

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOUGHBUILT INDUSTRIES, INC.,
Petitioner,
v.
MERIDIAN INTERNATIONAL CO., LTD.,
Patent Owner.

Case IPR2025-01462
Patent 11,192,689

**PATENT OWNER'S CONTINGENT MOTION TO AMEND
UNDER 37 C.F.R. § 42.121**

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2016	CN Patent Application No. 201922118361.7 to Cai (the “CN ’361 Application”)	May 14, 2026
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I. INTRODUCTION

Pursuant to 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121, Meridian submits this contingent motion to substitute proposed claims 21-40 for original claims 1-20 (collectively, the “Challenged Claims”) of U.S. Patent No. 11,192,689 (the “’689 Patent”) should the Board find any of the Challenged Claims to be unpatentable. In such an event, Meridian respectfully requests that the ’689 Patent be amended to include the corresponding proposed substitute claims (collectively, the “Substitute Claims”) attached in Appendix A. While Petitioner has the burden of showing that the amended claims are unpatentable over the prior art, Meridian nonetheless asserts that no combination of the prior art of record teaches or suggests the subject matter of the Substitute Claims. 37 C.F.R. § 42.121(d)(2); *see also Aqua Prods., Inc. v. Matal*, 872 F.3d 1290, 1324 (Fed. Cir. 2017) (en banc).

Meridian conferred with the Board on April 21, 2026, as required by 37 C.F.R. § 42.121(a). Meridian also requests nonbinding preliminary guidance from the Board on this Motion to Amend.

As explained below, Meridian satisfies the requirements for a motion to amend as set forth in 37 C.F.R. § 42.121 and *Western Digital Corp. v. SPEX Techs., Inc.*, IPR2018-00082, Paper No. 13 (P.T.A.B. Apr. 25, 2018) (informative) because the Substitute Claims: (1) do not impermissibly enlarge claim scope; (2)

correspond one-to-one with the Challenged Claims and therefore are a reasonable number of substitute claims; (3) do not introduce new subject matter; and (4) respond to a ground of unpatentability in the trial. Meridian has therefore satisfied its burden of production associated with the present Motion. 35 U.S.C. § 316(d); 37 C.F.R. § 42.121(d)(1).

II. STATEMENT OF THE PRECISE RELIEF REQUESTED

Meridian respectfully requests that the Board grant this Motion to Amend and substitute claims 21-40 for original claims 1-20 of the '689 Patent should the Board find any of the Challenged Claims to be unpatentable. The Board should not consider this motion for any Challenged Claims it finds patentable.

III. THE SUBSTITUTE CLAIMS MEET ALL THE REQUIREMENTS OF 37 C.F.R. § 42.121

As set forth below, the Substitute Claims meet all the requirements of 37 C.F.R. § 42.121. The Board should therefore consider whether the Substitute Claims are unpatentable by a preponderance of the evidence. *L&P Prop. Mgmt. Co. v. Remacro Mach. & Tech. Co., Ltd.*, 2019 WL 2521255, at *2, IPR2019-00255, Paper 15 at 6 (P.T.A.B. Jun. 18, 2019).

A. The Substitute Claims Do Not Enlarge The Claim Scope.

The Substitute Claims do not enlarge the claim scope. 35 U.S.C. § 316(d)(3); 37 C.F.R. § 42.121(a)(2)(ii). As shown in Appendix A, substitute

independent claim 21 limits corresponding original claim 1 by adding that “the second storage container comprises a slot with a support arm extending across a width of the slot perpendicular to the direction of travel of the slider, wherein the sliding mechanism is engaged with the support arm.” Substitute claim 22 limits corresponding original claim 2 by adding that the “slider compris[es] two insertion portions configured to engage with the locking groove.” Substitute claim 24 limits corresponding claim 4 by adding that “the slot is formed within the side surface of the second storage container.”

Substitute independent claim 34 limits corresponding original claim 14 by adding that “the sliding mechanism comprises a slider configured to move between the engaged and disengaged positions with respect to the locking groove, the slider having two insertion portions receivable within two reciprocal slots of the locking groove,” and that “the slider comprises at least one guiding slot positioned on a bottom side of the slider configured to cooperate with at least one guiding rib of the second storage container for constraining lateral movement of the slider with respect to the second storage container.” Substitute claim 35 further limits its corresponding original claim 15 by adding that “the support arm extend[s] across the slot perpendicular to the direction of travel of the slider.”

Both substitute independent claims 21 and 34 retain all limitations of their corresponding original claims 1 and 14. While limitations have been removed from substitute dependent claims 24, 35, and 38, corresponding to original claims 4, 15, and 18, the removed limitations are otherwise incorporated into the claims from which substitute claims 24, 35, and 38 depend such that the scope of the substitute claims have been narrowed. All other substitute dependent claims are amended for clarity in view of substitute claims 21, 22, 24, 34, 35, and 38, and/or to reflect new dependencies from the amended substitute claims.

The Substitute Claims therefore do not enlarge the scope of any original claim. *See* 37 C.F.R. § 41.121(a)(2)(ii).

B. Meridian Proposes A Reasonable Number of Substitute Claims.

A patent owner must “propose a reasonable number of substitute claims.” 35 U.S.C. § 316(d)(1)(B) and 37 C.F.R. § 42.121(a)(3). There exists a “presumption ... that only one substitute claim would be needed to replace each challenged claim.” 37 C.F.R. § 42.121(a)(3); 35 U.S.C. § 316(d)(1)(B); *Corning Optical Commc'ns RF, LLC v. PPC Broadband, Inc.*, 2014 WL 5477766, IPR2014-00441, Paper 19 at 3 (P.T.A.B. Oct. 30, 2014) (“The presumption is that only one substitute claim is needed for each original patent claim.”). As set forth in the claim listing attached at Appendix A, Meridian proposes only one substitute claim

for each Challenged Claim. Accordingly, Meridian presents a reasonable number of substitute claims.

C. The Substitute Claims Do Not Introduce New Matter.

As set forth in greater detail below in Section IV, the Substitute Claims are supported by the original applications to which the '689 Patent claims priority and therefore do not introduce new matter. *See* 37 C.F.R. § 42.121(a)(2)(ii).

D. The Substitute Claims Each Respond To One Or More Grounds Of Unpatentability In This Proceeding.

As set forth in greater detail below in Section VII, the Substitute Claims are responsive to one or more grounds of invalidity raised in this proceeding. *See* 37 C.F.R. § 42.121(a)(2)(i).

IV. THE SUBSTITUTE CLAIMS DO NOT ADD NEW SUBJECT MATTER

The '689 Patent issued on December 7, 2021 from U.S. Patent Application No. 16/846,878 (the "'878 Application") (**Exhibit 2015**), claiming priority to Chinese Patent Application No. 201922118361.7 (the "CN '361 Application") (**Exhibit 2016**)¹.

¹ An English language translation of the CN '361 Application is submitted herewith as **Exhibit 2017**, and all citations to the CN '361 Application are made with reference to the English translation.

The limitations Meridian proposes to add to the substitute claims come directly from the '689 Patent's original disclosure. This support can also be found in the '878 Application and the CN '361 Application. As demonstrated below and affirmed in the accompanying Declaration of Dr. Glenn E. Vallee, Ph.D., P.E., a POSA would have understood, based on the disclosure of the CN '361 Application, that the inventors possessed the substitute claims as of the filing date of the CN '361 Application, such that no new matter has been introduced by the amendments set forth in the Substitute Claims. (**Exhibit 2012**, ¶209.)

Support for the added limitation in substitute independent claim 21 that “the second storage container comprises a slot with a support arm extending across a width of the slot perpendicular to the direction of travel of the slider, wherein the sliding mechanism is engaged with the support arm” may be found in:

- Original claim 4 of the '689 Patent (**Exhibit 1001**, 12)
- Col. 3, lines 30-40 and col. 3, line 63 through col. 4, line 2 of the '689 Patent (**Exhibit 1001**, 11)
- Page 7, 3rd full paragraph through page 8, 1st partial paragraph of the CN '361 Application (**Exhibit 2017**, 10-11)
- FIG. 7 of the '689 Patent (**Exhibit 1001**, 6) and FIG. 7 of the CN '361 Application (**Exhibit 2017**, 18), which demonstrate that the slider moves in

a direction perpendicular to direction in which the support arm extends across the slot.

The added limitation in substitute claim 22 that the slider “compris[es] two insertion portions configured to engage with the locking groove, wherein the slider is configured to move” between engaged and disengaged positions may be found in:

- Col. 3, lines 26-30 and col. 4, lines 3-14 of the '689 Patent (**Exhibit 1001**, 11)
- Page 7, 3rd full paragraph and page 8, 1st full paragraph of the CN '361 Application. (**Exhibit 2017**, 10-11).

The added limitation in substitute claim 24 that “the slot is formed within the side surface of the second storage container” may be found in:

- Col. 3, lines 26-30 of the '689 Patent (**Exhibit 1001**, 11)
- Page 7, 3rd full paragraph of the CN '361 Application. (**Exhibit 2017**, 10)

The added limitation in substituted independent claim 34 that “the sliding mechanism comprises a slider configured to move between the engaged and disengaged positions with respect to the locking groove, the slider having two insertion portions receivable within two reciprocal slots of the locking groove, and wherein the slider comprises at least one guiding slot positioned on a bottom side

of the slider configured to cooperate with at least one guiding rib of the second storage container for constraining lateral movement of the slider with respect to the second storage container” may be found in:

- Original claim 15 of the '689 Patent (**Exhibit 1001**, 13)
- Col. 3, lines 13-30 and col. 4, lines 3-23 of the '689 Patent (**Exhibit 1001**, 11)
- Page 7, 3rd full paragraph through page 8, 2nd full paragraph of the CN '361 Application. (**Exhibit 2017**, 10-11).

The added limitation in substitute claim 35 that the “support arm extend[s] across the slot perpendicular to the direction of travel of the slider” may be found in:

- FIG. 7 of the '689 Patent (**Exhibit 1001**, 6) and FIG. 7 of the CN '361 Application. (**Exhibit 2017**, 18), which demonstrate that the slider moves in a direction perpendicular to direction in which the support arm extends across the slot.

All other substitute dependent claims are amended for clarity in view of substitute claims 21, 22, 24, 34, 35, and 38, and/or to reflect new dependencies from the amended substitute claims.

V. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art would have “at least the equivalent of an undergraduate degree in mechanical engineering, or a closely related field, and two years of industry or academic experience with connecting technologies or similar mechanisms, or an equivalent combination of education and experience. Additional relevant industry experience may compensate for lack of formal education or vice versa.” (**Exhibit 2012**, ¶30; *see also* **Exhibit 2011**, Declaration of John D. Pratt, Ph.D., P.E. at 2).

VI. CLAIM CONSTRUCTION

Meridian does not believe that any of the limitations added to the substitute claims require construction, and should be construed in accordance with their ordinary meaning. *In re Bass*, 314 F.3d 575, 577 (Fed. Cir. 2002). However, if Petitioner proposes a construction for any claim term, Meridian reserves the right to propose an alternative construction for that term.

VII. THE SUBSTITUTE CLAIMS RESPOND TO AND OVERCOME THE GROUNDS OF RECORD

The Substitute Claims respond to the grounds of unpatentability involved in the trial. 37 C.F.R. § 42.121(a)(2)(i). The burden of establishing the unpatentability of the amended claims is on Petitioner. 37 C.F.R. § 42.121(d)(2); *see also Aqua Products*, 872 F.3d at 1327-28. In any event, as set forth below, Meridian's claim

amendments overcome the grounds of record because they further distinguish the claims from the art of record.

A. Substitute Independent Claim 21 Is Patentable Over The Cited Art.

Petitioner challenged claim 1 of the '689 Patent as anticipated by, and obvious over, U.S. Publication No. 2007/0012694 to Duvigneau ("Duvigneau") (**Exhibit 1007**). (Petition, Paper 2 at 24-31 and 38-42). Petitioner further challenged claim 1 as being obvious over EP Publication No. 3492226 to Brocket ("Brocket") (**Exhibit 1005**) in view of U.S. Publication No. 2007/0215015 to Heinrichs et al. ("Heinrichs") (**Exhibit 1006**). (Petition, Paper 2 at 76-83). Meridian disagrees for the reasons set forth in its Patent Owner Response (the "Response"), filed concurrently herewith.

Nonetheless, substitute claim 21 is patentable over Duvigneau, Brocket, and/or Heinrichs for at least the foregoing reasons.

1. Substitute Claim 21 Is Patentable Over Duvigneau.

Duvigneau does not anticipate or render obvious substitute claim 21 because it fails to disclose or suggest a stackable storage system having first and second storage containers, where "the second storage container comprises a slot with a support arm extending across a width of the slot perpendicular to the direction of travel of the slider." (**Exhibit 2012**, ¶211.)

Petitioner alleges that Duvigneau provides two support arms within the slot (Petition, Paper 2 at 35-37), each support arm extending **along** the depth of the slot in a direction parallel with the direction of travel of the slider. These arms do not extend **across** the slot, nor are the arms perpendicular to the direction of travel of the slider. Petitioner's interpretation that the support arms of Duvigneau, extending **along** the length of the slot between the front and the back thereof, extend **across** the slot is contrary to the plain and ordinary meaning of the term "across," which Petitioner's expert confirmed. (**Exhibit 2014**, 62:9-22.) A POSA would recognize that a support arm extending "across" a slot would extend laterally between sidewalls of the slot, not longitudinally between the front and the back of the slot. (**Exhibit 2012**, ¶¶87-88.)

Petitioner's expert also conceded that the support arms of Duvigneau do not extend in a direction that is perpendicular to the direction of travel of the slider. (**Exhibit 2014**, 91:3-18.) Specifically, Petitioner's expert states that "the support arm runs the length of the slider" (**Exhibit 2014**, 91:9-17), which is parallel to the direction of travel thereof. Duvigneau therefore fails to teach or suggest a support arm perpendicular to the direction of travel of the slider.

For at least these reasons, substitute claim 21 is not anticipated by or obvious over Duvigneau.

2. Substitute Claim 21 is Patentable Over Brocket In View Of Heinrichs.

Brocket and Heinrichs do not render obvious substitute claim 21 because both references, alone or in combination, fail to teach or suggest that “the second storage container comprises a slot with a support arm extending across a width of the slot, perpendicular to the direction of travel of the slider, wherein the sliding mechanism is engaged with the support arm.” (**Exhibit 2012**, ¶¶212.)

As an initial matter, as described more fully in Response, Heinrichs is non-analogous art. Heinrichs describes an automated system for interlocking pallets, and is not in the same field of endeavor nor reasonable pertinent to the manual mechanisms for connecting two or more stacked storage containers described in the '689 Patent. In fact, Petitioner's expert conceded that Heinrichs is only relevant for the latching assembly it discloses, as “this is an element that [Petitioner] believe[s] illustrates [] that there is prior art that a POSA could use to combine with other patents to meet the specific claims of the ['689] patent.” (**Exhibit 2014**, at 57:4-18.)

Notwithstanding the fact that Heinrichs is non-analogous art, a POSA would not have had any reason to combine the teachings of Brocket and Heinrichs. This is conceded by Petitioner's expert, who stated that the only motivation to combine Brocket and Heinrichs is to identify features of the '689 Patent, and not for any

practical or technical purpose. (**Exhibit 2014**, 87:18-88:11.) The combination of Brocket and Heinrichs relies on hindsight from Meridian's disclosure rather than relying on the teachings of the Brocket and Heinrichs themselves as the basis for the asserted motivation to combine. *See In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988) ("There must be a reason or suggestion in the art for selecting the [modification], other than the knowledge learned from the applicant's disclosure"); *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 381 F.3d 1371, 1376 (Fed. Cir. 2004) ("[T]he suggestion to combine references must not be derived by hindsight from knowledge of the invention itself."). Petitioner's expert's conclusory assertions that a POSA could combine Brocket and Heinrichs is insufficient to support a conclusion that a POSA would actually do so. *Acoustic Tech, Inc. v. Itron Networked Sols., Inc.*, 949 F.3d 1366, 1375-1376.

Moreover, while Petitioner alleges that "[a] POSA would have had reason to modify Brocket to replace its locking mechanism with the locking mechanism taught by Heinrichs" because "the choice of locking mechanism would have been a matter of simple design choice" (Petition, Paper 2 at 80), substituting the pivotable latch of Brocket with the sliding catch mechanism of Heinrichs would render Brocket inoperable. M.P.E.P. § 2143.01(V); *see also In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984). A POSA would recognize that there is no feasible manner in

which the sliding catch mechanism of Heinrichs could be implemented on the storage container of Brocket in a manner that would be operable. (**Exhibit 2012**, ¶124.)

Furthermore, Petitioner alleges that the device 78 that pivots to move the locking bolt 72 teaches the claimed support arm, but this is not a support arm that extends across the width of a slot perpendicular to the direction of travel of the slider. The device 78 does not extend across a width of the beam 60 that Petitioner alleges teaches the “slot” of the ’689 Patent.² Rather, the device 78 extends partially from the top to the bottom of the beam 60 and necessarily cannot extend across the width of a slot. Indeed, Petitioner’s expert conceded that, for a component to be considered to “extend across” as space, it must extend entirely from one side to the other. (**Exhibit 2014**, 62:9-11.)

For at least these reasons, substitute independent claim 21 is not obvious over Brocket and Heinrichs.

B. Substitute Dependent Claim 22 Is Patentable Over The Cited Art.

Substitute claim 22 depends upon substitute claim 21 and therefore overcomes the cited prior art for the same reasons discussed above. Moreover,

² As discussed in the Response, Meridian does not believe that the beam 60 is a slot as Petitioner alleges.

substitute claim 22 is independently patentable over Duvigneau, Brocket, and Heinrichs.

1. Substitute Claim 22 Is Patentable Over Duvigneau.

Duvigneau does not anticipate or render obvious substitute claim 22 because it fails to disclose or suggest that the slider “compris[es] two insertion portions configured to engaged with the locking groove.” (**Exhibit 2012**, ¶213.)

The sliding latch 246 of Duvigneau has a single insertion portion: the body of the sliding latch 246. (**Exhibit 1007**, FIGS. 4B-6.) There is no component of the sliding latch 246 that could be considered analogous to the “two insertion portions” recited in substitute claim 22.

For at least these reasons, substitute claim 22 is not anticipated by or obvious over Duvigneau.

2. Substitute Claim 22 Is Patentable Over Brocket In View Of Heinrichs.

Brocket and Heinrichs do not render obvious substitute claim 22 because both references, alone or in combination, fail to disclose or suggest that the slider “compris[es] two insertion portions configured to engaged with the locking groove.” (**Exhibit 2012**, ¶214.)

Petitioner alleges that the locking bolt 72 of Heinrichs teaches the claimed “slider” (Petition, Paper 2, at 83-84), but the locking bolt 72 does not have two

insertion portions. Rather, the locking bolt 72 consists of a singular bolt or rod that engages with the interface fitting 90. (**Exhibit 1006**, FIGS. 3-4.) There is no component of the locking bolt 72 that could be considered analogous to the “two insertion portions” recited in substitute claim 22.

For at least these reasons, substitute claim 22 is not obvious over Brocket and Heinrichs.

C. Substitute Dependent Claim 24 Is Patentable Over The Cited Art.

Substitute dependent claim 24 depends upon substitute claim 21 and therefore overcomes the cited prior art for the same reasons discussed above. Moreover, substitute claim 24 is independently patentable over Duvigneau, Brocket, and Heinrichs.

1. Substitute Claim 24 Is Patentable Over Duvigneau.

Duvigneau does not anticipate or render obvious substitute claim 24 because it fails to disclose or suggest that “the slot is formed within the side surface of the second storage container.” (**Exhibit 2012**, ¶215.)

As discussed in the Response, the sliding latch 246 is not present on a second storage container. Rather, the sliding latch 246 is provided on a cover 180 that is separate and distinct from the base container 152. (**Exhibit 2012**, ¶¶64-65.) For at least this reason, the slot for holding the sliding latch 246 necessarily is not formed within the side surface of the **second storage container**. Nonetheless, even

if the cover 180 is considered part of the second storage container, which Meridian does not concede, the slot is not formed within the side surface thereof. (**Exhibit 2012**, ¶215.) The slot is formed within the top surface of the cover, or a top surface of the container. (**Exhibit 1007**, FIG. 5.)

For at least these reasons, substitute claim 24 is not anticipated by or obvious over Duvigneau.

2. Substitute Claim 24 Is Patentable Over Brocket In View Of Heinrichs.

Brocket and Heinrichs do not render obvious substitute claim 24 because both references, alone or in combination, fail to disclose or suggest that “the slot is formed within the side surface of the second storage container.”

Petitioner alleges that the slot of Heinrichs shown in annotated FIG. 2 of the Petition. (Petition, Paper 2, page 86.) However, this slot is not present in **the** side surface of a second storage container. A POSA would understand that, as described more fully in the Response, the side surface of the second storage container is a specific surface, and does not include any other surface or surfaces. (**Exhibit 2012**, ¶216.) Therefore, Petitioner's alleged slot, which includes components present on **multiple** surfaces, cannot be a slot formed within **the** side surface of the second storage container.

For at least these reasons, substitute claim 24 is not obvious over Brocket

and Heinrichs.

D. Substitute Dependent Claims 23 And 25-33 Are Patentable Over The Cited Art.

Substitute dependent claims 23 and 25-33 depend from substitute claim 21 and therefore overcomes the cited prior art for the same reasons discussed above. Moreover, substitute claims 23 and 25-33 are independently patentable over Duvigneau, Brocket, and Heinrichs. As set forth in the Response, none of U.S. Patent No. 4,974,740 to Niles et al. (“Niles”) (**Exhibit 1012**), U.S. Publication No. 2015/0151661 to Morel et al. (“Morel”) (**Exhibit 1008**), U.S. Patent No. 6,238,031 to Weng (“Weng”) (**Exhibit 1009**), U.S. Patent No. 4,576,307 to Frydenberg (“Frydenberg”) (**Exhibit 1011**), and/or U.S. Publication No. 2019/0002004 to Brunner et al. (“Brunner”) (**Exhibit 1010**) supplement the deficiencies of Duvigneau, Brocket, and Heinrichs.

E. Substitute Claim 34 Is Patentable Over The Cited Art.

Petitioner challenged claim 14 of the '689 Patent as anticipated by, or obvious over, Duvigneau. (Petition, Paper 2 at 38, 46.) Petitioner further challenged claim 14 as being obvious over Brocket in view of Heinrichs. (Petition, Paper 2 at 88.) Meridian disagrees for the reasons set forth in its Response.

Nonetheless, substitute claim 34 is patentable over Duvigneau, Brocket, and/or Heinrichs for the foregoing reasons.

1. Substitute Claim 34 Is Patentable Over Duvigneau.

Duvigneau does not anticipate or render obvious substitute claim 34 because it fails to disclose or suggest that “the slider [has] two insertion portions receivable within two reciprocal slots of the locking groove,” and that “the slider comprises at least one guiding slot positioned on a bottom side of the slider configured to cooperate with at least one guiding rib of the second storage container for constraining lateral movement of the slider with respect to the second storage container.” (**Exhibit 2012**, ¶215.)

First, Duvigneau does not teach or suggest a slider having two insertion portions receivable within two reciprocal slots of the locking groove. The sliding latch 246 of Duvigneau has a single insertion portion, the body of the sliding latch 246, for engaging with the depression 240 of the carrying bag 230, which consists of a single slot. (**Exhibit 1007**, FIGS. 5-6.)

Second, Duvigneau does not teach or suggest a slider having at least one guiding slot positioned on a bottom side of the slider configured to cooperate with at least one guiding rib of the second storage container for constraining lateral movement of the slider with respect to the second storage container. As discussed in the Response, Duvigneau and Frydenberg do not teach or suggest a slider having

a guiding slot configured to cooperate with a guiding rib of the second storage container to constrain lateral movement of the slider. (**Exhibit 2012**, ¶¶160-170.)

The structure of the sliding mechanism of Frydenberg is completely different from that of the '689 Patent. For example, the Petition alleges that cavity 36 cooperating with the rail 18 is comparable to the guiding slot and guiding rib (Petition, Paper 2 at 67), but the structure is the primary track that facilitates sliding motion of the sliding mechanism. Petitioner fails to articulate with any particularity the manner in which the cooperation between the cavity 36 and rail 18 restrains lateral motion of the sliding mechanism. The Petition only references the declaration of Dr. McCarthy in support of this position (Petition, Paper 2 at 67), but the McCarthy declaration does not even state how Frydenberg teaches that the cavity 36 and rail 18 restrain lateral movement, or that the cavity 36 and rail 18 inherently restrict lateral movement in any way (**Exhibit 1003**, at ¶¶ 243-248.)

Moreover, Petitioner alleges that the proposed modification of Duvigneau would have been obvious because “[a] POSA would have understood that lateral displacement of Duvigneau’s slider would inhibit its function.” (Petition, Paper 2, at 67.) However, there is no indication that the sliding latch 246 of Duvigneau is even capable of lateral displacement given the constraint within the slot in which it slides. Petitioner’s expert concedes that any conclusion that the sliding latch 246 of

Duvigneau is susceptible to lateral displacement is pure speculation. (**Exhibit 2014**, at 83:4-7.) Instead, Petitioner proposes combining Duvigneau and Frydenberg only “to [] meet the elements recited in Claims 9 and 10 [of the ’689 Patent],” and not to improve the function of Duvigneau. (**Exhibit 2014**, at 83:4-19.) A POSA would not have had any reason to modify Duvigneau as Petitioner alleges, as the system of Duvigneau is already inherently capable of preventing lateral displacement with its unmodified structure. (**Exhibit 2012**, ¶¶160-170.) The proposed modification in view of Frydenberg provides no structural or functional advantage and is clearly influenced by hindsight bias gleaned from the disclosure of the ’689 Patent. *Dow Chemical Co.*, 837 F.2d at 473; *Cardiac Pacemakers*, 381 F.3d at 1376. Petitioner’s expert’s conclusory assertions that a POSA could combine Brocket and Heinrichs is insufficient to support a conclusion that a POSA would actually do so. *Acoustic Tech, Inc. v. Itron Networked Sols., Inc.*, 949 F.3d 1366, 1375-1376.

For at least these reasons, substitute claim 34 is not anticipated by or obvious over Duvigneau.

2. Substitute Claim 34 Is Patentable Over Brocket In View Of Heinrichs.

Brocket and Heinrichs do not render obvious substitute claim 34 because both references, alone or in combination, fail to disclose or suggest that “the slider

[has] two insertion portions receivable within two reciprocal slots of the locking groove,” and “the slider comprises at least one guiding slot positioned on a bottom side of the slider configured to cooperate with at least one guiding rib of the second storage container for constraining lateral movement of the slider with respect to the second storage container.” (**Exhibit 2012**, ¶216.)

First, Petitioner alleges that the locking bolt 72 of Heinrichs teaches the claimed “slider” (Petition, Paper 2 at 83-84), but the locking bolt 72 does not have two insertion portions. Rather, the locking bolt 72 consists of a singular bolt or rod that engages with the interface fitting 90. (**Exhibit 1006**, FIGS. 3-4.) The interface fitting 90 also does not have two reciprocal slots for receiving two insertion portions therein—the interface fitting 90 has **a single opening** for receiving the locking bolt 72.

Second, Bocket and Heinrichs do not teach or suggest any features that read on the at least one guiding slot and the at least one guiding groove of substitute claim 34. Grounds 2A and 2B of the Petition are based on the proposed combination of Bocket and Heinrichs but are only applicable to claims 1-6 and 14-15. (*See* Petition, Paper 2 at 76-91.) Petitioner therefore concedes that Bocket and Heinrichs do not teach or suggest a slider having at least one guiding slot and a second storage container having at least one reciprocal guiding rib.

For at least these reasons, substitute independent claim 34 is not obvious over Brocket and Heinrichs.

F. Substitute Dependent Claim 35 Is Patentable Over The Cited Art.

Substitute dependent claim 35 depends upon substitute claim 34, and therefore overcomes the cited prior art for the same reasons discussed above. Moreover, substitute claim 35 is independently patentable over Duvigneau, Brocket, and Heinrichs.

1. Substitute Claim 35 Is Patentable Over Duvigneau.

Duvigneau does not anticipate or render obvious substitute claim 35 because it fails to disclose or suggest that the “support arm extend[s] across the slot perpendicular to the direction of travel of the slider.” (**Exhibit 2012**, ¶217.)

For at least the reasons discussed in Section VII.A.1, substitute claim 35 is not anticipated by or obvious over Duvigneau.

2. Substitute Claim 35 Is Patentable Over Brocket In View Of Heinrichs.

Brocket and Heinrichs do not render obvious substitute claim 35 because both references, alone or in combination, fail to disclose or suggest that the “support arm extend[s] across the slot perpendicular to the direction of travel of the slider.” (**Exhibit 2012**, ¶218.)

For at least the reasons discussed in Section VII.A.2, substitute claim 35 is not obvious over Brocket in view of Heinrichs.

G. Substitute Dependent Claims 36-37 And 39-40 Are Patentable Over The Cited Art.

Substitute dependent claims 36-37 and 39-40 depend upon substitute claim 34, and therefore overcomes the cited prior art for the same reasons discussed above. Moreover, substitute claims 36-37 and 39-40 are independently patentable over Duvigneau, Brocket, and Heinrichs. As set forth in the Response, none of Niles, Morel, Weng, Frydenberg, and/or Brunner supplement the deficiencies of Duvigneau, Brocket, and Heinrichs.

VIII. CONCLUSION

For the foregoing reasons, Meridian respectfully requests that, should any of the Challenged Claims be found unpatentable, the Board grant this contingent motion such that the '689 Patent is amended to include the corresponding substitute claims identified in the Claim Listing attached herewith as Appendix A.

Respectfully Submitted,

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Dated: May 14, 2026

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APPENDIX A
CLAIM LISTING

21. (substitute for claim 1, if found unpatentable) A stackable storage system comprising:

a first storage container configured and arranged to be selectively connected to a second storage container,

wherein the first storage container comprises of at least one locking groove and the second container comprises a sliding mechanism for selectively engaging the locking groove to connect and hold the first storage container to the second storage container, ~~and~~

wherein a portion of the sliding mechanism extends laterally away from a side surface of the second container when the sliding mechanism is disengaged from the locking groove and wherein the portion of the sliding mechanism is coplanar with the side surface of the second container when the sliding mechanism is engaged with the locking groove, and

wherein the second storage container comprises a slot with a support arm extending across a width of the slot perpendicular to the direction of travel of the slider, wherein the sliding mechanism is engaged with the support arm.

22. (substitute for claim 2, if found unpatentable) The stackable storage system of claim [[1]]21, wherein the sliding mechanism further comprises of a slider comprising two insertion portions configured to engage with the locking groove, wherein the slider is configured to move that moves between the engaged and disengaged position with respect to the locking

groove.

23. (substitute for claim 3, if found unpatentable) The stackable storage system of claim [[2]]22, wherein the slider has a side surface that is perpendicular to the direction of travel of the slider between the engaged and disengaged position with respect to the locking groove and the side surface of the slider is coplanar with the side surface of the second container when the slider is engaged with the locking groove.
24. (substitute for claim 4, if found unpatentable) The stackable storage system of claim [[3]]23, wherein ~~the second storage container further comprises of a slot in~~ slot is formed within the side surface of the second storage container ~~with a support arm extending across the slot, and~~ wherein the slider is engaged with the support arm to move between a locked position that corresponds to the engaged position of the locking groove and an unlocked position that corresponds to the disengaged position of the locking groove.
25. (substitute for claim 5, if found unpatentable) The stackable storage system of claim [[4]]24, wherein the support arm further comprises of a first engaging groove for holding the slider in the unlocked position and a second engaging groove for holding the slider in the locked position.
26. (substitute for claim 6, if found unpatentable) The stackable storage system of claim [[5]]25, wherein the first engaging groove is closer to the side surface of the second container than the second engaging groove.

27. (substitute for claim 7, if found unpatentable) The stackable storage system of claim ~~[[6]]~~26, wherein the slider further comprises of an elastic arm with an engaging protrusion that selectively engages the first engaging groove and the second engaging groove.
28. (substitute for claim 8, if found unpatentable) The stackable storage system of claim ~~[[7]]~~27, wherein the support arm further comprises at least one block comprising a bevel, and the slider further comprises of a recess with a sloped entry surface and a stopping surface for receiving the bevel and arresting outward movement of the slider wherein the stopping surface of the recess is parallel with the engaging protrusion of the elastic arm of the slider.
29. (substitute for claim 9, if found unpatentable) The stackable storage system of claim ~~[[4]]~~24, wherein the support arm and the slider further comprise a cooperating guide to constrain lateral movement of the slider with respect to the support arm.
30. (substitute for claim 10, if found unpatentable) The stackable storage system of claim ~~[[9]]~~29, wherein the cooperating guide is a guiding rib on the support arm that cooperates with a guiding slot on the slider which to constrain lateral movement of the slider with respect to the support arm.
31. (substitute for claim 11, if found unpatentable) The stackable storage system of claim ~~[[4]]~~24, wherein the second storage container further comprises of a guiding groove on each side of the support arm for receiving the slider and constraining lateral movement of the slider with respect to the support arm.

32. (substitute for claim 12, if found unpatentable) The stackable storage system of claim ~~[[4]]~~24, wherein the slot in the side surface of the container is described by two laterally spaced apart side surfaces, a second side surface perpendicular thereto, and a bottom surface perpendicular thereto, wherein the support arm is located across the slot between the two laterally spaced apart side surfaces and above the bottom surface and spaced apart from the second side surface for gripping and carrying the second storage container.
33. (substitute for claim 13, if found unpatentable) The stackable storage system of claim ~~[[12]]~~32, wherein the slot is in a lid of the second storage container.
34. (substitute for claim 14, if found unpatentable) A stackable storage container comprising:
- a second storage container configured and arranged to be selectively connected to a locking groove of a first storage container,
 - wherein the second container comprises a sliding mechanism for selectively engaging the locking groove of the first storage container to connect and hold the first storage container to the second storage container, and
 - wherein a portion of the sliding mechanism extends laterally away from a side surface of the second container when the sliding mechanism is disengaged from the locking groove and wherein the portion of the sliding mechanism is coplanar with the side surface of the second container when the sliding mechanism is engaged with the locking groove,

wherein the sliding mechanism comprises a slider configured to move between the engaged and disengaged positions with respect to the locking groove, the slider having two insertion portions receivable within two reciprocal slots of the locking groove, and

wherein the slider comprises at least one guiding slot positioned on a bottom side of the slider configured to cooperate with at least one guiding rib of the second storage container for constraining lateral movement of the slider with respect to the second storage container.

35. (substitute for claim 15, if found unpatentable) The storage container of claim ~~[[14]]~~34, ~~wherein the sliding mechanism further comprises of a slider that moves between the engaged and disengaged position with respect to the locking groove,~~ wherein the slider has a side surface that is perpendicular to the direction of travel of the slider between the engaged and disengaged position with respect to the locking groove and the side surface of the slider is coplanar with the side surface of the second storage container when the slider is engaged with the locking groove, and wherein the second storage container further comprises of a slot in the side surface of the container with a support arm extending across the slot perpendicular to the direction of travel of the slider, wherein the slider is engaged with the support arm to move between a locked position that corresponds to the engaged position of the locking groove and an unlocked position that corresponds to the disengaged position of the locking groove.
36. (substitute for claim 16, if found unpatentable) The storage system of claim ~~[[15]]~~35, wherein the support arm further comprises of a first engaging

groove for holding the slider in the unlocked position and a second engaging groove for holding the slider in the locked position, wherein the first engaging groove is closer to the side surface of the second container than the second engaging groove, and wherein the slider further comprises of an elastic arm with an engaging protrusion that selectively engages the first engaging groove and the second engaging groove.

37. (substitute for claim 17, if found unpatentable) The storage system of claim [[16]]36, wherein the support arm further comprises at least one block comprising a bevel, and the slider further comprises of a recess with a sloped entry surface and a stopping surface for receiving the bevel and arresting outward movement of the slider wherein the stopping surface of the recess is parallel with the engaging protrusion of the elastic arm of the slider.
38. (substitute for claim 18, if found unpatentable) The storage system of claim [[17]]37, wherein ~~the support arm and the slider further comprise a cooperating guide to constrain lateral movement of the slider with respect to the support arm, wherein the cooperating guide is a guiding rib~~ is provided on the support arm that cooperates with a guiding slot on the slider ~~which~~ to constrain lateral movement of the slider with respect to the support arm.
39. (substitute for claim 19, if found unpatentable) The storage system of claim [[15]]35, wherein the slot in the side surface of the container is described by two laterally spaced apart side surfaces, a second side surface perpendicular thereto, and a bottom surface perpendicular thereto, wherein the support arm is located across the slot between the two laterally spaced apart side surfaces

and above the bottom surface and spaced apart from the second side surface for gripping and carrying the second storage container.

40. (substitute for claim 20, if found unpatentable) The storage system of claim ~~[[15]]~~35, wherein the slot is in a lid of the second storage container.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing *Contingent Motion to Amend Under 37 C.F.R. §42.121* was served via electronic mail, per agreement of the parties, in its entirety, on Petitioner's attorneys of record in IPR2025-01462 on the date indicated below.

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