 6(d) of the Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (September 16, 2011) (“AIA”), apply only to patents subject to the first-inventor-to-file provisions of the AIA. *See* AIA § 6(f)(2)(A) (stating that the provisions of section 6(d) “shall apply only to patents described in section 3(n)(1)”). Patents subject to the first-inventor-to-file provisions are those that issue from applications that contain or contained at any time—

(A) a claim to a claimed invention that has an effective filing date as defined in section 100(i) of title 35, United States Code, that is on or after [March 16, 2013]; or

(B) a specific reference under section 120, 121, or 365(c) of title 35, United States Code, to any patent or application that contains or contained at any time such a claim.

AIA § 3(n)(1).

Determining whether a patent is subject to the first-inventor-to-file provisions of the AIA, and therefore eligible for post-grant review, is straightforward when the patentee filed the application from which the patent issued before March 16, 2013, or when the patentee filed the application on or after March 16, 2013, without any priority claim. The determination is more complex, however, for a patent that issues from a

“transition application,” that is, an application filed on or after March 16, 2013, that claims the benefit of an earlier filing date. *See* MPEP § 2159.04 (9th ed. Rev. 10.2019, June 2020). Entitlement to the benefit of an earlier date under 35 U.S.C. §§ 119, 120, 121, or 365 is premised on disclosure of the claimed invention “in the manner provided by section 112(a) (other than the requirement to disclose the best mode)” in the earlier application. *See* 35 U.S.C. §§ 119(e), 120. Thus, for a patent issuing from a transition application, eligibility for post-grant review depends on whether the Petition shows that the patent contains or contained at any time a claim that lacks written description and enabling support in a priority application filed before March 16, 2013.

As discussed above (*see supra* § II.E), the application that matured into the ’416 patent is a transition application, as it was filed after March 16, 2013, but claims priority to applications filed before March 16, 2013. We, therefore, discuss below the parties’ arguments and evidence as to whether the ’416 patent contains or contained at any time a claim that lacks written description and enabling support in a priority application filed before March 16, 2013.

## 2. *Written Description*

We begin with Petitioner’s arguments regarding lack of written description. To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention at the time of the original filing. *See, e.g., Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319–20 (Fed. Cir. 2003).

Petitioner’s written description arguments (Pet. 57–64) are premised on Petitioner’s claim construction position, which we do not find persuasive

for the reasons given above. *See supra* § III.B.3. In particular, Petitioner asserts “the phrase ‘retaining mechanism’ is correctly construed as invoking § 112(f)” and the ’416 patent specification lacks sufficient structure corresponding to the claimed function of “retaining.” Pet. 58–59. For the reasons given above (*see* § III.B.3), we determine that “retaining mechanism” is not a means-plus-function term and does not invoke § 112(f).

Also, Petitioner’s arguments are based on a summary of the prosecution history that does not take into account sufficiently the structure disclosed in each of the applications, including the earliest in the series of applications that matured into the ’416 patent, i.e., the ’656 application. Pet. 57–63. In particular, the ’656 application describes that locking mechanism 104 includes “a detent or retaining mechanism.” Ex. 1002 ¶ 49. As explained above (*see* § III.B.3), “detent or retaining mechanism” has a reasonably well understood meaning in the art and is a name for structure. *See, e.g.*, Ex. 1014, 18 (explaining by the Examiner that “detent or retaining mechanism” is an “art recognized definition,” which “in this case” is a “spring and ball system”); Ex. 2001 (Boothe), 8:43 (describing “[a] pair of detent balls 108’ and spring 106”)<sup>6</sup>

The ’656 application includes the exact recitation, i.e., “retaining mechanism,” that is the subject of the dispute and each of the applications, including the earliest in the series of applications that matured into the ’416 patent, i.e., the ’656 application, provides sufficient description of structure, in contrast to Petitioner’s arguments. Furthermore, Patent Owner provides Mr. Smith’s testimony and his supporting evidence showing that “retaining

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<sup>6</sup> We consider information incorporated by reference in determining whether the written description requirement is met. *Paice LLC v. Ford Motor Co.*, 881 F.3d 894, 906–907 (Fed. Cir. 2018).

mechanism” itself is used as a term of art in the ladder industry for structure, and he provides as support his analysis of prior art patent documents.

Ex. 2002 ¶¶ 43–44. Petitioner’s reliance on Mr. Ver Halen’s testimony (Ex. 1035) is unavailing as his testimony is conclusory and does not disclose the underlying facts or data on which his opinion is based. *See* 37 C.F.R. § 42.65(a).

Petitioner alternatively argues that “even if § 112(f) did not apply, claims to a genus must be supported by disclosure of a representative number of species falling within the genus so that one of skill in the art can recognize the members of the genus.” Pet. 64. Petitioner’s argument is based on “retaining mechanism” having a broader scope, i.e., representing the genus, as compared to “detent,” which according to Petitioner would be one species. For the reasons discussed above (*see* § III.B.3), however, we agree with Patent Owner (*see, e.g.*, Prelim. Resp. 42–43, 67) that “detent or retaining mechanism” are two alternative descriptions of the same thing.

We determine that each of the applications, including the earliest in the series of applications that matured into the ’416 patent, i.e., the ’656 application, provides sufficient written description of “retaining mechanism.”

### 3. *Enablement*

“To prove that a claim is invalid for lack of enablement, a challenger must show . . . that a person of ordinary skill in the art would not be able to practice the claimed invention without undue experimentation.” *Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.*, 928 F.3d 1340, 1345 (Fed. Cir. 2019) (citations and quotation marks omitted). Factors to be considered in determining whether a disclosure would require undue experimentation include:

(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims.

*In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

Petitioner asserts that claims 1–5 lack enabling disclosure of “retaining mechanism” recited in claim 1. Pet. 57, 67. Petitioner, for example, asserts that the ’416 patent Specification lacks a working example of a “retaining mechanism.” Pet. 67 (citing Ex. 1035 ¶ 24). Petitioner also asserts that the ’416 patent Specification provides no guidance as to how to put a detent in a locking mechanism. Pet. 67–69 (citing Ex. 1035 ¶¶ 21, 24–25, 26(d)).

Patent Owner responds, “[t]he ’416 patent relates to ladder design, which in many respects is a well-developed art, and the mechanical subject matter behaves relatively predictably.” Prelim. Resp. 58. Patent Owner further responds regarding the disclosures of the ’416 patent as follows:

[T]he patent clearly teaches that a “detent or retaining mechanism” may be used to hold the pin of the locking mechanism “in either, or each, of the first or second positions until a desired level of force is applied” to change the position. Ex. 1002 ¶0049. Invocation of a “detent or retaining mechanism” to achieve the functions described in claim 1 clearly presents the POSITA with a class of known devices that are routinely applied to achieve the stated functions—retaining an element in a first and/or second position until application of a force to displace the retained position. Ex. 2002 ¶¶40–46. The patent specification discloses the use of spring-biased ball detent mechanism designs to retain locking pins in desired positions in Figure 20 and through incorporation of the Boothe patent. *See supra* Section II.A. The Examiner agreed with Applicant that “detent or retaining mechanism” is an art recognized term, and that those in

the art would recognize spring-biased ball detents as one such example of a retaining mechanism, and that incorporation of such a detent mechanism to achieve the retaining function recited in claim 1 would not require undue experimentation. Ex 1013 at 8–12; Ex. 1014 at 17–19.

Prelim. Resp. 59.

We agree with Patent Owner. Petitioner’s arguments do not take into account sufficiently the disclosures of a “retaining mechanism” in each of the applications, including the earliest in the series of applications that matured into the ’416 patent, i.e., the ’656 application. In particular, the ’656 application describes that locking mechanism 104 includes “a detent or retaining mechanism.” Ex. 1002 ¶ 49. The ’815 application includes the same disclosure (Ex. 1003 ¶ 54) as does each of the continuation applications leading to the ’416 patent. Ex. 1001, code (63); Ex. 1006 ¶ 54; Ex. 1019 ¶ 54; Ex. 1025 ¶ 54. The phrase “detent or retaining mechanism” would have been reasonably well understood by a person having ordinary skill in the art as a particular structure. *See, e.g.*, Ex. 1014, 18 (explaining by the Examiner that “detent or retaining mechanism” is an “art recognized definition,” which “in this case” is a “spring and ball system”); Ex. 2001 (Boothe), 8:43 (describing “[a] pair of detent balls 108' and spring 106”)

Additionally, we agree with Patent Owner regarding the predictability of the technology at issue. Indeed, Petitioner acknowledges that ladders “fall within the mechanical arts” and are in an art where results are predictable.

Pet. 66.

Petitioner also asserts that biasing member 156, not detent or retaining mechanism 250 holds the first component. Pet. 69 (citing Ex. 1035 ¶ 25). Petitioner cites to only the testimony of Mr. Ver Halen regarding ladder safety. *Id.* Petitioner’s assertion is conclusory without sufficient evidentiary

support. Nevertheless, even assuming the '416 patent Specification describes an embodiment in which biasing member 156 holds the first component, that does not negate the disclosure of the retaining mechanism maintaining the first component in the first rotational position until application of a first force is applied to the first component to displace it towards the second rotational position. Ex. 1001, 7:58–64; *see also* Ex. 1002 ¶ 49 (describing the same).

Petitioner also asserts that detent is a species, and that the '416 patent Specification's description of "a detent or retaining mechanism" does not provide enabling disclosure of the allegedly broader term "retaining mechanism." Pet. 67 (citing Ex. 1035 ¶¶ 21, 22, 26(d)). For the reasons discussed above (*see supra* § III.B.3), however, we agree with Patent Owner (*see, e.g.*, Prelim. Resp. 42–43, 67) that "detent or retaining mechanism" are two descriptions of the same thing.

For the reasons given, we determine that each of the applications, including the earliest in the series of applications that matured into the '416 patent, i.e., the '656 application, provides enabling disclosure of "retaining mechanism."

#### 4. Conclusion

For the reasons given (*see* § III.C.2), we determine that each of the applications, including the earliest in the series of applications that matured into the '416 patent, i.e., the '656 application, provides sufficient written description of "retaining mechanism." Also, as discussed above (*see supra* § III.C.3), we determine that each of the applications, including the earliest in the series of applications that matured into the '416 patent, i.e., the '656 application, provides enabling disclosure of "retaining mechanism."

Petitioner has not identified other deficiencies in the claims and we do not

discern any on the record before us. We, therefore, agree with Patent Owner that on the record before us the claims of the '416 patent are entitled to priority to the '656 application. Prelim. Resp. 44–56.

The '656 provisional application is a pre-AIA application because it was filed before March 16, 2013. Accordingly, we determine that the '416 patent is not eligible for post-grant review.

#### *D. Constitutionality*

Patent Owner asserts that “this proceeding is unconstitutional and violates the Appointments Clause, U.S. Const., art. II, § 2, cl. 2.” Prelim. Resp. 69 (citing *Arthrex, Inc. v. Smith & Nephew, Inc. et al.*, 941 F.3d 1320 (Fed. Cir. 2019) (rehearing en banc denied)). We need not address Patent Owner’s arguments in light of the decision of the U.S. Supreme Court in *United States v. Arthrex, Inc.*, 141 S. Ct. 1970 (2021).

#### IV. CONCLUSION

For the foregoing reasons, we conclude that Petitioner has not demonstrated that the '416 patent is eligible for post-grant review. We, therefore, deny institution.

#### V. ORDER

In consideration of the foregoing, it is hereby:

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

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