

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOEN, INC.,
Petitioner,

v.

KOHLER CO.,
Patent Owner.

Case IPR2018-01053
Patent 9,677,256 B2

Before LINDA E. HORNER, MICHAEL L. WOODS, and
NATHAN A. ENGELS, *Administrative Patent Judges*.

ENGELS, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Moen, Inc. (“Petitioner”) filed a Petition under 35 U.S.C. § 311 requesting *inter partes* review of claims 7–16 of U.S. Patent No. 9,677,256 B2 (Ex. 1001, “the ’256 patent”). Paper 1 (“Pet.”). Kohler Co. (“Patent Owner”) filed a Preliminary Response (Paper 5) and a Statutory Disclaimer Under 35 U.S.C. § 253(a) in Compliance with 37 C.F.R. §1.321, disclaiming claims 7 and 8 of the ’256 patent (Ex. 2001). We issued a decision instituting *inter partes* review of claims 9–16 on August 13, 2018. Paper 7.

After institution, Patent Owner filed a Response (Paper 12) (“PO Resp.”), Petitioner filed a Reply (Paper 25) (“Pet. Reply”), and Patent Owner filed a Sur-Reply (Paper 26) (“PO Sur-Reply”). The parties presented oral arguments at a hearing on May 20, 2019, and a transcript of the hearing has been entered as Paper 35.

We have jurisdiction under 35 U.S.C. § 318(a). Having considered the evidence and arguments of record, for the reasons explained below, we determine that Petitioner has not met its burden of showing, by a preponderance of the evidence, that any of claims 9–16 of the ’256 patent is unpatentable.

II. BACKGROUND

A. *Real Party-in-Interest*

Petitioner identifies Moen, Inc.; Fortune Brands Home & Security, Inc.; and Fortune Brands Global Plumbing Group LLC as the real parties-in-interest to the Petition. Pet. 1.

B. Related Proceedings

The parties identify *Kohler Co. v. Moen, Inc.*, No. 18-cv-845 (N.D. Ill.) as a related matter. Pet. 1 (citing Exs. 1010, 1011); Paper 4 (Patent Owner’s Mandatory Notice Under 37 C.F.R. § 42.8).

C. The ’256 Patent (Ex. 1001)

The ’256 patent “relates [to] shower systems and, more particularly, to a shower bar system.” Ex. 1001, 1:13–14. Among other things, the ’256 patent discloses a shower bar system that includes an overhead shower, a handshower, and a transfer valve assembly that directs water to either the overhead shower or the handshower. Ex. 1001, Fig. 1, abstract.

Some embodiments described in the ’256 patent include an adjustable supply assembly connected between the shower bar system and a water supply pipe within the wall of a shower. *See, e.g.*, Ex. 1001, 1:26–55, 5:4–38. Describing the adjustable connection of one embodiment, the ’256 patent states that sliding movement between a supply adapter and an upper supply bracket accommodates different wall thicknesses and/or variations in the depth of an existing water supply pipe relative to the exterior portion of a shower wall. Ex. 1001:29–38.

D. Challenged Claims

As noted above, Petitioner challenged claims 7–16 of the ’256 patent (Pet. 3), Patent Owner disclaimed claims 7 and 8 (Ex. 2001), and we instituted *inter partes* review of claims 9–16 (Paper 7). Claim 9 is the sole independent claim at issue and is reproduced below with bracketed letters added for ease of reference.

9. A shower system connectable to a water supply, the water supply including a supply pipe having a pipe outlet, the system comprising:

- [a] an adjustable supply assembly fluidly connectable to the supply pipe, the supply assembly including
- [b] an adapter defining an axis and having an inlet coupleable to the pipe outlet;
- [c] a supply member having a supply outlet in fluid communication with the adapter, the supply member being coupled to the adapter for movement along the axis to adjust a distance between the pipe outlet and the supply outlet; and
- [d] a seal positioned and operable to provide a sealed connection between the adapter and the supply member in adjusted positions of the supply member relative to the adapter;
- [e] a shower bar including a shower pipe having a shower pipe inlet and a shower pipe outlet, the shower pipe inlet being coupleable to the supply outlet in a position at the distance from the pipe outlet, the supply member being movable relative to the pipe outlet to define the distance;
- [f] a showerhead fluidly connectable to the shower bar and operable to dispense water from the water supply;
- [g] a hand shower fluidly connectable to the shower bar and operable to dispense water from the water supply; and
- [h] a diverter valve operable to selectively direct water to at least one of the showerhead or the hand shower.

E. Evidence and Asserted Ground

Petitioner contends that claims 9–16 are unpatentable under 35 U.S.C. § 103 as obvious in view of the combined teachings of Lu¹ and Bors.² Pet. 3. Among other evidence, the record includes two expert declarations filed by Petitioner, one filed with the Petition (Ex. 1003 (Decl. of Julius Ballanco)) and a second filed with Petitioner's Reply (Ex. 1018 (Decl. of

¹ Chinese Utility Model Patent Publication No. CN 201248644 Y; published June 3, 2009. Ex. 1005. Our citations to Lu in this Decision are to Exhibit 1006, the certified English-language translation of Exhibit 1005.

² U.S. Patent Application Publication No. 2009/0255588 A1; published Oct. 15, 2009. Ex. 1008.

Julius Ballanco)). The record also includes two expert declarations filed by Patent Owner (Exs. 2003 (Decl. of Matthew Stein) and 2043 (Decl. of Robert Jalnos)), declarations of three fact witnesses filed by Patent Owner (Exs. 2006 (Decl. of Leslie Petch), 2007 (Decl. of John Wilson), 2008 (Decl. of Anupa Maru)), and several exhibits that Patent Owner cites as alleged objective evidence of nonobviousness (Exs. 2009–2025). The record also includes transcripts from each witness’s deposition except Mr. Stein, who was not deposed.

III. PATENTABILITY ANALYSIS

A. Level of Ordinary Skill in the Art

Petitioner argues the following regarding the level of ordinary skill in the art:

A person of ordinary skill in the art (“POSITA”) would have had a certification in plumbing from a state accredited organization, such as a Licensed Master Plumber, or at least a Bachelor of Science degree in Mechanical Engineering, or an equivalent field, as well as at least 4 years of academic or industry experience in the plumbing field with some work on commercial or residential plumbing systems.

Pet. 16 (citing Ex. 1003 ¶ 21).

Patent Owner’s Response states that a POSITA “would have had a bachelor’s degree in mechanical engineering and at least three years of experience working on the design and development of plumbing fixtures, including shower bar systems or other shower-related fixtures; or an equivalent level of education, training, or work experience in the plumbing fixtures industry.” PO Resp. 19–20 (citing Ex. 2003 ¶ 57; Ex. 2005, 12:15–20; Ex. 2007 ¶ 7); *accord* Ex. 2043 ¶¶ 24–27 (agreeing with and adopting the opinions of Exhibit 2003 ¶¶ 57–58). Patent Owner disagrees with

Petitioner’s suggestion that the appropriate level of ordinary skill includes persons having a certification or license in plumbing who do not have a degree in mechanical engineering, arguing that plumbers typically are not involved in design and development of plumbing fixtures such as shower bar systems. PO Resp. 20–21.

We agree with Patent Owner that Petitioner’s proposal is overly broad in its inclusion of certified or licensed plumbers who lack a degree in mechanical engineering or an equivalent field. Even Petitioner’s further qualification that such persons must have at least four years of academic or industry experience in the plumbing field with some work on commercial or residential plumbing systems (Pet. 16) does not reflect the design and engineering-related skills evidenced by the cited prior art and the ’256 patent. Based on the evidence of record, we determine that a POSITA would have had (i) a bachelor’s degree in mechanical engineering or an equivalent field and (ii) three or four years of experience working on the design and development of plumbing fixtures, including shower bar systems or other shower-related fixtures.

B. The Cited Prior Art

1. Lu

Lu discloses a “novel drilling-free shower system” that can be installed without drilling into or otherwise damaging a shower wall. Ex. 1006 ¶ 15; *accord id.* ¶¶ 1, 19, 23. Lu’s Figure 3, reproduced below, depicts Lu’s shower system.

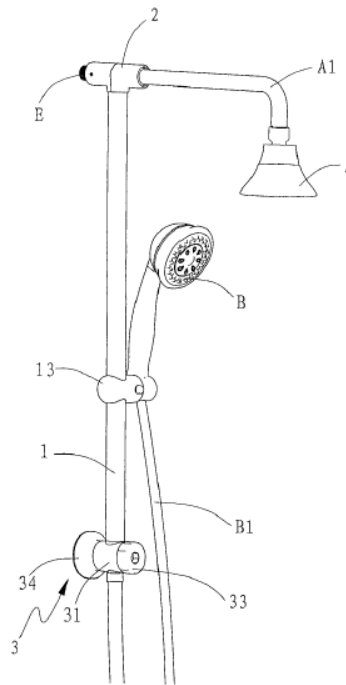


Figure 3 of Lu

As depicted in Figure 3, Lu's shower system includes an overhead shower ("lotus seedpod shower head A"), a handshower ("shower sprinkler B") connected to sprinkler hose B1, water diverter 2, and water-diverter valve 3. Ex. 1006 ¶¶ 5, 6, 19, 22, 23. Water-diverter valve 3 allows users to switch the flow of water between the overhead shower and the handshower, and Lu explains that positioning water-diverter valve 3 on the lower end of a "height adjuster rod" (rod body 1) allows users of different heights to operate the valve, as opposed to having the valve at water diverter 2 where it may not be reachable by short people. *Id.* ¶¶ 6, 8, 15 ("The structural disposition enables users not to be constrained by their heights so as to materialize ease of use and adjusting function.").

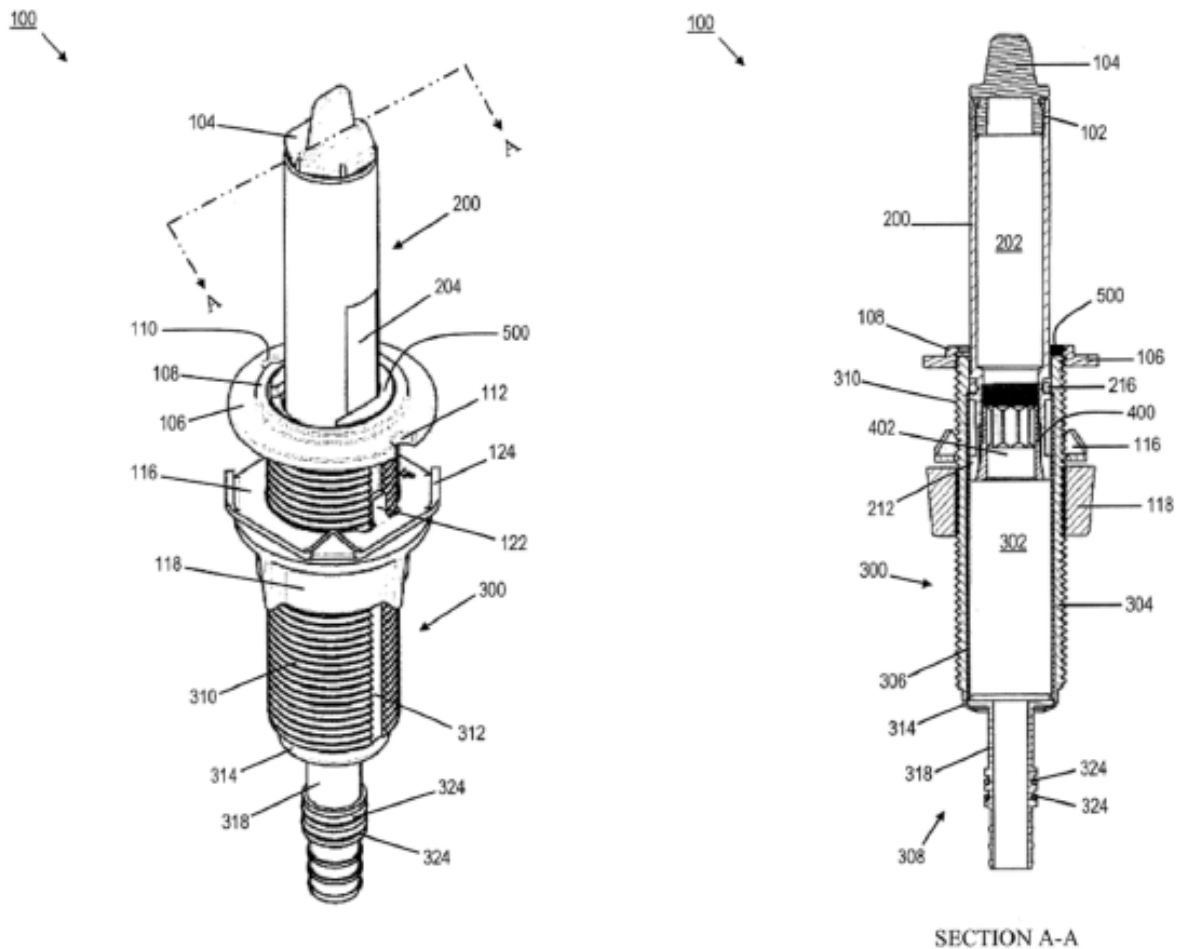
For installation of Lu's shower system, water diverter 2 connects to a "water mains inlet E" on the shower wall such that the upper portion of rod body 1 can be fixed to the shower wall while the lower portion of rod body 1

is held to the wall by a suction cup (not shown in Figure 3). *Id.* ¶ 23. In its description of installation, Lu consistently and repeatedly describes installing its shower system without drilling into or otherwise damaging the shower wall. *Id.* ¶¶ 1, 7, 8, 15, 19, 23, 25.

2. Bors

Bors discloses an “adjustable locking spout shank for use with plumbing fixtures.” Ex. 1008 ¶ 1. As background for its invention, Bors states that many plumbing fixtures include a wall-mounted spout with a shank that extends through a deck or wall to connect to water-supply pipes on the other side of the deck or wall. *Id.* ¶ 2. Bors states that because the thickness of decks and walls often varies, installation of conventional spout shanks required measuring an appropriate length and then cutting the shank during installation, which Bors describes as a relatively time consuming process. *Id.* To address that problem, Bors states that a need existed for a spout shank that can be quickly sized to a needed length without cutting. *Id.* ¶¶ 2–3.

Bors’s adjustable locking spout shank is depicted below in Figures 1B and 1C in a perspective view and a cross-sectional view, respectively.



Bors's Figures 1B (left) and 1C (right)

As depicted in Figures 1B and 1C, Bors's adjustable locking spout shank assembly 100 includes spout shank 200 and nipple body 300. Ex. 1008 ¶ 33. Bors describes mounting a plumbing fixture using spout shank assembly 100 by initially installing nipple body 300 in a “pre-mount surface” such as, “for example, . . . the surface available at a rough-in stage for a plumbing fixture such as a roman tub spout.” *Id.* ¶ 33.

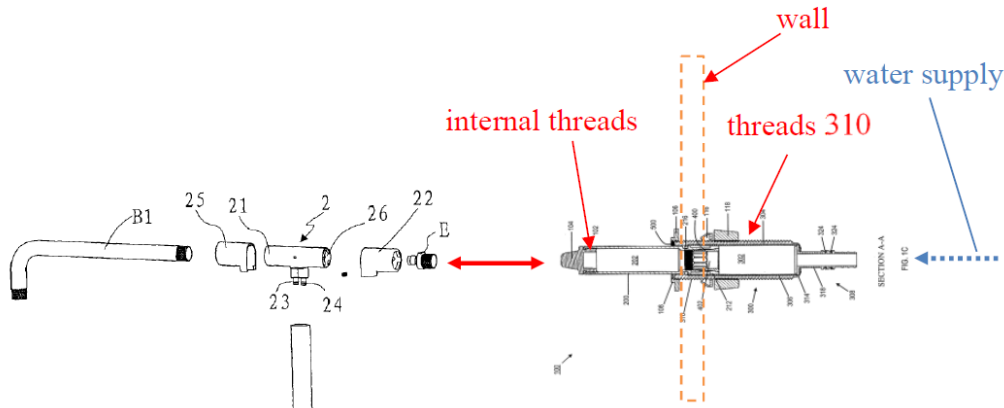
Bors describes installing an embodiment of its device by first screwing first mounting nut 106 onto threads 310 of nipple body 300 and inserting nipple body 300 into a hole in the pre-mount surface such that first mounting nut 106 prevents nipple body 300 from falling through the hole.

Id. “With the nipple body 300 extending through the hole in the pre-mounting surface, a mounting washer 116 is slid over . . . connector 308 and up against the pre-mounting surface.” *Id.* ¶ 34. “Then, a second mounting nut 118 is slid over . . . connector 308 . . . and screwed on the nipple body 300.” *Id.* “By screwing the second mounting nut 118 along the nipple body 300, the mounting washer 116 can be pressed firmly against the pre-mounting surface” such that teeth 124 on mounting washer 116 dig into the “pre-mounting surface.” *Id.* ¶ 35. “In this manner, the first mounting nut 106, the mounting washer 116 and the second mounting nut 118 secure the nipple body 300 in the hole of the pre-mounting surface and prevent any rotational or axial movement of the nipple body 300 relative to the pre-mounting surface.” *Id.* Thereafter, once the final thickness of the mounting surface is known, spout shank 200 can be slid through first mounting nut 106 into nipple body 300 and adjusted to the desired installation length for the spout. *Id.* ¶¶ 36–37, 40. After the appropriate adjustments, wedge nut 400 locks spout shank 200 into place. *Id.* ¶ 41. “After the spout shank 200 is locked relative to the nipple body 300, the adjustable locking spout shank assembly 100 can be connected to a water supply (not shown).” *Id.* ¶ 44.

C. Petitioner’s Rationale for Combining Lu and Bors

Petitioner characterizes Lu as disclosing a shower system connectable to a water supply that has the same design and components as the system of claim 9. Pet. 38 (citing Ex. 1003 ¶ 77; Ex. 1006, Abstract, Figs. 1–3). Petitioner states that “Bors discloses an adjustable spout shank assembly, which is a specific type of adjustable supply assembly useable in plumbing systems.” Pet. 38 (citing Ex. 1003 ¶ 90; Ex. 1008 ¶¶ 1, 11). Reproduced

below is Petitioner’s depiction of how the devices of Lu and Bors “could” be combined. Pet. 41–43.



Petitioner’s Annotated Version of
Lu’s Figure 1 and Bors’s Figure 1C

According to Petitioner, “[a] POSITA would find it obvious to combine Lu and Bors by coupling the spout shank 200 of Bors to the inlet E of the shower system of Lu.” Pet. 54–55 (citing Ex. 1003 ¶ 190; Ex. 1006, Fig. 1; Ex. 1008, Fig. 1C). According to Petitioner, “[o]nce Lu and Bors are combined, the shower pipe inlet (E of Lu) is coupled to the supply outlet (the end of the spout shank 200 of Bors) at the distance from the pipe outlet” such that “spout shank 200 is slidable relative to the nipple body 300 for movement along the axis of nipple body 300.” Pet. 55 (citing Ex. 1003 ¶¶ 100, 180, 191, 192; Ex. 1006, Fig. 1; Ex. 1008 ¶ 37).

Regarding the rationale or motivation for combining the teachings of Lu and Bors, Petitioner advances several arguments. First, Petitioner argues that Lu and Bors “are from the same field of art (plumbing)” and “both references pertain to the same problem—connecting plumbing fixtures to supply pipes through an existing wall.” Pet. 39 (citing Ex. 1003 ¶ 158; Ex. 1006, Abstract, cover page, ¶ 15; Ex. 1008 ¶¶ 1, 2, 48). Petitioner contends that Bors teaches that its adjustable supply assembly “allows a

fixture, such as the one disclosed in Lu, to accommodate mounting surfaces with different thicknesses,” and Petitioner further cites Bors as teaching that cutting the tube or shank of a plumbing fixture during installation is time consuming and an irreversible process. Pet. 40 (citing Ex. 1003 ¶ 159; Ex. 1008 ¶ 2). According to Petitioner, “[t]hese teachings would have led a POSITA at the time of the invention to combine the adjustable supply assembly of Bors with the shower system of Lu in order to provide a shower system that can accommodate different wall thicknesses and supply pipe lengths without cutting the supply tube,” especially “given that Lu refers to remodeling and reconstruction applications, where adjustability is especially important to accommodate walls of different thicknesses.” Pet. 40 (citing Ex. 1003 ¶ 159; Ex. 1006, Abstract, ¶ 15).

Petitioner also asserts that combining Lu and Bors would amount to applying a known technique to a known device ready for improvement to yield predictable results. Pet. 40 (citing MPEP § 2143(I)(D)). Petitioner contends that internal threads of Bors’s spout shank 200 would allow the spout shank to be directly attached to element E of the shower system of Lu and that threads 310 of Bors’s outer sleeve 304 could directly connect to a water supply pipe. Pet. 41–42 (citing Ex. 1003 ¶¶ 161–162; Ex. 1006, Fig. 1; Ex. 1008, Fig. 1). Petitioner also argues that, alternatively, a POSITA would have found it obvious to remove connector 308 and to resize the threaded connection or use an adapter if the water supply pipe threads did not match threads 310 of outer sleeve 304. Pet. 42 (citing Ex. 1003 ¶ 162). Petitioner also argues that a POSITA alternatively would have found it obvious to modify connector 308 to connect to a water supply pipe, as Bors specifically states that connector 308 is “operable to interface with a

hose, pipe or other conduit.” Pet. 42 (quoting Ex. 1008 ¶ 27; citing Ex. 1003 ¶ 163).

According to Petitioner, “[o]nce the adjustable supply assembly of Bors is attached to the shower system of Lu, a POSITA would have found it obvious to install the adjustable supply assembly to a behind-the-wall shower water supply.” Pet. 42–43 (citing Ex. 1003 ¶ 164). Petitioner then presents alternative explanations of how a POSITA would have connected the Lu-Bors device to the water supply. Specifically, Petitioner presents one explanation for installations in which the installer would have access behind the shower wall and another for installations in which the installer would *not* have access behind the shower wall, with Petitioner proposing modification of Bors’s device for installations without back-of-wall access. Pet. 42–45.

According to Patent Owner, differences in the references’ installation requirements in terms of back-of-wall access render the devices of Lu and Bors “conceptually incompatible.” PO Resp. 12–13 (citing Ex. 2003 ¶ 41); *see also* Ex. 2043 ¶ 23 (adopting same paragraph from Stein Declaration). Specifically and among other things, Patent Owner argues Lu describes a device intended for installation without access behind the shower wall, while Bors describes installation with access behind the mounting surface. PO Resp. 36–37. Further, Patent Owner argues that, even if a POSITA could have combined Lu and Bors, Petitioner has not established that it would have been obvious for a POSITA to combine Lu and Bors to arrive at the claimed invention, and Patent Owner contends Petitioner’s proposed combinations result from impermissible hindsight. PO Resp. 36–38 (citing cases).

1. Lu's Descriptions of "Drilling-Free Installation"

Petitioner acknowledges Lu's descriptions of drilling-free installation without damaging a shower wall, but Petitioner argues that Lu does not teach away from the combination of Lu and Bors. Pet. Reply 10.

Specifically, Petitioner argues that "while Lu discusses the benefits of a shower bar system that can be installed without damaging the wall, Lu does not teach away from a combination with Bors because the combination could be made without cutting into the wall." Pet. Reply 11. According to Petitioner, Bors can be compatible with Lu's teachings of installation without back-of-wall access, as "[a] POSITA would have understood the back-of-wall hardware of Bors would be unnecessary when access behind the wall is restricted." Pet. Reply 11; *accord* Pet. 43–44; Ex. 1003 ¶ 165.

Notwithstanding Petitioner's arguments that Lu's teachings do not amount to a "teaching away," one benefit of Lu's invention is its ability to be installed without cutting into a shower wall. *See* PO Resp. 37 (citing, *e.g.*, Ex. 1006 ¶¶ 1, 7, 15, 23, 25); *see also* Pet. Reply 11 (acknowledging that Lu describes installation without wall damage as a benefit). In fact, Lu repeatedly and consistently describes "drilling-free installation" and avoiding damage to the shower wall. *See, e.g.*, Ex. 1006 ¶¶ 1 ("The present utility model relates to a bathroom appliance and, more particularly, to a novel drilling-free shower system with a fixed showerhead."), 7 ("The present utility model aims to provide a novel drilling-free shower system whose water mains inlet is located within the upper portion of a wall but whose shower sprinkler or lotus seedpod shower head can be conveniently switched."), 8 ("a novel drilling-free shower system"), 15 ("[T]he fixation of the rod body of the height adjustor rod of the novel drilling-free shower

system is performed completely without drilling (i.e. there is no necessity to damage the wall again). . . .”), 19 (referencing a “drilling-free shower system”), 23 (same), 25 (same). As argued by Patent Owner, even if Lu’s descriptions of installation without back-of-wall access do not amount to a “teaching away” (an issue we do not decide), Lu’s statements are relevant to whether a POSITA would have been motivated to combine Lu with Bors as proposed by Petitioner. *See* PO Resp. 36–37 (citing *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1069 (Fed. Cir. 2018) and other cases).

2. Bors’s Installation and Adjustments

Although Bors mentions that its device can be attached to a water-supply pipe (Ex. 1008 ¶¶ 27, 44), Bors does not provide details regarding installation of its device for a fixed water-supply pipe. Instead, Bors describes embodiments in which its adjustable locking spout shank would be attached to a flexible water-supply hose. *Id.* ¶¶ 27–44 (describing connection to a crosslinked polyethylene hose). In the descriptions of those embodiments, Bors describes adjusting the spout shank to accommodate mounting surfaces of unknown thicknesses without addressing the distance to the water-supply hose; by its nature, a flexible water-supply hose can be repositioned for connection to Bors’s device. *See id.* ¶¶ 33, 36, 40, 47.

More specifically, Bors describes in detail an exemplary use of its invention during installation of a roman tub spout. Ex. 1008 ¶ 33. As noted above, the embodiment described in detail in Bors involves installing nipple body 300 in a pre-mounting surface with first mounting nut 106 on one side of the pre-mounting surface and washer 116 and second mounting nut 118 pressed against the other side. *Id.* ¶¶ 33–35. Bors explains that, thereafter, once the final thickness of the mounting surface is known, spout shank 200

can be slid through first mounting nut 106 into nipple body 300 and adjusted to the desired installation length for the spout. *Id.* ¶¶ 36–37, 40.

Notably, the adjustments referenced in these descriptions refer to adjustments of spout shank 200, not adjustments behind the wall to connect nipple body 300 to a water supply. In fact, Bors only describes connecting its device to a water supply pipe *after* adjusting spout shank 200 and locking it into place. *Id.* ¶¶ 41, 44. As stated by Bors: “After the spout shank 200 is locked relative to the nipple body 300, the adjustable locking spout shank assembly 100 can be connected to a water supply source (not shown). A hose, pipe or other conduit is connected to the tubular nipple 318 of the connector 308.” *Id.* ¶ 44.

Petitioner argues, though, that Bors’s “locking feature is an option of an ‘exemplary embodiment’” and, thus, “a POSITA could simply choose not to tighten” the locking feature (Pet. Reply 7 (citing Ex. 1018 ¶¶ 11, 13)) and similarly, “the locking feature of the spout shank of Bors can be loosened and adjusted after installation, or simply not tightened at all” (Pet. Reply 8). Petitioner further contends that Bors explicitly states that its device can be connected to a water supply pipe. Pet. Reply 10, 13, 24 (citing Ex. 1008 ¶ 48); see Ex. 1008 ¶¶ 27 (“[C]onnector 308 is a multi-attachment fitting operable to interface with a hose, pipe or other conduit . . .”), 44 (referencing a hose, pipe, or other conduit). And Petitioner is correct that paragraph 48 of Bors mentions shower installations. Pet. 12 (citing Ex. 1008 ¶ 48), 39 (same); Pet. Reply 24 (same).

Bors’s mention of shower installations, however, amounts to one sentence that merely mentions showers in a broad-brush statement that Bors’s “general inventive concept” can be used for other plumbing fixtures.

Ex. 1008 ¶ 48 (“[A]lthough the above exemplary embodiments were described in relation to mounting a spout on a mounting surface, the general inventive concept is applicable to mounting other plumbing fixtures, such as a shower head post or tube.”). Although we credit Bors’s statement regarding shower installations, we note that Bors provides no description or detail regarding how, why, or under what circumstances a POSITA would have been motivated to use such “general inventive concepts” in combination with shower systems or shower installations.

Moreover, as evidenced by Petitioner’s arguments, connecting Bors to a water supply pipe for shower installations would have required modifications to Bors’s device and/or deviations from the installation procedures taught in Bors. *See* Pet. 41–44. In addition to Petitioner’s arguments regarding the locking feature of Bors, Petitioner’s proposed modifications and alternatives include (i) omission of the back-of-wall hardware, (ii) changes to or omission of connector 308, and/or (iii) changes to the order and procedures described in Bors for installation and use of Bors’s device. Pet. 41–44

a. Combining Lu and Bors for Installation Without Back-of-Wall Access

Petitioner’s arguments regarding omission of Bors’s back-of-wall hardware relate to installations without back-of-wall access. *See* Pet. 43. Petitioner contends that “[e]ven in cases where there is no access to the back of the wall or where cutting the wall to provide back access is undesirable, a POSITA would find it obvious to combine Lu and Bors” by omitting Bors’s second mounting nut 118 and mounting washer 116, elements Petitioner

collectively refers to as the “back-of-wall hardware.” Pet. 43 (citing Ex. 1003 ¶ 165).

Citing a 2009 International Plumbing Code³ and its expert’s testimony, Petitioner contends a POSITA would understand that shower water-supply risers are rigidly and securely attached to building structure and that Bors’s back-of-wall hardware would therefore have been unnecessary in the shower head context. Pet. 43–44 (citing Ex. 1003 ¶ 165; Ex. 1009, 3). “Accordingly,” Petitioner contends, “a POSITA would reasonably expect that attaching the adjustable supply assembly of Bors to the rigid water supply riser and tightening the first mounting nut 106 on the front of the wall would provide sufficient structural support to the shower system of Lu without the back-of-wall hardware of Bors.” Pet. 45 (citing Ex. 1003 ¶ 166).

Nothing in Bors teaches or reasonably suggests the omission of back-of-wall hardware. But even accepting that a POSITA would understand that a shower’s water-supply pipe could provide structural support, that fact does not establish that a POSITA would have been motivated to discard Bors’s back-of-wall hardware. Among other things, Bors describes that its back-of-wall hardware cooperates with first mounting nut 106 to secure nipple body 300 in the hole of the pre-mounting surface and to prevent any rotational or axial movement of nipple body 300 relative to the pre-mounting surface. Ex. 1008 ¶ 35. And Bors teaches that the back-of-wall hardware performs those functions *before* the installer connects the device to a water supply. See Ex. 1008 ¶¶ 35–44 (describing connection to a water supply as one of

³ INTERNATIONAL PLUMBING CODE, International Code Council, § 417.2 (2009) (Ex. 1009).

the last steps in completing installation of Bors's device). Petitioner does not substantively explain how or why a POSITA would have deviated from Bors's teachings regarding the installation and function of Bors's device to implement the connection of the Lu-Bors combination to a shower water-supply pipe. Weighing the evidence of record, even if a POSITA would have understood that a shower supply pipe *could* provide support for Bors's device without the back-of-wall hardware, the evidence of record does not establish that a POSITA would have been *motivated* to make such modifications. *See Polaris Indus.*, 882 F.3d at 1068 (finding error in focusing "on what a skilled artisan would have been *able* to do, rather than what a skilled artisan would have been *motivated* to do at the time of the invention").

b. Combining Lu and Bors for Installation With Back-of-Wall Access

For installation scenarios in which an installer would have back-of-wall access, Petitioner's proposed combination of Lu and Bors would not require omission of the back-of-wall hardware, but Petitioner proposes other changes. *See* Pet. 41–42. According to Petitioner, a POSITA would have understood that Bors's connector 308 "could fit inside the shower water supply pipe" or, alternatively, "a POSITA would have found it obvious to remove the connector 308." Pet. 42. Petitioner also argues that threads 310 of outer sleeve 304 of Bors could directly connect to a water supply pipe, or, "[t]o the extent that the water supply pipe threads did not match the threads 310 of the outer sleeve 304, a POSITA would have found it obvious to resize the threaded connection or use an adapter." *Id.* Petitioner's "alternative" suggestions and modifications for the connection between Bors's device to a

shower water supply follow from the fact that Bors's connector 308 is described and depicted as a connection suitable for a flexible water supply hose. Pet. 43 ("The embodiment shown in Bors with the back-of-wall hardware is designed to connect the adjustable supply assembly of Bors to a flexible water supply hose." (citing Ex. 1003 ¶ 165; Ex. 1008 ¶ 27)); see Ex. 1008 ¶¶ 27, 44, Figs. 1A–1C, 3A.

Similarly, although Petitioner does not provide evidence or explanations to detail how the Lu-Bors combination would have been installed, Petitioner's arguments evidence at least some deviations from the installation methods described in Bors even in scenarios with back-of-wall access. As noted above, Bors describes connecting its device to a water supply pipe after adjusting its length and locking spout shank 200. But at the step in which Bors describes connecting its device to a water supply, Bors's back-of-wall hardware "prevent[s] any rotational or axial movement of the nipple body 300 relative to the pre-mounting surface." Ex. 1008 ¶ 35. Petitioner does not address how a POSITA would have connected the Lu-Bors device to a water-supply pipe when the back-of-wall hardware prevents rotation of nipple body 300, nor does Petitioner explain how or why a POSITA would have deviated from Bors's teachings to otherwise accommodate connection to a shower's water-supply pipe. See *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1066 (Fed. Cir. 2016) (holding that a determination of obviousness cannot be reached where the record lacks "explanation as to *how* or *why* the references would be combined to produce the claimed invention" (quoting *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1368 (Fed. Cir. 2012))); cf. Pet. 42–43 ("Once the adjustable supply assembly of Bors is attached to the shower system of Lu, a

POSITA would have found it obvious to install the adjustable supply assembly to a behind-the-wall shower water supply.”).

D. Summary

Having considering the parties’ arguments and evidence of record, we determine that Petitioner has not established that it would have been obvious to a POSITA to combine the teachings of Lu and Bors to arrive at the claimed invention. Because we determine that Petitioner has not adequately established reasons that it would have been obvious for a person of ordinary skill to combine the teachings of Lu and Bors to arrive at the claimed invention, we determine that it is unnecessary to address the parties’ arguments and evidence regarding claim construction, individual claim limitations, or secondary considerations of nonobviousness.

IV. CONCLUSION

Petitioner has failed to establish by a preponderance of the evidence that any of claims 9–16 is unpatentable.

V. ORDER

In view of the foregoing, it is hereby:

ORDERED that claims 9–16 of the ’256 patent have not been shown to be unpatentable in view of the combined teachings of Lu and Bors; and

FURTHER ORDERED that this is a Final Written Decision. Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

IPR2018-01053
Patent 9,677,256 B2

PETITIONER:

Robinson Vu
Michael Hawes
BAKER BOTTS L.L.P.
robinson.vu@bakerbotts.com
michael.hawes@bakerbotts.com

PATENT OWNER:

Edward R. Lawson, Jr.
Kevin P. Moran
Natalie K. Kaplan
Kenneth M. Albridge, III
MICHAEL BEST & FRIEDRICH LLP
erlawson@michaelbest.com
kpmoran@michaelbest.com
nkkaplan@michaelbest.com
kmalbridge@michaelbest.com