

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STRAUMANN USA, LLC,
Petitioner,

v.

SMART DENTURE CONVERSIONS, LLC,
Patent Owner.

PGR2025-00054
Patent 12,156,781 B1

PATENT OWNER'S SUR-REPLY

July 24, 2026

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LIST OF PATENT OWNER’S EXHIBITS

Exhibit No.	Description
2001	First Supplemental Complaint, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. Feb. 4, 2025), ECF No. 34
2002	Docket Sheet, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del.)
2003	Complaint, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. Apr. 23, 2024), ECF No. 1
2004	Defendant Straumann USA, LLC’s Opening Brief in Support of its Motion to Dismiss Plaintiff’s Complaint for Failure to State a Claim for Relief under Fed. R. Civ. P. 12(b)(6), <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. July 29, 2024), ECF No. 13
2005	Order, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. Jan. 30, 2025), ECF No. 31 (“scheduling order”)
2006	Stipulated Protective Order, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. Mar. 4, 2025), ECF No. 44
2007	Defendant Straumann USA, LLC’s Initial Invalidity Contentions, No. 1:24-cv-00507-JCB (D. Del.) (served June 2, 2025)
2008	Order Regulating Practice for civil cases assigned to The Honorable J. Campbell Barker, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. Dec. 16, 2024), ECF No. 22
2009	Notice of <i>Sotera</i> Stipulation, <i>Smart Denture Conversions, LLC v. Straumann USA, LLC</i> , No. 1:24-cv-00507-JCB (D. Del. June 4, 2025), ECF No. 57
2010	Declaration of Karl Leinsing

2011	Smart Denture Conversions, <i>Technique Manual</i> , available at https://shorturl.at/798cX
2012	International Patent Application No. WO 96/2019 (Sept. 26, 1996) (“Sutter 1996”)
2013	U.S. Patent No. 6,332,777 B1 (Dec. 25, 2001) (“Sutter 2001”)
2014	U.S. Patent No. 3,115,804 (Dec. 31, 1963) (“Johnson”)
2015	U.S. Patent No. 5,904,483 (May 18, 1999) (“Wade”)
2016	U.S. Patent No. 6,517,543 B1 (Feb. 11, 2003) (“Berrevoets”)
2017	U.S. Patent No. 9,568,037 B2 (Feb. 14, 2017) (“Staniszewski”)
2018	U.S. Patent Publication No. 2002/0094255 A1 (July 18, 2002) (“Neuhengen”)
2019	Curriculum Vitae of Karl Leinsing
2020	Declaration of Dr. Brandon Kofford
2021	Second Declaration of Karl Leinsing
2022	Deposition Transcript of John B. Brunski, Ph.D. (Feb. 13, 2026)
2023	U.S. Patent No. 5,350,302 (Sept. 27, 1994) (“Marlin”)
2024	U.S. Patent No. 9,844,425 (Dec. 19, 2017) (“Thomke”)
2025	U.S. Patent No. 5,213,502 (May 25, 1993) (“Daftary”)

TABLE OF ABBREVIATIONS

Bernhard	Ex-1003
Brunski	Ex-1002
Brunski Dep.	Ex-2022
Gracco	Ex-1006
ID	Institution Decision
Leinsing Dep.	Ex-1033
Poovey	Ex-1005
SDC	Patent Owner
POR	Patent Owner's Response
POSA	Person of ordinary skill in the art
Priority Applications	Ex-1009, Ex-1010, Ex-1011, and Ex-1012 (collectively)
'781 Patent	Ex-1001
'992 Patent	U.S. Patent No. 11,937,992 (Mar. 26, 2024)
1Leinsing	Ex-2010
2Leinsing	Ex-2021

I. INTRODUCTION

The Reply confirms Petitioner cannot meet its burden. Its challenges require reading the specification incorrectly, ignoring a POSA's understanding, and ignoring the inventive concept the limitations define.

First, the Reply fails to show any challenged claims are indefinite. The detailed limitations provide any POSA with the minimum “reasonable certainty” required.

Second, the written-description argument ignores controlling authority in the POR that one disclosed species is legally sufficient to support the claims for this predictable, mechanical art—particularly when the claims are properly construed.

The claims do not recite a “broad[]” genus of “nearly any temporary fastener that can be pulled out.” ID 40. Instead, all independent claims define these specific temporary fasteners using both geometry and functional capabilities, including, for example, that they (1) are “sized and configured for rotatory engagement with the implant abutment threads” (2) “with an engagement depth at a predetermined torque,” “to hold the coping into alignment,” (3) release with an axial force, (4) do “not engage the implant abutment threads continuously,” and (5) touch the abutment threads less than the definitive screws do. ’781 Patent, 25:60-26:24, 26:56-27:10, 27:30-60; *id.* 28:16-41 (similar). That is a narrower genus than the Institution Decision described. A proper reading of these claimed fasteners’

limitations undercuts Petitioner's arguments. The specification properly discloses the claimed temporary fastener to a POSA.

Third, the Reply fails to establish even a prima facie case of obviousness. None of its references, alone or in combination, discloses or suggests using a temporary fastener with different threads than the definitive (permanent) screw in the same female abutment threads. This is a key inventive concept expressed in multiple limitations in each independent claim. It is conspicuously absent from every combination Petitioner proposes.

Ultimately, although Petitioner convinced the Board (incorrectly, in SDC's view) that it met the threshold standard for institution, on the full record Petitioner has not and cannot meet its ultimate burden of proving any claims invalid "by a preponderance of the evidence." 35 U.S.C. § 326(e).

II. POSA DEFINITIONS

Petitioner reargues that the alleged field of invention should be "the design of dental implants and prostheses," Reply 1, while noting specific examples of Leinsing's field, including "the design of bone implants, anchors, and/or screws." Reply 1 (quoting 2Leinsing ¶53). Next it mischaracterizes Leinsing's testimony. Reply 1-2. SDC's definition correctly identifies the level of *ordinary* skill. POR 16-20. SDC acknowledges, of course, the Board noted the parties' definitions "share many consistencies" and found "little meaningful difference between the

two.” ID 18-19. Discovery has shown Leinsing qualifies as an expert under either definition. 2Leinsing ¶¶61-64. And under either definition, a POSA would have readily recognized the ’781 Patent’s specification adequately supports the claimed invention.

Petitioner contends a POSA would have a bachelor’s degree in engineering, plus five years’ experience in dental prostheses or implants. Reply 1-3.

Notwithstanding this *high* skill level—approaching expertise rather than ordinary skill—the Reply devotes 21 unconvincing pages arguing that such an engineer would have no clue how to implement any alternative embodiments described without a matching drawing. Reply 3-24. This argument makes no sense.

III. IMPLICIT CONSTRUCTION

The linchpin of Grounds 1-2 is its implicit broad construction, characterizing the limitations as claiming (in the Board’s words) “nearly any temporary fastener that can be pulled out.” ID 40. The Reply attempts to deflect that construction, arguing (incorrectly) “[n]either the Board nor Straumann stated the claims encompass fasteners that cannot be screwed in.” Reply 20.

The Reply simply ignores SDC’s detailed explanation showing the implicit construction resulted in an overbroad genus, which in turn led to the Board’s preliminary finding that Figure 75 was inadequate to support that broad genus. POR 20-27. The Reply similarly offers no rebuttal for the argument that the

implicit construction contradicts the limitations themselves or violates claim-differentiation principles.

The claims do not recite a broad genus of “nearly any temporary fastener that can be pulled out.” ID 40. Instead, they define specific temporary fasteners by both geometry and functional capability. POR 21-27. Properly construed, the claimed temporary fasteners are adequately disclosed by Figure 75 and the written description.

IV. GROUND 1: THE CLAIMS ARE NOT INDEFINITE

A. Claim 6 Is Definite Because of Its Structural Limitations

As SDC explained, claim 6 includes interrelated structural and functional limitations that would have informed a POSA with reasonable certainty of the invention’s scope. POR 28-29. Petitioner’s only response is to say that “[t]hese unrelated limitations do not render claim 6 definite.” Reply 3.

The premise is incorrect. Far from “unrelated,” these “functional limitations are tightly connected to the geometry of the temporary fastener threads.” 2Leinsing ¶¶114, 135. Given those limitations, Petitioner cannot show claim 6 is indefinite.

B. Claims 10-16 Provide Reasonable Certainty, Particularly Given Petitioner’s POSA Definition

As SDC explained, claims 10-16 are definite because the language at issue (“does not essentially match”) sets out the invention’s scope with reasonable certainty. The other limitations elucidate its meaning, as do the drawings and

intrinsic record, POR 29-35, especially given the predictable technology at issue and the unusually skilled POSA Petitioner proposes.

As SDC explained, numerous other prior-art references submitted to and considered by the examiner during a parent patent's prosecution show that "match" is a known term in the field describing male threads that cooperatively engage and fill female threads. POR 33-34. Petitioner offers no persuasive rebuttal to this point, saying it is irrelevant because "these references say nothing about threads that 'essentially match.'" Reply 4. But how a POSA understands "match" is relevant to how a POSA would understand "essentially match." And "essentially match" provides reasonable certainty considering the invention's context, the POSA's skill level, and the field of art, just as "not interfering substantially" did in *Enzo Biochem v. Applera*, 599 F.3d 1325, 1334-35 (Fed. Cir. 2010), *abrogated on other grounds by Nautilus v. Biosig*, 572 U.S. 898 (2014). Since these are "terms of degree," the "specific and unequivocal examples" in the specification and intrinsic record, showing what does and does not essentially match, are "sufficient to provide a skilled artisan with clear notice of what is claimed." *DDR v. Hotels.com*, 773 F.3d 1245, 1260 (Fed. Cir. 2014); POR 30-34 (discussing examples).

Finally, Petitioner and Brunski disprove this point by conceding the claim scope later, while arguing claim 10 is obvious. POR 34-35. The Reply tries to explain that away, saying they merely "assumed this limitation is definite." Reply 5

n.3 (emphasis omitted). But calling the conclusion an assumption does not change what happened: Brunski readily understood and applied the *essentially matches* limitation. Not coincidentally, Brunski’s so-called “assumption” lined up with the same plain meaning the specification and intrinsic record support.

Moreover, as SDC explained, this demonstrates the discrepancy in Brunski’s POSA analyses. The POSA Brunski uses to evaluate the limitation for indefiniteness purposes is markedly *less* intelligent, capable, and creative than the POSA that later applies the same limitation without trouble. POR 61-62. Petitioner responds that “[t]hese are different issues with different standards,” Reply 19, but does not reconcile these analytical contradictions at all. Nor does Petitioner acknowledge Brunski’s concession that the disparities could make it “seem like” his POSA was “less capable” at certain times. Brunski Dep. 132:2-8 (“I see your point, yes.”).

V. GROUND 2: THE WRITTEN DESCRIPTION ADEQUATELY SUPPORTS THE CLAIMS

A. The Written Description Supports the Independent Claims

1. The Board Correctly Rejected Petitioner’s Arguments from the Related IPR

At the outset, arbitrarily dividing the limitations into separate buckets of *different-thread* and *release* limitations is contrary to the claims’ language. “These functional limitations are tightly connected to the geometry of the temporary

fastener threads.” 2Leinsing ¶114. They all belong to one category of structural and functional limitations that define the temporary screw and the inventive concept.

The Reply goes to great lengths to rehabilitate its *different-thread* arguments. But Petitioner ultimately has the burden of proving unpatentability by a preponderance, 35 U.S.C. § 326(e), and “with particularity,” *id.* § 322(a)(3). If the Petition left the Board with the impression it did “not address the actual claim language at issue in this proceeding” and discussed another patent altogether, ID 38, Petitioner cannot have satisfied its burden.

2. The Reply Ignores Disclosures in the ’781 Patent’s Plain Text, Which Adequately Support the Claimed Temporary Fastener

The Reply consistently overlooks the specification’s plain language. SDC explained in detail how mechanical engineering is a predictable field requiring less disclosure generally and how *Ariad* merely requires disclosing “either a representative number of species falling within the scope of the genus or structural features common to the members of the genus,” enough for a POSA to “‘visualize or recognize’ the members of the genus.” *Juno Therapeutics v. Kite Pharma*, 10 F.4th 1330, 1335 (Fed. Cir. 2021). Petitioner does not challenge either point.

SDC demonstrated that one species was adequate for the specific claimed temporary fastener as a matter of law—as well as that the specification disclosed at least three species in addition to the species disclosed in Figure 75. POR 36-62.

Petitioner offers nothing to suggest that disclosing one species would be inadequate to claim a genus in this predictable art involving well-known screw threads. In any event, as Patent Owner explained, the '781 Patent's specification discloses multiple embodiments of the claimed temporary fasteners. POR 36-52. Moreover, when the limitations are properly construed, what is claimed is not a *broad* genus at all—further lessening the required disclosure. POR 21-24.

Petitioner's overarching argument is that these species are not disclosed because the specification contains no illustration showing embodiments "as an integrated whole." Reply 13. That is not the standard. The specification need only "reasonably convey[]" to a POSA "that the inventor had possession of the claimed subject matter as of the filing date." *Ariad v. Eli Lilly*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). "A claim will not be invalidated ... simply because the embodiments of the specification do not contain examples explicitly covering the full scope of the claim language." *LizardTech v. Earth Res. Mapping*, 424 F.3d 1336, 1345 (Fed. Cir. 2005). Nor does a specification need to "expressly spell out every possible iteration of every claim," as long as it provides "a basic enabling disclosure." *Boston Univ. v. Everlight*, 896 F.3d 1357, 1364 (Fed. Cir. 2018).

Viewed correctly, the specification adequately supports the claimed invention. It broadly describes "[a] temporary alignment system and method for holding a dental coping to an implant abutment using the same threads in the

abutment that are used for definitive attachment.” ’781 Patent, Abstract. It describes numerous permutations of that system, with combinations of features shown in various figures. The written descriptions explain these illustrations *and* describe additional embodiments and features that can be incorporated into all disclosed embodiments unless incompatible. ’781 Patent, cols. 4-25.

Thus, for each of the four species, Patent Owner and Leinsing were able to point to *particular specification text* disclosing the material. POR 43-52; 2Leinsing ¶¶148-90. The happenstance that these disclosed embodiments are described in text rather than with illustrations is of no legal import.

Nothing in the Reply undercuts these disclosures or their significance. Petitioner emphasizes repeatedly, for example, that Leinsing’s demonstrative drawings are “not in the specification” and therefore cannot support the claims. Reply 11, 13, 15, 17. But Leinsing did not pull these out of thin air. To the contrary, he explained, the specification text was the basis for each demonstrative. Leinsing Dep. 111:17-19 (“The patent teaches you how you can combine these embodiments to arrive at what I’ve depicted there.”); *id.* 125:14-19 (“It’s *as described by the patent* and I drew there what was taught by the patent. ... But it’s described in writing in the patent.”).¹ Leinsing pointed to additional supporting directions,

¹ All emphasis in quoted text is added.

including that features may be combined in any suitable manner. *Id.* 30:6-9, 33:20-36:6, 37:1-19, 111:20-112:13, 122:22-123:10, 125:16-126:10.

Leinsing's illustrations demonstrate these disclosures are adequate because he could readily show, based on the specification, "that the inventor had possession of the claimed subject matter." *Ariad*, 598 F.3d at 1351. These illustrations also show the disclosed species support the broader genus because a POSA "can 'visualize or recognize' the members of the genus." *Juno*, 10 F.4th at 1335.

The Reply is simply wrong to suggest the embodiments Leinsing identifies are merely "obvious embodiment[s]" not actually described. Reply 13-14. For example, Petitioner argues "even if a POSA could design other temporary fasteners with different asymmetric threads based on Figure 75 and the description, those obvious embodiments do not support the claims because they are not described." Reply 10.

But they *are* described. The specification discloses "*asymmetric threads* or serrations 40" generally, which allow "insert[ion] through rotation" and "subsequent[] extract[ion] with a separation force in the axial direction." '781 Patent, 23:24-30; *id.* 23:10-21, 24 (similar). Asymmetric threads are a well-known category of thread profiles, as Leinsing and Brunski agree. 2Leinsing ¶170 ("well-known asymmetric screw profiles"); *id.* ¶173 ("a POSA would have readily recognized that the full scope of 'asymmetric threads' is included in this genus

because it was a known category of thread contours”); Brunski Dep. 36:19-23 (agreeing there are “other asymmetrical thread profiles besides the buttress and reverse buttress thread”).² Interpreting “For example, as shown in Figure 75,” ’781 Patent 23:17, as exclusive or limiting, rather than merely illustrative, is contrary to the specification. POR 45-46; Brunski Dep. 54:12-23 (agreeing Figure 75 is “meant as an example” that “doesn’t exclude other examples”).

The Reply argues “[t]he specification does not describe any threaded temporary screw without a slot that is pulled out because it is made of deformable ‘plastic.’” Reply 18. Incorrect. POR 43-52. Leinsing testified that language in the Priority Applications, identical to this specification, describes polymeric temporary screws. Leinsing Dep. 32:10-20; ’781 Patent, 24:11-13 (“polymer ... posts and fasteners may be included in this and other embodiments”). Petitioner cannot dispute that polymers (plastics) are inherently deformable. Petitioner’s expert agreed that a POSA has “a choice of picking properties of the post and its threads,” including “elasticity,” and that “[c]ombining this with Figure 75,” a POSA “can

² *UroPep v. Eli Lilly*, 276 F. Supp. 3d 629, 648 (E.D. Tex. 2017) (“[W]hen a genus is well understood in the art and not itself the invention but is instead a component of the claim, background knowledge may provide the necessary support for the claim.”).

create threads with elastic or inelastic deformable threads.” Brunski Dep.

90:18-91:3. The specification similarly describes using an interference fit instead of a split post. Leinsing Dep. 32:25-33:10.

Next, Petitioner asserts “the specification does not describe interference-fit temporary fasteners that support the different-thread limitations.” Reply 14.

Brunski, however, disagreed: he found “it hard to conceptualize that one *but it’s described here anyway*.” Brunski Dep. 59:5-7. And he conceded that a cylindrical post without threads “would have a flat thread profile ... different from the thread profile shown in Figure 75.” *Id.* 62:16-18.

Finally, the Reply includes a new argument—that interference-fit embodiments are “push-in” only, Reply 11-12, 14, 23—neither raised in the Petition nor responsive to the POR. The Petition argued the claims were *broad*er than the Figure 75 embodiment; it did not argue the specification discloses only a “push-in” interference fit. This “push-in” only reading is new. And the Reply cannot reframe the written-description challenge as an exclusionary claim-scope argument. This argument should therefore not be considered. 37 C.F.R. § 42.23(b).

3. The Specification Discloses Adequate Species to Support the Claimed Temporary Fastener

Established law permits broader genus claims that rely solely on specifications disclosing one or more species within the genus. POR 37-38. The specification need only disclose “either a representative number of species falling

within the scope of the genus or structural features common to the members of the genus.” *Juno*, 10 F.4th at 1335. In fact, disclosing a single species is *often* enough to support a genus claim, especially in predictable arts. POR 37-39. The Reply nowhere contests these principles.

As SDC demonstrated, the specification discloses *both* “a representative number of species” *and* common “structural features” of the claimed genus. POR 41-62. And, as SDC also explained, when the claims are properly construed, the genus is not nearly as broad as Petitioner portrays it.

Figure 75 standing alone is sufficient to disclose the broader genus because “[t]he mechanical field at issue ... is a sufficiently predictable art that the disclosure of a species ... is sufficient disclosure of the genus.” *Ex parte Bush*, 2012 WL 3863280, *4 (BPAI Aug. 29, 2012). Figure 75 undisputedly shows a species of the claimed genus because (1) it depicts a slotted asymmetric temporary fastener that has differently shaped threads from a symmetrically shaped thread of a permanent screw *and* (2) applying axial force would cause an inward deformation of the open area between the slots, facilitating release.

It is also undisputed that the specification describes temporary fasteners made of either metal or polymer. It is undisputed that even solid polymers deform. And since temporary fasteners may be made of polymer, Petitioner needs the Board to ignore the '781 Patent's description of various thread configurations to

succeed. The Board should not; the specification describes at least three species in addition to what is shown in Figure 75. Moreover, since Petitioner concedes the specification discloses at least one embodiment (Figure 75), that disclosed species is alone enough to support the broader genus claims in this predictable field.

4. Petitioner’s Cases Do Not Support Its Position

The Reply cites *Novozymes v. DuPont*, 723 F.3d 1336, 1349 (Fed. Cir. 2013), arguing “[t]he claimed subject matter must be described in the specification ‘as an integrated whole rather than as a collection of independent limitations.’” Reply 13. However, “this case is distinguishable from *Novozymes*” because “the issue here is not whether a broad generic disclosure supports a narrower claim, as was the case in *Novozymes*, but whether the Specification discloses sufficient representative species to support a broader genus claim.” *LifeScan v. Ikeda*, 2019 WL 3851803, *15 (PTAB Aug. 15, 2019). Moreover, *Novozymes* involved “less written description support than is found in the specifications here”; the patent in that case had “no disclosure.” *Idenix v. Gilead*, 2016 WL 6802481, *8 (D. Del. Nov. 16, 2016).

Flash-Control v. Intel, 2021 WL 2944592 (Fed. Cir. July 14, 2021), is likewise unhelpful. *Flash-Control* explained “[a] patent owner cannot show written description support by picking and choosing claim elements *from different embodiments that are never linked together in the specification.*” *Id.*, *4. That is

not true here; the specification links these features together by disclosing numerous, related embodiments and elaborating permissible additional features.

Finally, Petitioner relies on *Lockwood v. American Airlines*, 107 F.3d 1565, 1572 (Fed. Cir. 1997), to argue that “[e]ven if a POSA could combine” various features, “the resulting obvious embodiment does not support the claims because it is not described.” Reply 13-14. But as shown above, the premise is incorrect; the additional embodiments *are* described. And because SDC “points to *specific language, figures and tables* included in the original disclosure,” “the present case is readily distinguishable from ... *Lockwood*, in which the plaintiffs’ experts concluded only that” a POSA “would be able to speculate what the claimed subject matter was from the disclosure.” *Allergan v. Alcon*, 2005 WL 3336535, *9 (D. Del. Dec. 8, 2005); *Microsoft v. Interdigital*, 2025 WL 1735472, *11 (PTAB June 23, 2025) (explaining *Lockwood* merely “determined that an adequate disclosure required more than speculation about modifications that could have been made” and “[w]e have more here”). Thus, “[t]he Federal Circuit has distinguished” *Lockwood* “where, as here, ‘the specification at least mentions’ the alternative embodiments.” *10x Genomics v. NanoString*, 690 F. Supp. 3d 449, 459 (D. Del. 2023); *Centrak v. Sonitor*, 915 F.3d 1360, 1367 (Fed. Cir. 2019) (“Here, in contrast, the specification at least mentions base stations and receivers that use ultrasound, which makes this case distinguishable from *Lockwood*.”).

5. *Gillette and Medtronic Apply*

The Reply argues that *Gillette v. Sphere*, 2023 WL 6367741 (PTAB Sept. 19, 2023), and *Medtronic v. Teleflex*, 69 F.4th 1341 (Fed. Cir. 2013), are distinguishable because (1) “the limitations at issue were not important” and (2) the specification does not include similar “permissive language.” Reply 18-19. Petitioner is mistaken.

First, the Reply glosses over why *Gillette*’s limitations were not important. *Gillette* pointed out the disclosure “does not characterize” other configurations “as inferior,” nor “characterize” a specific one “as an important aspect of the invention.” *Gillette*, 2023 WL 6367741, *16. This was why *Tronzo* was inapplicable there (and here), because *Tronzo*, “**significantly**, characterized other shapes as ‘prior art’ and ‘inferior’ to a conical shape, and characteriz[ed] the conical shape as an ‘**extremely important**’ aspect of the present invention.” *Id.*, *15. *Gillette* applies here and *Tronzo* does not; independent claims 1, 6, 8, and 10 do not require the buttress threads or split post shown in Figure 75, nor does the specification say either is critical. POR 57-60. In fact, Petitioner’s obviousness analysis confirms the split post is not critical; Ground 3’s proposed Bernhard-Poovey-Gracco combination does not have it. Pet. 63-83.

Second, the “permissive language” in *Gillette* and *Medtronic* is just like the permissive language in this specification. In *Gillette*, the relevant language

identified by the Board included the sentence, “However, this ***does not exclude*** an additional point of separation, pivoting and/or articulation in connection with blade cartridge 14 described in the present disclosure.” 2023 WL 6367741, *2. *Gillette* pointed to *Medtronic*’s similar language: “[t]he rigid portion ***may include*** a cutout portion ... and a full circumference portion.” *Id.*, *14.

Here, the specification contains permissive language just like *Gillette*’s and *Medtronic*’s:

- “[T]he particular features, structures, or characteristics ***may be combined in any suitable manner*** in one or more embodiments ***without limitation.***”
- “The term ‘or’ as used herein is to be interpreted as an ***inclusive*** or meaning ***any one or any combination.***”
- “‘A, B or C’ means ***any of the following***: ‘A; B; C; A and B; A and C; B and C; A, B and C.’ An exception to this definition will occur only when a combination of elements, functions, steps or acts are in some way inherently mutually exclusive.”
- “***For example***, as shown in FIG. 75 an alignment fastener post 39 ***may contain*** a separable threaded or serrated portion 40 that engages the screw threads in the abutment for pick-up, but that will release with

axial force after. FIG. 75 shows a temporary fastener 190 with a head 42 portion and an attachment post portion 39.”

- “The post 39 *may be* subsequently extracted with a separation force in the axial direction. Although the threads *could be designed* to provide engagement with the implant abutment threads through axial motion in the opposite direction to the arrow shown in FIG. 75, rotation to a design torque on engagement is generally preferred.”
- “*Example embodiments* of the coping and post being the separable components *include the following*: FIG. 82 shows temporary attachment post 71, engaging an interference fit of coping 72 at a position above the threaded portion. Metal, metal-reinforced, ceramic, and polymer copings, posts and fasteners *may be included in this and other embodiments*. Any of the parts *may* have surface treatments to control friction or adhesion.”
- “Although the descriptions above use rotational engagement of the bottom of the post with internal threads of the abutment as a preferred approach, *this is not meant to be limiting*. Alternate approaches for engaging a temporary attachment post with abutment threads through axial insertion without rotations *are considered to be part of this disclosure*. For example, the split post bottom structure shown in

FIG. 75 which allows axial extraction *can also* be used for axial insertion. Similarly, an interference fit between the bottom of the post with the threads *may also* be designed to provide sufficient engagement to provide adequate alignment and fixing of the coping for the pick-up bonding process described earlier.”

- “Various embodiments have been described *to illustrate* the disclosed inventive concepts, *not to limit* the invention. *Combining inventive elements of one or more of the embodiments* with known materials, components, and techniques in dental science to create further embodiments using the inventive concepts *is considered to be part of this disclosure.*”

’781 Patent, 8:2-11, 23:17-22, 23:28-34, 24:7-14, 24:52-64, 25:11-17; POR 42-62;

2Leinsing ¶¶153-90.

The Reply’s attempts to distinguish *Gillette* and *Medtronic* fail because of the specification’s permissive language.

B. The Specification Adequately Supports the Dependent Claims

1. Claims 2-5, 7, 9 and 11-16 Are Supported

Petitioner incorrectly asserts SDC “did not respond to Straumann’s arguments that the different-thread limitations in claims 2-5, 7, 9 and 11-16 and the release limitations in claims 2-5, 7, 9, 11-13 and 15-16 are not supported.” Reply

21. But the Petition said these claims were not supported “*for the same reasons*” as the independent claims. Pet. 50, 51. Therefore, POR 35-62, which addresses the arguments as to claims 1 and 10, amply responded.

2. *Securing the Coping Limitations Are Supported*

Petitioner’s challenge to this language is hyper-technical and requires reading the claims in an unnatural way a POSA would not adopt. POR 62-63. Given the specification’s plain language and intrinsic record, what is being claimed is obviously what the specification describes, “[a] temporary alignment system and method for holding a dental coping to an implant abutment *using the same threads in the abutment* that are used for definitive attachment.” ’781 Patent, Abstract.

It is not true, as Petitioner contends, that SDC “effectively ask[s] the Board to rewrite SDC’s own claim language.” Reply 21. SDC is simply reading the limitations as a POSA would. *Chef America* does not apply here because “[i]n *Chef America*, the *only possible interpretation* of the claim led to a nonsensical result. This situation is distinguishable because” the claim “*can and should be interpreted as the patentees intended.*” *Ortho-McNeil v. Mylan*, 520 F.3d 1358, 1363 (Fed. Cir. 2008).

Petitioner’s construction also violates the “well established” rule “that a claim construction that excludes the preferred embodiment is rarely, if ever, correct.” *MCP v. Ravin*, 2026 WL 1020663, *22 (W.D. Wis. Apr. 15, 2026) (citing

CUPP v. Trend Micro, 53 F.4th 1376, 1381 (Fed. Cir. 2022)). That is particularly true if the construction “would exclude every embodiment of the patent disclosed in the specification,” as it would here. *Id.* *Chef America* “has no application” because the claim is “amenable to a reasonable interpretation that covers the disclosed embodiments.” *Id.*

3. *Does Not Engage Continuously* Limitations Are Supported (Claims 1-9)

Petitioner originally argued the *does not engage continuously* limitations are unsupported because the specification “does not describe any temporary fastener with continuous threads that are threaded into only a portion of the abutment threads, leaving abutment threads above and/or below the temporary fastener empty.” Pet. 56. This is a red herring; the limitations do not use the words “portion” or “empty.” Nor do they require a single, unbroken thread; they simply refer to engagement that is not continuous. POR 64; 2Leinsing ¶200. Figure 75’s temporary fastener, which Petitioner concedes is disclosed, supports this limitation.

4. *Outer Surface Deform* Limitation (Claim 5) and *Configured to Release* Limitation (Claim 6) Are Supported

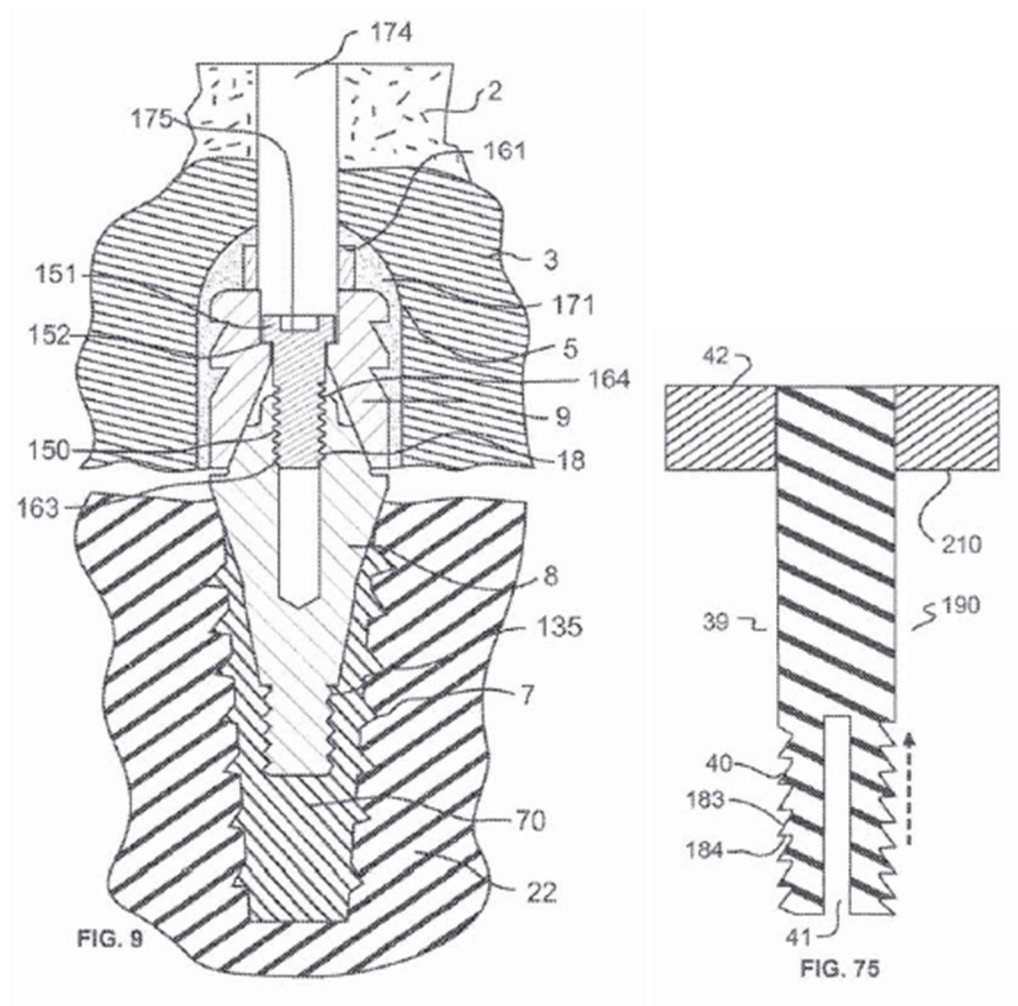
The Reply’s arguments here rely on Petitioner’s broader assertion that the specification discloses no embodiments besides Figure 75. Since that premise is wrong, these arguments fail.

5. *Maximal Width Limitation is Supported (Claim 15)*

As SDC explained, Petitioner's arguments here are wrong based on inherent geometry. POR 68; 2Leinsing ¶¶215-21. Petitioner does not, and indeed cannot, contest that obviously correct point.

Instead, the Reply recasts this as an argument that “Figures 9 and 75 depict the temporary fastener and definitive screw as having the same thread diameter,” meaning a POSA would need to know to “make the diameter smaller than depicted.” Reply 24 (emphasis omitted).

This latest version of the argument is even worse than the original. Nothing in the specification suggests its illustrations are to scale. Leinsing Dep. 136:11-12 (“patent figures are not meant to be scaled or sized”). In fact, the size disparity clearly shows they are *not*:



Ex-1001, FIGS. 9, 75 (relative sizes as in original).

C. There Is No Separate Enablement Argument

SDC explained why any separate enablement argument is insufficiently developed and waived. POR 68-70. Even if Petitioner had presented an enablement challenge, the Reply affirmatively argues that “in this case enablement and written description plainly ‘rise and fall together.’” Reply 25. It offers no separate *Wands* analysis. Petitioner thus admits that enablement adds nothing to its written-description analysis under Ground 2.

Because the specification describes the claimed species, it also enables each one. In other words, a POSA could make the disclosed embodiments without undue experimentation, as Brunski confirmed. Brunski Dep. 90:18-91:3, 191:14-192:3 (testifying polymer temporary screws with necessary threading could be produced from disclosed material).

VI. GROUNDS 3-4: THE CLAIMS ARE NOT OBVIOUS

A. Combining These References Would Not Meet All Limitations

Grounds 3-4 fail because Petitioner's proposed combinations, even if combined exactly as described, would still lack a key aspect of the invention: the inventive concept of a mismatch between (1) the temporary fastener's threading and (2) the definitive screw's or female abutment's threading, permitting the temporary fastener to be screwed, rotationally engaged, or torqued in and then pulled out. POR 72-77. This inventive concept is described in limitations 1(g)-(k), 6(g)-(j), 8(g)-(k), and 10(g), (i)-(k).

Neither Ground 3's Bernhard-Poovey-Gracco combination nor Ground 4's Bernhard-Poovey-Gracco-Derey combination supply any teaching or suggestion of, or reason to adopt, a mismatched thread profile. Bernhard and Poovey both use a ***matching threaded engagement***; Gracco uses self-tapping screws that create their own female threads, resulting in a ***matching threaded engagement***; and Derey is a ***non-threaded*** push-in snap-fit connector.

The Reply mischaracterizes SDC's arguments, saying they "attack the disclosures of the ... references individually." Reply 25. Not so. The critical issue is that Petitioner's proposed combinations supply no teaching of, or reason to adopt, a mismatched temporary-fastener thread profile. In part that is because no individual reference contains that teaching; in part it is because that inventive concept does not appear even if the references are combined. The Reply simply *assumes* a proposed Bernhard-Poovey-Gracco fastener would have threads mismatched to its abutment—but there is ***nothing*** in the prior art or proposed combinations to suggest or teach that critical feature.

Petitioner thus confirms SDC's point: Petitioner can reconstruct the claimed technology ***only*** by impermissibly using the patent as a blueprint, with "the distortion caused by hindsight bias." *KSR v. Teleflex*, 550 U.S. 398, 421 (2007); POR 81.

B. There is Still No Motivation to Combine

There is no motivation to combine these references. POR 77-80. Poovey already achieves axial release using a screw with the same threads as the definitive screw, simply made of flexible material. As Brunski conceded, Poovey "take[s] a screw that's ***exactly the same dimensions*** as the definitive screw" which releases "***without any ... mismatch*** between the screw threading." Brunski Dep. 193:24-194:11.

Petitioner’s rejoinders that reducing pull-out force is “a matter of degree” and solving a problem with one reference does not negate motivation to again solve it with another, Reply 26-27, miss the point. Rather, the problem is that a POSA with Poovey’s matched-thread solution would have no reason to turn to Gracco’s study about rigid, self-tapping bone screws, addressing a distinct problem in a different mechanical context. There is “no motivation or issue to be solved with the combination of Poovey and Bernhard to then now look at Gracco.” Leinsing Dep. 167:21-23.

Thus, *PACT* is irrelevant, because here Petitioner has not shown “that a relevant artisan would view the two existing approaches to a single problem as sufficiently interchangeable to motivate replacing one with the other.” *Apple v. Smart Mobile*, 2026 WL 550104, *7 (Fed. Cir. Feb. 27, 2026). “*PACT* does not foreclose the possibility that a proposed addition of features might be, as the Board found [in *Apple*], insufficiently motivated in light of the primary reference’s features.” *Id.* And it also does not apply here because Petitioner “generically rel[ies] on ‘improvement’ and ‘predictable, beneficial results’ without further explanation,” and so does not establish that Gracco was a “suitable option.” *CommScope v. TQ Delta*, 2023 WL 7491181, *9 (PTAB Nov. 13, 2023).

Moreover, the Reply nowhere denies its dependence on hindsight. Petitioner starts with the ’781 Patent’s central insight—using a fastener with different threads

to provide alignment and retention while allowing pullout—and then searches the prior art for components to reconstruct the result. The Petition itself describes the claimed temporary fastener as having “a different thread pattern than the ‘definitive screw’” while being “threaded into the abutment ... but then pulled out ... without being unscrewed.” Pet. 2. But Leinsing identified the inventive gap: “none of these combinations” achieve the claimed invention “because none of them are contemplating making all this work with a male thread that is different from the female thread.” Leinsing Dep. 168:2-6.

VII. CONCLUSION

The Board should find Petitioner failed to prove unpatentability as to all grounds.

Respectfully submitted,

Dated: July 24, 2026

By: /s/ Kelsey I. Nix
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Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), the undersigned certifies that the foregoing Patent Owner's Sur-Reply contains, as measured by the word-processing system used to prepare this paper, 5,465 words, which is within the limit set in 37 C.F.R. § 42.24(b)(2). This word count does not include the items excluded by 37 C.F.R. § 42.24.

Respectfully submitted,

Dated: July 24, 2026

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CERTIFICATE OF SERVICE

I hereby certify that on July 24, 2026, I caused a true and correct copy of the foregoing Patent Owner's Sur-Reply to be served via email on Petitioner at the following addresses:

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