

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 PRELIMINARY RESPONSE

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. BACKGROUND	2
A. The Invention of the '689 Patent.....	2
B. The File History of the '689 Patent.....	2
C. Person of Ordinary Skill in the Art	3
III. CLAIM CONSTRUCTION	3
IV. ALLEGED PRIOR ART ASSERTED BY PETITIONER.....	4
A. The Alleged Prior Art Asserted By Petitioner Is Almost Entirely Secondary References That Are Non-Analogous Art..	5
1. Niles is not in the same field of endeavor as, or reasonably pertinent to, the '689 patent.....	6
2. Morel is not in the same field of endeavor as, or reasonably pertinent to, the '689 Patent.....	7
3. Weng is not in the same field of endeavor as, or reasonably pertinent to, the '689 Patent.....	9
4. Heinrichs is not in the same field of endeavor as, or reasonably pertinent to, the '689 Patent.....	11
B. The Remaining Alleged Prior Art Asserted by Petitioner	13
1. Duvigneau	13
2. Frydenberg	13
3. Brunner.....	13
4. Brocket.....	14

V.	ALLEGED PRIOR ART ASSERTED BY THE PETITIONER NEITHER ANTICIPATES NOR RENDERS OBVIOUS THE CLAIMS OF THE '689 PATENT.....	14
A.	Petitioner Fails To Establish A Reasonable Likelihood That Any Challenged Claim Is Unpatentable Over Duvigneau, Alone Or In Combination With Other Cited Art	14
1.	Ground 1A: Petitioner Fails To Show There Is A Reasonable Likelihood That Duvigneau Anticipates Claims 1-4 And 14-15.....	15
(a)	The cited art fails to disclose all elements of claims 1 and 14.....	16
(b)	The cited art fails to disclose all limitations of claim 2	20
(c)	The cited art fails to disclose all limitations of claim 3	21
(d)	The cited art fails to disclose all elements of claim 4	23
(e)	The cited art fails to disclose all limitations of claim 15.....	25
2.	Ground 1B: Petitioner Fails To Show That Claims 1-4 and 14-15 Are Obvious Over Duvigneau	25
3.	Grounds 1C: Petitioner Fails To Show That Claims 5-7 And 16 Are Obvious Over Duvigneau In View Of Niles.....	27
4.	Ground 1D: Petitioner Fails To Show That Claims 5-7 And 16 Are Obvious Over Duvigneau In View Of Morel.....	30
5.	Ground 1E: Petitioner Fails To Show That Claims 8 And 17 Are Obvious Over Duvigneau In View Of Morel And Wang	31
6.	Ground 1F: Petitioner Fails To Show That Claims 9-11 Are Obvious Over Duvigneau In View Of Frydenberg.	33

(f)	The cited art fails to disclose all limitations of claim 9	33
(g)	The cited art fails to disclose all limitations of Claim 11.....	35
7.	Ground 1G: Petitioner Fails To Show That Claims 12-13 And 19-20 Are Obvious Over Duvigneau In View Of Brunner.....	35
8.	Ground 1H: Petitioner Fails To Show That Claim 18 Is Obvious Over Duvigneau In View Of Morel, Weng, And Frydenberg	39
B.	Petitioner Fails To Establish A Reasonable Likelihood That Any Challenged Claim Is Unpatentable Over Brocket And Heinrichs, Alone Or In Combination With Other Cited Art....	40
1.	Ground 2A: Petitioner Fails To Show There Is A Reasonable Likelihood That Claims 1-4 And 14-15 Are Obvious Over Brocket In View Of Heinrichs	41
(a)	The cited art fails to disclose all limitations of claims 1 and 14.....	41
(b)	The cited art fails to disclose all limitations of claim 2.	43
(c)	The cited art fails to disclose all limitations of claim 3.	45
(d)	The cited art fails to disclose all limitations of claim 4.	45
(e)	The cited art fails to disclose all limitations of claim 15.	46
2.	Ground 2B: Petitioner Fails To Show That Claims 5-6 Are Obvious Over Brocket And Heinrichs, Further In View Of Morel.....	47
VI.	CONCLUSION.....	49

TABLE OF AUTHORITIES

Page(s)

Cases

<i>Airbus S.A.S. v. Firepass Corp.</i> , , 941 F.3d 1374 (Fed. Cir. 2019)	5
<i>AMP Plus, Inc. v. DMF, Inc.</i> , 131 F.4th 1320 (Fed. Cir. 2025)	27
<i>Biofrontera Inc. v. DUSA Pharms., Inc.</i> , IPR2018-01585, Paper 10 (Feb. 26, 2019).....	19
<i>Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.</i> , 381 F.3d 1371 (Fed. Cir. 2004)	29, 31, 33, 35, 43, 49
<i>Cuozzo Speed Techs., LLC v. Lee</i> , 579 U.S. 261 (2016).....	3
<i>In re Bigio</i> , 381 F.3d 1320 (Fed. Cir. 2004)	5
<i>In re Bond</i> , 910 F.2d 831 (Fed. Cir. 1990)	15, 20
<i>In re Dow Chem. Co.</i> , 837 F.2d 469 (Fed. Cir. 1988).	29
<i>In re Fine</i> , 837 F.2d 1071 (Fed. Cir. 1988)	28, 30, 32, 33, 36, 40, 44, 45, 47
<i>In re Gordon</i> , 733 F.2d 900 (Fed. Cir. 1984)	37, 42
<i>In re ICON Health & Fitness</i> , 496 F.3d 1374 (Fed. Cir. 2007).	5
<i>In re Translogic Tech., Inc.</i> , 504 F.3d 1249 (Fed. Cir. 2007)	3

<i>Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.</i> , 821 F.3d 1359 (Fed. Cir. 2016)	15
<i>Kinetic Concepts, Inc. v. Smith & Nephew, Inc.</i> , 688 F.3d 1342 (Fed. Cir. 2012)	27
<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	26-27
<i>LG Elecs., Inc. v. Cypress Semiconductor Corp.</i> , IPR2014-01343, Paper 7 (Feb. 9, 2015).....	3
<i>Microsoft Corp. v. Biscotti, Inc.</i> , 878 F.3d 1052 (Fed. Cir. 2017)	20, 21, 23, 25
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005)	20, 44
<i>SAS Inst., Inc. v. Iancu</i> , 584 U.S. 357 (2018).....	19
<i>Verdegaal Bros. v. Union Oil Co. of Cal.</i> , 814 F.2d 628 (Fed. Cir. 1987)	15, 19-20
<i>Xerox Corp. et al. v. Bytemark, Inc.</i> , IPR2022-00624, Paper No. 9 (Aug. 24, 2022) (precedential).....	26

Statutes

35 U.S.C. § 102	2, 3, 4, 15
35 U.S.C. § 103	4, 25, 27, 28, 30, 32, 33, 36, 40, 41, 47
35 U.S.C. § 112	2, 3
35 U.S.C. § 312(a)(3).....	14-15
35 U.S.C. § 314.....	14
35 U.S.C. § 318.....	19

Regulations

37 C.F.R. § 42.100(b)	3
-----------------------------	---

37 C.F.R. § 42.104(b)(4).....	16, 41, 48
-------------------------------	------------

Other Authority

M.P.E.P. § 2131 (Ninth ed., Rev. 01.2024).....	15, 20
M.P.E.P. § 2141.01 (Ninth ed., Rev. 01.2024).....	5
M.P.E.P. § 2143.01 (Ninth ed., Rev. 01.2024).....	37, 42
M.P.E.P. § 2143.03 (Ninth ed., Rev. 01.2024).....	26

UPDATED EXHIBIT LIST		
2001	Declaration of Ann G. Fort	Sept. 19, 2025
2002	<i>Meridian International v. ToughBuilt</i> Minutes of Hearing RE: Scheduling Conference (Docket No. 80)	Nov. 10, 2025
2003	March 24, 2025 PTAB Memo On IPR Proceedings	Nov. 10, 2025
2004	March 26, 2025 PTAB Memo on Interim Processes	Nov. 10, 2025
2005	<i>Meridian International v. ToughBuilt</i> First Amended Invalidity Contentions	Nov. 10, 2025
2006	Exemplary Meridian Product on Sale 2022	Nov. 10, 2025
2007	<i>Meridian International v. ToughBuilt</i> Declaration of Tony Kriz	Nov. 10, 2025
2008	<i>Meridian International v. ToughBuilt</i> Excerpts from Panosian Declaration	Nov. 10, 2025
2009	Interim Director Discretionary Processes	Nov. 10, 2025
2010	FAQs for Interim Processes	Nov. 10, 2025
2011	<i>Meridian International v. ToughBuilt</i> Declaration of John D. Pratt, Ph.D., P.E.	Presently Submitted

I. INTRODUCTION

This Petition should be denied, both on the basis of the compelling grounds for discretionary denial briefed in Paper 10, as well as for the reasons delineated herein.

As an initial matter, this Petition is emblematic of the overarching problems with *inter partes* review (“IPR”) proceedings. Congress’s goal in creating the IPR process was to “improve patent quality by providing a more efficient means to adjudicate patent validity issues” using a process that was faster and cheaper. *The Patent Trial and Appeal Board and Inter Partes Review*, Congress.Gov, R48016, (May 28, 2024).¹ In theory, the USPTO would consider whether the patent would still have issued if the art presented to it in the IPR had been presented during prosecution. And yet, the IPR process has become essentially a mini court case, relying heavily on bloated expert declarations and mini treatises interpreting the art, none of which would have been present during the original examination.

Here, Petitioner presents eight references and attempts to use the testimony of its expert as the glue to bring together non-analogous art to patch together an invalidity argument. Despite Petitioner’s (and its expert’s) best efforts, however,

¹ <https://www.congress.gov/crs-product/R48016#:~:text=Congress's%20stated%20aim%20when%20creating,the%20patent%20in%20that%20forum.>

none of the cited art, even when combined as Petitioner suggests, teach all of the elements of the claims of U.S. Patent No. 11,192,689 (the “’689 Patent”). As a result, the Petition fails to credibly argue that the ’689 Patent is invalid.

Because the Petition, therefore, does not have a “reasonable likelihood of success” of establishing that at least one of the claims of the ’689 Patent is unpatentable, institution should be denied.

II. BACKGROUND

A. The Invention of the ‘689 Patent

The ’689 Patent is directed to a novel stacked storage container latch, where a first container has a locking groove for receiving a sliding mechanism and a second container has a sliding mechanism, and where the sliding mechanism is selectively engaged with the locking groove to connect the two storage containers.

B. The File History of the ‘689 Patent

During prosecution of the ’689 Patent, the claims were initially rejected under 35 U.S.C. § 112 for lacking antecedent basis and under 35 U.S.C. § 102 as anticipated by Wang (CN 206841966). (Exhibit 1002 at 0112-0123.) The Examiner did, however, identify claims 5, 12, 16, and 19 as allowable if rewritten to overcome the § 112 rejection, noting that Wang did not teach a support arm as described in the ’689 Patent, nor did it teach the slot on the side surface of the container taught by the ’689 Patent. (*Id.*) In its response, Patent Owner amended

the claims to overcome the § 112 rejection and traversed the § 102 rejection. (*Id.* at 0142-0156.) Shortly thereafter, the Examiner filed a Notice of Allowability. (*Id.* at 0164-0166.)

C. Person of Ordinary Skill in the Art

A person of ordinary skill in the art would have had:

at least the equivalent of an undergraduate degree in mechanical engineering, industrial 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 2011**, Declaration of John D. Pratt, Ph.D., P.E.)

III. CLAIM CONSTRUCTION

The claims at issue must be construed according to their broadest reasonable interpretation. 37 C.F.R. §42.100(b); *Cuozzo Speed Techs., LLC. v. Lee*, 579 U.S. 261, 263 (2016). “Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure.” *LG Elecs., Inc. v. Cypress Semiconductor Corp.*, IPR2014-01343, Paper 7 at 5 (Feb. 9, 2015) (citing *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

Petitioner does not seek a specific construction of any terms, however. Instead, it states that “all claim terms should receive their plain and ordinary meaning in the context of the ’689 patent specification.” (Petition, Paper 2 at 7.) Patent Owner agrees that “plain and ordinary meaning” of the claims should apply.

IV. ALLEGED PRIOR ART ASSERTED BY PETITIONER

Petitioner discusses ten grounds of alleged unpatentability in its petition, based on combinations of eight prior art references:

Ground	Claims	Basis	References
1A	1-4, 14, 15	35 U.S.C. § 102	Duvigneau
1B	1-4, 14, 15	35 U.S.C. § 103	Duvigneau
1C	5-7, 16	35 U.S.C. § 103	Duvigneau and Niles
1D	5-7, 16	35 U.S.C. § 103	Duvigneau and Morel
1E	8, 17	35 U.S.C. § 103	Duvigneau, Morel, and Weng
1F	9-11	35 U.S.C. § 103	Duvigneau and Frydenberg
1G	12-13, 19-20	35 U.S.C. § 103	Duvigneau and Brunner
1H	18	35 U.S.C. § 103	Duvigneau, Morel, Weng, and Frydenberg
2A	1-4, 14, 15	35 U.S.C. § 103	Brockett and Heinrichs
2B	5-6	35 U.S.C. § 103	Brockett, Heinrichs, and Morel

(See Petition, Paper 2 at 8-9.)

**A. The Alleged Prior Art Asserted By Petitioner Is Almost Entirely
Secondary References That Are Non-Analogous Art**

Petitioner relies upon several references that cannot invalidate the '689 Patent because the references are non-analogous art. Specifically, none of Niles, Morel, Weng, or Heinrichs are analogous art, as these references do not pertain to mechanisms for attaching one stacked item to another.

A reference is analogous art to a claimed invention if: (1) the reference is from the same field of endeavor as the claimed invention; or (2) the reference is reasonably pertinent to the problem faced by the inventor. *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004); *see also* M.P.E.P. § 2141.01(a)(I) (Ninth ed., Rev. 01.2024). In determining the relevant field of endeavor, it is necessary to consider “explanations of the invention’s subject matter in the patent application, including the embodiments, function, and structure of the claimed invention.” *Airbus S.A.S. v. Firepass Corp.*, 941 F.3d 1374, 1380 (Fed. Cir. 2019) (*quoting Bigio*, 381 F.3d at 1325). And “[i]n order for a reference to be ‘reasonably pertinent’ to [a] problem, it must ‘logically [] have commended itself to an inventor’s attention in considering his problem.’” M.P.E.P. § 2141.01(a)(I), *quoting In re ICON Health and Fitness, Inc.*, 496 F.3d 1374, 1379-80 (Fed. Cir. 2007).

1. Niles is not in the same field of endeavor as, or reasonably pertinent to, the '689 patent.

U.S. Patent No. 4,974,740 (“Niles,” Exhibit 1012) is non-analogous art because it is neither in the same field of endeavor as, nor reasonably pertinent to, the subject matter of the claims of the '689 Patent. Niles is directed to a closure latch for a shipping case, and Petitioner fails to provide any explanation as to why Niles is analogous art aside from the general statement that “[e]ach prior art reference is analogous art in the same field and/or reasonably pertinent to the problems of the '689 Patent” because “they all disclose latching mechanisms for containers.” (Petition, Paper 2 at 8). This conclusory assertion that all the art cited in the Petition is analogous is entirely insufficient to support finding that Niles is analogous art that can be applied in Petitioner's invalidity assertions.

Niles is not in the same field of endeavor as the '689 Patent. Niles describes a closure latch for a shipping case, which is entirely different from a mechanism for attaching one stacked item to another. The '689 Patent repeatedly describes the structure and function of a mechanism for interlocking two stacked storage containers, and the advantages of using such a system to hold two or more containers together in this way. Taking into account the “explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention” provided throughout the '689

Patent, it cannot be said that Niles is in the same field of endeavor as the '689 Patent. The fact that Niles is generally related to storage solutions is insufficient to establish that Niles is in the same field of endeavor as the '689 Patent when the scope of the technology at issue (*i.e.*, mechanism for attaching one stacked item to another) is far more narrow.

Niles also is not reasonably pertinent to the problem faced by the inventor of the '689 Patent. That is, Niles would not “logically [] have commended itself to an inventor’s attention” in considering how to stack and interlock two or more storage containers. A closure latch for a shipping case is entirely different from the mechanisms described and claimed in the '689 Patent. A POSA would recognize the inherent differences between latches for closing doors or lids of storage containers and mechanisms for interlocking two or more storage containers together when stacked, such that a POSA would not have considered Niles to be relevant when seeking to develop the locking mechanism of the '689 Patent.

2. Morel is not in the same field of endeavor as, or reasonably pertinent to, the '689 Patent.

U.S. Pub. No. 2015/0151661 A1 (“Morel,” Exhibit 1008) is neither in the same field of endeavor as, nor reasonably pertinent to, the subject matter of the claims of the '689 Patent. Specifically, Morel is directed to a storage compartment with a moveable partition, and Petitioner fails to provide any explanation as to why

Morel is analogous art, aside from the general statement that “[e]ach prior art reference is analogous art in the same field and/or reasonably pertinent to the problems of the ’689 Patent” because “they all disclose latching mechanisms for containers.” (Petition, Paper 2 at 8). This conclusory assertion that all the art cited in the Petition is analogous is entirely insufficient to support finding that Morel is analogous art that can be applied in Petitioner’s invalidity assertions.

Morel is not in the same field of endeavor as the ’689 Patent. Morel describes a storage compartment with a moveable partition, which is entirely different from a mechanism for attaching one stacked item to another. The ’689 Patent repeatedly describes the structure and function of a mechanism for interlocking two stacked storage containers, and the advantages of using such a system to hold two or more containers together in this way. Taking into account the “explanations of the invention’s subject matter in the patent application, including the embodiments, function, and structure of the claimed invention” provided throughout the ’689 Patent, it cannot be said that Morel is in the same field of endeavor as the ’689 Patent. The fact that Morel is generally related to storage solutions is insufficient to establish that Morel is in the same field of endeavor as the ’689 Patent when the scope of the technology at issue (i.e., mechanism for attaching one stacked item to another) is far more narrow.

Morel also is not reasonably pertinent to the problem faced by the inventor of the '689 Patent. That is, Morel would not “logically [] have commended itself to an inventor’s attention” in considering how to stack and interlock two or more storage containers. A storage compartment with a moveable partition is entirely different from the mechanisms described and claimed in the '689 Patent. A POSA would recognize the inherent differences between moveable partitions such as those described in Morel and mechanisms for interlocking two or more storage containers together when stacked, such that a POSA would not have considered Morel to be relevant when seeking to develop the locking mechanism of the '689 Patent.

3. Weng is not in the same field of endeavor as, or reasonably pertinent to, the '689 Patent.

U.S. Patent No. 6,238,031 (“Weng,” Exhibit 1009) is neither in the same field of endeavor as, nor reasonably pertinent to, the subject matter of the claims of the '689 Patent. Specifically, Weng is directed to a sliding track assembly for a storage drawer, and Petitioner fails to provide any explanation as to why Weng is analogous art, aside from the general statement that “[e]ach prior art reference is analogous art in the same field and/or reasonably pertinent to the problems of the '689 Patent” because “they all disclose latching mechanisms for containers.” (Petition, Paper 2 at 8). This conclusory assertion that all the art cited in the

Petition is analogous is entirely insufficient to support finding that Weng is analogous art that can be applied in Petitioner's invalidity assertions.

Weng is not in the same field of endeavor as the '689 Patent. Weng describes a sliding track assembly for a drawer, which is entirely different from a mechanism for attaching one stacked item to another. The '689 Patent repeatedly describes the structure and function of a mechanism for interlocking two stacked storage containers, and the advantages of using such a system to hold two or more containers together in this way. Taking into account the "explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention" provided throughout the '689 Patent, it cannot be said that Weng is in the same field of endeavor as the '689 Patent. The fact that Weng is generally related to storage solutions is insufficient to establish that Weng is in the same field of endeavor as the '689 Patent when the scope of the technology at issue (i.e., mechanism for attaching one stacked item to another) is far more narrow.

Weng also is not reasonably pertinent to the problem faced by the inventor of the '689 Patent. That is, Weng would not "logically [] have commended itself to an inventor's attention" in considering how to stack and interlock two or more storage containers. A sliding track for a drawer is entirely different from the

mechanisms described and claimed in the '689 Patent. A POSA would recognize the inherent differences between sliding drawer tracks such as those described in Weng and mechanisms for interlocking two or more storage containers together when stacked, such that a POSA would not have considered Weng to be relevant when seeking to develop the locking mechanism of the '689 Patent.

4. Heinrichs is not in the same field of endeavor as, or reasonably pertinent to, the '689 Patent.

U.S. Pub. No. 2007/0215015 A1 ("Heinrichs," Exhibit 1006) is neither in the same field of endeavor as, nor reasonably pertinent to, the subject matter of the claims of the '689 Patent. Specifically, Heinrichs is directed to a system for automatically interlocking pallets, and Petitioner fails to provide any explanation as to why Heinrichs specifically is analogous art, aside from the general statement that "[e]ach prior art reference is analogous art in the same field and/or reasonably pertinent to the problems of the '689 Patent" because "they all disclose latching mechanisms for containers." (Petition, Paper 2 at 8). This conclusory assertion that all the art cited in the Petition is analogous is entirely insufficient to support finding that Heinrichs specifically is analogous art that can be applied in Petitioner's invalidity assertions.

Heinrichs is not in the same field of endeavor as the '689 Patent. Heinrichs describes an automated system for interlocking pallets. The '689 Patent repeatedly

describes the structure and function of a manual mechanism for interlocking two stacked storage containers, and the advantages of using such a system to hold two or more containers together in this way. Taking into account the “explanations of the invention’s subject matter in the patent application, including the embodiments, function, and structure of the claimed invention” provided throughout the ’689 Patent, it cannot be said that Heinrichs is in the same field of endeavor as the ’689 Patent. The fact that Heinrichs is generally related to interlocking mechanisms is insufficient to establish that Heinrichs is in the same field of endeavor as the ’689 Patent when the manner of implementation of the technology at issue (i.e., automatic vs. manual implementations) is entirely different.

Heinrichs also is not reasonably pertinent to the problem faced by the inventor of the ’689 Patent. That is, Heinrichs would not “logically [] have commended itself to an inventor’s attention” in considering how to stack and manually interlock two or more storage containers. An automatic interlocking system is entirely different from the mechanisms described and claimed in the ’689 Patent. A POSA would recognize the inherent differences between the automatic interlocking systems described in Heinrichs and manual mechanisms for interlocking two or more storage containers together when stacked, such that a

POSA would not have considered Heinrichs to be relevant when seeking to develop the manual locking mechanism of the '689 Patent.

B. The Remaining Alleged Prior Art Asserted by Petitioner

Petitioner relies upon four other references not discussed above.

1. Duvigneau.

U.S. Pub. No. 2007/0014694 A1 (“Duvigneau,” Exhibit 1007) discloses a “Portable Container Assembly” that specifically is wheeled and includes a locomoting handle, as well as at least one detachable container. Duvigneau does not, however, teach a “second storage container compris[ing] a sliding mechanism.” (Exhibit 1001 at 6:6-7.)

2. Frydenberg.

U.S. Patent No. 4,576,307 (“Frydenberg,” Exhibit 1011) is directed to “Separable Elements Held Together By a Sliding Latch.” It teaches a sliding mechanism, but the sliding mechanism it teaches is completely different from that of the claimed sliding mechanism.

3. Brunner.

U.S. Pub. No. 2019/0002004 A1 (“Brunner,” Exhibit 1010) is directed to a “Container Assembly,” which includes “at least two containers detachably attached to one another by locking arrangements.” (*Id.*, Abstract.) Brunner discloses a

container locking mechanism, but unlike the invention disclosed in the '689 Patent, the locking mechanism is separate from its slider mechanism.

4. *Brocket.*

EP3492226 B1 ("Brocket," Exhibit 1005) teaches a "Tool Container System." Brocket discloses a tool container system with a locking mechanism, but the locking mechanism taught by Brocket does not include the elements taught by the '689 Patent.

**V. ALLEGED PRIOR ART ASSERTED BY THE PETITIONER
NEITHER ANTICIPATES NOR RENDERS OBVIOUS THE
CLAIMS OF THE '689 PATENT**

**A. Petitioner Fails To Establish A Reasonable Likelihood That Any
Challenged Claim Is Unpatentable Over Duvigneau, Alone Or In
Combination With Other Cited Art**

Under 35 U.S.C. § 314, "[t]he Director may not authorize inter partes review to be instituted unless the Director determines that the information presented in the petition ... shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." Here, the Petitioner falls far short of its burden of demonstrating that "there is a reasonable likelihood" that at least one claim of the '689 Patent is unpatentable.

To demonstrate a reasonable likelihood, a petition must "identif[y], in writing and with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the

challenge to each claim...” 35 U.S.C. § 312(a)(3); *Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (stating that compliance with this requirement is “of the utmost importance”). However, Petitioner repeatedly fails to explain how or where each and every feature of the claims of the ’689 Patent is disclosed in the cited references, repeatedly fails to articulate how the cited references would be combined to arrive at the claims of the ’689 Patent, and repeatedly relies on improper, conclusory reasoning, unsupported by the references or even by the questionable declaration of its expert.

1. Ground 1A: Petitioner Fails To Show There Is A Reasonable Likelihood That Duvigneau Anticipates Claims 1-4 And 14-15.

Ground	Claims	Basis	References
1A	1-4, 14, 15	35 U.S.C. § 102	Duvigneau

Petitioner fails to provide a reasonable likelihood that one or more claims of the ’689 Patent are anticipated by Duvigneau.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The elements must be arranged as required by the claim.” M.P.E.P. § 2131, citing *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990). Petitioner fails to establish

a reasonable likelihood that each and every limitation of the challenged claims, as they are arranged and set forth in the claims, would be found to be present in Duvigneau, as required by 37 C.F.R. § 42.104(b)(4).

(a) The cited art fails to disclose all elements of claims 1 and 14.

Petitioner fails to show where each and every limitation of independent claims 1 and 14 are disclosed in Duvigneau.

First, Duvigneau does not disclose “a second storage container compris[ing] a sliding mechanism.” Petitioner alleges that the cover 180 of Duvigneau is part of the second storage container, such that the sliding latch 246 of the cover 180 is the sliding mechanism. However, Duvigneau states that:

The cabinet assembly 152 **further comprises** a tray member 170 formed with a peripheral rim 174 adapted for resting over top edge 158 of bucket 156 and further fitted with a carrying handle 176 to assist in removal thereof. Tray 170 is compartmented for storage of small articles such as screwdrivers, bolts, drilling bits, etc.

Mounted over the tray 170 there is a cover 180 fitted for assembly over the peripheral shoulder 174 of tray 170. Cover 180 has a top wall 182 depressed below its upper surface 186 and comprising a central handle 188 to facilitate transporting the base cabinet, at its closed position, e.g. over obstacles, etc., by lifting thereof.

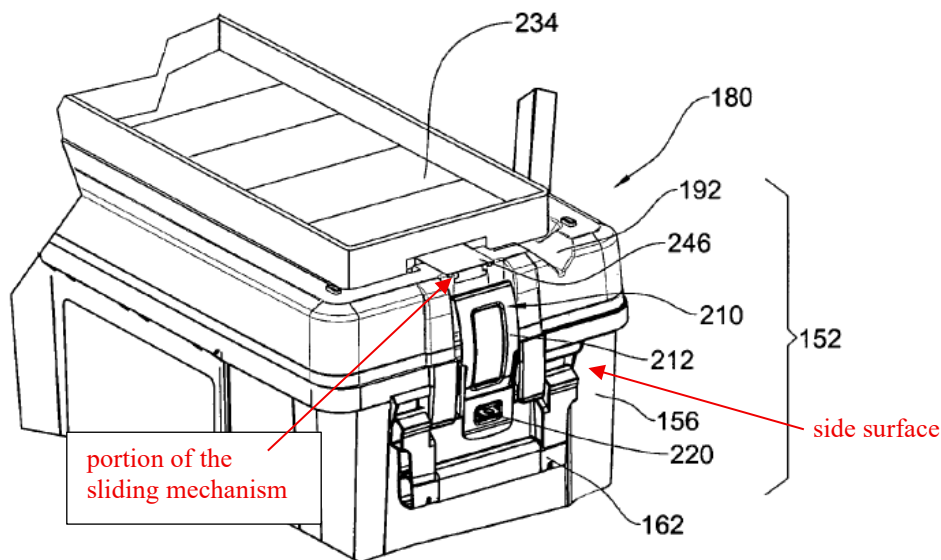
(Paragraphs [0051]-[0052], emphasis added). These passages make clear that, while the tray member 170 is a part of the cabinet assembly 152 (or the second storage container, as applied to claims 1 and 14), the cover 180 is a separate and distinct component that is not part of the assembly. As such, Duvigneau cannot be said to teach a second storage container that **comprises** a sliding mechanism as recited in claims 1 and 14, because the sliding latch 246 does not reside on a component of the cabinet assembly 152.

Second, Duvigneau does not teach that 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.” Petitioner relies on an unduly narrow interpretation of the term “side surface of the second container” that is contradictory to the plain and ordinary meaning thereof in alleging that this limitation of claims 1 and 14 is taught by Duvigneau.

A POSA would understand that the plain and ordinary meaning of “a side surface of the second storage container” is a side surface of the body of the storage container, *i.e.*, one of the four side walls of the storage container. While the storage container may include other surfaces, such as surfaces that define indents within or

protrusions from the primary walls of the container, these would not be considered “side surfaces” according to the plain and ordinary meaning of this term, interpreted in light of Applicant’s specification.

However, Petitioner alleges that the surface highlighted in blue in the annotation of Figure 6 is “the side surface” of the storage container (Petition, Paper 2 at 31), but this is not one of the four side walls of the container body. When actually looking at the side surface, as properly construed, a portion of the sliding mechanism is not coplanar with the side surface of the second container when the sliding mechanism is engaged with the locking groove. Rather, the portion of the sliding mechanism sits inward relative to the side surface.



(Duvigneau, FIG. 6).

For at least these reasons, Petitioner fails to establish a reasonable likelihood that independent claims 1 and 14 are anticipated by Duvigneau.² “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros.*,

² The case against institution for the dependent claims of the '689 Patent is so strong that, even if there is a reasonable likelihood that claims 1 and 14 are anticipated by Duvigneau (which Meridian does not concede), review should not be instituted solely on this basis. In an IPR, “[t]he Patent Office must ‘issue a final written decision with respect to the patentability of *any* patent claim challenged by the petitioner.’ 35 U.S.C. §318(a) (emphasis added). In this context, as in so many others, ‘any’ means ‘every.’ The agency cannot curate the claims at issue but must decide them all.” *SAS Inst., Inc. v. Iancu*, 584 U.S. 357, 359-60 (2018). When only a small percentage of claims might be invalid, denial is appropriate. *See Biofrontera Inc. v. DUSA Pharms., Inc.*, IPR2018-01585, Paper 10 at 14-16 (Feb. 26, 2019) (finding that where Petitioner has only shown a reasonable likelihood of success as to three of the nineteen claims, “full institution would not serve the just, speedy, and efficient administration of this proceeding or of the Office.”).

814 F.2d at 631. “The elements must be arranged as required by the claim.”

M.P.E.P. § 2131, citing *In re Bond*, 910 F.2d 831.

(b) The cited art fails to disclose all limitations of claim 2.

As an initial matter, Duvigneau cannot anticipate dependent claim 2 because claim 2 depends from claim 1, which is not anticipated. “[A] prior art reference must provide every element of the claimed invention arranged as in the claim in order to anticipate.” *Microsoft Corp. v. Biscotti, Inc.*, 878 F.3d 1052, 1069 (Fed. Cir. 2017). Because all of the elements of independent claim 1 must be present in dependent claim 2, for the reasons cited with regard to Claim 1, Duvigneau does not anticipate claim 2.

Moreover, Petitioner fails to show where each and every limitation of claim 2 is disclosed in Duvigneau, at least because Duvigneau does not teach that the “sliding mechanism further comprises of a slider.” According to the doctrine of claim differentiation, “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005). The recitation of a “slider” in claim 2 therefore necessarily further defines the structure of the “sliding mechanism” as recited in independent claim 1.

Petitioner, however, fails to consider the doctrine of claim differentiation in alleging that Duvigneau teaches the “slider” recited in claim 2. While Petitioner states that “Duvigneau discloses cover 180 of base cabinet 152 includes ‘a sliding latch 246’ (*“sliding mechanism”*), which comprises ‘a slider’ shown in red in annotated Figure 6,” the “slider” as annotated in Figure 6 is the entire sliding latch 246. (Petition, Paper 2 at 31-32). Petitioner fails to identify any manner in which the sliding latch 246 annotated in red, which is allegedly the “slider,” is different from the sliding latch 246 cited as allegedly teaching the sliding mechanism.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 2 is anticipated by Duvigneau.

(c) The cited art fails to disclose all limitations of claim 3.

As an initial matter, Duvigneau cannot anticipate dependent claim 3 because claim 3 depends from claim 2, which is not anticipated. “[A] prior art reference must provide every element of the claimed invention arranged as in the claim in order to anticipate.” *Biscotti, Inc.*, 878 F.3d at 1069. Because all of the elements of independent claim 1 and dependent claim 2 must be present in dependent claim 3, for the reasons cited with regard to claims 1 and 2, Duvigneau does not anticipate claim 3.

Moreover, Petitioner fails to show where each and every limitation of claim 3 is disclosed in Duvigneau, at least because Duvigneau does not teach that “the slider has a side surface that is perpendicular to the direction of travel of the slider” where “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.” (Exhibit 1001 at 6:22-28.)

As an initial matter, Duvigneau does not teach “a slider” as explained with respect to claim 2, and therefore necessarily cannot teach “a slider” as further defined in claim 3.

Nonetheless, similar to Meridian's arguments with respect to independent claim 1, Petitioner relies on an unduly narrow interpretation of the term “side surface of the second container” that is contradictory to the plain and ordinary meaning thereof. When interpreting the teachings of Duvigneau according to the proper meaning of “a side surface of the second storage container,” Duvigneau does not teach that 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. The side surface of the slider is coplanar with a surface of the container, but not the side surface thereof.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 3 is anticipated by Duvigneau.

(d) The cited art fails to disclose all elements of claim 4.

As an initial matter, Duvigneau cannot anticipate dependent claim 4 because claim 4 depends from claim 3, which is not anticipated. “[A] prior art reference must provide every element of the claimed invention arranged as in the claim in order to anticipate.” *Biscotti, Inc.*, 878 F.3d at 1069. Because all of the elements of independent claim 1 and dependent claims 2 and 3 must be present in dependent claim 4, for the reasons cited with regard to claims 1 and 2, Duvigneau does not anticipate claim 4.

In addition, Petitioner fails to show where each and every limitation of claim 4 is disclosed in Duvigneau, at least because Duvigneau does not teach that “the second storage container further comprises of a slot in the side surface of the container with a support arm extending across the slot.”

First, Petitioner relies on an unduly narrow interpretation of the term “support arm” that are contrary to the plain and ordinary meaning thereof when interpreted in light of Applicant’s specification. Petitioner alleges that Duvigneau provides two support arms within the slot, each support arm extending **along** the depth of the slot in a direction parallel with the direction of travel of the sliding

mechanism. This is incorrect. These arms do not extend **across** the slot. A POSA would recognize that the support arm, when interpreted in light of Applicant's specification, extends **across** **the width of the slot** in a direction **perpendicular to the direction of travel of the sliding mechanism**. The support arm provides a platform for the T-shaped tracks along which the sliding mechanism travels. The alleged "support arm" of Duvigneau, however, is more analogous to the T-shaped tracks themselves.

Petitioner also refers to Patent Owner's infringement contentions as further evidence in support of this interpretation, stating that the proposed interpretation of Duvigneau "is similar to Meridian's infringement contentions asserting ... that 'the support arm includes T-shaped tracks.'" (Petition, Paper 2 at 37). However, this argument is flawed and misleading. While Patent Owner's invalidity contentions do state that the slider engages with the support arm via the T-shaped tracks, the invalidity contentions are clear that the T-shaped tracks themselves are not the support arm. (Exhibit 1013 at Exhibit B-1, 18-19 (PDF pages 119-120).) The fact that the support arm comprises additional components, like the T-shaped tracks, which are allegedly taught by Duvigneau does not mean that the support arm itself is taught by Duvigneau as Petitioner seemingly concludes.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 4 is anticipated by Duvigneau.

(e) The cited art fails to disclose all limitations of claim 15.

As an initial matter, Duvigneau cannot anticipate dependent claim 15 because claim 15 depends from claim 14, which is not anticipated. “[A] prior art reference must provide every element of the claimed invention arranged as in the claim in order to anticipate.” *Biscotti, Inc.*, 878 F.3d at 1069. Because all of the elements of independent claim 14 must be present in dependent claim 14, for the reasons cited with regard to claim 14, Duvigneau does not anticipate claim 15.

Here, Petitioner fails to show where each and every limitation of claim 15 is disclosed in Duvigneau, for at least the reasons set forth with respect to claims 3 and 4 above.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 15 is anticipated by Duvigneau.

2. Ground 1B: Petitioner Fails To Show That Claims 1-4 and 14-15 Are Obvious Over Duvigneau.

Ground	Claims	Basis	References
1B	1-4, 14, 15	35 U.S.C. § 103	Duvigneau

Petitioner makes the conclusory statement that “[t]o the extent Patent Owner argues any element is not disclosed by Duvigneau, it was obvious,” but fails to set

forth any actual reasoning as to why independent claims 1-14, and the claims dependent thereon, are obvious over Duvigneau. Petitioner's only evidence in support of this conclusory assertion is the Declaration of Dr. McCarthy. (Exhibit 1003 at ¶¶ 179-195.) While Dr. McCarthy's assessment of obviousness spans 10 pages, Dr. McCarthy makes no more than conclusory statements that a POSA would find particular limitations of claims 1-4 and 14-15 to be obvious but fails to address any specific reasons why a POSA would have made the proposed modification, and merely repeats the conclusory assertions for which it is offered to support. The testimony of Dr. McCarthy is therefore entitled to little or no weight. *See Xerox Corp. et al. v. Bytemark, Inc.*, IPR2022-00624, Paper No. 9 at 15 (PTAB, Aug. 24, 2022) (precedential) (where declaration does not cite to any additional supporting evidence or provide any technical reasoning to support a statement, it is "conclusory and unsupported, adds little to the conclusory assertion for which it is offered to support, and is entitled to little weight.").

In order to render a claim obvious, every claim element must be taught in the prior art, and there must be a motivation to use the cited art to solve the problem at hand. *See* M.P.E.P. § 2143.03 ("Examiners must consider all claim limitations when determining patentability of an invention over the prior art."); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("As is clear from cases such as *Adams*,

a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.”); *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1366-67 (Fed. Cir. 2012).

Petitioner does not make such a showing, which is fatal to its argument. In reviewing the Petition, the Director and the Board are limited to the arguments raised by Petitioner in the Petition, and, as stated by the Board in the underlying *inter partes* review, “failure to direct [the Board] to evidence sufficient to establish” obviousness of a claim will mean that such an argument is not properly before the Director and the Board. *AMP Plus, Inc. v. DMF, Inc.*, 131 F.4th 1320, 1323-24 (Fed. Cir. 2025). “[T]he law of obviousness does not require the court, or the Board, to develop arguments for a limitation that the petition simply did not make.” *Id.* at 1325.

3. Grounds 1C: Petitioner Fails To Show That Claims 5-7 And 16 Are Obvious Over Duvigneau In View Of Niles.

Ground	Claims	Basis	References
1C	5-7, 16	35 U.S.C. § 103	Duvigneau and Niles

As an initial matter, Duvigneau and Niles cannot render obvious dependent claims 5-7 and 16 because they depend from claim 1 and claim 14, respectively,

neither of which is obvious. *In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988) (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Additionally, Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Duvigneau and Niles.

For example, Petitioner fails to show where each and every limitation of claim 5 is obvious over Duvigneau and Niles, at least because Duvigneau and Niles do not disclose or suggest that “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.”

Notwithstanding the fact that Niles is non-analogous art, neither of Duvigneau and/or Niles disclose a support arm with first and second engaging grooves. Niles discloses the use of flexible U-shaped slide 46 that slides along a T-shaped rail 30 to translate between an open state and an unlocked state. (Exhibit 1012 at 2:7-14). While the T-shaped rail 30 does include cavities (*i.e.*, the first cavity 100 and the second cavity 102) that engage with the latch bar 88 of the U-shaped slide 46 (*id.* at FIGS. 3-5), this is insufficient to invalidate claim 5 as suggested by Petitioner.

The connection systems of Duvigneau and Niles are entirely distinct, and a POSA would not have had any reason to look to Niles to supplement any alleged deficiency in Duvigneau. In alleges that it would have been obvious to look to Niles for evidence of “a mechanism used to retain the slider in the locked/unlocked positions” (Petition, Paper 2 at 47), Petitioner is clearly relying on hindsight from Meridian’s disclosure to conjure up a motivation to combine Duvigneau and Niles, rather than relying on the teachings of the references themselves. *In re Dow Chem. Co.*, 837 F.2d 469, 473 (Fed. Cir. 1988) (“[t]here 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) (“the suggestion to combine references must not be derived by hindsight from the knowledge of the invention itself”). Duvigneau does not disclose or suggest any reason why it is necessary to retain the slider in position via engaging grooves, and this deficiency is not supplemented by Niles at least because the latch assembly 12 thereof is structurally and functionally distinct from that of Duvigneau and the ’689 Patent.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 5 is obvious over Duvigneau and Niles.

Claims 6, 7, and 16 are not obvious over Duvigneau in view of Niles for at least the same reasons.

4. Ground 1D: Petitioner Fails To Show That Claims 5-7 And 16 Are Obvious Over Duvigneau In View Of Morel.

Ground	Claims	Basis	References
1D	5-7, 16	35 U.S.C. § 103	Duvigneau and Morel

As an initial matter, Duvigneau and Morel cannot render obvious dependent claims 5-7 and 16 because claims 5-7 depend from claim 1 and claim 16 depends from claim 14, neither of which is obvious. *In re Fine*, 837 F.2d at 1076 (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

In addition, Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Duvigneau and Morel.

For example, Petitioner fails to show where each and every limitation of claim 5 is obvious over Duvigneau and Morel, at least because Duvigneau and Morel do not disclose or suggest that “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.”

Notwithstanding the fact that Morel is non-analogous art, neither of Duvigneau and/or Morel disclose a support arm with first and second engaging grooves. At best, Morel only discloses the use of locking notches to hold a sliding element in place. (*See, e.g.*, Exhibit 1008 at FIG. 1). There is no disclosure of a sliding element to be held in an unlocked position or a locked position, via engaging grooves, as recited in claim 5.

Like with the combination of Duvigneau and Niles, Petitioner relies on hindsight from Meridian's disclosure rather than relying on the teachings of the Duvigneau and Morel themselves as the basis for the asserted motivation to combine. *Dow Chemical Co.*, 837 F.2d at 473; *Cardiac Pacemakers*, 381 F.3d at 1376. Neither reference discloses nor suggests any reason why it would be necessary to retain the slider of Duvigneau in position via engaging grooves.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 5 is obvious over Duvigneau and Morel.

Claims 6, 7, and 16 are not obvious over Duvigneau in view of Niles for at least the same reasons.

5. Ground 1E: Petitioner Fails To Show That Claims 8 And 17 Are Obvious Over Duvigneau In View Of Morel And Wang.

Ground	Claims	Basis	References
1E	8, 17	35 U.S.C. § 103	Duvigneau, Morel, and Weng

As an initial matter, Duvigneau, Morel, and Weng cannot render obvious dependent claims 8 and 17 because they depend from claim 1 and claim 14, respectively, neither of which is obvious. *In re Fine*, 837 F.2d at 1076. (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Moreover, Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Duvigneau, Morel and Weng.

For example, Petitioner fails to show how each limitation of claims 8 and 17 are obvious over Duvigneau, Morel, and Weng, at least because Duvigneau, Morel, and Weng do not disclose or suggest that “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.”

Notwithstanding the fact that Morel and Weng are non-analogous art, a POSA would not have had any motivation to combine Duvigneau, Morel, and/or Weng as alleged in the Petition. Petitioner relies on hindsight from Meridian's disclosure rather than relying on the teachings of Duvigneau, Morel, and Weng

themselves as the basis for the asserted motivation to combine. *Dow Chemical Co.*, 837 F.2d at 473; *Cardiac Pacemakers*, 381 F.3d at 1376.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claims 8 and 17 are obvious over Duvigneau, Morel, and Weng.

6. Ground 1F: Petitioner Fails To Show That Claims 9-11 Are Obvious Over Duvigneau In View Of Frydenberg.

Ground	Claims	Basis	References
1F	9-11	35 U.S.C. § 103	Duvigneau and Frydenberg

As an initial matter, Duvigneau and Frydenberg cannot render obvious dependent claims 9-11 because they depend from claim 1, which is not obvious. *In re Fine*, 837 F.2d at 1076 (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Duvigneau and Frydenberg.

(a) The cited art fails to disclose all limitations of claim 9.

Petitioner fails to show where each and every limitation of claim 9 is obvious over Duvigneau and Frydenberg, at least because Duvigneau and Frydenberg do not disclose or suggest that “the support arm and the slider further comprise a cooperating guide to constrain lateral movement of the slider with respect to the support arm.”

Specifically, Petitioner fails to articulate the manner in which lateral movement of the slider is constrained when combining the teachings of Duvigneau and Frydenberg as set forth in the Petition.

The structure of the sliding mechanism of Frydenberg is completely different from that of the '689 Patent. For example, the Petition alleges that the cavity 36 of the sliding mechanism is comparable to the “cooperating guide” of claim 9 (Petition, Paper 2 at 67), however this cavity 36, which cooperates with rail 18, 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 restrict 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. As such, 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. 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.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 9 is obvious over Duvigneau and Frydenberg.

Claim 10 is not obvious over Duvigneau in view of Frydenberg for at least the same reasons.

(b) The cited art fails to disclose all limitations of Claim 11.

Petitioner fails to show where each and every limitation of claim 11 is obvious over Duvigneau and Frydenberg, for at least the reasons set forth with respect to claim 9 above.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 11 is obvious over Duvigneau and Frydenberg.

7. Ground 1G: Petitioner Fails To Show That Claims 12-13 And 19-20 Are Obvious Over Duvigneau In View Of Brunner.

Ground	Claims	Basis	References
1G	12-13, 19-20	35 U.S.C. § 103	Duvigneau and Brunner

As an initial matter, Duvigneau and Brunner cannot render obvious dependent claims 12-13 and 19-20 because they depend from claim 1 and claim 14, respectively, neither of which is obvious. *In re Fine*, 837 F.2d at 1076 (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Petitioner fails to show where each and every limitation of claims 12 and 19 are disclosed or suggested in Duvigneau and Brunner, at least because neither reference discloses or suggests that the slot also defines “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.”

Regarding claims 12 and 19, Petitioner relies on an incorrect interpretation of the “support arm” as previously noted with respect to claim 4. Petitioner’s interpretation of the “support arm” is further evidenced as being incorrect when applied to claims 12 and 19, which require that “the support arm is located **across**

the slot **between** the two laterally spaced apart side surfaces. It is clear from the plain and ordinary meaning of the claim language, that the support arm **extends across the width of the slot, spanning the distance between the two laterally spaced apart side surfaces**, rather than just being located at a position within the slot between the two laterally spaced apart side surfaces as Petitioner alleges.

Claims 12 and 19 also require that the support arm is “spaced apart from the second side surface **for gripping and carrying the second storage container.**” Petitioner presents an annotated FIG. 5 where the alleged support arms and second side surfaces directly abut one another. (Petition, Paper 2 at 71). It is therefore unclear how, according to Petitioner’s interpretation, Duvigneau can be said to disclose or suggest a support arm that is **spaced** from a second side surface as recited in claims 12 and 19. Claims 12 and 19 specifically require that there is space between the support arm and the second side surface for gripping the container, which is not possible with the alleged combination of Duvigneau and Brunner. M.P.E.P. § 2143.01(V) (“If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, there may be no suggestion or motivation to make the proposed modification”); *see also In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984).

Petitioner also alleges that “Duvigneau-Brunner renders obvious [that] the **support arm** is *‘for gripping and carrying the second storage container.’*” (Petition, Paper 2 at 72 (emphasis added)). This is not what is recited in either claims 12 or 19. The claims state that the support arm is “spaced apart from the second side surface for gripping and carrying the second storage container.” In other words, it is **the space between the support arm and the second side surface** that allows one to grip and carry the storage container. The teaching of a storage container with one or more handles, as allegedly taught in Brunner, is insufficient to provide any teaching or suggestion of the specific means for gripping and carrying the storage container as recited in claims 12 and 19.

In addition, Claims 12, 13, 19, and 20 require that the slot have a certain construction. (Exhibit 1001 at 7:4-14, 8:29-39.) In order to support that this claim is present in Duvigneau, Petitioner relies upon a “cropped and annotated” image of Figure 5. But Figure 5, when shown in its entirety, does not also have a slider, as required by claim 4, from which these claims depend:

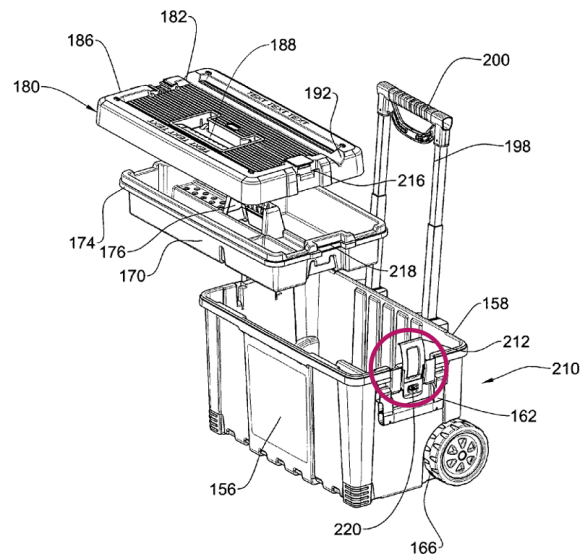


FIG. 5

The other cited art, U.S. 2019/0002004 (“Brunner”) suffers from the same problem; it discloses a container locking mechanism, but the locking mechanism is separate from its slider mechanism, and therefore neither reference teaches that the slot that the slider interacts with would have the disclosed construction. As a result, Petitioner has not cited art sufficient to invalidate claims 12-13 and 19-20.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claims 12 and 19 are obvious over Duvigneau and Brunner.

Claims 13 and 20 are not obvious over Duvigneau in view of Brunner for at least the same reasons.

8. *Ground 1H: Petitioner Fails To Show That Claim 18 Is Obvious Over Duvigneau In View Of Morel, Weng, And Frydenberg.*

Ground	Claims	Basis	References
1H	18	35 U.S.C. § 103	Duvigneau, Morel, Weng, and Frydenberg

As an initial matter, Duvigneau, Morel, Weng, and Frydenberg cannot render obvious dependent claim 18 because it depends from claim 14, which is not obvious. *In re Fine*, 837 F.2d at 1076 (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

In addition, Petitioner fails to show where each and every limitation of claim 11 is obvious over Duvigneau and Frydenberg, for at least the reasons set forth with respect to claims 9-11 above.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 11 is obvious over Duvigneau, Morel, Weng, and Frydenberg.

B. Petitioner Fails To Establish A Reasonable Likelihood That Any Challenged Claim Is Unpatentable Over Brocket And Heinrichs, Alone Or In Combination With Other Cited Art

As with Section V.A, the Petitioner falls far short of its burden of demonstrating that “there is a reasonable likelihood” that at least one claim of the ’689 Patent is unpatentable. Petitioner repeatedly fails to explain how or where each and every feature of the claims of the ’689 Patent is disclosed in the cited references, repeatedly fails to articulate how the cited references would be combined to arrive at the claims of the ’689 Patent, and repeatedly relies on

improper, conclusory reasoning, unsupported by the references or by the declaration of its expert.

1. Ground 2A: Petitioner Fails To Show There Is A Reasonable Likelihood That Claims 1-4 And 14-15 Are Obvious Over Brocket In View Of Heinrichs.

Ground	Claims	Basis	References
2A	1-4, 14, 15	35 U.S.C. § 103	Brocket and Heinrichs

Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Brocket and Heinrichs. Petitioner's analysis mischaracterizes the system disclosed in Brocket and Heinrichs, and fails to show that Brocket and Heinrichs teach or suggest each and every limitation of the challenged claims, as they are arranged as set forth in the claims, as or where each and every limitation of the challenged claims can be found in Brocket and Heinrichs, as required by 37 CFR §42.104(b)(4).

(a) The cited art fails to disclose all limitations of claims 1 and 14.

Petitioner fails to show where each and every limitation of claims and 14 is disclosed or suggested in Brocket in view of Heinrichs, at least because Brocket and Heinrichs do not disclose or suggest that “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, [] 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.”

Notwithstanding the fact that Heinrichs is non-analogous art, a POSA would not have had any motivation to combine Brocket and Heinrichs as alleged in the Petition.

First, Petitioners proposed combination of Brocket and Heinrichs is inoperable. 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 Gordon*, 733 F.2d at 902. 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.

Additionally, locking mechanism of Heinrichs does not even meet the limitations of the claimed locking mechanism. For example, Heinrichs does not disclose or suggest a “locking groove” for mating with the sliding mechanism. Petitioner alleges that the keyhole 74 teaches the “locking groove” but a POSA would recognize that the keyhole 74 has an entirely different structure from the claimed locking groove and therefore functions in an entirely distinct manner.

Moreover, the locking bolt 72 does not “extend laterally away from a side surface of the second container” within the meaning of claims 1 and 14. The locking bolt 72 extends towards the midline of the structure of Heinrichs, rather than away from the midline of the storage box as is implicit in the aforementioned limitation of claims 1 and 14.

Thus, in alleging that claims 1 and 14 are obvious over Brocket and Heinrichs, Petitioner undoubtably 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. *Dow Chemical Co.*, 837 F.2d at 473; *Cardiac Pacemakers*, 381 F.3d at 1376.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claims 1 and 14 are obvious over Brocket and Heinrichs.

(b) The cited art fails to disclose all limitations of claim 2.

As an initial matter, Brocket and Heinrichs cannot render obvious dependent claim 2 because it depends from claim 1, which is not obvious. *In re Fine*, 837 F.2d at 1076.

Petitioner fails to show where each and every limitation of claim 2 is disclosed or suggested in Brocket and Heinrichs, at least because Brocket and Heinrichs do not teach or suggest that the “sliding mechanism further comprises of a slider.” According to the doctrine of claim differentiation, “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1315. The recitation of a “slider” in claim 2 therefore necessarily further defines the structure of the “sliding mechanism” as recited in independent claim 1.

Petitioner, however, fails to consider the doctrine of claim differentiation in alleging that Duvigneau teaches the “slider” recited in claim 2. While Petitioner states that “[a] POSA would have understood locking bolt 72 teaches the claimed ‘slider’” (Petition, Paper 2 at 84), Petitioner also alleges that the locking bolt 72 teaches the “sliding mechanism” as recited in claim 1 (Petition, Paper 2 at 81-82). Petitioner fails to identify how the locking bolt 72 as applied as the slider is different in any way from the locking bolt as applied as the sliding mechanism.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 2 is obvious over Brocket and Heinrichs.

(c) The cited art fails to disclose all limitations of claim 3.

Petitioner fails to show where each and every limitation of claim 3 is disclosed or suggested in Brocket and Heinrichs, at least because Brocket and Heinrichs do not teach or suggest that “the slider has a side surface that is perpendicular to the direction of travel of the slider” where “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.

Brocket and Heinrichs do not teach or suggest “a slider” as explained with respect to claim 2, and therefore necessarily cannot teach “a slider” as further defined in claim 3.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 3 is obvious over Brocket and Heinrichs.

(d) The cited art fails to disclose all limitations of claim 4.

As an initial matter, Brocket and Heinrichs cannot render obvious dependent claim 4 because it depends from claim 1, which is not obvious. *In re Fine*, 837 F.2d at 1076.

Petitioner also fails to show where each and every limitation of claim 4 is disclosed or suggested in Brocket and Heinrichs, at least because Brocket and

Heinrichs do not teach or suggest that the “the second storage container further comprises of a slot in the side surface of the container with a support arm extending across the slot, 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.”

Petitioner alleges that the device 78 that pivots to move the locking bolt 72 teaches the claimed support arm, but it is unclear how this moving component can be considered a “support arm” within the meaning of claim 4. The structure of the device 78 is entirely distinct from the claimed support arm, at least because the device 78 is a movable component whereas the claimed support arm remains stationary. Moreover, the device 78 cannot be said to extend across a slot. Just because the device 78 is disposed within a beam 60 does not mean that it necessarily is within a “slot” as Petitioner alleges.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 4 is obvious over Brocket and Heinrichs.

(e) The cited art fails to disclose all limitations of claim 15.

As an initial matter, Brocket and Heinrichs cannot render obvious dependent claim 15 because it depends from claim 14, which is not obvious. *In re Fine*, 837 F.2d at 1076.

Petitioner fails to show where each and every limitation of claim 15 is disclosed or suggested in Brocket and Heinrichs, for at least the reasons set forth with respect to claims 3 and 4 above.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 15 is obvious over Brocket and Heinrichs.

2. Ground 2B: Petitioner Fails To Show That Claims 5-6 Are Obvious Over Brocket And Heinrichs, Further In View Of Morel.

Ground	Claims	Basis	References
2B	5-6	35 U.S.C. § 103	Brocket, Heinrichs, and Morel

As an initial matter, Brocket, Heinrichs, and Morel cannot render obvious dependent claims 5 and 6 because those claims depend from claim 1, which is not obvious. *In re Fine*, 837 F.2d at 1076 (“Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.”).

Moreover, Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Brocket, Heinrichs, and Morel. Petitioner's analysis mischaracterizes the system disclosed in Brocket, Heinrichs,

and Morel, and fails to show that Brocket, Heinrichs, and Morel teach or suggest each and every limitation of the challenged claims, as they are arranged as set forth in the claims, as or where each and every limitation of the challenged claims can be found in Brocket, Heinrichs, and Morel, as required by 37 CFR §42.104(b)(4).

Petitioner fails to establish a reasonable likelihood that one or more claims of the '689 Patent are obvious over Brocket, Heinrichs, and Morel.

For example, Petitioner fails to show where each and every limitation of claim 5 is obvious over Brocket, Heinrichs, and Morel, at least because Brocket, Heinrichs, and Morel do not disclose or suggest that “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.”

Notwithstanding the fact that Heinrichs and Morel are non-analogous art, none of Brocket, Heinrichs, and/or Morel disclose a support arm with first and second engaging grooves. At best, Morel only disclose the use of locking notches to hold a sliding element in place. (See, e.g., Exhibit 1008 at FIG. 1). There is no disclosure of a sliding element to be held in an unlocked position or a locked position, via engaging grooves, as recited in claim 5.

Petitioner relies on hindsight from Meridian's disclosure rather than relying on the teachings of the Brocket, Heinrichs, and Morel themselves as the basis for

the asserted motivation to combine. *Dow Chemical Co.*, 837 F.2d at 473; *Cardiac Pacemakers*, 381 F.3d at 1376. Neither reference discloses nor suggests any reason why it would be necessary to retain the slider of Brocket and Heinrichs in position via engaging grooves.

For at least these reasons, Petitioner fails to establish a reasonable likelihood that claim 5 is obvious over Brocket, Heinrichs, and Morel.

Claim 6 is not obvious over Brocket, Heinrichs, and Morel for at least the same reasons.

VI. CONCLUSION

None of the references identified by Petitioner contain all of the elements of independent claims 1 and 14 of the '689 Patent, and therefore these references fail to anticipate or render obvious any of the claims of the '689 Patent. Because Petitioner has failed to meet the "reasonable likelihood of success" standard that any of the claims of the '689 Patent are unpatentable, denial of institution is proper. Meridian, therefore, respectfully requests that the Director deny institution of *Inter Partes* Review of Claims 1-20 of the '997 Patent.

Dated: December 9, 2025

Respectfully Submitted,

Eversheds Sutherland (US) LLP

By: /Anna C. Halsey/

Anna C. Halsey (Reg. No. 73,960)

Ann G. Fort (admitted *pro hac vice*)

Lindsay M. Kriz (Reg. No. 79,726)

Jeremy D. Spier (Reg. No. 64,544)

EVERSHEDS SUTHERLAND (US) LLP

999 Peachtree St. NE, Suite 2300

Atlanta, GA 30309

(404) 853-8000

(404) 853-8806

Email: AnnaHalsey@eversheds-
sutherland.us

Email: AnnFort@eversheds-
sutherland.us

Email: LindsayKriz@eversheds-
sutherland.us

Email: JeremySpier@eversheds-
sutherland.us

Attorneys for Patent Owner

CERTIFICATION OF WORD COUNT

This Petition complies with the type-volume limitations as mandated in 37 C.F.R. § 42.24, totaling 10,539 words. Counsel has relied upon the word count feature provided by Microsoft Word.

Dated: December 9, 2025

By: /Anna C. Halsey/
Anna C. Halsey

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing *Patent Owner's Preliminary Response* 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.

Lead Counsel: Richard M. Bemben (Reg. No. 68,658)
Sterne, Kessler, Goldstein & Fox PLLC
1101 K Street, NW, 10th Floor
Washington, DC 20005
rbemben-PTAB@sternekessler.com
PTAB@sternekessler.com

Backup Counsel: Timothy L. Tang (Reg. No. 75,187)
Sterne, Kessler, Goldstein & Fox PLLC
1101 K Street, NW, 10th Floor
Washington, DC 20005
Ttang-PTAB@sternekessler.com

Dated: December 9, 2025

By: /Anna C. Halsey/
Anna C. Halsey