

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
U.S. Patent No. 11,192,689

**DECLARATION OF DR. J. MICHAEL MCCARTHY IN SUPPORT OF
PETITIONER'S OPPOSITION TO PATENT OWNER'S CONTINGENT
MOTION TO AMEND**

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ToughBuilt EX1035
ToughBuilt v. Meridian
IPR2025-01462

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I, Dr. J. Michael McCarthy, hereby declare as follows.

I. INTRODUCTION

1. I have been retained as an expert witness on behalf of ToughBuilt Industries, Inc. (“Petitioner” or “ToughBuilt”) for IPR2025-01462. I previously submitted a Declaration in support of the Petition (EX1003). This Declaration is in support of Petitioner’s Opposition to Patent Owner’s Contingent Motion to Amend.

II. MATERIALS CONSIDERED

2. In forming my opinions, I have considered the documents listed in my original declaration (EX1003, ¶16), as well as the documents listed below and any other documents cited in this declaration.

Exhibit No.	Description
1036	U.S. Patent Publication No. 2011/0000916 to Dane et al. (“Dane”)
1037	U.S. Patent Publication No. 2016/0236592 to Peniche et al. (“Peniche”)
1038	Deposition Transcript of Dr. Glenn Vallee (July 14, 2026)
1039	U.S. Patent Publication No. 2006/0273084 to Baker et al. (“Baker-084”)
1040	U.S. Patent Publication No. 2017/0250501 to Endo et al. (“Endo”)
1041	U.S. Patent No. 9,097,038 to Cohen (“Cohen”)

III. LEGAL UNDERSTANDING

3. My understanding of claim construction, anticipation, obviousness,

and a person of ordinary skill in the art (“POSA”) is set forth in my original declaration. *See* EX1003, ¶¶18-33.

4. I have also relied upon the following additional legal principle (as explained to me by ToughBuilt’s counsel) in formulating my opinions.

5. I understand that claims are required to be supported by a written description in the specification, which must reasonably convey to a person of ordinary skill in the art that the inventor had possession of the claimed subject matter as of the filing date.

IV. SUBSTITUTE CLAIMS 22, 24, AND 34 ARE UNPATENTABLE UNDER § 112(a) FOR LACK OF WRITTEN DESCRIPTION SUPPORT.

6. In my opinion, proposed claims 22, 24, and 34 fail to meet the written description requirement.

7. Proposed claim 22 recites that the slider comprises “two insertion portions configured to engage with the locking groove.” Patent Owner’s cited disclosure, EX1001, 3:26-30, 4:3-14, does not reasonably convey to a person of ordinary skill in the art that the inventor had possession of the newly claimed subject matter. Based on my review, the cited portions of the ’689 patent describe that “there are two spaced locking grooves ... to each receive an insertion portion.” EX1001, 3:26-30, FIG. 7 (illustrating two locking grooves). Thus, in my opinion, a person of ordinary skill in the art would have understood that the ’689 patent

describes two insertion portions engaging two separate locking grooves and not two insertion portions engaging a single “locking groove.” I agree with Dr. Vallee that each insertion point “would go into respective locking grooves.” EX1038, 186:6-16. In my opinion, claim 22, therefore, adds new matter not supported by the specification of the ’689 patent.

8. Proposed claim 24 recites “the slot is formed within the side surface of the second storage container.” In my opinion, Patent Owner’s cites disclosure, EX1001, 3:26-30, that does not reasonably convey to a person of ordinary skill in the art that the inventor had possession of the newly claimed subject matter. Based on my review, this passage only states that the locking grooves are “at the lower end of the outer side of the first storage container.” EX1001, 3:26-30. A person of ordinary skill in the art would not have understood this to disclose that the slot is “formed within the side surface” of the second storage container. Thus, in my opinion, claim 21 adds new matter not supported by the specification of the ’689 patent.

9. Proposed claim 34 recites “the slider having two insertion portions receivable within two reciprocal slots of the locking groove.” As I explain for claim 22, the ’689 patent describes only two insertion portions of a slider that are received within two separate locking grooves. A person of ordinary skill in the art would not have understood from this disclosure that the inventor had possession of

the newly claimed subject matter of a single locking groove with two reciprocal slots. EX1001, 3:25-30, FIG. 7. Thus, claim 34 adds new matter not supported by the specification of the '689 patent.

10. For all these reasons, it is my opinion that the specification does not reasonably convey possession of the newly claimed subject matter of these claims.

V. BACKGROUND OF THE TECHNOLOGY

11. Based on my review, Patent Owner's proposed substitute claims essentially add just two limitations to the original claims: (1) a limitation that the support arm extends across the slot "*perpendicular to the direction of travel of the slider*" (proposed independent claims 21 and dependent claim 35); and (2) a limitation that the slider comprises "*two insertion portions receivable within two reciprocal slots of the locking groove*" (proposed independent claim 34, and similar limitation recited in proposed claim 22). In my opinion, both features were well known in the prior art at the time of filing of the '689 patent.

1. Sliding mechanisms engaged with a support arm extending across a slot perpendicular to the direction of travel of a slider were well known.

12. Before the '689 patent, it was a well-known arrangement in the art for a sliding mechanism to engage with a support arm extending across a width of a slot perpendicular to the direction of travel of a slider in a storage container. This feature improved the durability of the connection of a sliding mechanism to the

container and provided a backstop to prevent overextension of the slider.

13. For example, Baker describes a slide latch 24, including a body 26 that can be attached to a lid, and a slide member 27 slidably coupled to body 26. EX1021, ¶42. Slide member 27 has a slide lip 28 configured to engage the sidewall of a container to attach the lid to the container. EX1021, ¶42, FIG. 26. Body 26 includes an opening 85.

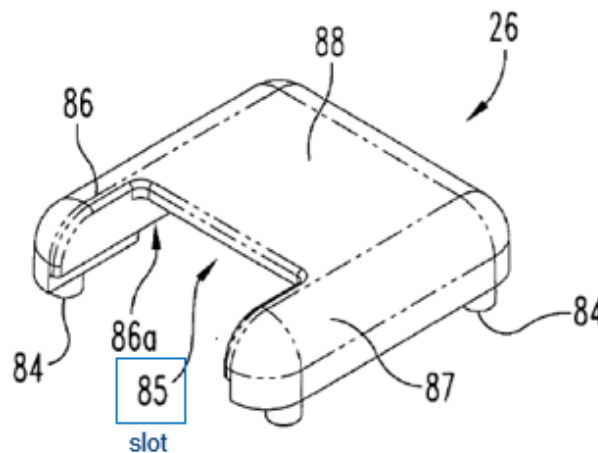
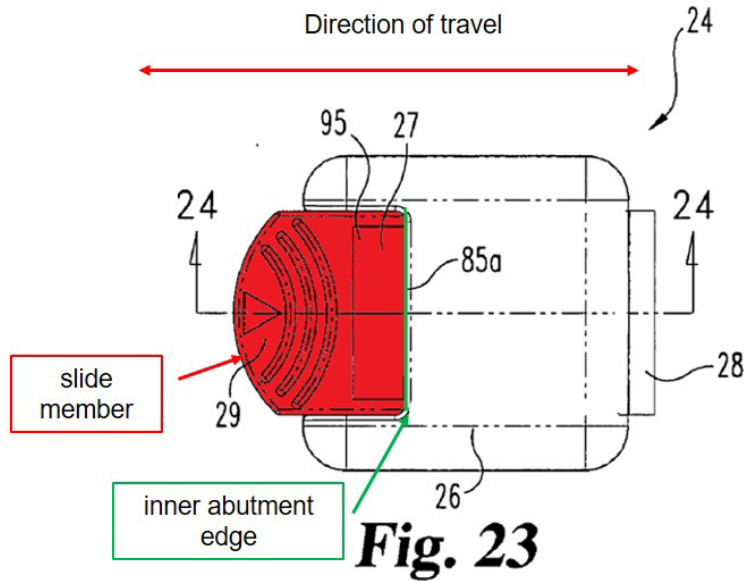


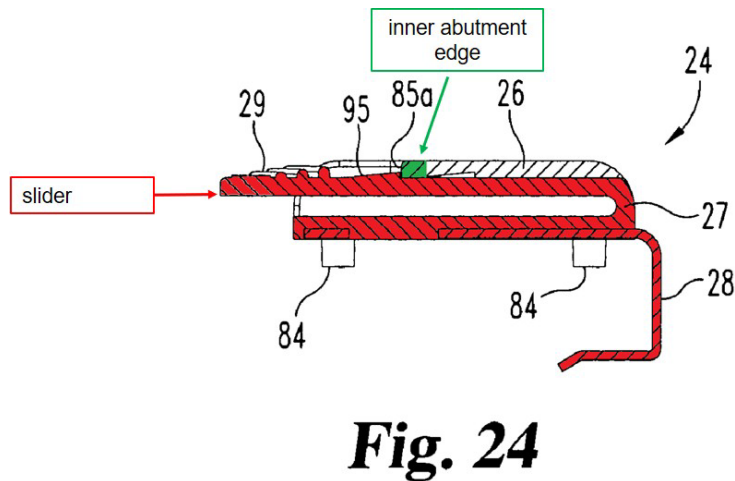
Fig. 29

EX1021 (Baker), FIG. 29 (annotated).

14. Body 26 also includes an inner abutment edge 85a that extends across a width of opening 85 perpendicular to the direction of travel of slide member 27. EX1021, ¶58, FIG. 23.



EX1021 (Baker), FIG. 23 (annotated).



EX1021 (Baker), FIG. 24 (annotated).

15. Slide member 27 includes a raised portion 95 that contacts abutment edge 85a when slide member 27 is in its retracted position with respect to body 26. EX1021, ¶¶60, 62. As shown in Figure 28 of Baker (Exhibit 1021), reproduced below, slide member 27 is engaged with abutment edge 85a via its direct contact,

and also engaged with abutment edge 85a via its sliding connection to body 26, which forms opening 85. A second raised portion of slide button 29 contacts the abutment edge 85a when slide member 27 is in its extended position with respect to body 26, as illustrated in annotated Figure 28 of Exhibit 1021 below.

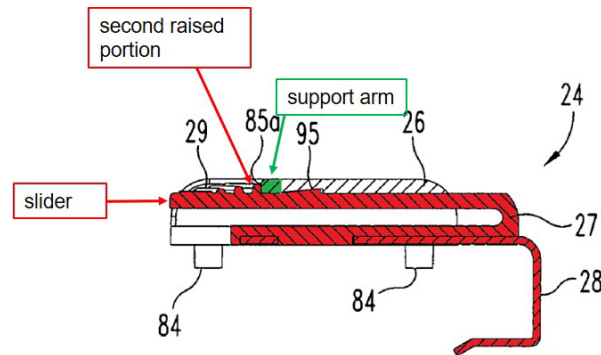
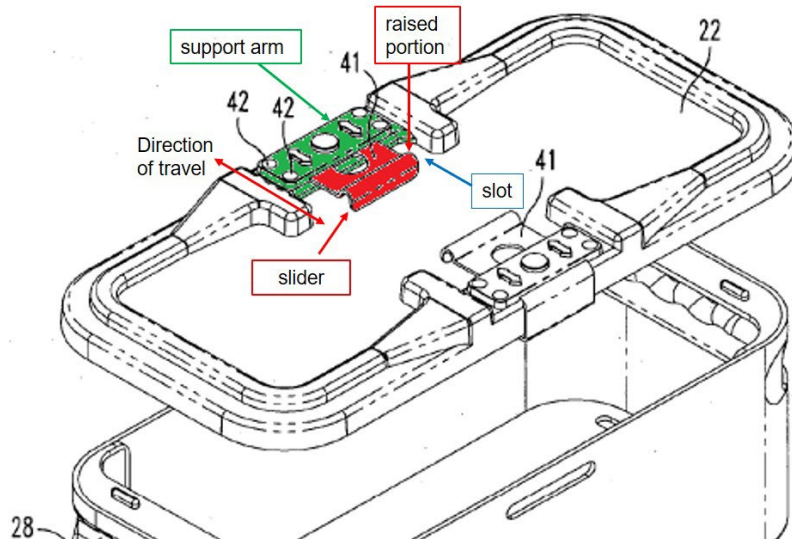


Fig. 28

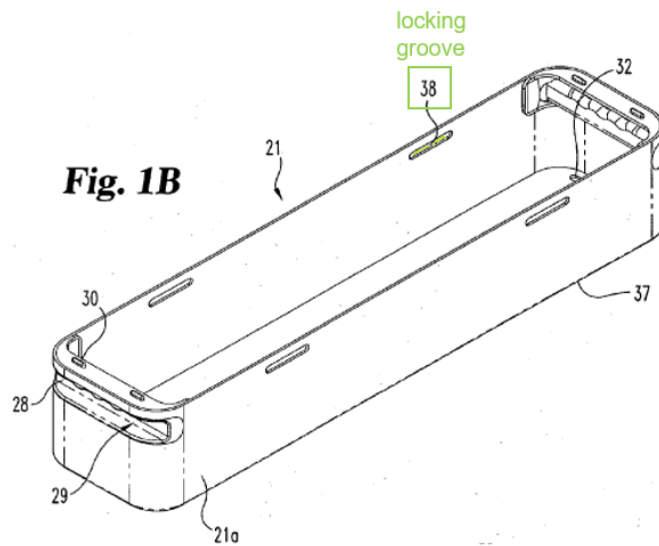
EX1021 (Baker), FIG. 28 (annotated).

16. Accordingly, abutment edge 85a enables greater security of slide member 27, particularly in its extended position. For example, contacting the abutment edge (a support arm) as shown in annotated Figure 28 of Baker (Exhibit 1021) can prevent additional extension (e.g., complete removal) of slide member 28 past its extended position with respect to body 26.

17. Additionally, Baker-084 describes a slide latch 41 that can be attached to a lid 22. EX1039, ¶¶72-73. Slide latch 41 includes a movable slide portion with a lip configured to fit into a corresponding slot 38 to attach the lid to the container. EX1039, ¶73, FIGs. 1B, 3.



EX1039 (Baker-084), FIG. 3 (cropped, annotated).



EX1039 (Baker-084), FIG. 1B (annotated).

18. Slide latch 41 is engaged with the support arm, as shown in annotated Figure 3 of Baker-084, EX1039, FIG. 3 (above), which extends across a slot in lid 22 perpendicular to the direction of travel of the movable slide portion. Baker-084 describes that “[e]ach slide latch is attached to lid 22, preferably by the use of four

rivets 42. These same rivets also secure together several component parts that comprise slide latch 41.” EX1039, ¶72. Accordingly, the support arm provides greater stability and security to the attachment of the movable slide portion to lid 22 in Baker-084.

19. Further, when slide latch 41 is in its extended position such that the lip is not positioned inserted into a corresponding slot, its raised portion (shown above in annotated Figure 3 of Exhibit 1039) abuts the support arm to prevent further extension of slide latch 41. Accordingly, the support arm can further prevent additional extension (e.g., complete removal) of the movable slide portion past its extended position with respect to lid 22.

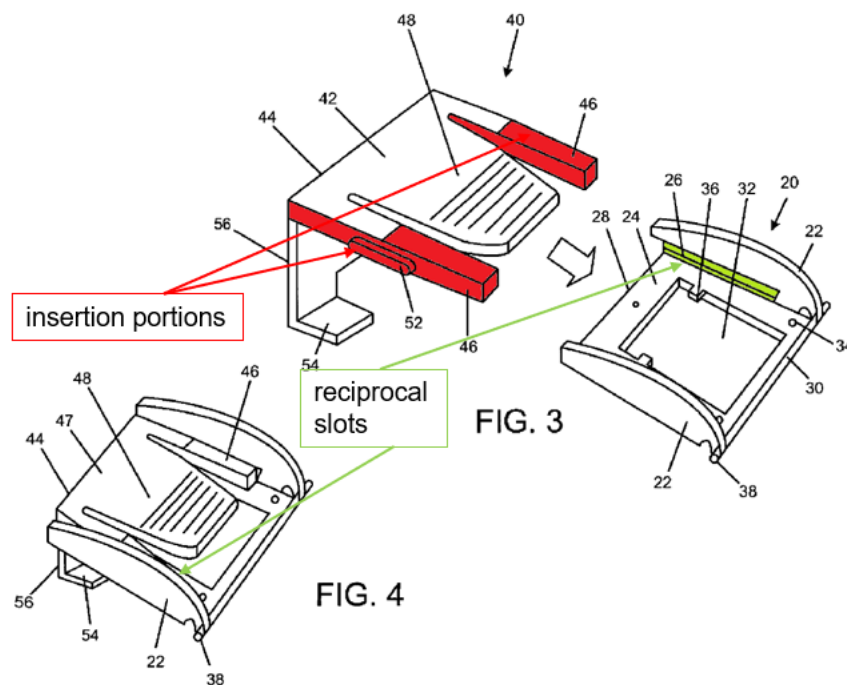
20. Accordingly, the use of a support arm extending across a slot perpendicular to the direction of travel was well known. Such structures routinely enhanced the general structural integrity of the support architecture by providing a bracing structure and served as stopping mechanisms to prevent overextension of sliding latches.

2. Sliding mechanisms including two insertion portions receivable within two reciprocal slots of a locking groove were well known.

21. Before the '689 patent, it was well known in the art that a sliding mechanism included two insertion portions receivable within two slots. This feature improved alignment of a sliding mechanism with a groove into which the

sliding mechanism was inserted. Additionally, this feature was a design choice that constituted no more than an obvious variation of a sliding mechanism.

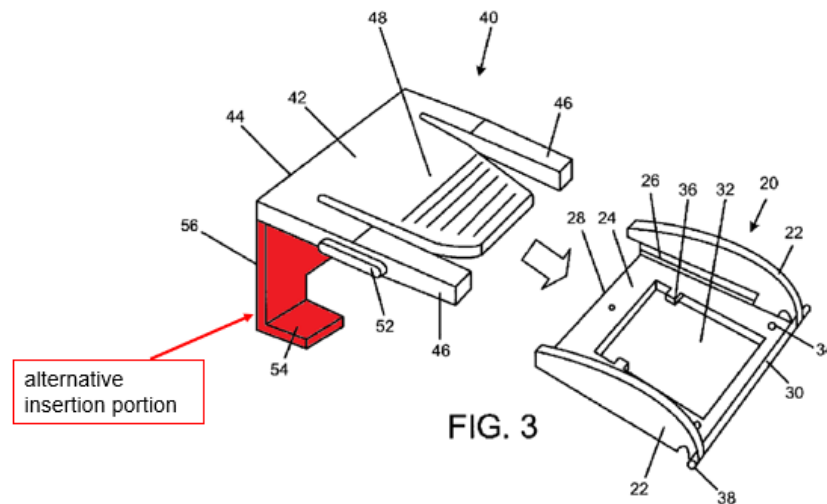
22. For example, Dane describes a latch mechanism 16 having a guide part 20 and a slide part 40. EX1036, ¶19. Slide part 40 includes two slide rail support structures 46, each having a sliding rail 52 that can be received within a reciprocal guiding rail 26. EX1036, ¶22.



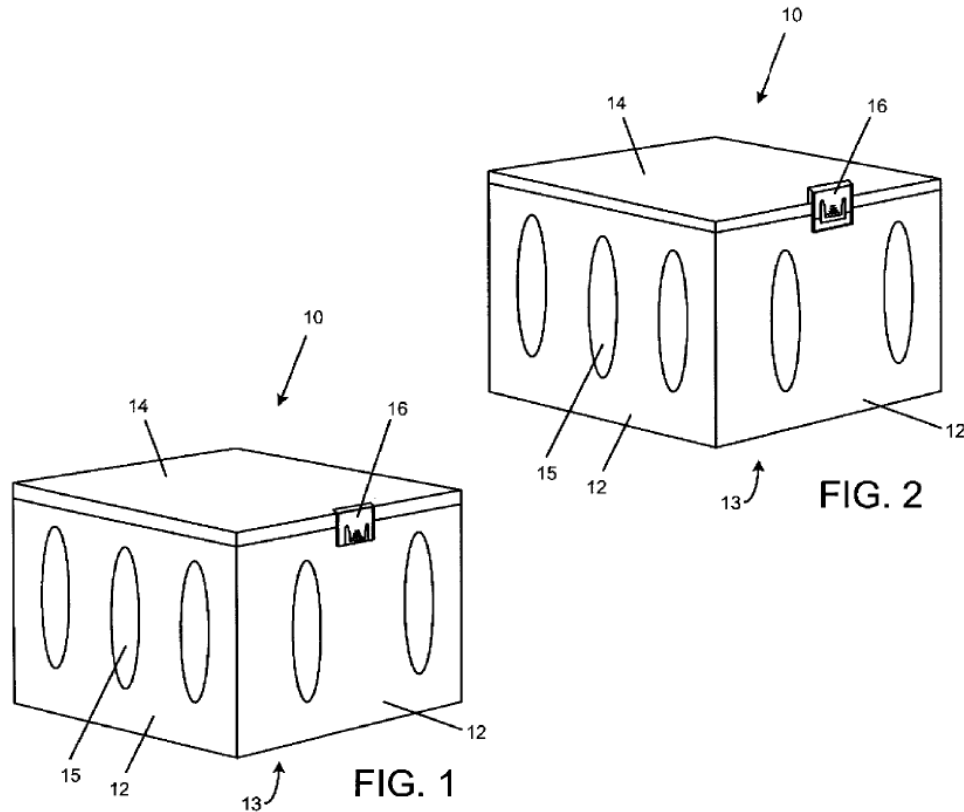
EX1036 (Dane), FIGs. 3-4 (annotated).

23. Dane describes that “sliding rail 52 is positioned to be received by the guiding rail 26 of the guide part. Once received by the guide part 20, the sliding rail 52 may be substantially shifted in the forward and backward directions, in respect to the front end 28 and the rear end 30 of the guide part 20.” EX1036, ¶22.

24. In addition to the interface of guide part 20 and slide part 40 showing two insertion portions receivable within two reciprocal slots, Dane describes “at least one lip 54 ... situated to engage the container 10 when the latch mechanism 16 is in the closed position.” EX1036, ¶28. While Dane does not explicitly say its at least one lip 54 includes two lips 54 that are receivable within two reciprocal slots within container 10, this is shown in Figures 1-3 of Exhibit 1036.



EX1036 (Dane), FIG. 3 (annotated, showing latch mechanism 16).

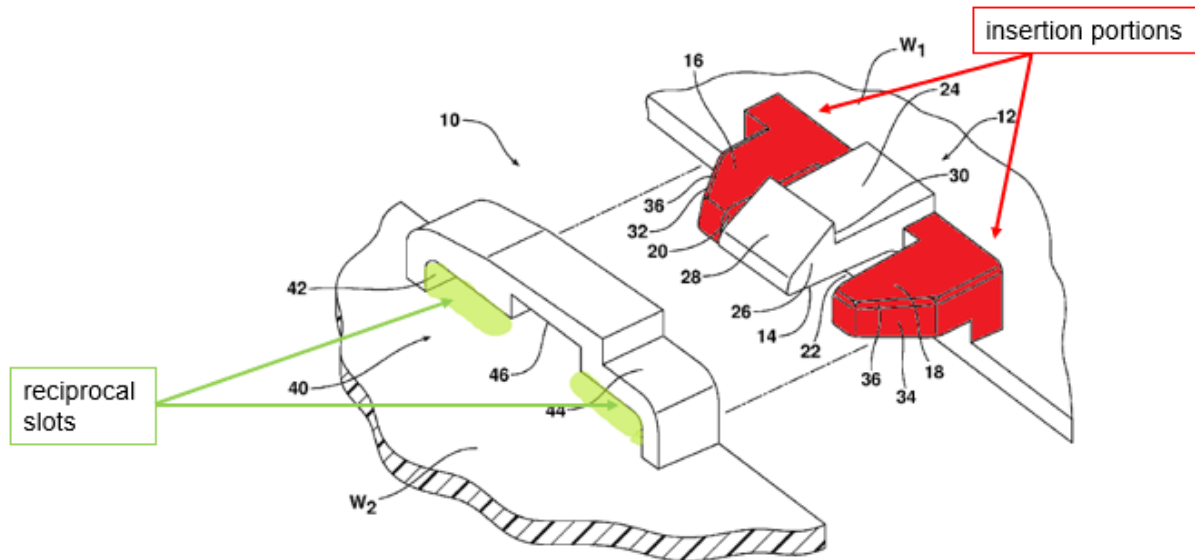


EX1036 (Dane), FIGs. 1-2.

25. This common two-insertion portion structure is load-bearing and used in latching arrangements in which forces (e.g., caused by attempting to open lid 14) will be applied perpendicular to the insertion portions, as is shown in Dane. Additionally, the prior art is replete with examples of this common two-insertion portion structure.

26. For example, Peniche describes an attachment device 10 including an attachment head 12 and a receiver 40. Receiver 40 includes an opening for receiving attachment head 12. EX1037, ¶¶15-18. Peniche's attachment head 12 includes a first outboard locator tab 16 and a second outboard locator tab 18, both

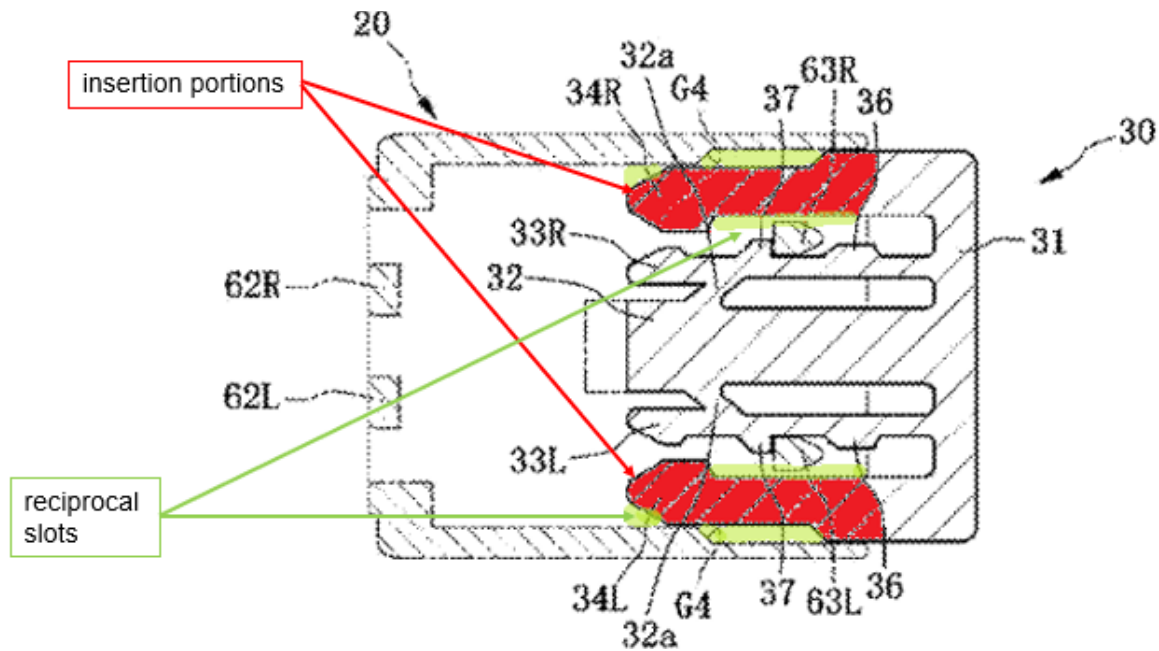
of which are receivable within two reciprocal slots of opening 42 that form narrow portions of opening 42. EX1037, ¶18.



EX1037 (Peniche), FIG. 1 (annotated).

27. As shown in Figure 1 of Peniche (Exhibit 1037), outboard locator tab 16 and outboard locator tab 18 include a first guide surface 32 and a second guide surface 34, respectively. These guide surfaces “function to help center the attachment head 12 in the receiver 40.” EX1037, ¶19.

28. As another example, Endo describes connector 1 including an inner housing 20 and a sliding member 30. Inner housing 20 includes a slide channel 70 for receiving sliding member 30. EX1040, ¶¶66, 82, 111-112, 134. Endo’s sliding member 30 includes two support arms 34L, 34R that are receivable within two reciprocal slots of slide channel 70 demarcated by the walls of inner housing 20 and rear-end-side locking arm parts 63R, 63L.



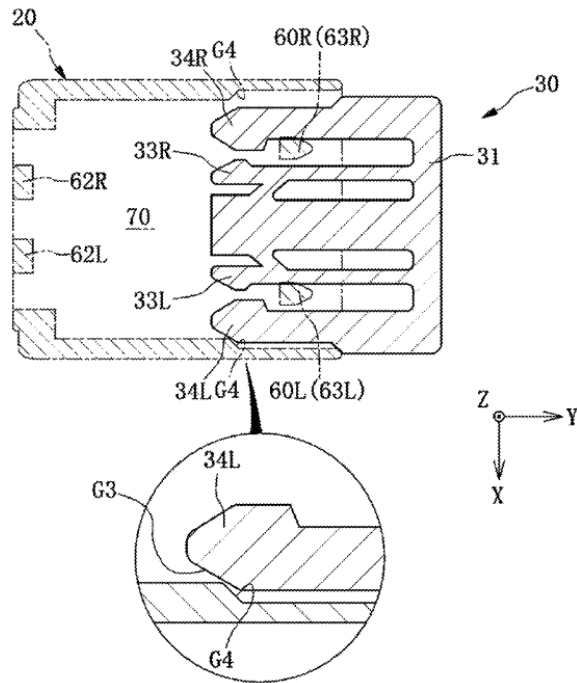
EX1040 (Endo), FIG. 10B (annotated).

29. Additionally, Endo describes that the interaction of support arms 34L, 34R with guide surfaces G4 can improve ease of insertion of sliding member 30 into slide channel 70. For example, Endo describes:

[T]he rails 72 are formed with the guide surfaces G4 inclined relative to the Y-axis direction. Hence, when the sliding member 30 is attached to the inner housing 20, the sliding member 30 is fitted in the slide channel 70 while the leading end parts of the support arms 34R, 34L are being guided by the guide surfaces G4. The sliding member 30 is guided to the first position that is the normal attachment position by the action of the guide surfaces G4. *Since the fitting of the sliding member 30 into the inner housing 20 is guided, the fitting easiness is improved, and thus the assembling workability is improved.*

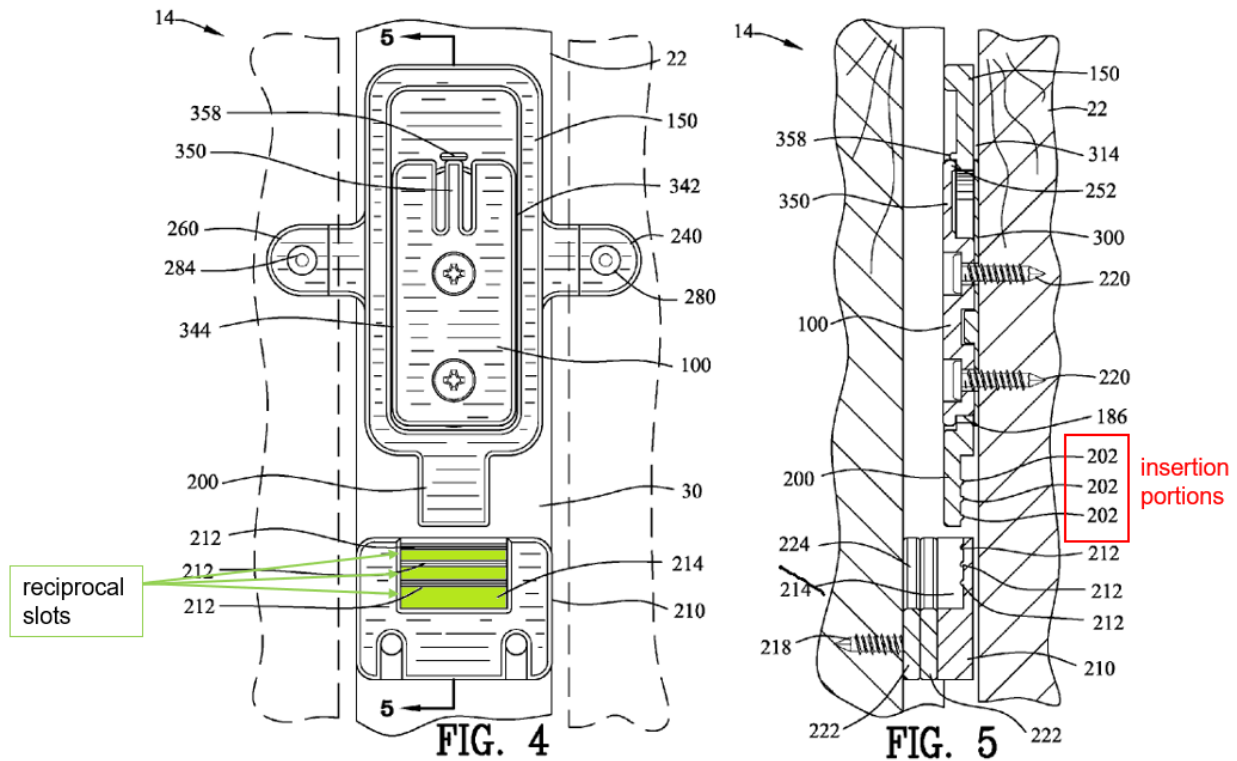
EX1040, ¶135 (emphasis added).

FIG.30



EX1040 (Endo), FIG. 30.

30. As another example, Cohen describes a slide lock device 10 including a sliding latch plate 150/bolt 200 and a bolt receiver 210. Bolt receiver 210 includes a bolt channel 214 for receiving bolt 200. EX1041, 9:30-43. Cohen's bolt 200 includes multiple bolt ribs 212 that are receivable within reciprocal slots formed between multiple receiver ribs 212. EX1041, 12:6-14.



EX1041 (Cohen), FIGs. 4-5 (annotated).

31. Cohen describes: “A bolt rib 202 is coupled to the bolt 200. A receiver rib 212 is coupled to said bolt receiver 210. The bolt rib 202 passing over the receiver rib 212 in the locking position 12 for preventing inadvertent removal of said bolt 200 from the bolt receiver 210.” EX1041, 12:6-10. Accordingly, Cohen describes using bolt ribs 202 and receiver ribs 212 (and the slots formed therebetween) to increase the security of the connection of its bolt 200 and bolt receiver 210.

32. Accordingly, sliders with two insertion portions receivable within two reciprocal slots were a well-known design choice. Such sliders also improve the ease of alignment with a locking groove by guiding a slider into the locking

groove.

33. Thus, as I will explain further below, the proposed amendments to the claims of the '689 patent—its support arm extending across a slot and dual-insertion portion configuration—are well-known features existing in the art before the '689 patent.

VI. ALL SUBSTITUTE CLAIMS ARE UNPATENTABLE UNDER § 103.

34. It is my opinion that features included in the proposed substitute claims were well known and obvious modifications to the Duvigneau grounds set forth in my previous Declaration.

A. Proposed independent claim 21 would have been obvious over Duvigneau and Baker.

35. In my opinion, the Duvigneau-Baker combination renders obvious proposed independent claim 21 (substitute for claim 1).

1. Baker

36. Baker describes a plurality of stackable storage containers (tray for receiving articles for storage) and latches that secure the containers together. EX1021, Abstract. In my opinion, Baker is analogous art in the same field and reasonably pertinent to the problems of the '689 patent. For example, Baker provides a mechanism to prevent overextension of the slider when the carrying bag is not attached.

2. Unamended Claim Elements

37. For the reasons set forth in my previous Declaration, Duvigneau discloses or renders obvious the unamended limitations of proposed claim 21. EX1003, ¶¶144-160, 181-186.

3. Newly Added Slot Limitation

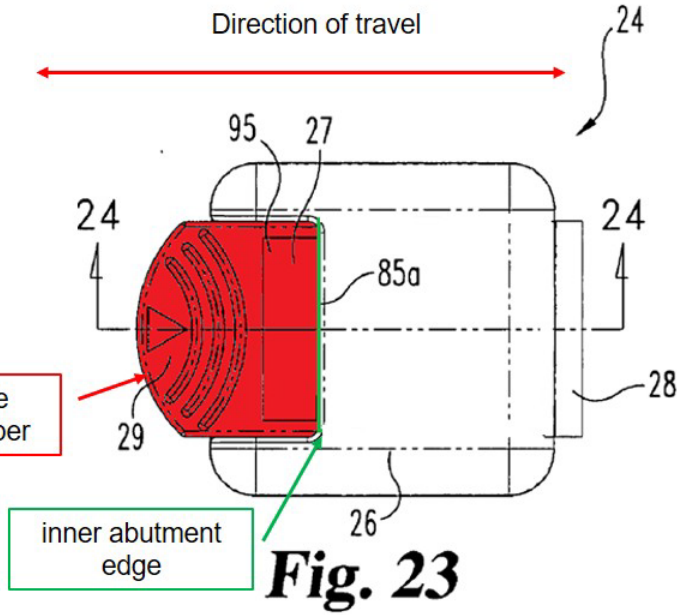
38. Proposed independent claim 21 amends claim 1 to add the limitation “wherein the second storage container comprises a slot with a support arm extending across a width of the slot perpendicular to the direction of travel of the slider, wherein the sliding mechanism is engaged with the support arm.” In my opinion, Duvigneau, combined with Baker, renders obvious this limitation.

39. First, for the reasons set forth in my previous declaration, Duvigneau discloses or renders obvious “*the second storage container comprises a slot with a support arm extending across ... the slot ... wherein the sliding mechanism is engaged with the support arm.*” EX1003, ¶¶167-171, 190-195. This limitation is substantially similar to elements set forth in original claim 4. Thus, in my opinion, it is disclosed or obvious for the same reasons. As explained in my previous declaration, Duvigneau discloses its slider (a component of the sliding mechanism) is engaged with the support arm. EX1003, ¶¶167-171, 190-195.

40. Second, in my opinion, Duvigneau-Baker renders obvious a support arm “*extending across a width of the slot perpendicular to the direction of travel of*

the slider.” Duvigneau discloses that latch 246 “arrests” in depression 240 to attach carrying bag 230 over base cabinet 250. EX1007, ¶57. But Duvigneau does not disclose a mechanism to prevent a user from overextending its sliding mechanism into the slot when carrying bag 230 is not fitted over base cabinet 250. In my opinion, a person of ordinary skill in the art would have recognized this problem and would have been motivated to find a solution.

41. Baker discloses a solution. Baker describes “slide latch 24 [that] includes a body 26” attached to a lid 21 and “slide member 27 that moves through the body 26.” EX1021, ¶42. A mating tray 20 includes corresponding openings that are “arranged to receive the lip 28 of the mating slide latch 24” to securely attach lid 21 to tray 20 to create a containment case. EX1021, ¶42. The slide body 26 includes a “recessed opening 85” (slot) with “a generally straight, inner abutment edge 85a” that extends across a width of opening 85 perpendicular to the direction of travel of slide member 27. EX1021, ¶58, FIG. 23.



EX1021 (Baker), FIG. 23 (annotated).

42. Baker further describes that a “higher end of raised portion 95 is in abutment against inner edge 85a” when slide member 27 is in its retracted position with respect to body 26. EX1021, ¶¶60, 62. Slide member 27 also has a second raised portion that contacts abutment edge 85a when slide member 27 is in its extended position with respect to body 26, as illustrated in annotated Figure 28 of Baker (Exhibit 1021) below.

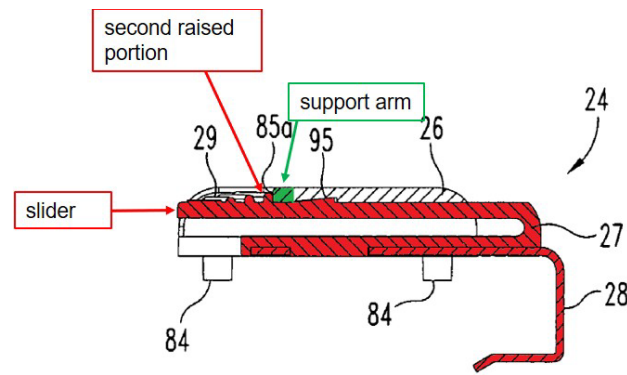


Fig. 28

EX1021 (Baker), FIG. 28 (annotated).

43. Accordingly, a person of ordinary skill in the art would have recognized that the engagement of the second raised portion with abutment edge 85a (support arm) provides greater security of slide member 27 in its extended position. For example, contacting the inner abutment edge 85a, as shown in annotated Figure 28 of Baker (Exhibit 1021), prevents additional extension (complete removal) of slide member 28 past its extended position with respect to body 26.

44. Thus, in my opinion, a person of ordinary skill in the art would have recognized Baker suggests a solution to Duvigneau's lack of disclosure of a mechanism that would prevent a user from overextending the sliding latch into or through the slot when carrying bag 230 is detached, which could otherwise result in inadvertent removal of the latch in the direction of the slot. If carrying bag 230 is not attached, the overextension of sliding latch 246 into the slot could cause loss

of Duvigneau's sliding latch 246.

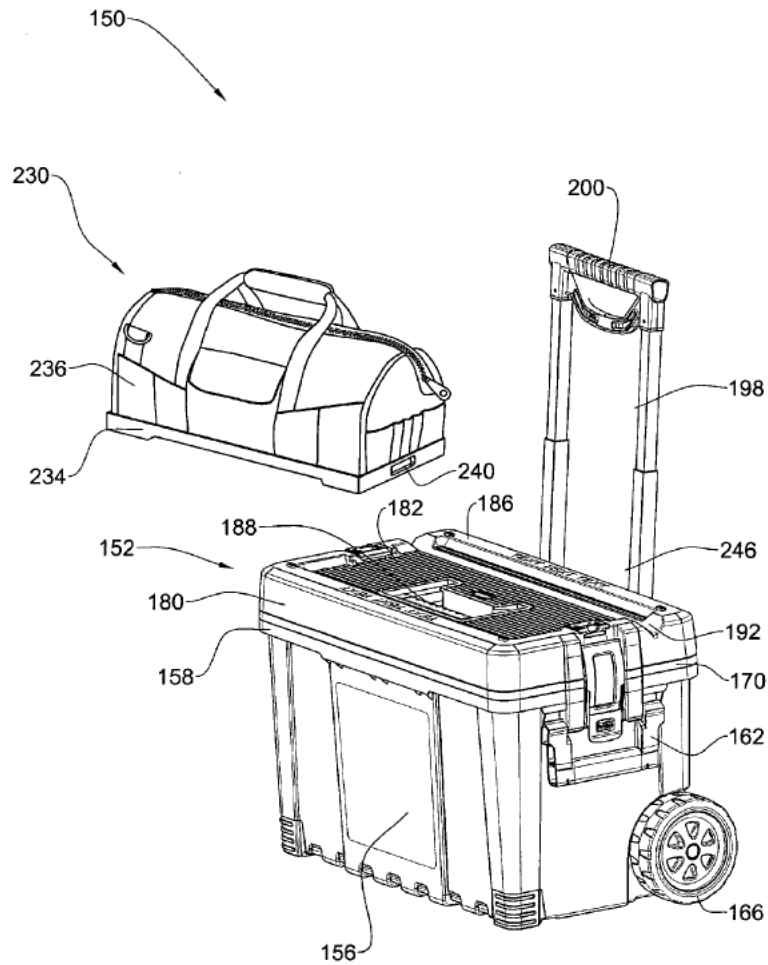
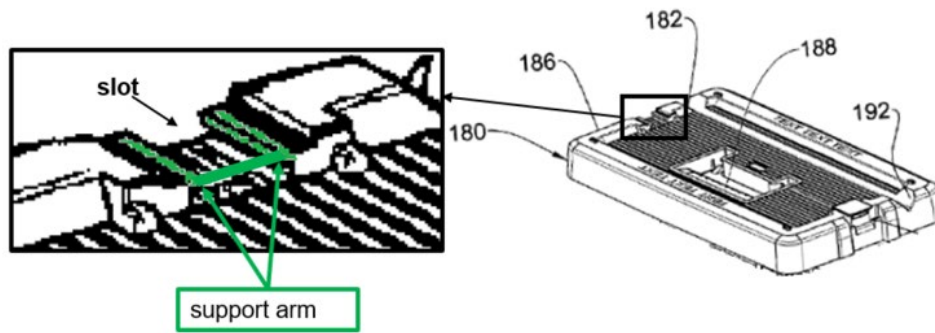


FIG. 4B

EX1007 (Duvigneau), FIG. 4B.

45. For the above reasons, a person of ordinary skill in the art would have found it obvious to modify Duvigneau to include a similar arrangement as taught by Baker by extending Duvigneau's support arm(s) across a width of the slot to create an abutment edge or backstop to engage with the slider and prevent overextension, as shown in annotated Figure 5 of Duvigneau (Exhibit 1007) below.



EX1007 (Duvigneau), FIG. 5 (cropped and annotated).

46. A person of ordinary skill in the art would have found it obvious to also incorporate a raised portion on the upper surface of the slider to engage with the support arm (much like raised portion 95 or the second raised portion taught by Baker). A person of ordinary skill in the art would have observed that this raised portion engages the support arm and prevents additional extension of the slider, and would have immediately understood this to be useful for engaging a backstop while allowing other portions of the slider to extend past the backstop to engage the locking groove of the first container. As taught by Baker, a person of ordinary skill in the art would have understood the extended portion of the support arm would be placed in a manner to allow the slider to slide underneath the support arm until the raised portion abuts the extended portion of the support arm (as taught by Baker). Indeed, such arrangements were common, as evidenced also by Baker-084. *See* Section VI.1 Alternatively, a person of ordinary skill in the art would have understood that the raised portion could be placed on a lower surface of the slider

and the extended portion of the support arm placed in a manner such that slider slides over the extended portion of the support arm until the raised portion on the lower surface abuts the support arm. Placement of the raised portion on a lower or upper surface (with corresponding placement of the extended portion of the support arm such that the slider slides over or under the support arm until the raised portion abuts the support arm) would be an obvious design choice. Such a choice would not result in a difference in function of the slider to connect two storage containers or give unexpected results.

47. In my opinion, a person of ordinary skill in the art would have been able to readily implement the modifications and would have been motivated to make the modifications to prevent a user from overextending the slider (and potentially inadvertently removing it) into or through the slot when carrying bag 230 is not attached. Indeed, a person of ordinary skill in the art would have understood that the concept of sliding mechanisms engaged with a support arm extending across a width of a slot to prevent overextension of sliding latches was well known, for example, as shown by Baker and Baker-084. Section VI.1.

48. Indeed, the prior art backstops disclose the structure of the claimed support arm of substitute claim 21. For example, Baker's abutment edge 85a extends across a width of its opening 85 and Baker-084's support arm extends across a width of its slot in lid 22, both in a direction perpendicular to the direction

of travel of their sliding engagement components. Section VI.1. Accordingly, a person of ordinary skill in the art would have been motivated to include a similar structure as a backstop to Duvigneau's sliding latch.

49. In this configuration, the support arm prevents overextension of slide latch 246 while still allowing portions of slide latch 246 to extend past the support arm (e.g., either under or over the support arm) to engage with depression 240 when the carrying bag is in place. In this way, the support arm is similar to Baker's abutment edge 85a extending across a width of its opening 85 and Baker-084's support arm extending across a width of its slot in lid 22, which both allow portions of their corresponding sliding components (e.g., slide member 27) to extend past these backstop structures.

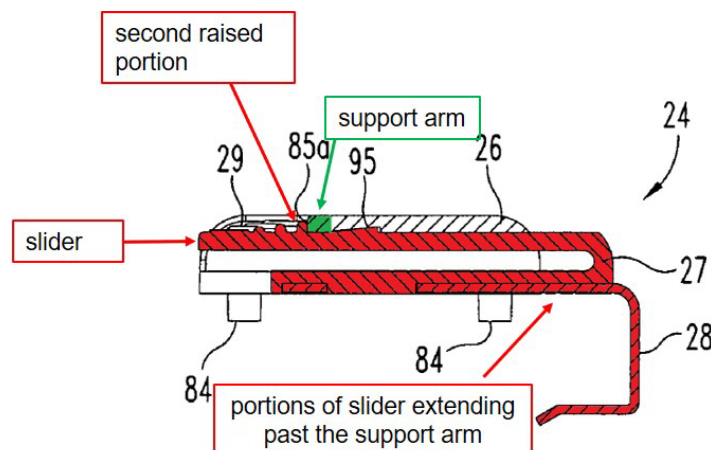


Fig. 28

EX1021 (Baker), FIG. 28 (annotated).

50. A person of ordinary skill in the art would have been further motivated to make the proposed modifications, and had a reasonable expectation of

success, because the modifications would have been combining known elements (extending the support arm(s) across the width of the slot to provide a backstop and adding a raised portion to the upper (or lower) surface of the slider to engage with the support arm) according to known methods to yield predictable results (a mechanism that prevents a user from inadvertently removing the slider by overextending it into the slot when the carrying bag is not present).

51. For all these reasons, in my opinion, the Duvigneau-Baker combination renders obvious proposed claim 21.

B. Proposed independent claim 34 would have been obvious over Duvigneau, Frydenberg, and Dane.

52. In my opinion, the Duvigneau-Frydenberg-Dane combination renders obvious proposed independent claim 34 (substitute for claim 14).

1. Dane

53. Dane describes a latch mechanism to attach a first storage container portion and a second storage container portion. EX1036, Abstract. In my opinion, Dane is analogous art in the same field and reasonably pertinent to the problems of the '689 patent.

2. Unamended Claim Elements

54. For the reasons set forth in my previous Declaration, Duvigneau discloses or renders obvious the unamended limitations of proposed claim 34. EX1003, ¶¶172-175, 196.

3. Newly Added Slider and Locking Groove Limitations

55. Proposed independent claim 34 amends claim 14 to add two limitations: (i) “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 (ii) “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.”

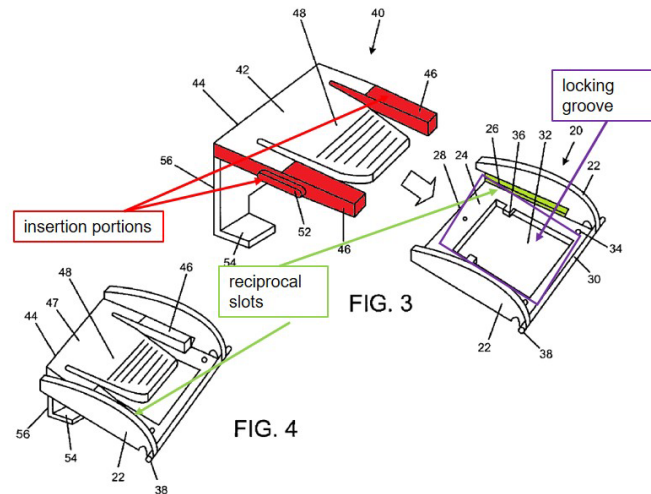
56. First, limitation (ii) is substantially the same as limitations in original claim 10, differing only in that it explicitly recites the guiding slot is “*positioned on a bottom side of the slider,*” and that the guiding rib is “*of the second storage container,*” rather than the support arm, and constrains lateral movement with respect to the “*second storage container,*” again, rather than the support arm. Duvigneau-Frydenberg teaches this limitation for the reasons set forth in my previous Declaration. EX1003, ¶¶243-251. In my opinion, a person of ordinary skill in the art would have understood that, in the Duvigneau-Frydenberg combination, the guiding slot of the slider would be positioned “*on a bottom side of the slider*” to engage with the guiding rib. EX1003, ¶¶249-250. As explained, Duvigneau discloses, or renders obvious, a second storage container comprising

support arm(s). EX1003, ¶¶167-171, 178, 192-194, 197, 199. Patent Owner repeats its incorrect arguments from its POR that Duvigneau-Frydenberg does not teach a slot with a guiding rib that constrains lateral movement. MTA, 18-21. Thus, in the Duvigneau-Frydenberg combination, the “*guiding rib on the support arm*” is “*of the second storage container*” and the constraint of the lateral movement with respect to the support arm also constrains lateral movement “*with respect to the second storage container.*”

57. Second, in my opinion, Duvigneau-Dane teaches limitation (i). As explained in my previous declaration, Duvigneau teaches “the sliding mechanism [] comprises of a slider configured that moves between the engaged and disengaged position[s] with respect to the locking groove.” EX1003, ¶¶161-163. Although Duvigneau does not disclose its slider has “two insertion portions receivable within two reciprocal slots of the locking groove,” such sliders were well known, as evidenced by Dane. *See* Section VI.2

58. Dane discloses a latch mechanism 16 for a container 10, which “includes a guide part 20 and a slide part 40.” EX1036, ¶19. Slide part 40 includes a frame 42 with “two slide rail support structures 46 positioned at opposing sides of the frame,” each having “a sliding rail 52” positioned to be received within a reciprocal guiding rail 26. EX1036, ¶22. Thus, as shown in annotated Figures 3 and 4 of Dane (Exhibit 1036), depicted below, Dane teaches a slider with “*two*

insertion portions receivable within two reciprocal slots” of a locking groove (the cavity formed between the two rail support structures 22). EX1036, FIGs. 3, 4.



EX1036 (Dane), FIGs. 3, 4 (annotated).

59. In my opinion, a person of ordinary skill in the art would have found it obvious and been able to modify Duvigneau’s slider to have *two insertion portions receivable within two reciprocal slots of the locking groove*, as taught by Dane. A person of ordinary skill in the art would have understood the choice of using a slider with one or two insertion portions, with corresponding slot(s), to be a design choice that would not result in a difference in function of the slider to connect two storage containers or give unexpected results. A person of ordinary skill in the art also would have been motivated to make the modification because it amounts to a substitution of one known element (a unitary groove-engaging portion of a slider) for another (a pronged groove-engaging portion of a slider) to obtain predictable results (a slider with two insertion portions receivable within

two reciprocal slots).

60. Additionally, a person of ordinary skill in the art would have been further motivated to make the modification because the use of two insertion portions receivable within two reciprocal slots assists with alignment of the slider relative to the locking groove, as described in Peniche and Endo. Section VI.2. For example, Peniche's outboard locator tab 16 and outboard locator tab 18 include a first guide surface 32 and a second guide surface 34, respectively, that "function to help center the attachment head 12 in the receiver 40." EX1037, ¶19. Likewise, Endo describes that the interaction of support arms 34L, 34R with guide surfaces G4 can improve ease of insertion of sliding member 30 into slide channel 70. EX1040, ¶135. "Since the fitting of the sliding member 30 into the inner housing 20 is guided, the fitting easiness is improved, and thus the assembling workability is improved." *Id.* Thus, a person of ordinary skill in the art would have understood that in Duvigneau's system, two insertion portions would provide some tolerance for Duvigneau's base 234 and depression 240 not being positioned perfectly with respect to sliding latch 246. This tolerance can allow sliding latch 246 to be inserted into depression 240 despite imperfect positioning of base 234, enhancing ease of operability.

61. A person of ordinary skill in the art would have had a reasonable expectation of success in making the modification because both configurations

perform the same latching function of securing components together. Further, a person of ordinary skill in the art would have had a reasonable expectation of success in making the modification because multi-pronged sliders and reciprocal slots are disclosed in the prior art as serving load-bearing and locking purposes, much like in the '689 patent. Section VI.1.

62. Therefore, in my opinion, the Duvigneau-Frydenberg-Dane combination renders obvious proposed claim 34.

C. Proposed independent claim 34 would have also been obvious over Duvigneau, Frydenberg, and Peniche.

63. In my opinion, the Duvigneau-Frydenberg-Peniche combination also renders obvious proposed independent claims 34.

1. Peniche

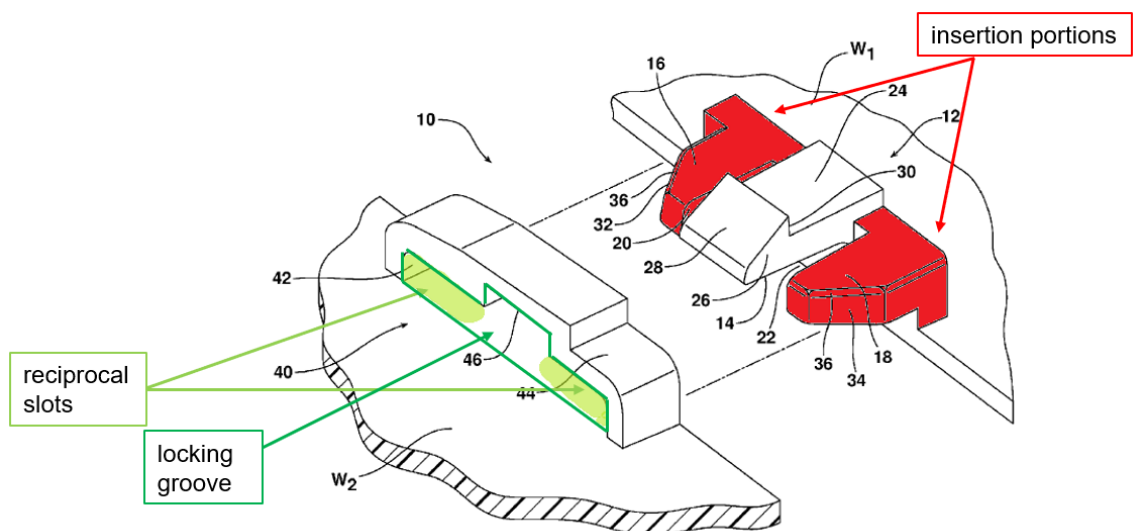
64. Peniche describes an attachment device 10 (latch mechanism) to attach two components (workpieces). EX1037, Abstract. In my opinion, Peniche is analogous art in the same field and reasonably pertinent to the problems of the '689 patent.

2. Duvigneau-Frydenberg-Peniche

65. For the reasons set forth in my previous Declaration, and as discussed in Section VII.B, Duvigneau renders obvious the unamended limitations of proposed claim 34; Duvigneau-Frydenberg teaches limitation (ii) of claim 34; and Duvigneau teaches the sliding mechanism comprises a slider configured to move

between engaged/disengaged positions. See EX1003, ¶¶161-163, 167-175, 178, 192-194, 196-197, 199, 243-251, 270-273.

66. In my opinion, Duvigneau-Peniche renders obvious “*two insertion portions receivable within two reciprocal slots of the locking groove.*” Peniche discloses an attachment device 10 for securing a first workpiece to a second workpiece. EX1037, ¶15. Attachment device “includes an attachment head 12” and “a receiver 40.” EX1037, ¶¶15, 18. Receiver 40 “includes an opening 42 for receiving” attachment head 12, “a first outboard locator tab 16[,] and a second outboard locator tab 18.” EX1037, ¶¶15, 18. As shown in Figure 1 of Peniche (Exhibit 1037), depicted below, tabs 16 and 18 (*insertion portions*) of attachment device 10 (slider) are receivable within two reciprocal slots of opening 42 (*locking groove*). EX1037, FIG. 1.



EX1037 (Peniche), FIG. 1 (annotated).

67. In my opinion, a person of ordinary skill in the art would have found it obvious and been able to modify Duvigneau's slider to have *two insertion portions receivable within two reciprocal slots of the locking groove* as taught by Peniche. A person of ordinary skill in the art would have understood using a slider with one or two insertion portions with corresponding slot(s) to be a design choice that would not result in a different function, or unexpected results, for the slider connecting two storage containers. A person of ordinary skill in the art also would have been motivated to make the modification because it amounts to a substitution of one known element (a unitary groove-engaging portion of a slider) for another (a pronged groove-engaging portion of a slider) to obtain predictable results (a slider with two insertion portions receivable within two reciprocal slots).

68. A person of ordinary skill in the art would have been further motivated to make the modification because using two insertion portions receivable within two reciprocal slots assists with aligning the slider relative to the locking groove. Section VI.2. For example, Endo describes that the interaction of support arms 34L, 34R, with guide surface G4, can improve ease of insertion of sliding member 30 into slide channel 70. EX1040, ¶135. "Since the fitting of the sliding member 30 into the inner housing 20 is guided, the fitting easiness is improved, and thus the assembling workability is improved." *Id.* In Duvigneau's system, two insertion portions, for example, having or interacting with angled

surfaces as disclosed in the art, provide some tolerance for Duvigneau's base 234 and depression 240 not being positioned perfectly with respect to sliding latch 246. This tolerance allows sliding latch 246 to be inserted into depression 240 despite imperfect positioning of base 234, enhancing ease of operability.

69. A person of ordinary skill in the art would have had a reasonable expectation of success in making the modification because both configurations perform the same latching function of securing two components together.

70. Therefore, in my opinion, the Duvigneau-Frydenberg-Peniche combination renders obvious proposed claim 34.

D. Proposed substitute claims 22-24 would have been obvious over Duvigneau-Baker-Dane and Duvigneau-Baker-Peniche.

71. In my opinion, the Duvigneau-Baker-Dane and Duvigneau-Baker-Peniche combinations render obvious claims 22-24.

1. Claim 22

72. Proposed claim 22 (substitute for claim 2) depends from proposed claim 21 and amends claim 2 to add that the slider comprises “*two insertion portions configured to engage with the locking groove.*” For the reasons described for proposed claim 34 in Section VII.B and Section VII.C, Duvigneau-Dane and Duvigneau-Peniche renders obvious a slider with “*two insertion portions*” that is “receivable within two reciprocal slots of the locking groove,” and is, therefore, “*configured to engage with the locking groove.*” A person of ordinary skill in the

art would have found obvious, and been motivated to modify, the Duvigneau-Baker combination with a reasonable expectation of success, for the same reasons that I discuss for proposed claim 21. Duvigneau teaches the remaining limitations that are present in original claim 2 for the reasons discussed in my previous Declaration. EX1003, ¶¶161-163. Accordingly, in my opinion, Duvigneau-Baker-Dane and Duvigneau-Baker-Peniche render obvious proposed claim 22.

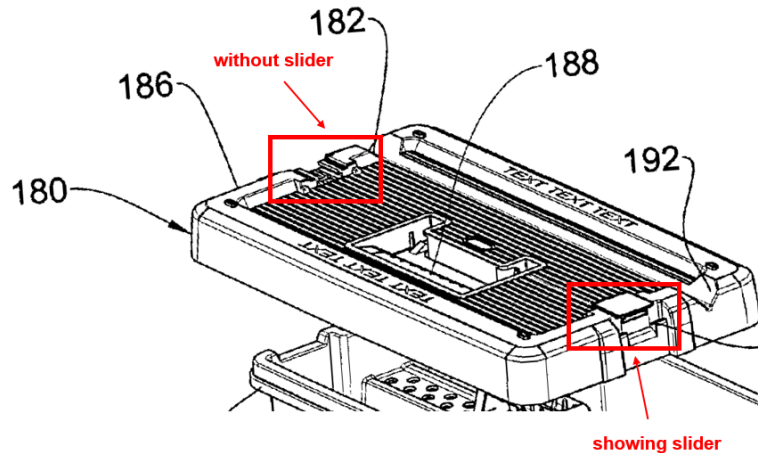
2. Claim 23

73. Proposed claim 23 (substitute for claim 3) depends from proposed claim 22 and adds no new features over what was already addressed with respect to claim 3 in my previous Declaration. Duvigneau discloses or renders obvious these limitations for the reasons discussed in my previous Declaration. EX1003, ¶¶164-166, 188-189. Accordingly, in my opinion, Duvigneau-Baker-Dane and Duvigneau-Baker-Peniche render obvious proposed claim 23.

3. Claim 24

74. Proposed claim 24 depends from proposed claim 23 and amends claim 4 from “a slot is in the side surface” of the second storage container to the slot “*is formed within*” the side surface. Duvigneau discloses or teaches the limitations of claim 4 for the reasons discussed in my previous Declaration. EX1003, ¶¶167-171, 190-195. Duvigneau also teaches a slot “*formed within the side surface.*” As explained in my previous Declaration, and shown in the Figure 5 of Duvigneau

(Exhibit 1007) below, Duvigneau discloses a slot in (and, as depicted, formed within) a side surface of the container “where there is a break in the upper surface 186 of base cabinet’s cover 180 (defining a slot at the cavity where its latch mechanism 146 is located).” EX1003, ¶¶168-169.



EX1007, FIG. 5 (Duvigneau) (cropped to show cover 180 and annotated).

75. Accordingly, in my opinion, Duvigneau-Baker-Dane and Duvigneau-Baker-Peniche render obvious proposed claim 24.

E. Proposed substitute claims 25-33 would have been obvious over the same combinations identified in the Petition in view of Duvigneau-Baker-Dane and Duvigneau-Baker-Peniche.

76. Proposed claims 25-27 depend from claim 24 and add no new features over what was already addressed with respect to claims 5-7 in my previous Declaration. For the reasons discussed in my previous Declaration, these limitations would have been obvious over Duvigneau-Niles and Duvigneau-Morel. EX1003, ¶¶198-225. Accordingly, in my opinion, Duvigneau-Baker-Dane and

Duvigneau-Baker-Peniche, combined with either Niles or Morel, render obvious claims 25-27.

77. Proposed claim 28 depends from claim 27 and adds no new features over what was addressed with respect to claim 8 in my previous Declaration. For the reasons discussed in my previous Declaration, these limitations would have been obvious over Duvigneau-Morel-Weng. EX1003, ¶¶229-240. Accordingly, in my opinion, Duvigneau-Baker-Dane-Morel-Weng and Duvigneau-Baker-Peniche-Weng render obvious claim 28.

78. Proposed claims 29-31 depend from claim 24 and add no new features over what was addressed with respect to claims 9-11 in my previous Declaration. For the reasons discussed in my previous Declaration, these limitations would have been obvious over Duvigneau-Frydenberg. EX1003, ¶¶243-254. Accordingly, in my opinion, Duvigneau-Baker-Dane-Frydenberg and Duvigneau-Baker-Peniche-Frydenberg render obvious claims 29-31.

79. Proposed claims 32-33 depend from claim 24 and add no new features over what was addressed with respect to claim 12-13 in my previous Declaration. For the reasons discussed in my previous Declaration, these limitations would have been obvious over Duvigneau-Brunner. EX1003, ¶¶255-266. Accordingly, in my opinion, Duvigneau-Baker-Dane-Brunner and Duvigneau-Baker-Peniche-Brunner render obvious claims 32-33.

F. Proposed substitute claim 35 would have been obvious over Duvigneau-Frydenberg-Dane-Baker and Duvigneau-Frydenberg-Peniche-Baker.

80. Proposed claim 35 (substitute for claim 15) depends from claim 34 and amends claim 15 to add the support arm extends across the slot “*perpendicular to the direction of travel of the slider.*” For the reasons I provide for proposed claim 21 in Section VII.A, Duvigneau-Baker teaches this limitation. In my opinion, a person of ordinary skill in the art would have found it obvious, and been motivated to modify the Duvigneau-Frydenberg-Dane and Duvigneau-Frydenberg-Peniche combinations, to add Baker with a reasonable expectation of success, for the same reasons discussed for claim 21. Duvigneau teaches or renders obvious the remaining limitations of claim 35, which are present in original claim 15, for the reasons discussed in my previous Declaration. EX1003, ¶¶175-178, 197.

Accordingly, in my opinion, Duvigneau-Frydenberg-Dane-Baker and Duvigneau-Frydenberg-Peniche-Baker render obvious proposed claim 35.

G. Proposed Substitute Claims 36-40

81. Proposed claims 36-40 depend from claim 35 and add no new features over what was addressed with respect to claims 16-20. For the reasons discussed in my previous Declaration, these limitations would have been obvious. EX1003, ¶¶212, 226-228, 241-242, 267-269, 270-273. Duvigneau-Frydenberg-Dane-Baker and Duvigneau-Frydenberg-Peniche-Baker render obvious claim 40 (substitute for

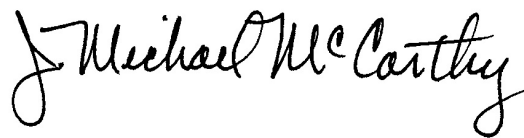
claim 20); combined with Morel-Weng, renders obvious claims 37-38 (substitutes for claims 17-18); combined with Niles or Morel, renders obvious claim 36 (substitute for claim 16); and combined with Brunner, renders obvious claim 39 (substitute for claim 19).

VII. CONCLUSION

82. In signing this declaration, I recognize that the declaration will be filed as evidence in an *inter partes* review before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required, I will appear for cross-examination within the United States during the time allotted.

83. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed on this 28th day of July, in Irvine, California.

A handwritten signature in black ink that reads "J. Michael McCarthy". The signature is written in a cursive, flowing style. The "J" is large and loops around the first part of the name. The "McCarthy" part is also cursive and connects to the "J".

J. Michael McCarthy, Ph.D.