

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHARKNINJA, INC.,
SHARKNINJA OPERATING LLC,
SHARKNINJA MANAGEMENT LLC, AND
SHARKNINJA SALES COMPANY,
Petitioners,

v.

DYSON TECHNOLOGY LIMITED
Patent Owner.

Case No. IPR2024-00219

U.S. Patent No. 11,589,660

**PATENT OWNER'S RESPONSE
PURSUANT TO 37 C.F.R. § 42.120**

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	https://web.archive.org/web/20160812223637/https://www.merriam-webster.com/dictionary/handheld
2002	https://web.archive.org/web/20160830192326/https://www.dictionary.com/browse/handheld
2003	https://web.archive.org/web/20160728065930/https://www.dictionary.com/browse/appliance
2004	https://web.archive.org/web/20160819123655/https://dictionary.cambridge.org/us/dictionary/english/appliance
2005	https://web.archive.org/web/20160819193036/https://www.merriam-webster.com/dictionary/appliance
2006	https://web.archive.org/web/20160822115546/https://www.merriam-webster.com/dictionary/attachment
2007	https://web.archive.org/web/20160726213831/https://dictionary.cambridge.org/us/dictionary/english/attachment
2008	https://web.archive.org/web/20160803090731/https://www.dictionary.com/browse/attachment
2009	U.S. Patent No. 3,280,439 (“McCarthy”)
2010	Declaration of Brianna Lynn Silverstein in Support of Motion for <i>Pro Hac Vice</i> Admission
2011	Declaration of Joel Delman

I. INTRODUCTION

Patent Owner Dyson Technology Limited (“Patent Owner”) provides the following response to the Petition filed by SharkNinja, Inc., SharkNinja Operating LLC, SharkNinja Management LLC, and SharkNinja Sales Company (collectively, “Petitioners”) requesting *inter partes* review of Claims 1-9, 15, 18, 23, 24, and 30-34 (“the Challenged Claims”) of U.S. Patent No. 11,589,660 (“the ’660 Patent”). For at least the reasons set forth below, Patent Owner requests that the Board confirms patentability of the Challenged Claims.

Petitioners cannot meet their burden of showing each Challenged Claim is unpatentable by a preponderance of the evidence. 35 U.S.C. § 316(e). Specifically, Petitioners’ Ground 1 fails to show that Hoblingre discloses “wherein in the first position the actuator at least partially obscures the first slot”; “wherein the actuator comprises a surface which interacts with the first protrusion when the first protrusion engages with the first slot”; and “wherein the surface is configured to at least partially define the first slot at or near the second position.” Petitioners’ Ground 4 fails to show that Mouhot discloses “the first slot extends . . . radially around . . . the body” and “an actuator,” each of which is present in all of the Challenged Claims. Finally, Petitioners have failed to provide sufficient evidence of motivation to combine as to any of the obviousness grounds (Grounds 2, 3, 5,

and 6). Therefore, Petitioners have not shown by a preponderance of the evidence that any Challenged Claim is unpatentable.

II. CLAIM CONSTRUCTION

For the purposes of this Response only, Patent Owner is not contesting Petitioners' statement that construction of any claim term is not necessary for the Board to determine patentability of the Challenged Claims, Pet.,¹ 5, and Patent Owner does not contest Petitioners' definition of a POSITA, *id.*, 10. Patent Owner reserves the right to contest the construction of claim terms and Patent Owner's definition of a POSITA at any other point in this proceeding or in any other proceeding involving the '660 Patent or any patents regarding a related technology.

III. TECHNICAL BACKGROUND

A. Summary of '660 Patent

The '660 Patent is directed to "a handheld appliance." EX1001, 1:11; EX2011 ¶ 34. The '660 Patent notes that a "problem is to provide a solid connection between the attachment and the appliance for when hair is under tension with an easily removable attachment when required." EX1001, 1:29-32; EX2011 ¶ 34. To that end, the '660 Patent discloses a handheld appliance having a body and an attachment, the body comprising an attachment mechanism having a first slot and an actuator, the attachment comprising a first protrusion configured to

¹ All cites to "Pet." are to the Corrected Petition, Paper 9.

engage with the first slot, wherein the actuator has a first position and a second position, and the actuator is moved from the first position toward the second position as the first protrusion engages with the slot. EX1001, 1:36-45; EX2011 ¶ 35. Further, the body extends along a longitudinal axis and the slot extends both radially around and axially along the body. EX1001, 1:59-61; EX2011 ¶ 35.

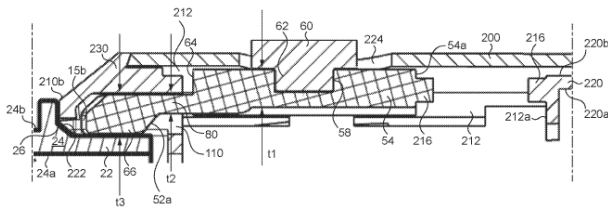


FIG. 3

EX1001, Fig. 3

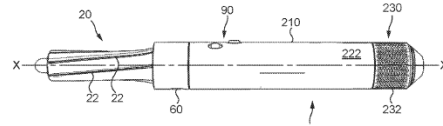


FIG. 9

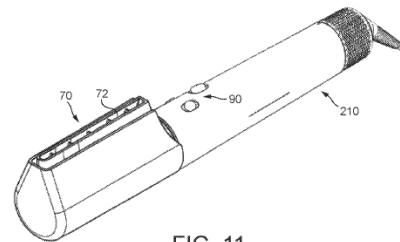


FIG. 11

EX1001, Figs. 9, 11

B. Summary of Alleged Prior Art

Petitioners allege that the Challenged Claims of the '660 Patent that are directed to a handheld appliance with a mechanism for joining an appliance attachment to the body of the appliance are unpatentable based on six grounds:

Ground	Challenged Claims	Basis for Rejection
1	1-9, 15, 23, 24, and 32	Anticipation by Hoblingre ²
2	1-9, 15, 18, 23, 24, and 30-32	Obviousness over Hoblingre in view of Maclaine ³

² U.S. Patent No. 4,943,182.

Ground	Challenged Claims	Basis for Rejection
3	1-9, 15, 18, 23, 24, and 30-34	Obviousness over Hoblingre in view of Maclaine and Jeannet ⁴
4	1-9, 15, 23, 24, and 32	Anticipation by Mouhot ⁵
5	1-9, 15, 18, 23, 24, and 30-32	Obviousness over Mouhot in view of Maclaine
6	1-9, 15, 18, 23, 24, and 30-34	Obviousness over Mouhot in view of Maclaine and Jeannet

1. Hoblingre

Hoblingre is the sole allegedly anticipating reference asserted in Ground 1 and the primary reference of the alleged obviousness combinations in Grounds 2 and 3. Hoblingre discloses a rapid fastener of the bayonet type adapted to achieve a connection in the axial direction of two torque transmitting shafts.⁶ EX1004, Abstract; EX2011 ¶ 37. In particular, Hoblingre discloses an improved bayonet type coupling for use in transmitting torque between shafts, which prior to this improvement was accomplished through collars, screw-and-nut systems, or other

³ U.S. Patent Application Publication No. 2015/0265022.

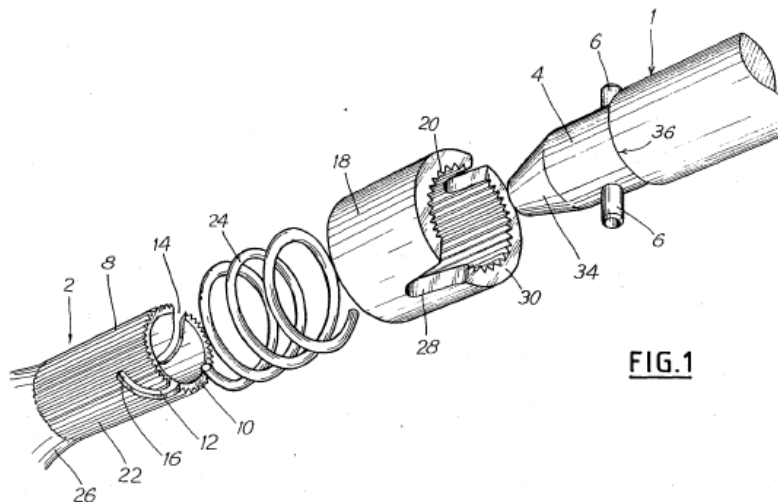
⁴ U.S. Patent No. 6,161,244.

⁵ European Patent Application No. 2015/0265022.

⁶ Mouhot, Petitioners' other alleged anticipatory and primary reference, indicates that FR-A-2 628 488, which is the French counterpart of Hoblingre, is a quick coupler to be used for connecting two steering members, specifically for a motor vehicle. EX1005, 2:3-12.

systems that require precise moving operations and the application of well-determined clamping forces. EX1004, 1:18-25; EX2011 ¶ 37. Bayonet type coupling prior to the improvements in Hoblingre were used for connection of elements intended to remain stationary because there is difficulty in getting such couplings to reliably transmit torque. EX1004, 1:14-17; EX2011 ¶ 37.

The improvement to previous bayonet type couplings involves a shaft 1 having an elongated stem 4, which carries at least one driving pin 6 and a second element 2 terminating in a hollow socket 8 which is open at its entrance end 10 and in the wall of which are provided two slots 12 each capable of receiving one of the pins 6. EX1004, 2:14-23; EX2011 ¶ 38.

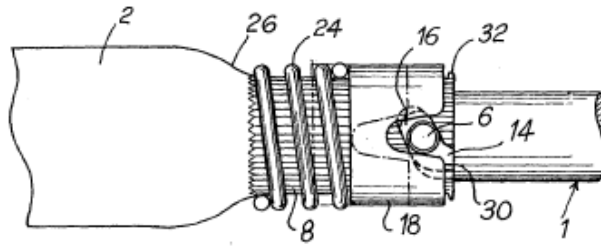


EX1004, Fig. 1

Slidably mounted on the socket 8 is a ring 18 and a coil spring 24 that bears on one end against ring 18 and the other end on a shoulder or projection on element 2 so that it tends to bias the ring 18 outwardly. EX1004, 2:27-37; EX2011 ¶ 39. The

ring 18 further comprises two slots 28 extending generally longitudinally and open at the end of the ring that is remote from the spring 24 and that are wide enough to permit entry of the pin 6 of element 1. EX1004, 2:39-43; EX2011 ¶ 39.

FIG. 2



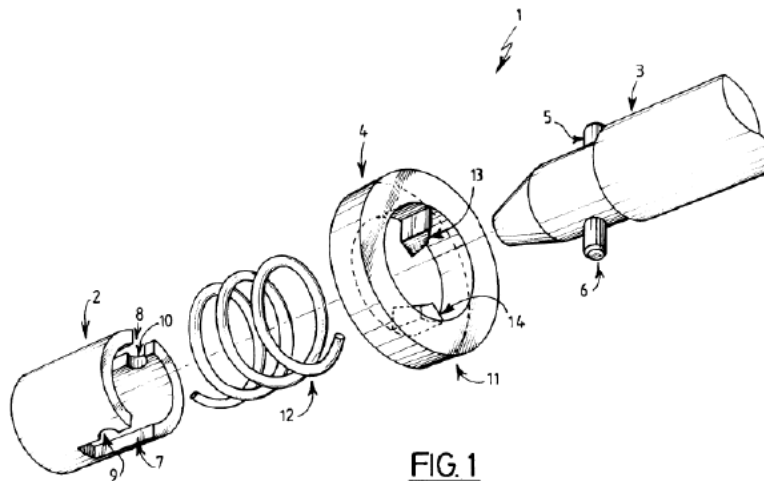
EX1004, Fig. 2

2. Mouhot

Mouhot is the sole allegedly anticipating reference asserted in Ground 4 and the primary reference of the alleged obviousness combinations in Grounds 5 and 6. Mouhot discloses a “coupler for connecting two steering members, in particular for a motor vehicle.” EX1005, Abstract; EX2011 ¶ 40. Specifically, Mouhot discloses an improved bayonet type quick coupler that is simpler and less costly to implement than known quick couplers used to connect steering members, such as Hoblingre⁷. EX1005, 2:3-18; EX2011 ¶ 40.

⁷ FR-A-2 628,488, discussed at 2:9-18 in Mouhot, is the French application number 8803290 to which Hoblingre claims priority.

The improvement to the previous bayonet type couplings like Hoblingre involves one steering member having a socket with at least one slot for receiving a lateral protruding part of a shank of the other member and a means for locking the lateral protruding part of the shank in position inside the slot of the socket, wherein at least one of the sides of the socket delimiting the slot comprises stop means that delimit at least one locking position of the lateral protruding part and wherein the locking means comprise wedge-shaped means movable in the slot between a first locking position, in which these wedge-shaped means prevent the lateral protruding part of the shank from disengaging from the stop means of the slot of the socket, and a second retracted position. EX1005, 2:20-28; EX2011 ¶ 41.



EX1005, Fig. 1

3. Maclaine

Maclaine discloses an “attachment for a hand held appliance.” EX1007, ¶¶ [0001]-[0002]; EX2011 ¶ 42. Maclaine focuses generally on specific structural

features of the head/attachment that are improvements over prior art

head/attachments for handheld appliances, especially for hair care. EX2011 ¶ 42.

Maclaine sets forth a collar and a twist lock joint as an example of the connection between handle 20 and attachment/head 30, 130, 180, 230, 300. EX1007, ¶ [0092]; EX2011 ¶ 42.

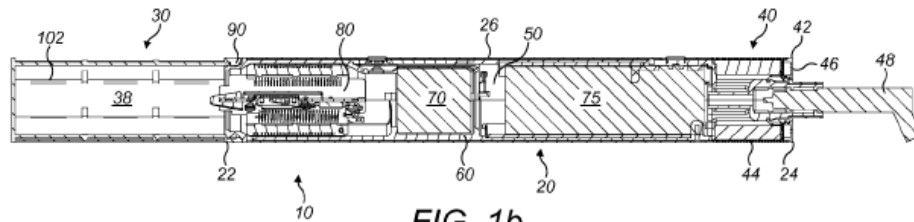
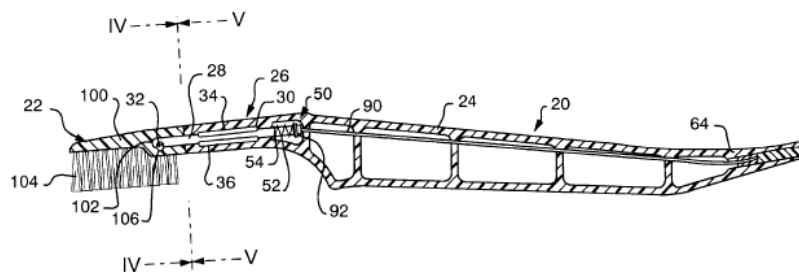


FIG. 1b

EX1007, Fig. 1b

4. Jeannet

Jeannet discloses a toothbrush with a brush head which can be secured on a brush handle by a bayonet catch. EX1008, Abstract; EX2011 ¶ 43. The objective is to form a reliable connection between brush head and brush handle that includes a child-proof safety catch but is relatively easy to release for replacing the brush head. EX1008, 1:29-36; EX2011 ¶ 43. Jeannet utilizes a bayonet catch with unlocking device to achieve this objective. EX1008, 1:38-40; EX2011 ¶ 43.



EX1008, Fig. 1

IV. SPECIFIC GROUNDS OF ALLEGED UNPATENTABILITY

Petitioners have not met their burden of showing that all the Challenged Claims are unpatentable. With regard to Ground 1, Petitioners fail to show that at least the additional limitations of Challenged Claims 2 and 4 are disclosed in Hoblingre. Ground 4 fails because Mouhot does not disclose either “an actuator” or wherein “the first slot extends . . . radially around . . . the body,” which are both required in all Challenged Claims in Ground 4. Finally, Petitioners do not provide sufficient evidence of motivation to combine as to any of the obviousness grounds (Grounds 2, 3, 5, and 6).

A. GROUND 1: Hoblingre does not anticipate Challenged Claims 2 and 4

Ground 1 fails at least with respect to Challenged Claims 2 and 4 because Petitioners have not shown that Hoblingre discloses the additional limitations of Challenged Claims 2 and 4.

1. Hoblingre fails to disclose “wherein in the first position the actuator at least partially obscures the first slot” as recited in Challenged Claim 2

Petitioners assert that Hoblingre’s slot 12 corresponds to the claimed first slot and Hoblingre’s guiding and locking means comprising ring 18 and coil spring 24 corresponds to the claimed actuator. Pet., 25-26; EX1003 ¶ 89. Petitioners further argue that Hoblingre discloses “wherein in the first position the actuator at least partially obscures the first slot” because “[w]hen elongated stem 4 is

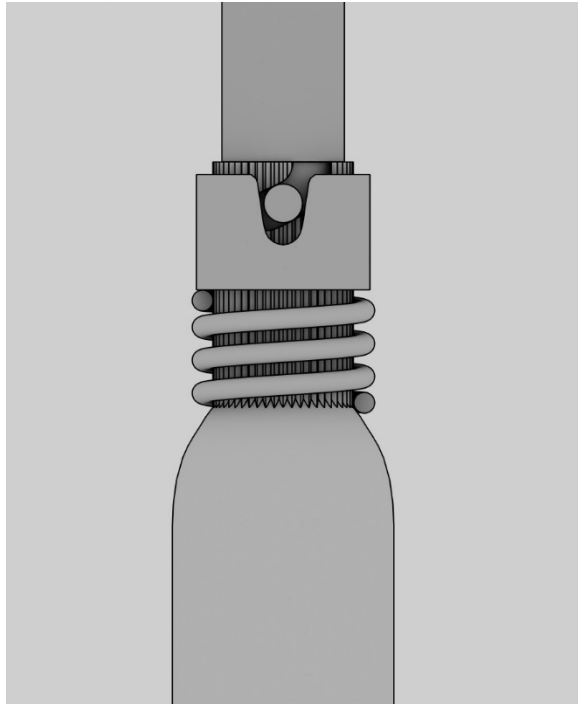
introduced inside socket 8, the ‘end edge 30 of the ring 18’ ‘partly closes’, or partially obscures, the entrances of slots 12.” Pet., 26 (quoting EX1004, 2:46-50); EX1003 ¶ 89 (same). However, this argument improperly conflates the term “partly closes” in Hoblingre with the term “partially obscures” recited in Challenged Claim 2.

Specifically, Hoblingre recites that “the end edge 30 of the ring 18 partly closes this entrance of the slot 12,” EX-1004, 2:46-50, which relates to whether pin 6 can enter slot 12. However, Challenged Claim 2 specifies that the “actuator at least partially obscures the first slot.” EX2011 ¶ 52. To “obscure the first slot” as claimed, some portion of the actuator must tangibly fill or otherwise fall within the confines of the first slot, otherwise the first slot remains unobscured because there is nothing within the slot. EX2011 ¶ 52. The specification of the ’660 Patent consistently uses the term “obscure” in this manner (abstract, general description, and when describing Figures 1a and 1b), and not to describe merely whether the viewer or user can see the slot. EX2011 ¶ 53. For example, Figure 1a shows the actuator in the first position where the actuator obscures the slot 232a by filling or otherwise physically falling within the confines of the first slot. EX1001, 6:39-45; EX2011 ¶ 53. During removal of the attachment, the actuator is slid out of the slot to allow the protrusion to move through the slot that is no longer obscured by the actuator. EX1001, 7:1-8; EX2011 ¶ 53. Additionally, in the embodiments in the

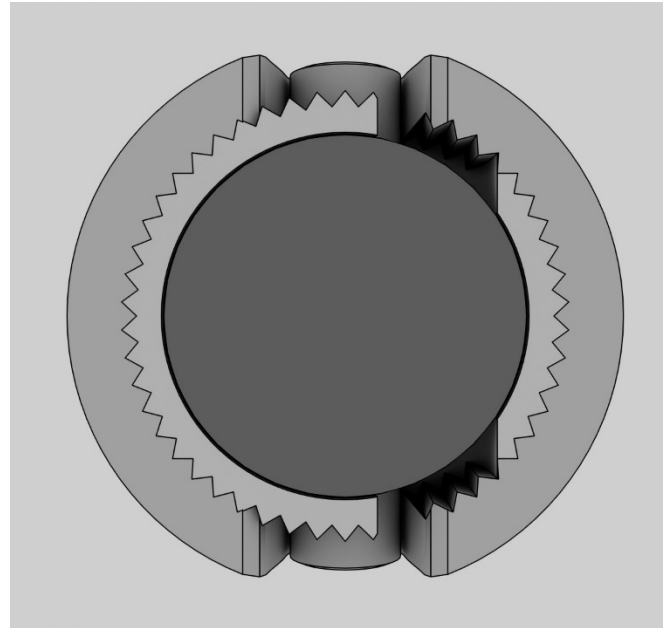
'660 Patent, the actuator and slots are never visible to the user, regardless of whether the actuator is in the first or second position. *See, e.g.*, EX1001, Figs. 9, 11; EX2011 ¶ 54. Because the visibility of the slots is not affected by the positioning of the actuator in the embodiments described in the '660 Patent, a POSITA would have found that the recited “obscures the first slot” is not referring to whether the actuator hinders the view of the first slot by a viewer of the appliance. EX2011 ¶ 54. Instead, a POSITA would have understood the recited “obscures the first slot” as used in the '660 Patent requires the actuator to tangibly fill or otherwise fall within the confines of the first slot, consistent with a POSITA’s general understanding of the word “obscures.” EX2011 ¶ 54.

Petitioners seem to be asserting that the actuator could “partially obscure[] the first slot” without filling or otherwise falling within the confines of the first slot. Pet., 25-26; EX1003 ¶ 89. The portion of Hoblingre Petitioners rely upon for this assertion is describing the elevational view of Figure 2 where a viewer cannot see all of the first slot. Pet., 26 (citing EX1004, 2:46-50); EX1003 ¶ 89 (citing same). However, Challenged Claim 2 does not specify a particular view or directional relationship between the appliance and a person viewing the appliance, and if the appliance of Hoblingre is rotated to different views, no portion of ring 18 would be between the viewer and slot 12. EX2011 ¶ 55. Instead, any inability to view all of slot 12 would be caused by the turn of slot 12 and socket 8, not

Hoblingre's guiding and locking means that Petitioners asserts corresponds to the claimed actuator. EX2011 ¶ 55. For example, below is a rendering of Figure 2 in Hoblingre and a cross-section of the rendering of Figure 2 taken just above pins 6.



Rendering of EX1005, Fig. 2



Cross-Section of Rendering

The cross-section view illustrates that ring 18 does not obscure any portion of slot 12. EX2011 ¶ 56. Instead, the partial obscurity referred to in the Petition is related solely to the side view in Figure 2 and not the actual relationship between slot 12 and ring 18. EX2011 ¶ 56.

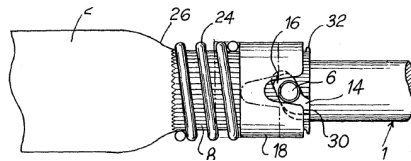
This is supported by the specification of Hoblingre. EX2011 ¶ 57. For example, Figure 1 of Hoblingre and the description in Hoblingre that “[s]lidably mounted on the socket 8 is a ring 18 which is connected to rotate with the socket

by any suitable means, such as flat faces, a polygonal shape or, as shown, longitudinal splines 20 provided on its inner surface and cooperating with complementary splines 22 on the outer surface of the socket 8,” EX-1004, 2:27-32, both show that the guiding and locking means does not cover slot 12 in all views. EX2011 ¶ 57. To be slidably mounted with the splines shown in Figure 1 on socket 8, ring 18 must surround socket 8. EX2011 ¶ 57. Because slot 12 is within the radius of socket 8, slot 28 is within the radius of ring 18, and the radius of ring 18 is outside the radius of socket 8, no portion of ring 18 physically enters into or otherwise obscures any portion of slot 12. EX2011 ¶ 57.

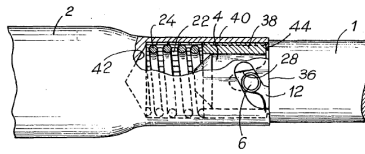
Reviewing Hoblingre’s disclosure of “the end edge 30 of the ring 18 partly closes this entrance of the slot 12” in context further clarifies that the phrase “partly closes” is irrelevant to the claimed phrase “partially obscures.” EX2011 ¶ 58. Hoblingre’s use of the phrase “partly closes” relates solely to whether entrance to slot 12 is closed to pin 6. EX2011 ¶ 58. Hoblingre specifies that this partial closing of the entrance of the slot 12 is caused by slots 28 being disposed on top of slots 12 of the socket 8 and laterally offset with regard to the entrance to slot 12. EX-1004, 2:46-50; EX2011 ¶ 58. The phrase “disposed on top of” relates solely to the elevational view of the assembled rapid fastener shown in Figure 2. EX2011 ¶ 58. Specifically, in the elevational view of Figure 2, slot 28 is in the same radial position with respect to slot 12, but Figure 2 is at an elevation closer to the viewer

of Figure 2 than slot 12. EX2011 ¶ 58. In other words, in the elevational view of Figure 2, slot 28 is “disposed on top of” slot 12. EX2011 ¶ 58. However, because slot 28 and slot 12 are on different elevations, no portion of ring 18 physically fills or otherwise falls within the confines of slot 12. EX2011 ¶ 58.

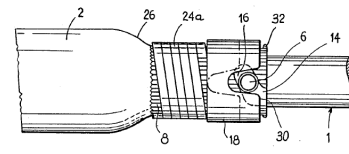
Thus, Hoblingre only discloses the guiding and locking means partly closing the entrance of slot 12 to pin 6, and not obscuring slot 12 as required by Challenged Claim 2. EX2011 ¶ 59. Hoblingre discloses ring 18 surrounding socket 8 and slot 12 within socket 8. EX1004, 2:19-23, 33-38; EX2011 ¶ 59. Pin 6 protrudes from elongated stem 4 a distance sufficient to pass through both slot 12 of socket 8 and slot 28 of ring 18 when driving pin 6 is within slot 12. EX1004, 3:5-8; EX2011 ¶ 59. Thus, ring 18 is only able to partly close the entrance of slot 12 to pin 6 when slot 28 of ring 18 is offset from slot 12 of socket 8. EX2011 ¶ 59. In other words, slot 28 in ring 18 merely guides and influences movement of driving pin 6, and it never fills or otherwise obscures slot 12. EX2011 ¶ 59. This restriction of pin 6’s movement relates only to the length of driving pin 6 and offset relationship of slot 12 and slot 28, not to any portion of Hoblingre’s guiding and locking means (which Petitioners assert corresponds to the claimed actuator) filling or otherwise obscuring slot 12. EX2011 ¶ 59. As shown in Hoblingre Figures 2-4 (below), the only element that physically enters into or otherwise obscures any portion of slot 12 is driving pin 6 of elongated stem 4. EX2011 ¶ 59.



EX1004, Fig. 2



EX1004, Fig. 3



EX1004, Fig. 4

Each of these figures have dashed lines identifying slot 12, and those dashed lines remain completely unchanged regardless of the position of ring 18. EX2011 ¶ 60.

Accordingly, no portion of Hoblingre’s guiding and locking means comprising ring 18 and coil spring 24, which Petitioners allege corresponds to the claimed actuator, obscures any portion of slot 12, which Petitioners allege corresponds to the claimed first slot. EX2011 ¶ 61. Although slot 12 and slot 28 being offset may guide the movement of pin 6 within slot 12, Hoblingre fails to disclose “wherein in the first position the actuator at least partially obscures the first slot.” Ground 1 fails with respect to Challenged Claim 2 for at least this reason.

2. Hoblingre does not disclose “wherein the surface is configured to at least partially define the first slot at or near the second position” as recited in Challenged Claim 4

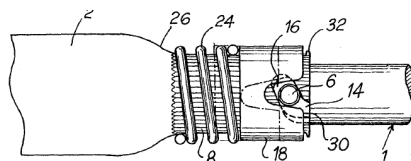
Petitioners allege that Hoblingre’s guiding and locking means comprising ring 18 and coil spring 24 corresponds to the claimed actuator and that ring 18 includes edge of slot 28 that allegedly corresponds to the claimed “the surface.” Pet., 27-28; EX1003 ¶ 95. Petitioners further describe the position of driving pin 6

in Figure 2, in which driving pin 6 is trapped between edges of the slots 12 and 28. Pet., 27-28; EX1003 ¶ 95.

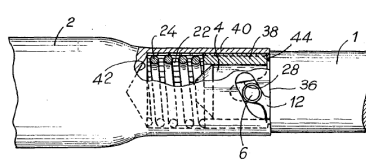
However, Petitioners' argument fails because Challenged Claim 4 does not specify a surface configured to trap the first protrusion, but instead requires the surface to be "configured to at least partially define the first slot at or near the second position." EX2011 ¶ 63. In fact, Challenged Claim 4 does not recite the first protrusion at all. EX2011 ¶ 63. Instead, Challenged Claim 4 requires the surface of the actuator introduced in Challenged Claim 3 to at least partially define the first slot formed in the body. EX2011 ¶ 63. A POSITA would have understood that "defin[ing] the first slot" requires the surface to change the shape or size of slot 12. EX2011 ¶ 63; *see also* EX1001, Figs. 1a, 1b (illustrating how surface 156 of actuator 50 changes the shape or size of slot 232a).

Hoblingre does not disclose that "the surface" from Challenged Claim 3, which Petitioners assert is the edge of slot 28, partially defines the first slot (slot 12) in the body. EX2011 ¶ 64. As discussed above in Section IV.A.1., ring 18 including edge of slot 28 in Hoblingre surrounds socket 8 containing slot 12. EX1004, 2:19-23, 33-38; EX2011 ¶ 64. Pin 6 protrudes from elongated stem 4 a distance sufficient to pass through both slot 12 of socket 8 and slot 28 of ring 18 when driving pin 6 is within slot 12. EX1004, 3:5-8; EX2011 ¶ 64. Thus, ring 18 is able to trap driving pin 6 within slot 12 without defining any portion of slot 12.

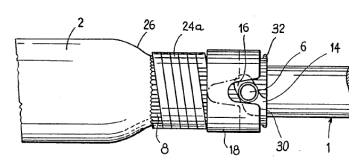
EX2011 ¶ 64. In other words, slot 28 in ring 18 merely guides driving pin 6, but does not in any way define slot 12. EX2011 ¶ 64. This guidance relates solely to the length of driving pin 6 and offset relationship of slot 12 and slot 28, not any interaction between slot 12 and ring 18 that changes the shape or size of slot 12. EX2011 ¶ 64. As shown in Figures 2-4 (below), the only element that is within the confines of slot 12 such that it could arguably partially define slot 12 is pin 6, not any portion of the guiding and locking means. EX2011 ¶ 64.



EX1004, Fig. 2



EX1004, Fig. 3



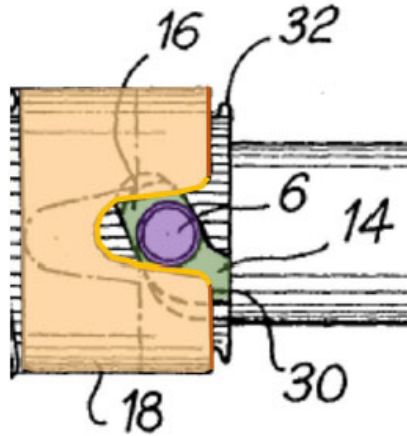
EX1004, Fig. 4

As discussed above, these figures have dashed lines identifying slot 12's boundaries, and those dashed lines remain completely unchanged regardless of the position of ring 18 and slot 28. EX2011 ¶ 65. Therefore, none of the space defined by slot 12 is defined by any portion of ring 18. EX2011 ¶ 65. Thus, no portion of slot 28 of ring 18, which Petitioners allege corresponds to the claimed surface of the actuator, defines any portion of slot 12, which Petitioners allege corresponds to the claimed first slot. EX2011 ¶ 65. Accordingly, although slot 12 and slot 28 trap driving pin 6 within slot 12, Hoblingre fails to disclose "wherein in the surface is configured to at least partially define the first slot at or near the

second position.” EX2011 ¶ 65. Ground 1 fails with respect to Challenged Claim 4 for at least this reason.

Petitioners have also failed to show that Hoblingre discloses Challenged Claim 4 because they have identified the incorrect claimed “the surface.” Challenged Claim 4 depends on Challenged Claim 3, which provides antecedent basis for “the surface” in Challenged Claim 4. Accordingly, “the surface” in Challenged Claim 4 must both “interact[] with the first protrusion when the first protrusion engages with the first slot,” as required in Challenged Claim 3, and must be “configured to at least partially define the first slot at or near the second position,” recited in Challenged Claim 4. Edge of slot 28, which Petitioners asserts corresponds to “the surface,” does not “interact[] with the first protrusion when the first protrusion engages with the first slot,” as required by Challenged Claim 3, so it cannot be the claimed “the surface” of Challenged Claim 4.

By using the term “when [it] engages” rather than “when [it] is engaged,” Challenged Claim 3 has a temporal component such that it is describing the surface of the actuator that interacts with the first protrusion as it is initially moved into the first slot. EX2011 ¶ 67. As Hoblingre’s driving pin 6 is first moved into contact with slot 12, driving pin 6 does not interact with edge of slot 28 (illustrated in orange below), but instead interacts with edge 30 (illustrated in red below). EX1004, 2:62-65; EX2011 ¶ 67.



Pet., 27; EX1003 ¶ 92

Thus, edge 30 is the correct claimed “surface” of Challenged Claim 3. EX2011 ¶ 68. However, Petitioners have not asserted that the edge of slot 30 “partially define[s] the first slot” in the second position, and, in fact, it does not. EX2011 ¶ 68. Thus, Petitioners have failed to meet their burden as to Challenged Claim 4 for at least this additional reason.⁸

B. GROUND 2: Hoblingre in view of Maclaine would not have rendered obvious Claims 1-9, 15, 18, 23, 24, and 30-32

Ground 2 should fail because Petitioners have not shown that a POSITA would have been motivated to combine Hoblingre with Maclaine. Because Ground 2 relies solely on Hoblingre for the additional limitations of Challenged

⁸ Because Petitioners identified the incorrect “surface” as disclosed in Challenged Claim 3, Petitioners have also failed to meet their burden for proving that Challenged Claims 3-6 are unpatentable.

Claims 2 and 4, Ground 2 also fails for the same reasons as Ground 1. Thus, Petitioners have not met their burden of showing by a preponderance of the evidence that any Challenged Claim would have been obvious, and the Board should find that none of the Challenged Claims are unpatentable under Ground 2.

1. Petitioners fail to provide sufficient rationale for combining Hoblingre and Maclaine as they propose

Petitioners argue that “a POSITA would have found it obvious that *Hoblingre*’s appliance could be a handheld appliance.” Pet., 40 (emphasis added); EX1003 ¶ 124 (emphasis added). In Ground 2, however, Petitioners’ alleged motivations to combine all relate to using *Maclaine* as the appliance with Hoblingre’s attachment mechanism. This is inconsistent with Petitioners’ allegations of the disclosure in the art whereby Petitioners rely solely on Hoblingre for each of the limitations in independent Claim 1, including the “appliance,” “body,” and “attachment,” except for the preamble’s requirement that the appliance be “handheld.” Pet., 35 (incorporating by reference analysis from Ground 1); EX1003 ¶ 123 (same); *see also* Pet., 43-49 (no analysis of the limitations of Claim 1 other than the preamble); EX1003 ¶ 129 (same). Thus, Petitioners have not met their burden of showing that a POSITA would have been motivated to combine the art to result in Petitioners’ proposed combination. *See Samsung Elecs. Co. v. Dynamics Inc.*, No. 2021-2352, 2022 WL 3041158, at *4

(Fed. Cir. Aug. 2, 2022) (recognizing that the Board had a duty to review motivation to combine as to the obviousness combination presented by the petitioner).

All of Petitioners' rationales for combining the teachings of Hoblingre and Maclaine allege why it would have been obvious for a POSITA to use the attachment mechanism disclosed in Hoblingre in the hair care appliance of Maclaine. For example, Petitioners allege that substituting the attachment mechanism of Hoblingre for that of Maclaine is a simple substitution; Hoblingre's attachment mechanism "ensures a connection with no axial or angular clearance permitting, on one hand, the transmission of even large torques, and, on the other hand, the establishment of the connection by a single shifting and being capable of being disassembled at any moment"; and using a known technique (Hoblingre's attachment mechanism) to improve devices (handheld appliance of Maclaine) in the same way to yield predictable results (a fast, simple, and reliable coupler mechanism). Pet., 40-43; EX1003 ¶¶ 124-127. Thus, Petitioners improperly focus on incorporating Hoblingre's attachment mechanism into Maclaine when that is inconsistent with the proposed combination.

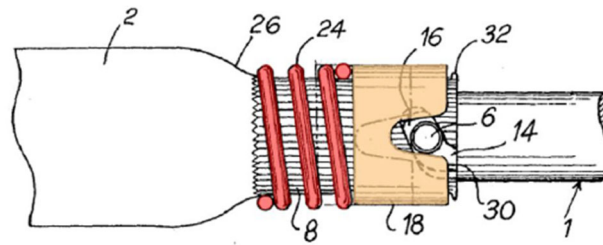
Even if Petitioners' rationales to combine Hoblingre and Maclaine are substantively considered, Petitioners did not meet their burden of showing a motivation to combine the references. Each of Petitioners' alleged rationales are

merely conclusory statements with no explanation for why the combination is a simple substitution, why the advantages of the attachment in Hoblingre for joining two torque transmitting shafts is relevant to the handheld appliance of Maclaine, or why the substitution would improve the handheld appliance of Maclaine.

Further, Petitioners fail to address problems that a POSITA would have recognized in using the connection of Hoblingre in the appliance of Maclaine. EX2011 ¶ 70. To support the alleged rationales for combining Hoblingre and Maclaine, Petitioners cite paragraphs 124-127 of the Declaration of Dr. Nosenchuck (EX1003). However, these paragraphs also merely make conclusory statements about simple substitution, alleged advantages, and alleged improvement of the handheld appliance without providing any explanation for such conclusory statements, nor do any of these paragraphs address the significant concerns a POSITA would have recognized with using the connection of Hoblingre in a hair care appliance. EX2011 ¶ 70.

For example, neither Petitioners nor Dr. Nosenchuck have addressed how the rapid fastener of Hoblingre would have been expected to be useable in a handheld hair care appliance of Maclaine. As shown below in Figure 2 of Hoblingre as annotated by Petitioners, the rapid fastener of Hoblingre includes an exposed coil spring 24 and at least one driving pin 6 that slides within slot 12 when ring 18 is slid vertically towards the coil spring 24. EX2011 ¶ 71.

FIG.2



Pet., 19

The '660 Patent explicitly discloses that “hair is intended to wrap around the attachment during use.” EX1001, 8:44-47; EX2011 ¶ 72. Given this, in Petitioners’ proposed combination, Hoblingre’s ring 18, driving pin 6, slot 12, and coil spring 24 are all places for hair to get caught if used as a fastener for a handheld hair care appliance such as the one disclosed in Maclaine. EX2011 ¶ 72. Neither Petitioners nor Dr. Nosenchuck provide any explanation for why one of ordinary skill in the art would have found substituting the above attachment mechanism with a myriad of hair catching elements for the collar enclosed attachment mechanism of Maclaine, which has no exposed elements that would be expected to catch hair during use, to be a simple substitution. EX2011 ¶ 72.

In contrast to the lack of consideration by Dr. Nosenchuck, Petitioners’ expert, Mr. Delman, explains that safety and ease of use are always paramount considerations in a POSITA’s work. EX2011 ¶ 73. Understanding the user, and the way a product will be used, are critical to achieving those goals. EX2011 ¶ 73. When designing a hair styling appliance, it would have been clear to a POSITA

that smooth surfaces should be obtained so as not to unintentionally capture or tear the user's hair (other than those features which are intended to engage with the hair, such as the way hair is clamped within certain curling or straightening appliances). EX2011 ¶ 73. As such, Hoblingre's prominent exposed spring, ring, driving pins, and slots are something any POSITA would have known not to include, as such elements are likely to do exactly what the POSITA would be trying to avoid—capture and/or tearing of the user's hair. EX2011 ¶ 73.

Furthermore, the visual perception such elements create to a user—prominent features a user will perceive as making the appliance difficult and potentially dangerous to use—is something a POSITA would have strived to avoid from a purely business standpoint, as it would make the appliance uncompetitive in the marketplace of styling devices that generally feature smooth, user-friendly surfaces. EX2011 ¶ 73.

The above concerns are not solved by the embodiment illustrated in Figure 3 of Hoblingre. EX2011 ¶ 74. Although the spring is provided interior of socket 40, at least the driving pins 6, slots 12, and slots 28 of ring 18 remain as features that would be expected to capture or tear the user's hair or at least create a visual perception that would render the appliance uncompetitive in the marketplace of styling devices. EX2011 ¶ 74.

While Petitioners also cite Hoblingre's recognized advantages of its fastener, they fail to show how those advantages would have motivated a POSITA to make the proposed combination. Specifically, Petitioners note that a POSITA would have been motivated to use "Hoblingre's improved 'coupling of the bayonet type' that 'ensures a connection with no axial or angular clearance permitting, on one hand, the transmission of even large torques and, on the other hand, the establishment of the connection by a single shifting and being capable of being disassembled at any moment' in a handheld hair care appliance," without any discussion of why these advantages are relevant or useful to the handheld hair care appliance of Maclaine. Pet., 41 (quoting EX1004, 1:28-35); EX1003 ¶ 124.

However, Hoblingre itself does not support this interpretation. EX2011 ¶ 76. Hoblingre merely states that its rapid fastener is an improvement over other known bayonet type couplings. EX2011 ¶ 76. In other words, the advantages cited by Petitioners merely provide reasons to use Hoblingre's bayonet type coupling in place of other bayonet type couplings. EX2011 ¶ 76. Neither Hoblingre nor Petitioners provide any rationale for why a bayonet type coupling, much less the one taught by Hoblingre, should be used in a handheld hair care appliance or substituted for the collar and twist lock joint in Maclaine. EX2011 ¶ 76. The collar and twist lock joint of Maclaine already provides for easy assembly and disassembly. EX2011 ¶ 76. Further, a POSITA would not have expected the

haircare appliance of Maclaine to require the transmission of large torques discussed in Hoblingre with respect to steering columns on an automobile.

EX2011 ¶ 76.

Petitioners appear to focus on the latter advantages disclosed in Hoblingre, namely “the establishment of the connection by a single shifting and being capable of being disassembled at any moment.” Pet., 41-42; EX1003 ¶ 124. Again, although this may be an advantage over other bayonet type couplings, neither Petitioners nor Dr. Nosenchuck provide any explanation for why the attachment mechanism would be better or even as good as the collar and twist lock joint of Maclaine with regard to establishing a connection by a single shifting and being capable of being disassembled at any moment. EX2011 ¶ 77.

Finally, as to Petitioners’ allegation that the combination is nothing more than using a known technique to improve devices in the same way to yield predictable results, neither Petitioners nor Dr. Nosenchuck provide any explanation for how the coupling mechanism of Hoblingre would improve the handheld hair care appliance of Maclaine. Instead, Petitioners and Dr. Nosenchuck merely repeat the same conclusory statement and allege without any evidence that the substitution would result in a fast, simple, and reliable coupler mechanism. Pet., 42; EX1003 ¶ 126. However, a POSITA would have known that the collar and twist lock joint of Maclaine is already a fast, simple, and reliable coupler

mechanism, especially with regard to a hair care appliance, whereas the exposed elements of coupling mechanism of Hoblingre would have been expected to cause potential issues with use of the hair care appliance. EX2011 ¶ 78. Petitioners fail to address either of these drawbacks with respect to the conclusion that the substitution would improve the hair care appliance of Maclaine.

Thus, Petitioners have not met their burden of showing that a POSITA would have been motivated to combine Hoblingre with Maclaine, and thus have not met their burden as to Ground 2.

2. Petitioners fail to show that the combination of Hoblingre and Maclaine discloses the limitations of Claims 2 and 4

Petitioners rely solely on the teachings of Hoblingre for the limitations of Claim 1 other than “handheld” in the preamble. Pet., 35 (incorporating by reference analysis from Ground 1); EX1003 ¶ 123 (same); *see also* Pet., 43-49 (no analysis of the limitations of Claim 1 other than the preamble); EX1003 ¶ 129.

However, as discussed above, Hoblingre fails to disclose all the additional limitations of Challenged Claims 2 and 4. *See supra* §§ IV.A.1., IV.A.2. Thus, Ground 2 also fails for this reason with regard to Challenged Claims 2 and 4.

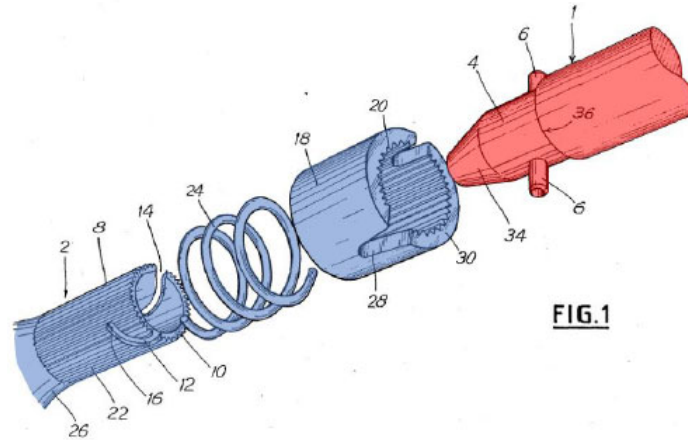
3. Petitioners fail to show that the combination of Hoblingre and Maclaine would have rendered the limitations of Challenged Claim 18 obvious

Petitioners rely solely on the teachings of Hoblingre for the limitations of Claim 1 other than “handheld” in the preamble. Pet., 35 (incorporating by reference analysis from Ground 1); EX1003 ¶ 123 (same); *see also* Pet., 43-49 (no analysis of the limitations of Claim 1 other than the preamble); EX1003 ¶ 129. Then, for Challenged Claim 18, which includes the limitations of Challenged Claim 1, Petitioners rely on the alleged teaching of a collar in Maclaine. Pet., 46-48; EX1003 ¶¶ 132-135. However, Petitioners fail to provide any rationale for why it would have been obvious to incorporate the collar of Maclaine into the structural features of Hoblingre. Instead, Petitioners allege that a POSITA would have been motivated to combine Hoblingre and Maclaine for the reasons set forth in Section IV.B.1.b of the Petition. Pet., 40-43; EX1003 ¶¶ 124-127. However, as discussed above, the alleged motivations to combine Hoblingre and Maclaine set forth in Section IV.B.1.b of the Petition relate to modifying Maclaine to substitute the connection of Hoblingre for the connection disclosed in Maclaine. Thus, in Petitioners’ proposed combination, the connection between body and attachment is the connection of Hoblingre. Petitioners fail to provide any rationale for why it would have been obvious to modify the connection of Hoblingre to include the collar of Maclaine. Specifically, the collar in Maclaine is an element of the

connection between body and attachment that would be replaced by Hoblingre's attachment mechanism in Petitioners' proposed combination of Hoblingre and Maclaine.

In addition to Petitioners failing to provide any rationale for including the collar of Maclaine in the proposed combination of Hoblingre and Maclaine, a POSITA would have recognized that adding a collar to the connection of Hoblingre would render the connection more difficult to disassemble, thus not leading a POSITA to make such a modification. EX2011 ¶ 82. Disassembly of the connection in Hoblingre requires a user urging the ring 18 against the action of the spring 24 to release driving pins 6 and element 1. EX1004, 3:37-40; EX2011 ¶ 82. If the collar of Maclaine is added to Hoblingre, the collar would interfere with the user's ability to access ring 18 to urge it against the action of the spring 24. EX2011 ¶ 82.

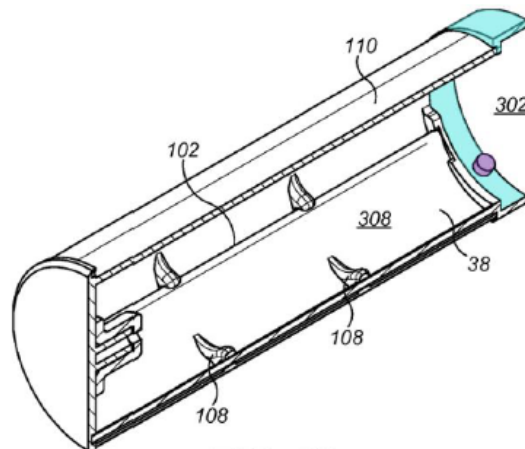
Further, the collar in Challenged Claim 18 is part of the attachment. EX2011 ¶ 83. Petitioners allege that element 1 comprising driving pins 6 corresponds to the claimed attachment, as illustrated in red below. Pet., 14-15; EX1003 ¶ 67.



Pet., 15; EX1003 ¶ 67

However, Petitioners have failed to provide any explanation for how a collar on element 1 would not interfere with the connection between elements 1 and 2. The connection of Hoblingre involves elongated stem 4 fitting within socket 8 and pins 6 protruding from the elongated stem to extend through slots 12 and slots 28.

EX1004, Figs. 1-4; EX2011 ¶ 84. As illustrated below, the collar of Maclaine (light blue) extends beyond the axial extent of the attachment. EX1007, Figs. 1b, 3b, 4b, 9b, and 10b; EX2011 ¶ 84.



Pet., 47; EX1003 ¶ 133

A POSITA would have known that a collar extending beyond the axial extent of elongated stem 4 in Hoblingre would interfere with the fit between elongated stem 4 and socket 8 and thus would interfere with the connection between elements 1 and 2. EX2011 ¶ 85. Also, a collar extending beyond the axial extent of elongated stem 4 would be inside socket 8 and not cover any connecting feature in Hoblingre and thus any of the advantages of the collar in Maclaine would not be relevant.

EX2011 ¶ 85. If a POSITA added a collar to Hoblingre to cover connecting features such as pins 6, the collar would interfere with the path of pins 6 through slot 12 and slot 28, thereby making Hoblingre's attachment mechanism inoperable.

EX2011 ¶ 85. Accordingly, a POSITA would have had no reason to modify Hoblingre or the connection of Hoblingre in a combination with Maclaine to meet the limitation "wherein the attachment comprises a collar extending around the attachment." EX2011 ¶ 85.

In addition, even if it were obvious to include a collar extending around the attachment, it would not have been obvious that "the first protrusion extends from the collar," as required by Challenged Claim 18. EX2011 ¶ 86. Petitioners fail to discuss whether the addition of a collar from Maclaine in the connection of Hoblingre would result in the pins 6 being moved to the collar. Instead, Petitioners merely show protrusions on the collar and twist connection of Maclaine, which is not present in Petitioners' proposed Ground 2 in which the bayonet type

connection of Hoblingre replaces the collar and twist connection of Maclaine. Pet., 46-47; EX1003 ¶ 133. Hoblingre only describes pins 6 protruding outward from elongated stem 4 and a POSITA would not have expected success from modifying Hoblingre to include pins 6 protruding from a collar extending around element 1. EX2011 ¶ 86. If pins 6 protrude outwardly from the collar, the collar either interferes with the fit between socket 8 and elongated stem 4 as discussed above if the collar is interior to ring 18, or does not interact with slot 12 or slot 28 if the collar is exterior to ring 18. EX2011 ¶ 86. In either case, a POSITA would have recognized that such a modification would render Hoblingre unsatisfactory for its intended purpose to transmit large torques between elements 1 and 2. EX2011 ¶ 86. Specifically, where there is a gap or interfering elements between socket 8 and elongated stem 4, there could be potential for slippage between the elements 1 and 2 when transmitting large torques. EX2011 ¶ 86.

Alternatively, Petitioners provide no rationale to modify Hoblingre to have a collar exterior to ring 18 that includes pins 6 protruding inwardly towards elongated stem 4. The pins 6 in Hoblingre are guided and trapped within slot 12 of socket 8 because they protrude outward from elongated stem 4 through both slot 12 and slot 28. EX1004, 3:5-8; EX2011 ¶ 87. If Hoblingre were modified to include pins 6 protruding inwardly from a collar as shown in Maclaine, then pins 6 would either not protrude through slot 12 or a gap would need to be created between

socket 8 and elongated stem 4 to allow for pins 6 to protrude through slot 12 in socket 8. EX2011 ¶ 87. If pins 6 do not protrude through slot 12, there would be increased potential for pins 6 to not stay trapped by the interaction of slots 12 and 28. EX2011 ¶ 87. Creating a gap between socket 8 and elongated stem 4 creates the potential for slippage between the elements 1 and 2 when transmitting large torques as explained above. EX2011 ¶ 87.

Accordingly, a POSITA would not have been motivated to modify Petitioners' proposed combination of Hoblingre and Maclaine to include the collar of Maclaine. Thus, Ground 2 also fails for this reason with regard to Challenged Claim 18.

4. Petitioners fail to show that the combination of Hoblingre and Maclaine discloses the limitations of Challenged Claims 30 and 31

Petitioners rely solely on the teachings of Hoblingre for the limitations of Claim 1 other than "handheld" in the preamble. Pet., 35 (incorporating by reference analysis from Ground 1); EX1003 ¶ 123 (same); *see also* Pet., 43-49 (no analysis of the limitations of Claim 1 other than the preamble); EX1003 ¶ 129. In addition, specifically with regard to Challenged Claim 30, Petitioners rely solely on Hoblingre for all the elements in Challenged Claim 1 by referring strictly to Sections IV.A.2.a-f of the Petition, and they rely exclusively on this analysis for Challenged Claim 31 as well. Pet., 48-49; EX1003 ¶¶ 136-138. Petitioners further

allege that Maclaine discloses “a hair care appliance” (Claim 30) and “a hot styling appliance” (Claim 31). Pet., 48-49; EX1003 ¶¶ 136-138. However, Petitioners provide no rationale for how Hoblingre could be used as a hair care appliance or hot styling appliance or why it would have been obvious to modify Hoblingre such that it could be used as a hair care appliance or hot styling appliance. EX2011 ¶ 90. In particular, Petitioners rely strictly on element 2 to correspond to the claimed body and element 1 to correspond to the claimed attachment. Pet., 14-15; EX1003 ¶ 67; EX2011 ¶ 90. However, Petitioners have not explained how elements 1 and 2 are capable of use as a hair care appliance or hot styling appliance without any air flow capability (for Claim 30) or heating element (for Claim 31) or why it would have been obvious to modify elements 1 and 2 to make them capable of use as a hair care appliance or hot styling appliance. EX2011 ¶ 90. Thus, Ground 2 also fails for this reason with regard to Challenged Claims 30 and 31.

C. GROUND 3: Hoblingre in view of Maclaine and Jeannet would not have rendered obvious the Challenged Claims

Ground 3 includes the deficiencies of Grounds 1 and 2. Petitioners rely upon the analysis for Grounds 1 and 2 as to all of the Challenged Claims other than Claims 33 and 34. Pet., 50 (incorporating by reference analysis of Grounds 1 and 2); EX1003 ¶ 139 (same); *see also* Pet., 53-59 (only addressing Claims 33 and 34); EX1003 ¶¶ 139-160 (same). Because Ground 3 relies solely on Hoblingre for the

additional limitations of Challenged Claims 2 and 4, Ground 3 also fails for the same reasons as Ground 1. Petitioners incorporate by reference their discussion of those limitations in Grounds 1 and 2 as to Claim 1 without providing any further disclosure in Jeannet. Pet., 53; EX1003 ¶ 139. Thus, for the same reasons articulated above as to Grounds 1 and 2, Petitioners have not met their burden of showing by a preponderance of the evidence that any Challenged Claim was obvious, and the Board should find that none of the Challenged Claims are unpatentable under Ground 3.

In addition, Petitioners fail to provide an adequate rationale for why it would have been obvious to incorporate Jeannet's unlocking button into the alleged Hoblingre and Maclaine system. Specifically, the alleged combination of Hoblingre and Maclaine suggested in Section IV.B.1.b of the Petition results in the bayonet type coupling of Hoblingre in the handheld hair care appliance of Maclaine. Petitioners allege that adding Jeannet's unlocking button to the Hoblingre and Maclaine system provides a relatively easy way to release the coupling, and Jeannet's unlocking button would have been a simple addition to allegedly result in a simpler and easier to use unlocking mechanism. Pet., 52-53; EX1003 ¶¶ 140-142. However, just as with those provided for Ground 2, each of these alleged rationales are merely conclusory statements with no explanation for

why Jeannet's unlocking button would make unlocking the bayonet coupling of Hoblingre simpler or easier to use.

To support the alleged rationales for combining Jeannet's unlocking button with Hoblingre and Maclaine, Petitioners cite paragraphs 140-142 of the Declaration of Dr. Nosenchuck (EX1003). However, these paragraphs also merely make conclusory statements about simple substitution and alleged advantages without providing any explanation for such conclusory statements. For example, neither Petitioners nor Dr. Nosenchuck address how the unlocking button of Jeannet being added to the outside of Hoblingre's ring 18 would actuate ring 18 to be pushed against coil spring 24 and thus unlocking driving pin 6. EX2011 ¶ 93. Similarly, neither Petitioners nor Dr. Nosenchuck provide any explanation for how a button to release a catch would be simpler or easier to use than Hoblingre's release mechanism of pushing ring down towards coil spring 24. EX2011 ¶ 93. Thus, none of the rationales provided by Petitioners to add the unlocking button of Jeannet to the coupling of Hoblingre appears relevant to Hoblingre and instead would have at most been expected to complicate the coupling. EX2011 ¶ 93.

For example, adding a button to Hoblingre would require some mechanism that would move ring 18 against spring 24 based on movement of the button. EX2011 ¶ 94. Petitioners provide no explanation for how such a mechanism would function or where such a button would be placed in relation to ring 18.

EX2011 ¶ 94. Even if such a mechanism were possible, a POSITA would have been expected it to be substantially more complex and more difficult to use than the system in Hoblingre that merely requires the user to urge ring 18 toward spring 24. EX2011 ¶ 94. Such a mechanism would have been expected to need substantially more moving parts than the connection system of Hoblingre. EX2011 ¶ 94. Petitioners provide no explanation for how moving a button connected through some mechanism would be easier for a user than Hoblingre's system that merely requires moving ring 18 towards spring 24, which Hoblingre refers to as a connection that is "very easily dismantled." EX1004, 3:37-40.

Thus, Petitioners have not met their burden of showing that the Challenged Claims were obvious in view of Hoblingre in combination with Maclaine and Jeannet under Ground 3, and thus Ground 3 fails, especially with regard to Challenged Claims 33 and 34.

D. GROUND 4: Mouhot does not anticipate Claims 1-9, 15, 23, 24, and 32

Ground 4 should fail because Petitioners have not shown that Mouhot discloses the claimed "the first slot extends . . . radially around . . . the body," which is recited in all of the Claims Challenged in Ground 4. Petitioners have also failed to establish by a preponderance of the evidence that Mouhot teaches an "actuator" as claimed in all of the Claims Challenged in Ground 4.

1. Petitioners fail to show that Mouhot discloses the claimed “the first slot extends . . . radially around . . . the body” present in all Challenged Claims in Ground 4

Petitioners have not met their burden of showing that Mouhot discloses “the first slot extends . . . radially around . . . the body,” as required by independent Claim 1, from which all of the Challenged Claims in Ground 4 depend. Petitioners assert that slot 7 and corresponding stop means 9 comprise the “first slot” as illustrated in green below:

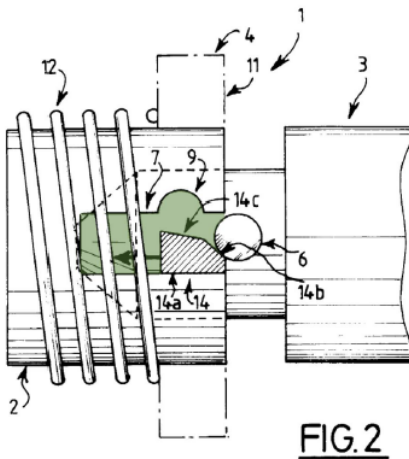
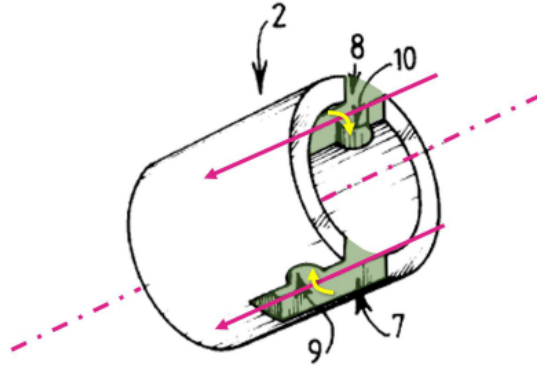


FIG. 2

Pet., 64; EX1003 ¶ 174

Petitioners then assert that slot 7, which Mouhot described as an “axial slot[],” extends along a longitudinal axis and that stop means 9 extends laterally from slot 7. Pet., 70; EX1003 ¶ 183. Petitioners further assert that because the stop means 9 extends laterally, slot 7 extends radially around socket 2 as illustrated below in yellow. Pet., 70; EX1003 ¶ 183.



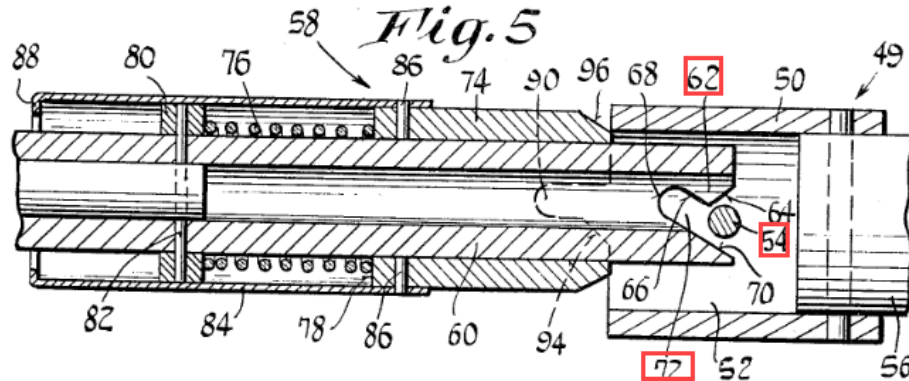
Pet., 70; EX1003 ¶ 183

However, although stop means 9 is a notch in slot 7, as illustrated above, the notch does not change the direction of slot 7. EX2011 ¶ 98. As illustrated above, slot 7 continues axially along socket 2 past the stop means 9 and at no time does slot 7 extend radially around socket 2, which Petitioners allege corresponds to the claimed body. EX2011 ¶ 98. Although the combination of wedge-shaped means 14 and stop means 9 may allow for lateral protruding part 6 to move in a radial direction around socket 2, slot 7 itself continues to extend axially along socket 2. EX2011 ¶ 98. Thus, Mouhot teaches a slot that only extends along a longitudinal axis, not both radially around and axially along the body as required by independent Claim 1. EX2011 ¶ 98.

Petitioners attempt to overcome the above deficiency of Mouhot by arguing that stop means 9 is part of slot 7. Pet., 71; EX1003 ¶ 183. However, unlike the slots described in the '660 Patent that have a curve that enables an extension in the axial and radial directions, EX1001, 4:65-67, Figs. 6a, 6b, Mouhot instead

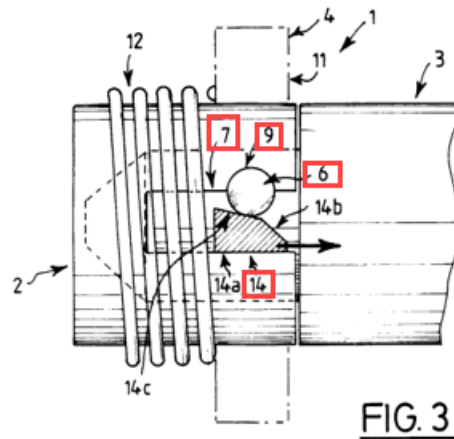
discloses merely an axial slot with a notch or widening portion that enables wedge-shaped means 14 to urge at least a portion of lateral protruding part 6 out of slot 7 so that it is stopped from movement within the slot. EX1005, 3:3-20; EX2011 ¶ 99. The specification and drawings of the '660 Patent and the prosecution history support the position that a slot proceeding in a single direct (axial or radial) that has a notch or protuberance that can change the direction of the protuberance passing through the slot, such as that disclosed in Mouhot, does not disclose the claimed “the first slot extends both radially around and axially along the body.” EX2011 ¶ 99.

In particular, the limitation “the first slot extends both radially around and axially along the body” was added during prosecution of the '660 Patent in order to overcome U.S. Patent No. 3,280,439 (“McCarthy”). Pet., 9 (citing EX1002, 100-116). As illustrated below, McCarthy discloses a slot 72 that extends radially around the body as well as protuberant side wall portions 62 that create an entrance to slot 72 such that the locking pin 54 follows an axial extension until locking pin 54 passes protuberant sidewall portion 62 and follows the slot 72 radially around the body. EX2009, Fig. 5, 4:36-45; EX2011 ¶ 100.



EX2009, Fig. 5 (annotated)

As illustrated below, in a similar manner, slot 7 of Mouhot extends only axially along the body and not radially around the body even though lateral protruding part 6 can be pushed into stop means 9 by wedge-shaped means 14 while passing along slot 7. EX2011 ¶ 101.



EX1005, Fig. 3 (annotated)

Thus, during prosecution, the Examiner found that a disclosure similar to Mouhot did not meet the limitation requiring “the first slot . . . extends both radially around and axially along the body.” See EX1002, 66, 81-92, 100-116; EX2011 ¶ 102.

Accordingly, Petitioners have not shown by a preponderance of the evidence that Mouhot discloses “the first slot extends . . . radially around . . . the body,” and Ground 4 fails on that basis alone.

2. Petitioners fail to show that Mouhot teaches the claimed “actuator”

Petitioners allege that locking means 4 that comprises ring 11 and coil spring 12 constitutes the claimed “actuator.” Pet., 65; EX1003 ¶ 176). However, neither Petitioners nor Dr. Nosenchuck provide any explanation for why locking means 4 corresponds to the claimed “actuator.” The ’660 Patent discloses that the purpose of actuator 50 is “to retain attachment 20 on the body 210 until the user wishes to change the attachment or remove the attachment for storage purposes.” EX1001, 5:1-4; EX2011 ¶ 104. Actuator 50 includes both “a first part 52 which physically retains a protrusion 30 within slot 232a and a second part 54 which a user interacts with” and “[t]he first part 52 of the actuator 50 functions to retain the protrusion 30 in slot 232a until the user moves the actuator 50 to allow the protrusion 30 to be removed from the slot 232a.” EX1001, 5:4-14; EX2011 ¶ 104. This is consistent with how a POSITA would have interpreted the meaning of “actuator” as allowing a user to apply force in order to both retain an attachment as well as remove an attachment. EX2011 ¶ 104.

Conversely, Mouhot does not disclose the claimed “actuator” such that a user applies force to both retain shank 3, which Petitioners allege is the claimed

“attachment,” into socket 2 and locking means 4, which Petitioners allege is the claimed “body,” as well as to release shank 3 from socket 2 and locking means 4. EX2011 ¶ 105. Notably, there is no description of locking means 4 transmitting force to another feature. EX2011 ¶ 105. A POSITA would have recognized that, rather than describe a release mechanism, locking means 4 merely blocks movement of lateral protruding part 6 until a force greater than the blocking force is applied to shank 3. EX2011 ¶ 105. Unlike the claimed “actuator” in the ’660 Patent, Mouhot fails to provide any description of the user applying a force to locking means 4 to change the locking position of locking means 4. EX2011 ¶ 105. Instead, based on the wedge shape of wedge-shaped means 14, it appears that ring 11 is merely a blocking element similar to a wall in the slot 7 that prevents protruding part 6 from moving further down slot 7. EX2011 ¶ 105. Also, because wedge-shaped means 14 blocks less of slot 7 towards the entrance of slot 7, little force is required for protruding part 6 to be pulled back toward the entrance of slot 7 for disassembly. EX2011 ¶ 105. Thus, there is no disclosure or suggestion in Mouhot that a user applies any force to ring 11 in order to disassemble shank 3 from socket 2 and locking means 4. EX2011 ¶ 105. Accordingly, a POSITA would have recognized that ring 11 of locking mechanism 4 acts like a blocking mechanism or wall rather than the claimed “actuator.” EX2011 ¶ 105.

Thus, Petitioners have not shown by a preponderance of the evidence that Mouhot discloses the claimed “actuator,” and Ground 4 also fails on that basis alone.

E. GROUND 5: Mouhot in view of Maclaine would not have rendered obvious Claims 1-9, 15, 18, 23, 24, 30-32

Ground 5 should fail because Petitioners have not shown that a POSITA would have been motivated to combine Mouhot with Maclaine. Because Ground 5 relies solely on Mouhot for the claimed “actuator” as well as for “the first slot extends . . . radially around . . . the body,” Ground 5 also fails for the same reasons as Ground 4. Thus, Petitioners have not met their burden of showing by a preponderance of the evidence that any Challenged Claim would have been obvious, and the Board should find that none of the Challenged Claims are unpatentable under Ground 5.

1. Petitioners fail to provide sufficient rationale for combining Mouhot and Maclaine as they propose

Petitioners argue that “a POSITA would have found it obvious that *Mouhot*’s appliance could be a handheld appliance.” Pet., 88 (emphasis added); EX1003 ¶ 21 (emphasis added). In Ground 5, however, Petitioners’ alleged motivations to combine all relate to using *Maclaine* as the appliance with Mouhot’s attachment mechanism, which is inconsistent with Petitioners’ allegations of the disclosure in the art whereby Petitioners rely solely on Mouhot

for each of the limitations in independent Claim 1, including “appliance,” “body,” and “attachment,” except for the preamble’s requirement that the appliance be “handheld.” Pet., 88 (incorporating by reference analysis from Ground 4); EX1003 ¶ 220 (same); *see also* Pet., 91-94 (no analysis of Claim 1 other than the preamble); EX1003 ¶¶ 225-226 (same). Thus, like in Ground 2, Petitioners’ have not met their burden of showing that a POSITA would have been motivated to combine the art to result in Petitioners’ proposed combination. *See Samsung Elecs.*, 2022 WL 3041158, at *4 (recognizing that the Board had a duty to review motivation to combine as to the obviousness combination presented by the petitioner).

All of Petitioners’ rationales for combining the teachings of Mouhot and Maclaine allege why it would have been obvious for a POSITA to use the attachment mechanism disclosed in Mouhot in the hair care appliance of Maclaine. Pet., 88-90; EX1003 ¶¶ 221-224. For example, Petitioners allege that it would have been obvious to substitute the attachment mechanism of Mouhot for that of Maclaine because Mouhot’s coupling mechanism is “extremely simple, reliable and easy to manufacture”; and using a known technique (Mouhots’s coupling mechanism) to improve devices (handheld appliance of Maclaine) in the same way to yield predictable results (a fast, simple, reliable, and easy to manufacture coupler mechanism) is a simple substitution. Pet., 88-90; EX1003 ¶¶ 221-224.

Thus, Petitioners improperly focus on incorporating Mouhot's attachment mechanism into Maclaine when that is inconsistent with the proposed combination.

Even if Petitioners' rationales to combine Mouhot and Maclaine are substantively considered, Petitioners did not meet their burden of showing a motivation to combine the references. Each of Petitioners' alleged rationales are merely conclusory statements with no explanation for why the combination is a simple substitution, why the advantages of the attachment in Mouhot for joining two torque transmitting shafts are relevant to the handheld appliance of Maclaine, or why the substitution would improve the handheld appliance of Maclaine.

Further, Petitioners fail to address problems that a POSITA would have recognized in using the connection of Mouhot in the appliance of Maclaine. EX2011 ¶ 108. To support the alleged rationales for combining Mouhot and Maclaine, Petitioners cite to paragraphs 221-224 of the Declaration of Dr. Nosenchuck (EX1003). However, these paragraphs also merely make conclusory statements about simple substitution, alleged advantages, and alleged improvement of the handheld appliance without providing any explanation for such conclusory statements, nor do any of these paragraphs address the concerns with using the connection of Mouhot in a hair care appliance. EX2011 ¶ 108.

Petitioners and Dr. Nosenchuck conclude that substituting Mouhot's coupling mechanism for that of Maclaine would "improv[e] the usability of such a

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POSITA would have found substituting the above coupling mechanism with a myriad of hair catching elements for the collar enclosed attachment mechanism of Maclaine, which has no exposed elements that would be expected to catch hair during use, would have improved the usability of the hair care appliance.

In contrast to the lack of consideration by Dr. Nosenchuck, Petitioners' expert, Mr. Delman, explains that safety and ease of use are always paramount considerations in a POSITA's work. EX2011 ¶ 111. Understanding the user, and the way a product will be used, are critical to achieving those goals. EX2011 ¶ 111. When designing a hair styling appliance, it would have been clear to a POSITA that smooth surfaces should be obtained so as not to unintentionally capture or tear the user's hair (other than those features which are intended to engage with the hair, such as the way hair is clamped within certain curling or straightening appliances). EX2011 ¶ 111. As such, Mouhot's prominent exposed coil spring, protruding part, slots, and ring with wedge-shaped means are something any POSITA would have known not to include, as such elements are likely to do exactly what the POSITA would be trying to avoid—capture and/or tear the user's hair. EX2011 ¶ 111. Furthermore, the visual perception such elements create to a user—prominent features a user will perceive as making the appliance difficult and potentially dangerous to use—is something a POSITA would have strived to avoid from a purely business standpoint, as it would make

the appliance uncompetitive in the marketplace of styling devices which generally feature smooth, user-friendly surfaces. EX2011 ¶ 111.

While Petitioners also allege that a “POSITA would have been motivated to implement Mouhot’s ‘extremely simple, reliable and easy to manufacture,’ Ex. 1005, [0028], coupling mechanism,” Pet., 88; EX1003 ¶ 221, they fail to explain how this would have motivated a POSITA to make the proposed combination. This is merely a conclusory statement with no explanation for why a POSITA would have been motivated to substitute the coupling mechanism of Mouhot for what appears to be a simple, reliable, and easy to manufacture collar and twist lock joint of Maclaine. Specifically, neither Petitioners nor Dr. Nosenchuck provide an explanation as to why the coupling of Maclaine is not at least as simple, reliable, and easy to manufacture as the coupling mechanism of Mouhot that involves coil spring 12, protruding parts 5, 6, slots 7, 8, socket 2, and ring 11, which includes wedge-shaped means 13, 14.

Finally, as to Petitioners’ allegation that the combination is nothing more than using a known technique to improve devices in the same way to yield predictable results, neither Petitioners nor Dr. Nosenchuck provide any explanation for how the coupling mechanism of Mouhot would improve the handheld hair care appliance of Maclaine. Instead, the Petition and Dr. Nosenchuck merely repeat the same conclusory statement and allege without any evidence that the substitution

would result in a fast, simple, and reliable, and easy to manufacture coupler mechanism. Pet., 88-90; EX1003 ¶¶ 222-224. However, a POSITA would have known that the collar and twist lock joint of Maclaine is already a fast, simple, reliable, and easy to manufacture coupler mechanism especially with regard to a hair care appliance, whereas the exposed elements of coupling mechanism of Mouhot would have been expected to cause potential issues with use of the hair care appliance. EX2011 ¶ 113. Petitioners fail to address either of these drawbacks with respect to the conclusion that the substitution would improve the hair care appliance of Maclaine.

Thus, Petitioners have not met their burden of showing that a POSITA would have been motivated to combine Mouhot with Maclaine, and thus have not met their burden as to Ground 5.

2. Petitioners fail to show that the combination of Mouhot and Maclaine discloses the limitations of Claims 1-9, 15, 18, 23, 24, and 30-32

Petitioners rely solely on the teachings of Mouhot for the limitations of Claim 1 other than “handheld” in the preamble. Pet., 88 (incorporating by reference analysis from Ground 4); EX1003 ¶ 220 (same); *see also* Pet., 91-94 (no analysis of Claim 1 other than the preamble); EX1003 ¶¶ 225-226 (same). However, as discussed above, Mouhot fails to teach those limitations of

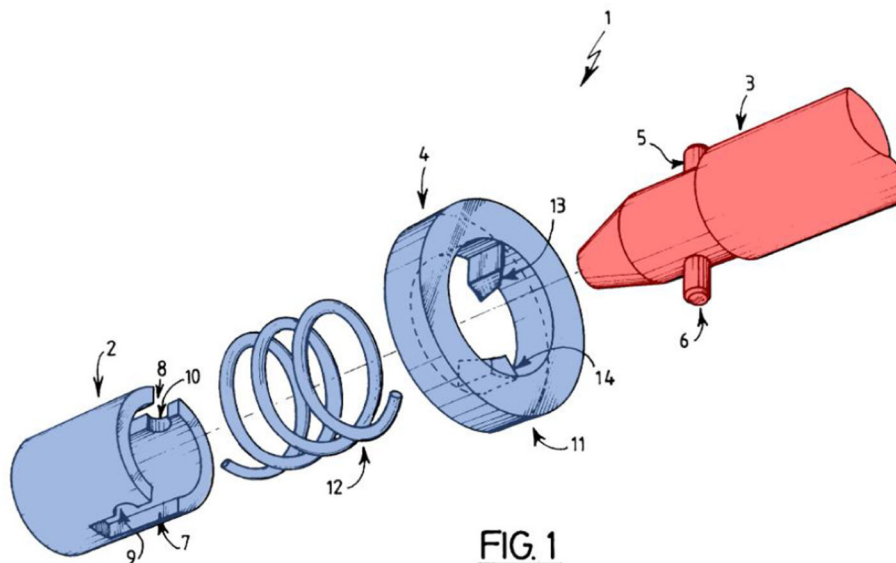
independent Claim 1. *See supra* §§ IV.D.1, IV.D.2. Thus, Ground 5 also fails for this reason.

3. Petitioners fail to show that the combination of Mouhot and Maclaine would have rendered the limitations of Challenged Claim 18 obvious

Petitioners rely solely on the teachings of Mouhot for the limitations of Claim 1 other than “handheld” in the preamble. Pet., 88 (incorporating by reference analysis from Ground 4); EX1003 ¶ 220 (same); *see also* Pet., 91-94 (no analysis of the limitations of Claim 1 other than the preamble); EX1003 ¶¶ 225-226 (same). Then, for Challenged Claim 18, which includes the limitations of Challenged Claim 1, Petitioners rely on the alleged teaching of a collar in Maclaine. Pet., 92-93; EX1003 ¶¶ 229-232. However, Petitioners fail to provide any rationale for why it would have been obvious to incorporate the collar of Maclaine into the structural features of Mouhot. Instead, Petitioners allege that a POSITA would have been motivated to combine Mouhot and Maclaine for the reasons set forth in Section IV.E.1.a of the Petition. Pet., 88-90; EX1003 ¶¶ 221-224. However, as discussed above, the alleged motivations to combine Mouhot and Maclaine set forth in Section IV.E.1.a of the Petition relate to modifying Maclaine to substitute the connection of Mouhot for the connection disclosed in Maclaine. Thus, in Petitioners’ proposed combination, the connection between body and attachment is the connection of Mouhot. Petitioners fail to provide any

rationale for why it would have been obvious to modify the connection of Mouhot to include the collar of Maclaine. Specifically, the collar in Maclaine is an element of the connection between body and attachment that would be replaced by Mouhot's attachment mechanism in Petitioners' proposed combination of Mouhot and Maclaine.

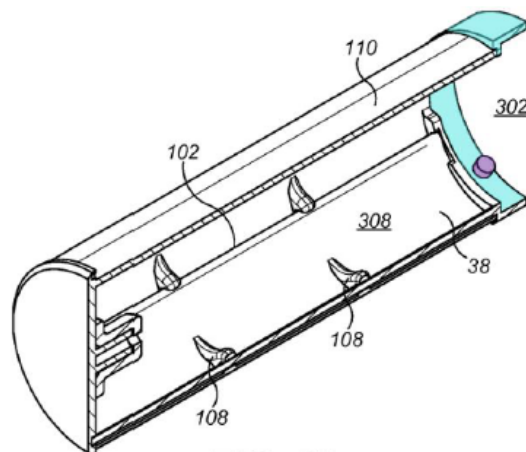
In addition to Petitioners failing to provide any rationale for including the collar of Maclaine in the proposed combination of Mouhot and Maclaine, a POSITA would have recognized that adding a collar to the connection of Mouhot would render the connection inoperable. EX2011 ¶ 117. The collar in Challenged Claim 18 is part of the attachment. EX2011 ¶ 117. Petitioners allege that shank 3 comprising protruding parts 5, 6 corresponds to the claimed attachment, as illustrated in red below. Pet., 61-62; EX1003 ¶¶ 167-169.



Pet., 62; EX1003 ¶ 168

However, Petitioners have failed to provide any explanation for how a collar on shank 3 would not interfere with the connection between shank 3 and socket 2.

The connection of Mouhot involves elongated stem on the end of shank 3 fitting within socket 2 and protruding parts 5, 6 protruding from the elongated stem to extend through slots 7, 8. EX1005, Figs. 1-3; EX2011 ¶ 118. As illustrated below, the collar of Maclaine (light blue) extends beyond the axial extent of the attachment. EX1007, Figs. 1b, 3b, 4b, 9b, 10b; EX2011 ¶ 118.



Pet., 47; EX1003 ¶ 133

A POSITA would have known that a collar extending beyond the axial extent of shank 3 in Mouhot would interfere with the fit between elongated stem of shank 3 and socket 2 and thus would interfere with the connection between shank 3 and socket 2. EX2011 ¶ 119. Also, a collar extending beyond the axial extent of elongated stem of shank 3 would not cover any connecting feature in Mouhot and thus any of the advantages of the collar in Maclaine would not be relevant.

EX2011 ¶ 119. If a POSITA added a collar to Mouhot to cover connecting features such as protruding parts 5, 6, the collar would interfere with the path of protruding parts 5, 6 through slots 7, 8, thereby making Mouhot's attachment mechanism inoperable. EX2011 ¶ 119. Accordingly, a POSITA would have had no reason to modify Mouhot or the connection of Mouhot in a combination with Maclaine to meet the limitation "wherein the attachment comprises a collar extending around the attachment." EX2011 ¶ 119.

In addition, even if it were obvious to include a collar extending around the attachment, it would not have been obvious that "the first protrusion extends from the collar," as required by Challenged Claim 18. EX2011 ¶ 120. Petitioners fail to discuss whether the addition of a collar from Maclaine in the connection of Mouhot would result in the protruding parts 5, 6 being moved to the collar. Instead, Petitioners merely show protrusions on the collar and twist connection of Maclaine, which is not present in Petitioners' proposed Ground 5 in which the bayonet type connection of Mouhot replaces the collar and twist connection of Maclaine. Pet., 91-93; EX1003 ¶ 229-232. Mouhot only describes protruding parts 5, 6 protruding outwards from elongated stem of shank 3, and a POSITA would not have expected success from modifying Mouhot to include protruding parts 5, 6 protruding from a collar extending around shank 3. EX2011 ¶ 120. If protruding parts 5, 6 protrude outwardly from the collar, the collar either interferes

with the fit between socket 2 and elongated stem of shank 3 by providing almost no overlap between the two features if the collar is interior of socket 2, or the protruding parts 5, 6 do not interact with slots 7, 8 if the collar is exterior to socket 2. EX2011 ¶ 120. In either of these scenarios, a POSITA would have recognized that such a modification would render Mouhot unsatisfactory for its intended purpose to transmit large torques between shank 3 and socket 2. EX2011 ¶ 120. Specifically, where there is limited overlap of shank 3 and socket 2 or interfering elements between shank 3 and socket 2, there could be potential for slippage between shank 3 and socket 2 when transmitting large torques. EX2011 ¶ 120.

Alternatively, Petitioners provide no rationale to modify Mouhot to have a collar exterior to socket 2 that includes protruding parts 5, 6 protruding inwardly. The protruding parts 5, 6 in Mouhot are guided and trapped within slots 7, 8 of socket 2 by interaction with wedge-shaped means 13, 14 of ring 11. EX1005, 3:34-4:6; EX2011 ¶ 121. If Mouhot were modified to include protruding parts 5, 6 protruding inwardly from a collar as shown in Maclaine, then protruding parts 5, 6 would either not protrude through slots 7, 8 if the collar was interior of socket 2 or protruding parts 5, 6 would never come into contact with wedge-shaped means 13, 14 of ring 11 if the collar was exterior of socket 2 because protruding parts 5, 6 would instead contact ring 11 itself. EX2011 ¶ 121. If protruding parts 5, 6 do not protrude through slots 7, 8, there would be no connection between shank 3 and

socket 2. EX2011 ¶ 121. If there is no interaction between protruding parts 5, 6 and wedge-shaped means 13, 14 of ring 11, then there would be nothing locking protruding parts 5, 6 in stop means 9, 10. EX2011 ¶ 121.

Accordingly, a POSITA would not have been motivated to modify Petitioners' proposed combination of Mouhot and Maclaine to include the collar of Maclaine. Thus, Ground 5 also fails for this reason with regard to Challenged Claim 18.

4. Petitioners fail to show that the combination of Mouhot and Maclaine discloses the limitations of Challenged Claims 30 and 31

Petitioners rely solely on the teachings of Mouhot for the limitations of Claim 1 other than “handheld” in the preamble. Pet., 88 (incorporating by reference analysis from Ground 4); EX1003 ¶ 220 (same); *see also* Pet., 91-94 (no analysis of the limitations of Claim 1 other than the preamble); EX1003 ¶¶ 225-226. In addition, specifically with regard to Challenged Claim 30, Petitioners rely solely on Mouhot for all the elements in Challenged Claim 1 by referring strictly to paragraphs 162-184 of Exhibit 1003, which relates to Dr. Nosenchuck's analysis of Ground 4, and they rely exclusively on this analysis for Challenged Claim 31 as well. Pet., 93-94; EX1003 ¶¶ 233-235. Petitioners further allege that Maclaine discloses “a hair care appliance” (Claim 30) and “a hot styling appliance” (Claim 31). Pet., 93-94; EX1003 ¶¶ 233-235. However, Petitioners provide no rationale

for how Mouhot could be used as a hair care appliance or hot styling appliance or why it would have been obvious to modify Mouhot such that it could be used as a hair care appliance or hot styling appliance. EX2011 ¶ 124. In particular, Petitioners rely strictly on socket 2 to correspond to the claimed body and shank 3 to correspond to the claimed attachment. Pet., 61-62; EX1003 ¶¶ 167-169; EX2011 ¶ 124. However, Petitioners have not explained how socket 2 and shank 3 are capable of use as a hair care appliance or hot styling appliance without any air flow capability (for Claim 30) or heating element (for Claim 31) or why it would have been obvious to modify socket 2 and shank 3 to make them capable of use as a hair care appliance or hot styling appliance. EX2011 ¶ 124. Thus, Ground 5 also fails for this reason with regard to Challenged Claims 30 and 31.

F. GROUND 6: Mouhot in view of Maclaine and Jeannet would not have rendered obvious the Challenged Claims

Ground 6 includes the deficiencies of Grounds 4 and 5. Petitioners rely upon the analysis for Grounds 4 and 5 as to all of the Challenged Claims other than 33 and 34. Pet., 94 (incorporating by reference analysis of Grounds 4 and 5); EX1003 ¶ 236 (same); *see also* Pet., 96-100 (only addressing Claims 33 and 34); EX1003 ¶¶ 240-257 (same). Further, with respect to the claimed “handheld appliance” and “having a body and an attachment” limitations of independent Claim 33, Petitioners do not identify any disclosure in Jeannet. Pet., 96; EX1003

¶¶ 241-246. Thus, for the same reasons articulated as to Grounds 4 and 5, Petitioners have not met their burden of showing by a preponderance of the evidence that any Challenged Claim was obvious, and the Board should find that none of the Challenged Claims are unpatentable under Ground 6.

In addition, Petitioners fail to provide an adequate rationale for why it would have been obvious to incorporate Jeannet's unlocking button into the alleged Mouhot and Maclaine system. Specifically, the alleged combination of Mouhot and Maclaine suggested in Section IV.E.1.a of the Petition results in the bayonet type coupling of Mouhot in the handheld hair care appliance of Maclaine. Petitioners allege that adding Jeannet's unlocking button to the Mouhot and Maclaine system provides a relatively easy way to release the coupling and Jeannet's unlocking button would have been a simple addition to allegedly result in a simpler and easier to use unlocking mechanism. Pet., 95-96; EX1003 ¶¶ 237-239. However, just as with those provided for Ground 5, each of these alleged rationales are merely conclusory statements with no explanation for why Jeannet's unlocking button would make unlocking the bayonet coupling of Mouhot simpler or easier to use.

To support the alleged rationales for combining Jeannet's unlocking button with Mouhot and Maclaine, Petitioners cite paragraphs 238-239 of the Declaration of Dr. Nosenchuck (EX1003). However, these paragraphs also merely make

conclusory statements about simple substitution and alleged advantages without providing any explanation for such conclusory statements. For example, neither Petitioners nor Dr. Nosenchuck address how the unlocking button of Jeannet being added to locking means 4 would actuate locking means 4 to unlock protruding parts 5, 6. EX2011 ¶ 127. Similarly, neither Petitioners nor Dr. Nosenchuck provide any explanation for how a button to release a catch would be simpler or easier to use than Mouhot's release mechanism of either merely pulling shank 3 and socket 2 apart by overcoming the force applied by wedge-shaped means 13, 14 against protruding parts 5, 6 or urging ring 11 towards coil spring 12. EX2011 ¶ 127. Thus, none of the rationales provided by Petitioners to add the unlocking button of Jeannet to the coupling of Mouhot appear relevant to Mouhot and instead would have at most been expected to complicate the coupling.

Thus, Petitioners have not met their burden of showing that the Challenged Claims were obvious in view of Mouhot in combination with Maclaine and Jeannet under Ground 6, and thus Ground 6 fails, especially with regard to Challenged Claims 33 and 34.

V. CONCLUSION

For the foregoing reasons, the Challenged Claims should be found not unpatentable.

Case No. IPR2024-00219
U.S. Patent No. 11,589,660

Respectfully submitted,

Date: August 29, 2024

Faegre Drinker Biddle & Reath LLP

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(d), counsel for Patent Owner certifies that this document complies with the type-volume limitations of 37 C.F.R. § 42.24(b).

According to Microsoft Office Word's word count, this document contains approximately 12,894 words, including any statement of material facts to be admitted or denied in support, and excluding the table of contents, table of authorities, exhibit list, certificate of service or word count, or appendix of exhibits or claim listing.

Date: August 29, 2024

/Christopher P. Bruenjes/
Christopher P. Bruenjes

Case No. IPR2023-01324

U.S. Patent No. 9,414,662

CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S RESPONSE PURSUANT TO 37 C.F.R. § 42.120** was served upon Petitioners by email on August 29, 2024:

GDC-SharkNinjaIPRD@gibsondunn.com

Date: August 29, 2024

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