

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HAMILTON BEACH BRANDS, INC.,
Petitioner,

v.

F'REAL FOODS, LLC,
Patent Owner.

Case IPR2016-01107
Patent 7,520,662 B2

Before LORA M. GREEN, JON B. TORNQUIST, and
ELIZABETH M. ROESEL, *Administrative Patent Judges*.¹

ROESEL, *Administrative Patent Judge*.

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

¹ Administrative Patent Judge Jon B. Tornquist replaces former panel member Brian P. Murphy, who is no longer with the Patent Trial and Appeal Board.

In this *inter partes* review, instituted pursuant to 35 U.S.C. § 314, Hamilton Beach Brands, Inc. (“Petitioner”) challenges the patentability of claim 21 of U.S. Patent No. 7,520,662 (Ex. 1001, “the ’662 patent”), owned by f’real Foods, LLC (“Patent Owner”).

We have jurisdiction under 35 U.S.C. § 6. This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

For the reasons that follow, we determine that Petitioner has not shown by a preponderance of the evidence that claim 21 of the ’662 patent is unpatentable.

I. BACKGROUND

A. *Procedural History*

Petitioner filed a Petition seeking *inter partes* review of claim 21 of the ’662 patent. Paper 1 (“Pet.”). Patent Owner filed a Preliminary Response. Paper 9 (“Prelim. Resp.”). We instituted *inter partes* review of claim 21 of the ’662 patent. Paper 10 (“Institution Decision” or “Dec.”).

Patent Owner filed a Response. Paper 14 (“PO Resp.”). Petitioner filed a Reply. Paper 24 (“Pet. Reply”).

With the Petition, Petitioner filed a Declaration of Alexander H. Slocum. Ex. 1010. Patent Owner cross-examined Dr. Slocum and filed a transcript of his deposition testimony as Exhibit 2027.

With the Preliminary Response, Patent Owner filed a Declaration of Dr. Daniel Maynes. Ex. 2023. Petitioner cross-examined Dr. Maynes and filed a transcript of his deposition testimony as Exhibit 1014. With the Patent Owner Response, Patent Owner filed a Declaration of Jens Voges Concerning Secondary Considerations. Ex. 2028. Petitioner cross-

examined Mr. Voges and filed a transcript of his deposition testimony as Exhibit 1015.

Oral argument was held July 27, 2017, and a transcript was entered in the record. Paper 34 (“Tr.”).

Petitioner filed a motion to exclude (Paper 26), which is addressed below. The parties’ motions to seal (Papers 25 and 32) are addressed in a separate order.

B. Related Matters

Pursuant to 37 C.F.R. § 42.8, the parties identify the following patent infringement cases involving the ’662 patent:

f’real Foods, LLC v. Hamilton Beach Brands, Inc., No. 1:14-cv-01270-GMS (D. Del., filed Oct. 3, 2014); and

f’real Foods, LLC v. Hamilton Beach Brands, Inc., No. 1:16-cv-00041-GMS (D. Del., filed Jan. 26, 2016).

Paper 6 (Patent Owner Updated Mandatory Notices); Paper 22 (Petitioner’s Amended Mandatory Notices).

Pursuant to 37 C.F.R. § 42.8, the parties identify the following Office proceedings involving patents other than the ’662 patent:

IPR2016-01105	U.S. Patent No. 7,520,658
IPR2017-00756	U.S. Patent No. 7,144,150 ²
IPR2017-00765	U.S. Patent No. 7,520,658

² U.S. Patent No. 7,144,150 (“the ’150 patent”) was issued from U.S. Application No. 10/715,171, to which the ’662 patent claims priority as a continuation-in-part. U.S. Patent No. 7,520,658 (“the ’658 patent”) was issued from U.S. Application No. 11/284,646, which is a divisional of U.S. Application No. 10/715,171.

Reexam. Ctrl No. 90/013,850 U.S. Patent No. 5,803,377³
Paper 6; Paper 22.

C. The '662 Patent (Ex. 1001)

The '662 patent relates to a method for rinsing a splash shield of a mixing machine used for mixing liquids, such as frozen milkshakes, coffee drinks, or smoothies. Ex. 1001, Abstract, 1:13–15, 2:3–4, 2:51–56. According to the disclosed method, a vessel containing contents to be mixed is positioned in a mixing machine, and a splash shield is positioned to shield the opening of the vessel during mixing. After the material within the vessel is mixed by a mixing element, the splash shield is separated from the vessel by the mixing machine and rinsed by a nozzle(s) on the mixing machine. *Id.* at 2:4–10.

An embodiment of a mixing machine is shown in Figures 1A and 1B of the '662 patent, which are reproduced below:

³ U.S. Patent No. 5,803,377 is incorporated by reference in the '662 patent. Ex. 1001, 1:25–29.

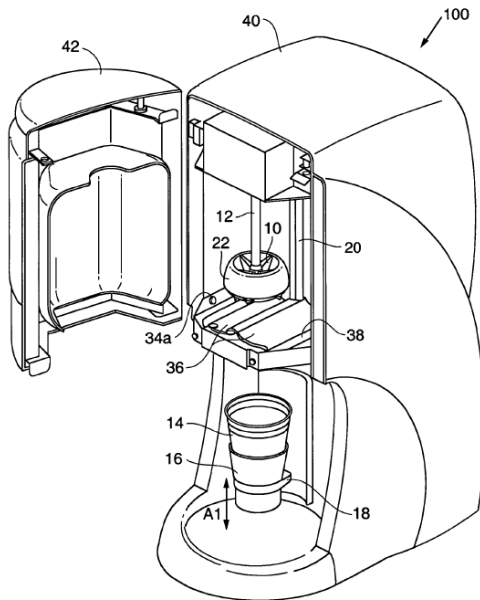


FIG. 1A

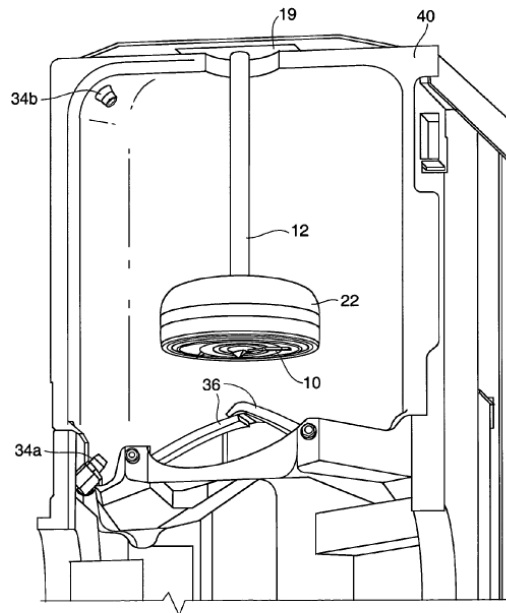
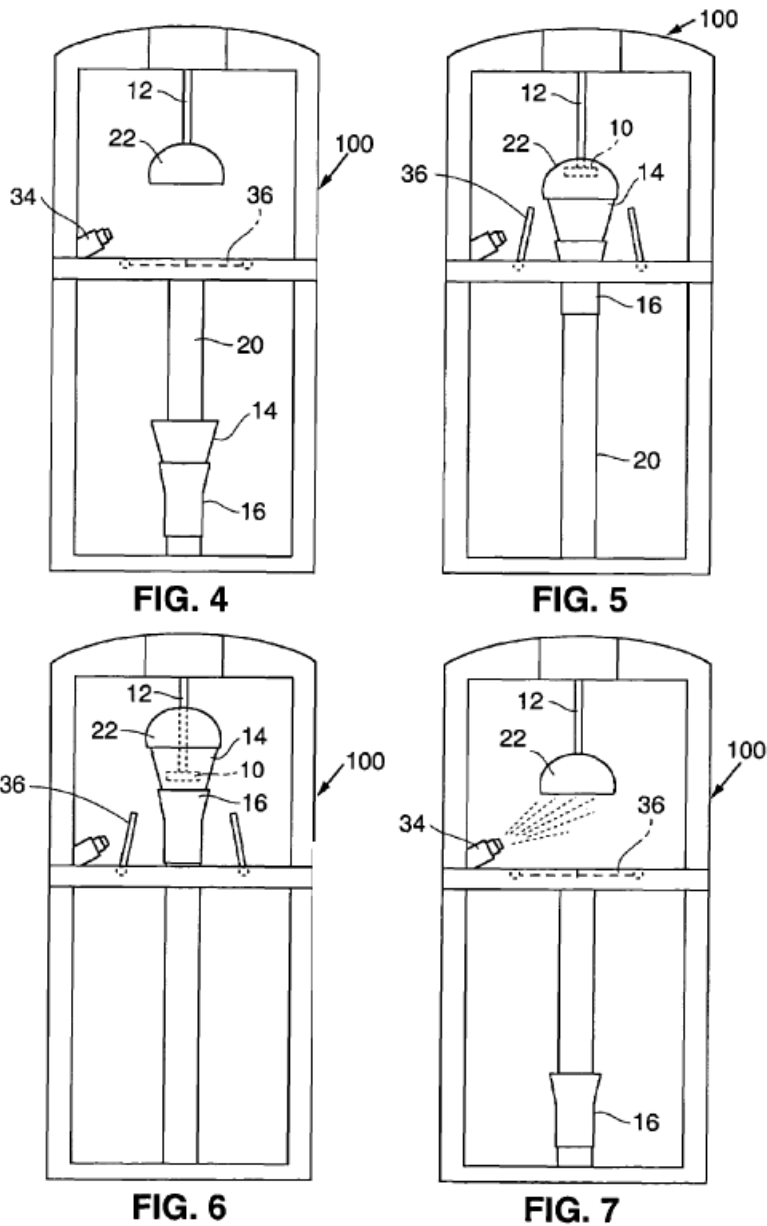


FIG. 1B

Figures 1A and 1B, above, show mixing/blending machine 100, including cup holder 16 for holding cup 14, rotatable mixing blade 10, rinseable splash shield 22, and nozzles 34a, 34b for directing rinsing fluid towards splash shield 22. *Id.* at 2:25–30, 2:48–51, 2:60–63, 2:67–3:2, 3:23–24, 3:63–65. The operation of mixing/blending machine 100 is illustrated in Figures 4–7 of the '662 patent, which are reproduced below:



Figures 4–7 are a sequence of drawings illustrating operation of rinseable splash shield 22. *Id.* at 2:42–44, 4:29–32. First, as shown in Figure 4, cup 14 is positioned in cup holder 16. Next, as shown in Figure 5, holder 16 and cup 14 are moved upwardly so that cup 14 engages the bottom of shield 22. Next, as shown in Figure 6, cup 14 is moved further upward around mixing blade 10, raising shield 22 on shaft 12, and mixing blade 10

is activated. *Id.* at 4:32–43. After mixing is complete, cup holder 16 is lowered, and cup 14 separates from shield 22, returning cup 14 to the position shown in Figure 4, at which point it can be removed from the machine. As shown in Figure 7, rinse fluid is then directed onto shield 22 using nozzles 34a, 34b (see Figs. 1A, 1B). *Id.* at 5:9–22.

D. Illustrative Claim

The '662 patent includes 22 claims. Claim 21 is the only challenged claim and is reproduced below:

21. A method for rinsing a splash shield on a mixing machine, the method comprising the steps of:

providing a vessel containing material to be mixed, the vessel including an opening;

further providing a mixing machine having a holder for receiving the vessel, a rotatable mixing element extendable into the vessel for mixing the material, a splash shield positionable to shield the opening of the vessel, and a nozzle oriented towards the splash shield;

after mixing the material in the vessel using the mixing element and with the splash shield shielding the vessel opening, unshielding the vessel opening and directing rinsing fluid onto the splash shield using the nozzle while isolating the vessel from the rinsing fluid.

Ex. 1001, 6:64–8:3.

E. Instituted Ground

We instituted *inter partes* review on a single ground: claim 21 under 35 U.S.C. § 103(a) as obvious over Neilson,⁴ Kelly,⁵ and Miller.⁶

II. DISCUSSION

A. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Tech., LLC v. Lee*, 136 S. Ct. 2131, 2142 (2016). Under that standard, claim terms are generally given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Although it is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim, this is not to be confused with adding an extraneous limitation appearing in the specification, which is improper. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Below we construe the nozzle limitations of claim 21. We determine that no other claim term requires express construction for purposes of this decision. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

⁴ Neilson, US 5,439,289, issued August 8, 1995, Ex. 1003 (“Neilson”).

⁵ Kelly, US 4,740,088, issued Apr. 26, 1988, Ex. 1002 (“Kelly”).

⁶ Miller et al., US 2002/0048626 A1, published Apr. 25, 2002, Ex. 1004 (“Miller ’626”), and Miller, US 5,766,665, issued June 16, 1998, Ex. 1005 (“Miller ’665”), which are collectively referred to as “Miller.”

At the institution stage, neither party proposed an express construction for the limitations of claim 21 that recite: “a nozzle oriented towards the splash shield” and “directing rinsing fluid onto the splash shield using the nozzle.”

In its Response, Patent Owner proposes the following constructions for the nozzle limitations of claim 21: “nozzle oriented towards the splash shield” means “having at least one nozzle oriented towards a soiled area of the splash shield,” and “directing rinsing fluid onto the splash shield using the nozzle” means “directing rinsing fluid onto a soiled area of the splash shield using the pre-positioned nozzle as oriented towards that soiled area.” PO Resp. 16–17.

Petitioner argues that Patent Owner’s constructions “read in” extra limitations, including “soiled area” and “pre-positioned.” Pet. Reply 3. Petitioner contends that the nozzle limitations should be given their plain meaning and that no express construction for these terms is needed. *Id.* at 5.

Based on the record before us, we determine that the phrase, “a nozzle oriented towards the splash shield,” means “a nozzle pre-positioned such that it points at the splash shield,” and the phrase, “directing rinsing fluid onto the splash shield using the nozzle,” means “spraying rinsing fluid onto the splash shield from the pre-positioned nozzle.”

Our claim constructions are supported by the claim language for at least two reasons:

First, the phrase, “a nozzle oriented towards the splash shield,” describes a component of a mixing machine. Claim 21 recites: “providing a mixing machine having . . . a nozzle oriented towards the splash shield.” Ex. 1001, 7:1–5. This limitation describes the structure of a mixing machine

that is used to perform the claimed method. As Petitioner explains, “[c]laim 21 is a method claim that separately recites attributes of the provided mixing machine and a step of directing rinsing fluid.” Pet. Reply 4. “Oriented” describes the position of the nozzle in the machine. The nozzle is oriented before it is used to direct rinsing fluid onto the splash shield. In other words, the nozzle is pre-positioned.

Second, the claim drafter used the term, “positionable,” rather than “oriented,” to describe a component of the mixing machine that moves from one position to another when the method is performed. Specifically, claim 21 recites: “providing a mixing machine having . . . a splash shield positionable to shield the opening of the vessel.” Ex. 1001, 7:1–4. In contrast, the immediately following claim limitation recites: “a nozzle oriented towards the splash shield.” *Id.* at 7:5. Given the juxtaposition of these terms in claim 21, the term “oriented” should not be construed as having the same meaning as “positionable.” *Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1371 (Fed. Cir. 2008) (“Different claim terms are presumed to have different meanings.” (citation omitted)).

Our claim constructions are supported by Figures 1A and 1B of the ’662 patent, which show mixing/blending machine 100 including nozzles 34a, 34b, each of which is pre-positioned with the outlet of the nozzle pointed at splash shield 22. Ex. 1001, 3:63–4:2. We also rely on Figure 7 of the ’662 patent, which shows rinse fluid being sprayed onto splash shield 22 from a nozzle pre-positioned in the mixing machine. *Id.* at 5:17–19.

Our claim constructions are consistent with the ’662 patent’s description of the method for rinsing a splash shield on a mixing machine.

Rinsing of the splash shield is described in the following passage from the '662 patent:

In the FIG. 1B embodiment, nozzle 34b directs rinse fluid onto the upper portion of the shield 22, and nozzle 34a directs fluid onto the underside of the shield 22, the blade 10, and the shaft 12. If desired, the shaft 12 may be rotated during and after rinsing. Given the weight of the splash shield and the contact between ribs 30 and tapered section 32 on the shaft, rotating the shaft 12 rotates the splash shield as well. Rotation may be of particular advantage since rotation allows the full surface of the shield 22 to be exposed to the fluid spray from the nozzles even if the nozzles are located to one side of the shield.

Id. at 5:19–29. According to this passage of the '662 patent, the splash shield may be rotated during rinsing so that the full surface of the splash shield is exposed to fluid spray from the nozzles “even if the nozzles are located to one side of the shield.” *Id.* at 5:25–29. This passage describes the splash shield as a rotatable part of the mixing machine and the nozzles as being pre-positioned in the mixing machine such that they spray rinse fluid onto the splash shield as it rotates.

When the language of claim 21 is read in view of Figures 1A, 1B, and 7 and the description of those figures in the '662 patent, the broadest reasonable interpretation of “a nozzle oriented towards the splash shield” is “a nozzle pre-positioned such that it points at the splash shield” and the broadest reasonable interpretation of “directing rinsing fluid onto the splash shield using the nozzle” is “spraying rinsing fluid onto the splash shield from the pre-positioned nozzle.”

B. Obviousness Analysis

1. Principles of Law

Petitioner bears the burden of proving unpatentability of the challenged claims, and the burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioner must establish the facts supporting its challenge by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). Obviousness is resolved based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

2. Asserted Prior Art

Neilson (Ex. 1003)

Neilson discloses an apparatus for mixing ingredients in a receptacle, such as a machine for blending ice cream into milk shakes. Ex. 1003, 1:10–13. An embodiment is shown in Figure 1, which is reproduced below:

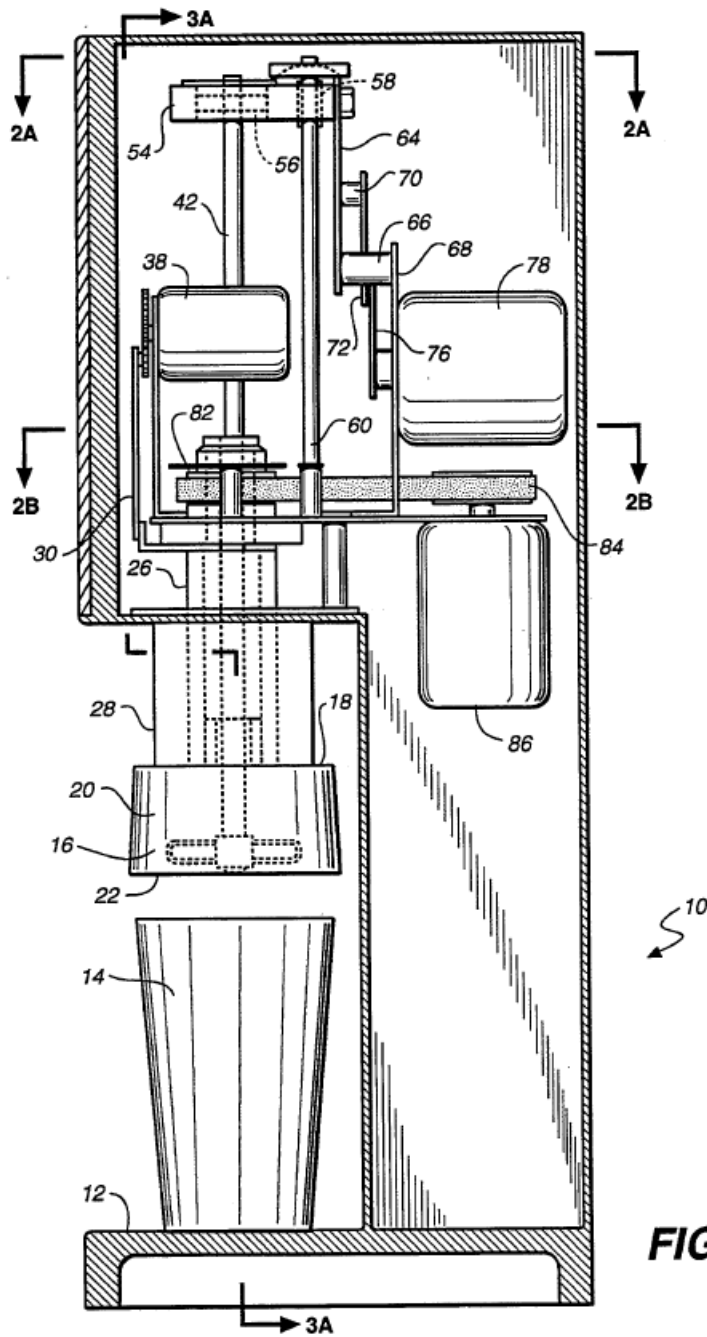
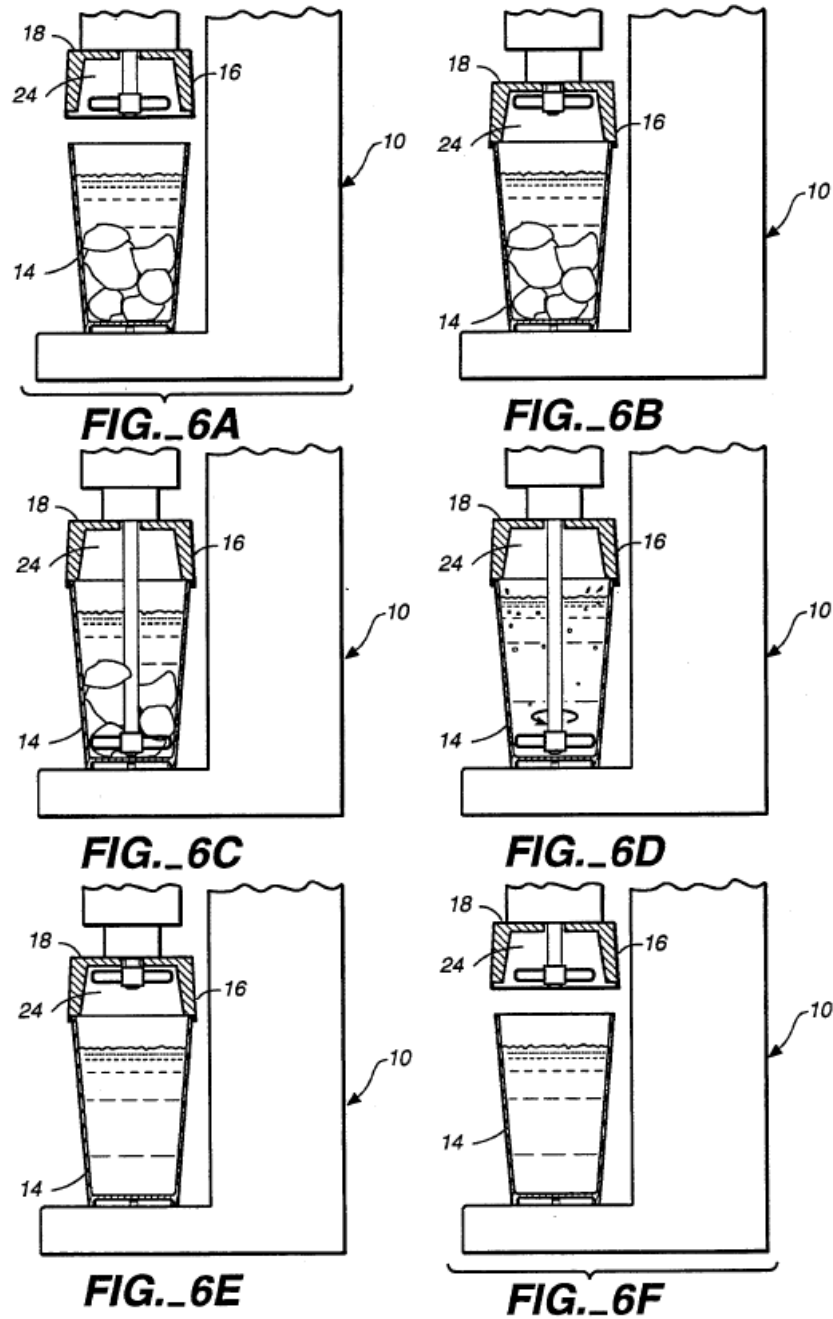


FIG. 1

Neilson Figure 1 shows a milk shake mixing machine, including receptacle 14 in the form of a cup or container, a platform 12 for supporting receptacle 14, mixer shaft 42, mixer head 44 (not labeled in Figure 1), and lid 16. Ex. 1003, 2:17-19, 2:57-3:9, 3:30-35.

The operation of Neilson's milk shake machine is illustrated in Figures 6A–6F, which are reproduced below:



Figures 6A–6F illustrate the sequential stages of operation of the mixing apparatus.

First, as shown in Figure 6A, receptacle 14 is placed under the lid 16, which is in a raised position. Next, as shown in Figure 6B, lid 16 is lowered and brought into engagement with receptacle 14. Next, as shown in Figure 6C, the mixer shaft and mixer head are moved downwardly to bring the mixer head close to the bottom of receptacle 14. Next, as shown in Figure 6D, the mixer head is rotated to mix the contents of receptacle 14. Next, as shown in Figure 6E, the mixer shaft and mixer head are moved upwardly, and rotation of the mixer shaft and mixer head is stopped. Ex. 1003, 4:15–42. Lastly, as shown in Figure 6F, lid 16 is pulled to its elevated position. *Id.* at 4:53–55.

According to Neilson, the foregoing sequence of operations is carried out automatically after the machine is actuated. *Id.* at 4:56–60. Neilson discloses an alternative embodiment wherein lid 16 is in a fixed position, and receptacle 14 is raised and lowered into and out of engagement with lid 16. *Id.* at 5:33–65, Figs. 9A–10A.

Kelly (Ex. 1002)

Kelly discloses a frozen confections blending machine having features allowing for “rapid, frequent and sanitary cleaning operations between product changes.” Ex. 1002, Abstract. Such features include: “a sink positioned underneath the mixing area to accept and collect splash and product over-run and . . . allow[] for easy and continuous sanitary cleanup,” *id.* at 1:37–43, and “[m]eans for delivering water to the auger, the cone and all inside surfaces of the enclosure for cleaning, including hoses, spray devices valves . . . facilitating the expeditions [sic] cleaning, especially, between changes of additives and flavors from one product batch to another,” *id.* at 1:61–67.

An embodiment of Kelly's blending machine is shown in Figure 1, which is reproduced below:

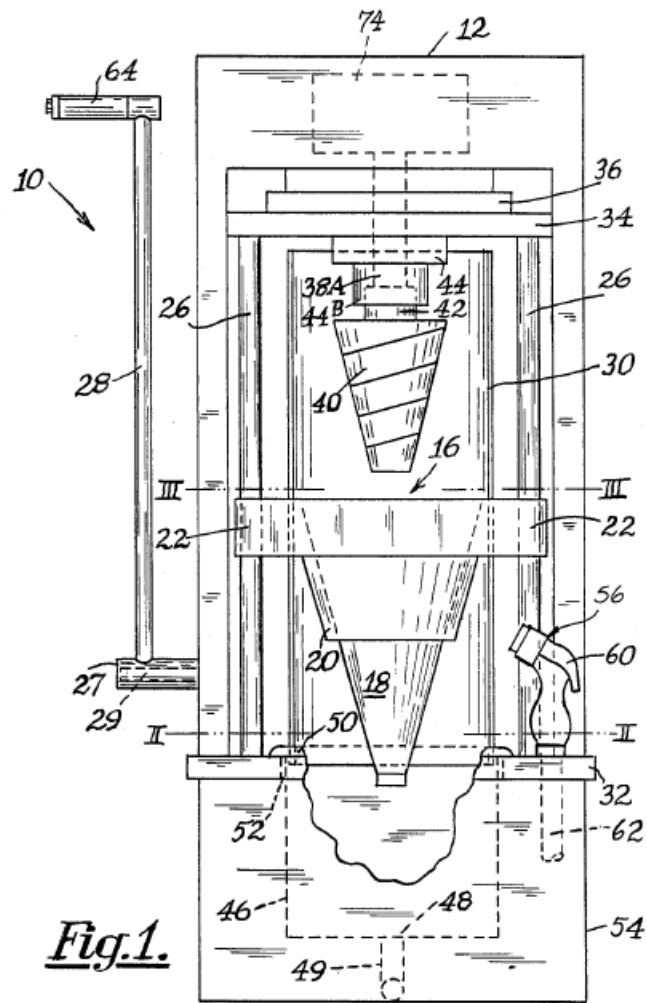


Fig. 1.

Kelly Figure 1, above, shows blending machine 10, including enclosure 12, mixing cone 18 for containing a product to be mixed, splash shield 30, rotatable cone-shaped auger 40, and splash guard 44. Ex. 1002, 2:15-17, 2:39-46, 2:55-59, 3:11-24, 3:38-41, 3:51-57.

To comply with sanitary requirements, the blending machine includes sink 46 under and adjacent the mixing area and spray device 56 positioned inside or about enclosure 12. *Id.* at 3:62-68, 4:13-15. According to Kelly, spray device 56 is "rotatable and tiltable" and "adjustable in such a manner

so as to clean the interior of the auger, the mixing cone and the entire interior.” *Id.* at 4:15–18. Spray device 56 has a valve operable by handle 60 and is connected to a water supply line. *Id.* at 4:18–20. Kelly discloses that, due to its position under and adjacent the mixing area, sink 46 “can be used for the cleaning of all interior parts in their mounted positions.” *Id.* at 4:21–25.

Miller (Exs. 1004, 1005)

Miller ’626 relates to the dispensing and mixing of multi-flavored foods such as milk shakes, frozen custards, and slushes. Ex. 1004 ¶ 2. Miller ’626 discloses an apparatus for dispensing a selected flavored syrup and blending it with a neutral-flavored mix held in a disposable serving container. *Id.* ¶¶ 13, 16, 36–40, 47–49, Figs. 1–3, 12–16 (flavored syrups 26/210, neutral mix-filled containers 20/300, and blending apparatus 36/100). Miller ’626 discloses attaching an open-ended tubular sleeve to the mix-filled container to shield the blender spindle and limit splashing of the mix during blending. *Id.* at Abstract, ¶¶ 14, 42–46, 50; Figs. 6–11, 15, 16 (alternative sleeve embodiments 54, 55, and 316). After blending is completed, the sleeve is removed from the container before the shake is served to the customer. *Id.* ¶¶ 45, 57. According to Miller ’626, the sleeve can be washed for reuse. *Id.* ¶ 45. Miller ’626 discloses cleaning the blender spindle after each use by delivering sterilizing solution or water through a dedicated nozzle directed at the spindle and spindle blades and operating the spindle and blades in an empty container to which sterilizing solution has been added. *Id.* ¶ 55, Figs. 17, 18 (nozzle 129).

Miller ’626 incorporates Miller ’665 by reference. Ex. 1004 ¶¶ 1, 41. Like Miller ’626, Miller ’665 relates to the dispensing and mixing of multi-

flavored drinks such as milk shakes, frozen custards, and slushes. Ex. 1005, 1:7–9. Miller '665 discloses inserting a protective sleeve into a mix-filled container to prevent the contents of the container from splashing out during blending of the mix. *Id.* at Abstract, 2:27–36, 4:1–4, 4:17–36, Figs. 5, 7, 8 (sleeve 34). According to Miller '665, the sleeve is removed from the container before the shake is served to the customer, and the sleeve is washed for reuse. *Id.* at 2:38–40, 5:4–10.

3. Level of Ordinary Skill in the Art

We accept Dr. Slocum's definition of a person having ordinary skill in the art ("PHOSITA") as an engineer with at least an undergraduate degree in mechanical engineering or related discipline and at least three years of professional or research experience in the design of consumer or medical products that utilize fluid systems. Ex. 1010 ¶ 20. Dr. Maynes states that he does not necessarily agree with Dr. Slocum's definition, but does not provide an alternative definition or any persuasive reasoning as to why Dr. Slocum's definition is incorrect. Ex. 2023 ¶ 6.

We also rely on Petitioner's references as reflecting the level of ordinary skill in the art at the time of the invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

4. Differences Between Claim 21 and the Asserted Prior Art

Petitioner contends that "[s]ince claim 21 of the '662 Patent is a method claim, directing rinsing fluid onto the splash shield is . . . disclosed by the human operation of Kelly's rotatable and tiltable spray device 56 to

clean the splash shield.” Pet. 28 (citing Ex. 1010 ¶ 72).⁷ Petitioner further contends that “[i]t would have been obvious for a PHOSITA to combine the splash shield and configuration of Neilson with the spray device of Kelly to direct rinse fluid onto the splash shield of Neilson with the predictable result of cleaning the splash shield of Neilson as intended by Kelly.” Pet. 28 (citing Ex. 1010 ¶ 78).

Based on the record in this case, we find that Neilson in view of Kelly does not teach or suggest the nozzle limitations of claim 21 under our claim constructions. The experts agree that Kelly teaches a manually operated spray device similar to that commonly found at a kitchen sink. Ex. 2027, 166:7–14; Ex. 2023 ¶ 31; Ex. 1002 (spray device 56). Kelly Figure 1 shows spray device 56 before use. Ex. 2023 ¶ 31. To use Kelly’s spray device, a user would grab the spray device and pull up on the hose so that the spray device can be rotated and tilted to clean the parts of the mixing machine. *Id.*; Ex. 2027, 166:7–14; Ex. 1002, 4:13–20.

It is undisputed that Neilson does not disclose any sort of rinse nozzle for cleaning a splash shield. PO Resp. 18; Pet. Reply 7. Kelly teaches a nozzle in the form of spray device 56. Based on the evidence of record, we determine that the combination of Neilson and Kelly does not teach or suggest “a nozzle oriented towards the splash shield” and “directing rinsing fluid onto the splash shield using the nozzle. Even if combined with Neilson’s mixing machine, Kelly’s spray device 56 would not meet the nozzle limitations of claim 21 because it would not be pre-positioned such

⁷ The Petition erroneously cites the Slocum Declaration as Exhibit 1009, rather than Exhibit 1010. *See, e.g.*, Pet. 27.

that it points at Neilson's splash shield (lid 16) and would not spray rinsing fluid onto Neilson's splash shield from its pre-position in the mixing machine. At best, the combination of Neilson and Kelly teaches rinsing a splash shield using a manually operated spray device similar to a kitchen sink sprayer. That is not what is required by claim 21.

In the Reply Brief, Petitioner argues that, even if claim 21 were limited to automatic rinsing, Miller discloses an electronically controlled nozzle 129. Pet. Reply 12. Petitioner argues that it would have been a simple substitution to modify Kelly's spray device 56 with Miller's electronically controlled nozzle 129 and that the teachings of Kelly and Miller would have led a skilled artisan to orient Miller's electronically controlled nozzle 129 toward Neilson's lid 16 and direct rinsing fluid thereon. *Id.* at 12–13 (citing Ex. 1010 ¶¶ 69, 82–85; Ex. 2027, 169–72). We are not persuaded by Petitioner's argument for two reasons.

First, Petitioner's reply argument relies on impermissible hindsight. The combination of Neilson, Kelly, and Miller does not teach or suggest the nozzle limitations of claim 21 without relying on the claim as a roadmap for selecting and modifying the teachings. Miller teaches nozzle 129 for spraying cleaning fluid onto a blender spindle after each use. Ex. 1004 ¶ 55, Figs. 17, 18. Miller also discloses a splash shield in the form of a tubular sleeve inserted into a mixing container during blending. *Id.* ¶ 42; Ex. 1005, 4:1–4, 4:33–36. Like Neilson's lid 16, Miller's splash shield is manually removed for cleaning. Ex. 1003, 5:65–66; Ex. 1004 ¶ 45; Ex. 1005, 5:4–10. Although Miller's nozzle 129 is pre-positioned, it is not pointed at a splash shield. *See* Ex. 1004 ¶ 55, Fig. 18 (showing nozzle 129 for dispensing cleaning fluid onto spindle 114).

To meet the nozzle limitations of claim 21, Kelly's nozzle would need to be modified from a manually positionable nozzle to one that is pre-positioned such that it points at a splash shield. Such a modification is not suggested by Miller, which does not teach or suggest a nozzle pointed at a splash shield and instead teaches that the splash shield is manually removed for cleaning. Ex. 1004 ¶ 45; Ex. 1005, 5:4–10. Thus, even if combined, Neilson, Kelly, and Miller do not, absent hindsight, teach or suggest a method of rinsing a splash shield in which a nozzle is pre-positioned such that it points at the splash shield and rinsing fluid is sprayed onto the splash shield from the pre-positioned nozzle.

Second, Petitioner's reply argument relies on testimony from Dr. Slocum that is not supported by Miller, and we, thus, decline to afford it substantial weight. Pet. Reply 13 (citing Ex. 1010 ¶¶ 69, 84, 85); *see also* Pet. 28 (citing Ex. 1010 ¶ 77).⁸ In paragraph 69, Dr. Slocum testifies that, "in the case of Miller," the angle of the nozzle is adjusted "to clean . . . the splash shield." Ex. 1010 ¶ 69. In paragraph 85, Dr. Slocum testifies that Miller teaches "the rinsing fluid [is] used for the splash shield." *Id.* ¶ 85. In paragraph 77, Dr. Slocum testifies that Miller discloses using a nozzle oriented towards a splash shield for directing rinsing fluid onto the splash shield. *Id.* ¶ 77. Dr. Slocum's testimony is inconsistent with Miller, which teaches that the splash shield is manually removed for cleaning. Ex. 1004 ¶ 45; Ex. 1005, 5:4–10. In fact, on cross-examination, Dr. Slocum conceded that Miller does not disclose automatic cleaning of the sleeve (splash shield)

⁸ *See supra* note 7.

and that Miller's nozzle is not pointed at the sleeve. Ex. 2027, 189:8–190:11.

Petitioner also relies on Dr. Slocum's testimony that a PHOSITA reading Kelly would have substituted an electronic valve for Kelly's manual valve and would have "put a bunch of them in at a bunch of different angles," so when the valves are actuated, the whole thing is cleaned. Ex. 2027, 169:5–172:9; *see* Pet. Reply 13. In our view, the cited testimony is not credibly based on the teachings of the prior art references, as opposed to the teachings of the '662 patent. Whereas Dr. Slocum opines that it would have been obvious to clean a splash shield using electronically operated nozzles (*id.*), Neilson, Kelly, and Miller all teach manual cleaning of a splash shield. Ex. 1002, 4:13–20; Ex. 1003, 5:65–66; Ex. 1004 ¶ 45; Ex. 1005, 5:4–10. In view of the inconsistencies between Dr. Slocum's testimony and the teachings of Miller, we do not give substantial weight to his opinion that the method of claim 21 would have been obvious to a PHOSITA in view of Neilson, Kelly, and Miller.

On this record, we are not persuaded that the method of claim 21 is merely a simple substitution of known elements to obtain predictable results, as argued by Petitioner. *See, e.g.*, Pet. 29–30; Pet. Reply 12. Before reaching any conclusion regarding obviousness, however, we address secondary considerations.

5. *Secondary Considerations*

Even where the teachings of the prior art "point in the direction of" the claimed subject matter, objective evidence of nonobviousness may lead to a conclusion that the challenged claims would not have been obvious. *In re Piasecki*, 745 F.2d 1468, 1474–75 (Fed. Cir. 1984). Objective evidence

of nonobviousness “may often be the most probative and cogent evidence in the record” and “may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340, 1349 (Fed. Cir. 2012) (citation omitted).

Patent Owner contends that nonobviousness is supported by evidence of long felt but unmet need, commercial success of Patent Owner’s blenders, a license of the ’662 patent to Petitioner, and alleged copying of the patented invention by Petitioner. PO Resp. 34–47. Petitioner contends that Patent Owner fails to establish a nexus between the asserted secondary considerations and the limitations of claim 21. Pet. Reply 15–19. We address the parties’ contentions below.

Nexus

To be accorded substantial weight, the evidence of the secondary considerations must include a showing of nexus. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). Nexus is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988).

There is a rebuttable presumption of nexus when the patentee shows that the asserted objective evidence is tied to a specific product and that product is the invention disclosed and claimed in the patent. *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1329 (Fed. Cir. 2016); *see also Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 723 F.3d 1363, 1372 (Fed. Cir. 2013) (there is a “presumption of a nexus” when a product is “coextensive” with a patent

claim). The presumption of nexus can be rebutted by showing that commercial success or other alleged secondary evidence was due to extraneous factors, other than the patented invention, such as unclaimed features or improvements in marketing. *WBIP*, 829 F.3d at 1329.

“However, a patent challenger cannot successfully rebut the presumption with argument alone — it must present evidence.” *Id.*

We are persuaded by Patent Owner’s evidence of nexus between its B2, B4, and B6 blenders and claim 21 of the ’662 patent. Patent Owner submits a declaration of the inventor, James Farrell, describing how he developed the blender and cleaning method described in the ’662 patent. Ex. 2022 ¶¶ 3–6. Patent Owner also submits a declaration of its former Chief Operating Officer, Jens Voges, describing Mr. Farrell’s milkshake and self-cleaning blender inventions and ideas for commercializing those inventions. Ex. 2028 ¶¶ 10–13. According to the Voges Declaration, Mr. Farrell worked with a design firm to build commercial blenders—the B2, B4, and B6 blenders—embodying Mr. Farrell’s self-cleaning blender inventions. *Id.* ¶¶ 15, 16. The Voges Declaration includes a claim chart showing how Patent Owner’s B2, B4, and B6 blenders practice the limitations of claim 21 (*id.* ¶ 19), with reference to a non-litigation technical description of Patent Owner’s blender cleaning system (Ex. 2035). Mr. Voges testifies that Patent Owner’s initial customer, QuikTrip, purchased the B2 blender for its convenience stores based on the self-

cleaning features of the blender, including the spray nozzles that clean the splash shield.⁹ Ex. 2028 ¶¶ 16, 20.

Petitioner does not dispute that the B2, B4, and B6 blenders are Patent Owner’s commercial embodiment of the invention disclosed and claimed in the ’662 patent and that these blenders practice the limitations of claim 21. Instead, Petitioner argues that Patent Owner provides “no evidence from any third party why they adopted [Patent Owner]’s system” and “no showing that its commercial success is tied to” the nozzle limitations of claim 21. Pet. Reply 17, 18. We are not persuaded by Petitioner’s arguments.

First, there is no requirement that Patent Owner’s showing of nexus include evidence from a third party.

Second, Patent Owner’s evidence persuades us that the commercial success of the B2, B4, and B6 blenders is indeed tied to the nozzle limitations of claim 21. That evidence includes Mr. Farrell’s declaration, which shows that he set out to design a blender that could be automatically cleaned after each use and that his design included nozzles for spraying fluid to rinse the splash shield. Ex. 2022 ¶ 5. Patent Owner’s evidence also shows that the self-cleaning features of the B2, B4, and B6 blenders, including the spray nozzles for cleaning the splash shield, were important to Patent Owner’s convenience store customers. Ex. 2028 ¶¶ 16, 20. In sum, we find that Patent Owner’s evidence, including the Farrell and Voges Declarations (Ex. 2022 ¶¶ 3–6; Ex. 2028 ¶¶ 10–13, 15, 16, 19, 20) and the technical description of its blender cleaning system (Ex. 2035), are sufficient

⁹ Petitioner’s motion to exclude Mr. Voges’ testimony on hearsay grounds is addressed in Section II.C. below.

to establish a presumption of nexus for evidence relating to Patent Owner’s B2, B4, and B6 blenders.

Petitioner next argues that there are “other reasons” for Patent Owner’s commercial success. Pet. Reply 18 (citing Ex. 2029; Ex. 1015, 34–35, 42; Ex. 1020).¹⁰ We are not persuaded that Petitioner’s evidence is sufficient to rebut the presumption of nexus. The cited statements in Mr. Voges’ curriculum vitae (Ex. 2029) and deposition testimony (Ex. 1015, 42) regarding Patent Owner’s next-generation commercial blender have no relevance to the B2 blender and are not sufficient to show that the commercial success of the B4 and B6 blenders was due to unclaimed features or improved marketing techniques. In fact, Mr. Voges’ curriculum vitae and deposition testimony reinforce that “clean-in-place technology” is a reason for the commercial success of the next-generation B4 blender. Ex. 2029; Ex. 1015, 42:18–24. Mr. Voges’ testimony that Patent Owner is “definitely proud of its range of flavors” (Ex. 1015, 34:22–23) is likewise not sufficient to rebut the presumption of nexus arising from Patent Owner’s evidence.

Long Felt But Unmet Need

Relying on paragraphs 3–9 of the Voges Declaration, Patent Owner contends that there was a long felt, but unmet need for a fast and healthy way to prepare milkshakes and smoothies. PO Resp. 34–38 (citing Ex. 2028 ¶¶ 3–9). We do not give substantial weight to Patent Owner’s evidence of

¹⁰ Exhibit 1020 is a proposed scheduling order filed in *f’real Foods, LLC v. Hamilton Beach Brands, Inc.*, No. 1:16-cv-00041-GMS (D. Del.). Petitioner does not explain how this exhibit rebuts Patent Owner’s evidence of nexus.

long felt but unmet need for two reasons. First, Mr. Voges' testimony is based on his personal observations regarding the milkshake and convenience store industries and lacks objective facts or data to sufficient to support his conclusions. Second, Mr. Voges first began working for Patent Owner in 2005 and lacks sufficient personal knowledge to testify authoritatively about conditions in the milkshake and convenience store industries prior to that time. Ex. 1015, 23:22–26:4; Ex. 2029 (Mr. Voges' CV).

Commercial Success

We are persuaded by Patent Owner's evidence that its B2, B4, and B6 blenders are commercially successful products. Patent Owner submits the testimony of Mr. Voges that Patent Owner's initial customer, QuikTrip, purchased over 500 B2 blenders for its convenience stores. Ex. 2028 ¶¶ 16, 20. Mr. Voges provides a chart showing Patent Owner's annual gross revenue from sales of blenders, freezers, spare parts, and cups of frozen beverage products from 2005 to 2016 and annual cup volumes from 2002 to 2016. *Id.* ¶ 16. Mr. Voges' chart shows that annual cup volume increased from 33,927 units in 2003 to 1,393,404 units in 2004—an increase of over 4000%. *Id.*; *see also* PO Resp. 39–40. The jump in sales occurred immediately after Patent Owner began shipping B2 blenders, which Mr. Voges states happened at the end of 2003. Ex. 2028 ¶ 16. Mr. Voges testifies that Patent Owner's frozen milkshake, smoothie, and cappuccino cups are for use with the B2, B4, and B6 blenders, which practice the method of claim 21. Ex. 2028 ¶¶ 16, 19. These cups contain frozen milkshake, smoothie, or cappuccino to be mixed by the blenders, and providing these cups corresponds to the first step of claim 21. *Id.* ¶ 19. Based on this testimony, we find that Patent Owner's cup volume data is

indicative of commercial success of the blenders and the method of claim 21.

In addition, Patent Owner provides a chart showing that Patent Owner had the largest share of convenience store sales of frozen novelty products in the United States in 2015. Ex. 2028 ¶ 17 (source: Ex. 2034, 2).¹¹ Patent Owner also provides a chart listing the top ten competitors in terms of milkshake servings in the United States in 2013 and 2015. Ex. 2028 ¶ 18 (source: Ex. 2034, 3). The chart shows that Patent Owner climbed from ninth place in 2013 to sixth place in 2015, with more than 53 million servings. *Id.* The chart further shows that, in 2015, Patent Owner ranked behind fast food restaurants such as McDonald's (close to 172 million servings) and Wendy's (close to 69 million servings) and ahead of Burger King (close to 37 million servings) and Jack in the Box (close to 28 million servings). *Id.* In contrast, Patent Owner's annual cup volume was only about 11,000 units in 2002 before the B2 blender was introduced. *Id.* ¶ 16.

Petitioner does not dispute that Patent Owner's B2, B4, and B6 blenders are commercially successful products. Instead, Petitioner argues that Patent Owner fails to show nexus between claim 21 and its commercial success. Pet. Reply 17–18. As discussed above, Patent Owner has provided persuasive evidence of nexus between its B2, B4, and B6 blenders and claim

¹¹ Exhibit 2034 reports that the f'real brand had \$119.1 million in convenience store sales and 41.5 million in unit sales for 2015, which in one case exceeds and the other case falls below the numbers in Mr. Voges' chart. Ex. 2028 ¶ 16. It is not surprising, however, that sales data in a market report would be less accurate than company internal data, and the discrepancies do not undermine Patent Owner's assertion regarding its market share.

21 of the '662 patent. Accordingly, we find that the commercial success of Patent Owner's B2, B4, and B6 blenders is a factor that weighs strongly in favor of nonobviousness.

License

We are persuaded by Patent Owner's evidence showing that Petitioner paid [REDACTED] for a license under the '662 patent. More specifically, Patent Owner's evidence shows that, in August 2009, Petitioner approached Patent Owner about obtaining a license under Patent Owner's self-cleaning blender patents, including the '662 patent. Ex. 2028 ¶ 21. Patent Owner's evidence also shows that, in May 2010, Petitioner and Patent Owner entered into a Patent License Agreement under which Patent Owner granted Petitioner a non-exclusive, field-of-use license under the '150 patent, the '658 patent, and the '662 patent. Ex. 2028 ¶¶ 13, 23; Ex. 2031, 1–3 (Patent License Agreement); *see supra* note 1. Patent Owner's evidence shows that, as compensation for the license, Petitioner paid Patent Owner [REDACTED] [REDACTED] Ex. 2028 ¶ 23; Ex. 2031, 5; *see also* Ex. 1018, HBBF0000624 (e-mail correspondence dated February 25, 2011 from Petitioner's vice president acknowledging Petitioner's payment [REDACTED] for license).

Petitioner asserts that it terminated the license without ever producing licensed products. Pet. Reply 18. According to Petitioner, it informed Patent Owner "that the license had little value because of an easy work-around and the nozzle orientation was obvious in view of Kelly." *Id.* at 18–19 (citing Exs. 1018, 1019).

Petitioner does not dispute that there is a nexus between its [REDACTED] license payment and the merits of the invention of claim 21 of the '662 patent. A finding of nexus is supported by Patent Owner's e-mail correspondence with Petitioner, which specifically discusses "the orientation of the nozzle for cleaning" and claim 21 of the '662 patent, indicating that these were important aspects of the rights that were licensed to Petitioner. Ex. 1018, HBBF0000624, 626. Petitioner also does not dispute Mr. Voges' testimony that Petitioner approached Patent Owner about obtaining a license. Ex. 2028 ¶ 21. There is no evidence of any pending or threatened patent litigation or business relationship between the parties at the time they entered into the patent license. Accordingly, we find that the Petitioner's payment to Patent Owner for a license under the '662 patent weighs in favor of nonobviousness.

Copying

Relying on paragraphs 25–27 of the Voges Declaration, Patent Owner contends that Petitioner copied Patent Owner's self-cleaning blender technology. PO Resp. 45–47 (citing Ex. 2028 ¶¶ 25–27). Mr. Voges' testimony is based on a comparison of Petitioner's commercial product with claim 21 of the '662 patent. Ex. 2028 ¶¶ 26, 27 (claim chart comparing claim 21 and Hamilton Beach MIC2000 blender). Patent Owner does not, however, present evidence probative of whether Petitioner actually copied Patent Owner's product. *See Institut Pasteur & Universite Pierre Et Marie Curie v. Focarino*, 738 F.3d 1337, 1347–48 (Fed. Cir. 2013) ("Copying requires duplication of features of the patentee's work based on access to that work, lest all infringement be mistakenly treated as copying."); *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004)

(“Not every competing product that arguably falls within the scope of a patent is evidence of copying. Otherwise every infringement suit would automatically confirm the nonobviousness of the patent. Rather, copying requires the replication of a specific product.”). Accordingly, we are not persuaded by Patent Owner’s contention that Petitioner copied Patent Owner’s technology.

6. Conclusion Regarding Obviousness

As discussed above, we find that Neilson in view of Kelly and Miller do not teach or suggest the nozzle limitations of claim 21, without relying on impermissible hindsight. Even if we agreed with Petitioner’s contentions regarding what is taught or suggested by Neilson, Kelly, and Miller, however, we are persuaded that Patent Owner’s evidence of secondary considerations outweighs Petitioner’s evidence offered to show obviousness. *See Tec Air, Inc. v. Denso Mfg. Mich. Inc.*, 192 F.3d 1353, 1361 (Fed. Cir. 1999) (holding that “even assuming that [the accused infringer] established a prima facie case of obviousness, [the patentee] presented sufficient objective evidence of nonobviousness to rebut it”). More specifically, we are persuaded that nonobviousness is strongly supported by Patent Owner’s evidence regarding its B2, B4, and B6 blenders, their nexus to claim 21 of the ’662 patent, and their commercial success. In addition, we are persuaded that nonobviousness is supported by Patent Owner’s evidence that Petitioner sought and paid for a license under the ’662 patent at a time when there was no litigation pending or threatened between the parties. These facts are “real world indicators” of whether the subject matter of claim 21 would have been obvious to a PHOSITA and “tip the scales” in favor of a determination that

unpatentability has not been shown. *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1058 (Fed. Cir. 2016).

Accordingly, weighing the evidence of obviousness against the evidence of non-obviousness, we conclude that Petitioner has not shown by a preponderance of the evidence that the method of claim 21 would have been obvious in view of Neilson, Kelly, and Miller.

C. Petitioner's Motion To Exclude

Petitioner filed a motion to exclude paragraphs 3–16, 20, and 25–28 of the Voges Declaration (Ex. 2028). Paper 26 (“Pet. Mot.”). Patent Owner filed an opposition (Paper 30), along with a Supplemental Declaration of Jens Voges (Ex. 2037). Petitioner filed a reply. Paper 33.

The party moving to exclude evidence bears the burden of proving that it is entitled to the relief requested—namely, that the material sought to be excluded is inadmissible under the Federal Rules of Evidence (“FRE”). *See* 37 C.F.R. §§ 42.20(c), 42.62(a).

Petitioner argues that paragraphs 3–9 of the Voges Declaration (relating to long felt need) are inadmissible hearsay under FRE 602 and 802 because Mr. Voges is not offered as an expert and he lacks personal knowledge of the subject matter of those paragraphs. Pet. Mot. 6–8. Petitioner argues that paragraphs 25–27 of the Voges Declaration (relating to alleged copying) should be excluded as inadmissible lay opinion testimony under FRE 701. *Id.* at 12–13. We have not relied on paragraphs 3–9 or 25–27 of the Voges Declaration (Ex. 2028) as support for this Decision. For this reason, we *dismiss as moot* Petitioner’s motion, as it pertains to paragraphs 3–9 and 25–27 of Exhibit 2028.

Petitioner argues that paragraphs 10–14 of the Voges Declaration are inadmissible hearsay under FRE 802 because they are based on the Farrell Declaration (Ex. 2022) and because Mr. Voges lacks personal knowledge of Mr. Farrell’s state of mind. Pet. Mot. 8–9. Petitioner argues that paragraphs 15, 16, and 20 of the Voges Declaration should be excluded under FRE 602 or 802 because Mr. Voges lacks personal knowledge or relies on inadmissible hearsay. *Id.* at 9–10. Petitioner argues that paragraphs 20 and 28 of the Voges Declaration should be excluded under FRE 701 as not based on Mr. Voges’ perceptions or personal knowledge. *Id.* at 11–12.

After considering Petitioner’s arguments, we determine that paragraphs 10–16, 20, and 28 of the Voges Declaration are not hearsay and that Mr. Voges has a sufficient basis to testify from personal knowledge regarding the matters set forth in those paragraphs, to the extent they are relied upon in this Decision. Mr. Voges testifies that, as a member of Patent Owner’s management team, he was involved in most aspects of the company’s business, including engineering, product development, customer support, sales, and marketing and that he gained an understanding of the company’s history and patented technology. Ex. 2028 ¶ 2; Ex. 2029, 1–2 (Mr. Voges’ curriculum vitae describing his positions at f’real Foods). Mr. Voges’ testimony and curriculum vitae provide an adequate foundation for him to testify regarding Mr. Farrell’s inventions, Mr. Farrell’s ideas for commercializing his inventions, design and building of commercial embodiments of Mr. Farrell’s inventions, and features that were important to Patent Owner’s customers, including QuikTrip. *See* Fed. R. Evid. 602 (“Evidence to prove personal knowledge may consist of the witness’s own testimony.”).

Petitioner argues that paragraph 16 of the Voges Declaration regarding cup sales in 2002–2005, 2015, and 2016 should be excluded as inadmissible for lack of authentication under FRE 901. Pet. Mot. 13–14. Petitioner asserts that Patent Owner’s supplemental evidence regarding cup sales did not include data for 2015 or 2016 and that data for 2002–2005 was not timely served in response to Petitioner’s objections. *Id.* at 13–14 n.6.

Petitioner does not persuade us that any portion of paragraph 16 of the Voges Declaration should be excluded under FRE 901. For the reasons discussed above, we find that Mr. Voges has sufficient personal knowledge to authenticate the cup sales data in paragraph 16. Under FRE 1006, Patent Owner was permitted to submit its sales data in the form of a summary or chart, as long as it provided the underlying documents to Petitioner. Patent Owner provided back-up documentation for 2002–2005 cup sales on May 15, 2017 (Ex. 2039) and back-up documentation for 2015 and 2016 cup sales on July 6, 2017 (Ex. 2040). Petitioner had the opportunity to cross-examine Mr. Voges regarding the cup sales data in paragraph 16 of his declaration, including the data for 2002–2005, 2015, and 2016. *See* Ex. 1015, 42:25–45:20 (deposition of Mr. Voges regarding cup sales data). Petitioner identifies no prejudice arising from unavailability of back-up documentation for 2002–2005, 2015, and 2016 at the time of the Voges deposition. If Patent Owner’s late production of back-up documentation necessitated additional discovery, then Petitioner should have requested it.

For these reasons, we *deny* Petitioner’s motion, as it pertains to paragraphs 10–16, 20, and 28 of Exhibit 2028.

D. Statutory Bar — 35 U.S.C. § 315(b)

In view of the foregoing determination regarding Petitioner's obviousness challenge, we decline to address Patent Owner's argument that the Petition is barred under 35 U.S.C. § 315(b).

III. CONCLUSION

Petitioner has not demonstrated by a preponderance of the evidence that claim 21 of the '662 patent is unpatentable under 35 U.S.C. § 103(a) as obvious in view of Neilson, Kelly, and Miller.

IV. ORDER

Accordingly, in consideration of the foregoing, it is hereby:

ORDERED that Petitioner has not shown that claim 21 of the '662 patent is unpatentable;

FURTHER ORDERED that Petitioner's motion to exclude is *dismissed as moot*, as it pertains to paragraphs 3–9 and 25–27 of Exhibit 2028, and *denied*, as it pertains to paragraphs 10–16, 20, and 28 of Exhibit 2028; and

FURTHER ORDERED that, because this is a Final Written Decision, the 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.

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