

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 IPR2016-01105
Patent 7,520,658 B2

Before LORA M. GREEN, BRIAN P. MURPHY, and
ELIZABETH M. ROESEL, *Administrative Patent Judges*.

MURPHY, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Hamilton Beach Brands, Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1 and 5–11 of U.S. Patent No. 7,520,658 B2 (Ex. 1001, “the ’658 patent”). Paper 1 (“Pet.”). F’real Foods, LLC (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 9 (“Prelim. Resp.”). We have statutory authority under 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

Petitioner challenges claims 1 and 6–11 of the ’658 patent as unpatentable under 35 U.S.C. § 102(b) and claims 1 and 5–11 as unpatentable under § 103. Pet. 9. Based on the arguments and evidence presented in the Petition and Preliminary Response, we determine Petitioner has not established a reasonable likelihood that it would prevail with respect to at least one of the claims challenged in the Petition. Therefore, institution of an *inter partes* review is *denied*.

A. Related Proceedings

Petitioner and Patent Owner identify the following as related district court proceedings in the District of Delaware regarding the ’658 patent:

f’real Foods, LLC v. Hamilton Beach Brands, Inc., Case No. 16-cv-00041-GMS (D. Del., filed Jan. 26, 2016) (“the 2016 Action”); and

f’real Foods, LLC v. Hamilton Beach Brands, Inc., Case No. 14-cv-01270-GMS (D. Del., filed Oct. 3, 2014) (“the 2014 action”). Pet. 2; Paper 5, 1.

The parties further identify IPR2016-01107 as a related *inter partes* review proceeding regarding U.S. Patent No. 7,520,662. Pet. 2–3; Paper 5,

1.

B. Proposed Grounds of Unpatentability

Petitioner advances three grounds of unpatentability under 35 U.S.C. §§ 102(b) and 103 in relation to the challenged claims in the '658 patent:

Reference[s]	Statutory Basis	Challenged Claims
Neilson (Ex. 1002) ¹	§ 102(b)	1 and 6–11
Neilson and Brown (Ex. 1003) ²	§ 103	1 and 5–11
Neilson, Barnard (Ex. 1004), ³ and Kelly (Ex. 1007) ⁴	§ 103	1 and 5–11

Pet. 9. Petitioner supports its challenge with a Declaration by Alexander H. Slocum, Ph.D. Ex. 1008. Patent Owner supports its Preliminary Response with a Declaration by Daniel Maynes, Ph. D. Ex. 2023.

C. The '658 Patent

The '658 patent, titled “Rinseable Splash Shield and Method of Use,” issued April 21, 2009, from an application filed November 22, 2005. The '658 patent is directed to a machine for mixing liquids and devices for preventing splashing of liquids during mixing, in particular for mixing and

¹ U.S. Patent No. 5,439,289, issued August 8, 1995, to Neilson (“Neilson”). Ex. 1002.

² U.S. Patent Publication No. 2002/0189460 A1, filed April 11, 2002, published December 19, 2002, to Brown et al. (“Brown”). Ex. 1003.

³ U.S. Patent No. 4,822,175, issued April 18, 1989, to Barnard et al. (“Barnard”). Ex. 1004.

⁴ U.S. Patent No. 4,740,088, issued April 26, 1988, to Kelly (“Kelly”). Ex. 1007.

blending drinks such as frozen milkshakes, coffee drinks, or smoothies. Ex. 1001, 1:12–15, 2:38–49. The '658 patent describes that “blending, whipping, stirring, etc. the food or beverage” can “be done using a rotary blade or mixer which is lowered into a container holding the food or beverage, or which is held in place as the container is advanced towards the rotary blade/mixer.” *Id.* at 1:18–24. The '658 patent describes the problem that “material can splash from the cup onto the drink machine and surrounding area.” *Id.* at 1:48–49. The '658 patent addresses the problem by providing a drink mixer having a splash shield located on top of the cup to avoid splashing during mixing. *Id.* at 1:64–67.

Figure 1 of the '658 patent, reproduced below, depicts a preferred embodiment:

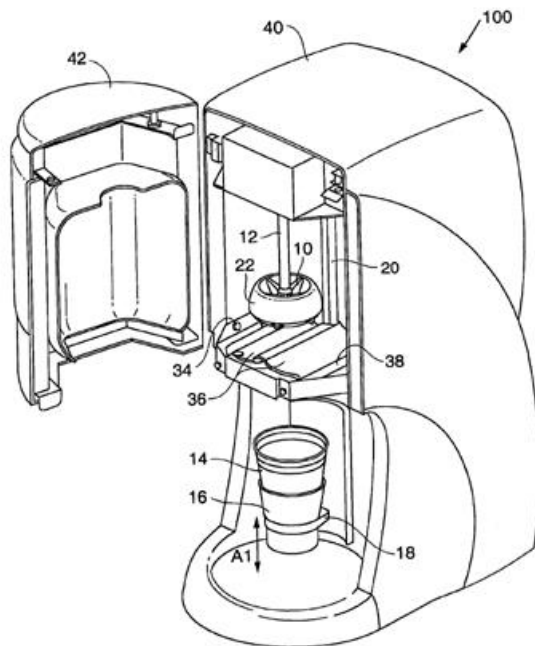
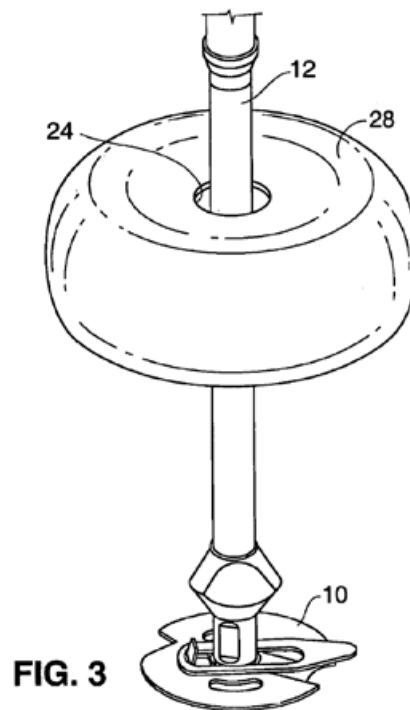


FIG. 1

Figure 1, above, depicts mixing machine 100 having cup holder 16 that supports cup 14. *Id.* at 2:54–57. The cup holder is mounted to carriage 18 and moveable along motorized vertical rail 20, which lifts the cup (arrow A₁) through hinged doors 36 into the blending chamber. *Id.* at 2:57–64. As the top of the cup enters the blending chamber, it contacts the underside of splash shield 22, which is preferably comprised of a lid proportioned to seat along the upper edge of cup 14. *Id.* at 3:12–14, 3:51–54. The splash shield includes upper opening 24 and larger lower opening 26, and shaft 12 extends through the openings such that mixing blade 10 is positioned beneath the splash shield, as depicted in Figure 3 below. *Id.* at 3:14-17.



As depicted in Figure 3, above, wall 28 of the splash shield tapers inwardly from the uppermost surface of the shield down to upper opening 24. *Id.* at 3:20–22. When the splash shield is lowered relative to the shaft,

the splash shield contacts a tapered portion of the shaft via spaced apart ribs positioned along wall 28 (Figure 1). *Id.* at 3:22–25. When the splash shield is raised relative to the shaft, as in Figure 3 above, the ribs of the splash shield separate from the tapered portion of the shaft. *Id.* at 3:25–27, 3:54–58. During mixing, holder 16 (Figure 1) reciprocates along motorized vertical rail 20 to move the cup up and down, thereby allowing mixing blade 10 to pass through the full contents of the cup more than once. *Id.* at 2:57–64, 3:5–8, 3:58–64. Alternatively, shaft 12 and rotating blade 10 may be lowered while the cup and cup holder remain in place, and the mixing blade reciprocates through the contents of the cup. *Id.* at 3:8–11, 3:61–64.

The splash shield may be weighted to ensure a good seal with the cup. *Id.* at 3:65–66. The '658 patent states it is a further advantage if the splash shield “is heavy enough to create sufficient downward force on the cup to overcome any upward force created by the mixing blade being moved upwardly in the cup.” *Id.* at 4:3–6. Such upward force can be created by the mixing blade when the cup is lowered by the holder, relative to the shaft, either during or after mixing. *Id.* at 4:6–14. A splash shield of sufficient weight “causes the cup to remain seated in the cup holder without any other mechanical means of retaining it in the cup holder, such as clamping or gripping mechanisms or the springs or lid placement and retention mechanisms previously described.” *Id.* at 4:14–20.

D. Challenged Claims

Petitioner challenges claims 1 and 5–11 of the '658 patent. Independent claim 1 and dependent claim 5 are illustrative and reproduced below:

1. A mixing machine for mixing a liquid contained in a vessel having an opening, the mixing machine comprising:
 - a holder coupled to the mixing machine, the holder proportioned to receive a vessel;
 - a rotatable mixing element extendable through the opening into the vessel positioned in the holder, for mixing the contents of the vessel;
 - a motor operatively coupled to at least one of the holder and the mixing element to effect axial translation of the mixing element between first and second positions within the vessel, the mixing element positioned further from the opening when in the first position than when in the second position;
 - a shaft; and
 - a splash shield slidable on the shaft between first and second positions, the splash shield in the second position positionable covering the opening of the vessel and being unrestrained against sliding movement on the shaft in a direction away from the opening, the splash shield having sufficient mass to retain the vessel within the holder during relative axial movement of the mixing element and vessel from the first position to the second position when liquid is present in the vessel.
5. The mixing machine of claim 1, wherein the splash shield has a mass of approximately 5 lbs.

II. ANALYSIS

A. *Statutory Bar – 35 U.S.C. § 315(b)*

Petitioner certifies that it is not barred from petitioning the Board for an *inter partes* review of the '658 patent claims. Pet. 3–8. Patent Owner opposes Petitioner's certification and argues that the Petition is barred under 35 U.S.C. § 315(b), because Petitioner filed the Petition more than one year after having been served with a complaint in the 2014 Action alleging

infringement of the '658 patent. Prelim. Resp. 5–18. For the reasons that follow, we determine the Petition is not barred under 35 U.S.C. § 315(b).

1. The 2014 Action and 2016 Action

The complaint in the 2014 Action asserted infringement of the '658 patent, along with other patent and non-patent causes of action. Ex. 2001 (“2014 Complaint”). The 2014 Complaint was served on Petitioner on October 6, 2014. Ex. 2002 (Summons and Proof of Service); Ex. 2016 (Civil Docket).

During the course of the 2014 Action, it was discovered that Patent Owner did not own the '658 patent at the time the 2014 Complaint was filed and served. Pet. 4; Prelim. Resp. 7; Ex. 1030 ¶¶ 5–7 (plaintiff’s motion for voluntary dismissal). As a consequence, on February 26, 2016, the patent infringement counts of the 2014 Complaint were voluntarily dismissed from the 2014 Action. Pet. 4–5; Prelim. Resp. 9; Ex. 1030; Ex. 1031 (order granting plaintiff’s motion for voluntary dismissal).

On January 26, 2016, Patent Owner filed and served on Petitioner the complaint in the 2016 Action, re-asserting the same patent infringement causes of action as had been voluntarily dismissed from the 2014 Action. Prelim. Resp. 9; Ex. 2015 (2016 Complaint). On April 11, 2016, the 2014 Action and the 2016 Action were consolidated for all purposes, by an order requiring that all subsequent filings be made in the 2016 Action. Ex. 1032 (stipulation and order for consolidation).

2. Analysis

A threshold issue for determination is whether Petitioner is barred from pursuing *inter partes* review under 35 U.S.C. § 315(b), which provides:

An inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest or privy of the petitioner is served with a complaint alleging infringement of the patent.

In this proceeding, Petitioner filed its Petition on May 27, 2016 (Paper 1), which was less than one year after January 26, 2016—the date Petitioner was served with the 2016 Complaint alleging infringement of the ’652 patent. Pet. 4.

Patent Owner argues that the applicable date under § 315(b) is October 6, 2014—the date the 2014 Complaint alleging infringement of the ’658 patent was served on Petitioner. Prelim. Resp. 5, 11. It is undisputed, however, that Patent Owner did not own the ’658 patent at the time the 2014 Complaint was filed and served. Pet. 4; Prelim. Resp. 7; Ex. 1030 ¶¶ 5–7. Title to the ’658 patent was transferred to Patent Owner by an assignment executed January 25, 2016. Pet. 4; Prelim. Resp. 9; Ex. 1030 ¶ 7, Ex. C (patent assignment). Accordingly, Patent Owner lacked standing to sue for infringement of the ’658 patent at the time the 2014 Complaint was filed and served. *Paradise Creations, Inc. v. UV Sales, Inc.*, 315 F.3d 1304, 1309 (Fed. Cir. 2003) (“[I]n order to assert standing for patent infringement, the plaintiff must demonstrate that it held enforceable title to the patent *at the inception of the lawsuit.*”).

The patent counts of the 2014 Complaint were jurisdictionally defective, and the defect could not be cured after the filing date of the complaint, e.g., by a subsequent assignment or by joining the patent title holder to the lawsuit. *Alps S., LLC v. Ohio Willow Wood Co.*, 787 F.3d 1379, 1385 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 897 (2016) (“The party

asserting patent infringement is ‘required to have legal title to the patents on the day it filed the complaint and that requirement can not be met retroactively.’”) (quoting *Abraxis Bioscience, Inc. v. Navinta LLC*, 625 F.3d 1359, 1366 (Fed. Cir. 2010)).

The Delaware district court was required to—and actually did—dismiss the patent infringement counts of the 2014 Complaint for lack of Article III standing. Ex. 1031 n.1 (Delaware district court order granting motion for voluntary dismissal: “the court lacks jurisdiction to make a judgment on the merits”); *see also*, *Abraxis*, 625 F.3d at 1367 (“[T]he action must be dismissed because [plaintiff] lacked standing on the day it filed the action.”); *Schreiber Foods, Inc. v. Beatrice Cheese, Inc.*, 402 F.3d 1198, 1203 (Fed. Cir. 2005) (“[I]f the original plaintiff lacked Article III initial standing, the suit must be dismissed, and the jurisdictional defect cannot be cured by the addition of a party with standing, . . . nor by the subsequent purchase of an interest in the patent in suit.”) (citing *Paradise*, 315 F.3d at 1309).

Thus, the allegation of infringement of the ’658 patent in the 2014 Complaint was not a proper federal pleading and did not trigger the one-year time period under 35 U.S.C. § 315(b). Petitioner was not served with a complaint properly alleging infringement of the ’658 patent until January 2016. The instant petition was filed in May 2016. Accordingly, the Petition is not time-barred under § 315(b).

Patent Owner argues that the one-year bar applies as of the filing date of an original complaint, where the asserted cause of action “after being dismissed, is immediately continued in another lawsuit.” Prelim. Resp. 12. On this record, however, the 2016 Action is not shown to be a mere

continuation of the 2014 Action. There is a fundamental difference between the allegation of patent infringement in the 2014 Action and the allegation of patent infringement in the 2016 Action: Only the latter was supported by facts necessary for Article III standing, i.e., title to the '658 patent held by plaintiff. Furthermore, Patent Owner does not dispute Petitioner's additional factual assertions supporting that the 2016 Action is not merely a continuation of the 2014 Action. Pet. 7 (asserting that, as compared with the 2014 Action, the 2016 Action: "names different parties; has different claims at issue; will proceed under different briefing, discovery, and conferencing schedules; will have new *Markman* and trial dates; and require new initial disclosures and pre-discovery formalities").

As support for its § 315(b) argument, Patent Owner cites the following decisions: *Histologics, LLC v. CDx Diagnostics, Inc.*, Case IPR2014-00779, Paper 6 (PTAB Sept. 12, 2014); *eBay, Inc. v. Advanced Auctions LLC*, Case IPR2014-00806, Paper 14 at 3, 7 (PTAB Sept. 25, 2014); and *Apple Inc. v Rensselaer Polytechnic Institute*, Case IPR2014-00319, Paper 12 at 6–7 (PTAB June 12, 2014). Prelim. Resp. 12–15. None of these decisions changes our analysis because none involved an assertion of a § 315(b) bar based on a complaint that had been dismissed for lack of Article III standing.

In contrast to this case, the defect in the original complaint in *Histologics* was curable. The original complaint was filed by one co-owner of the patent, who had Article III standing to sue, but who needed to add the other co-owner to "cure the lack of prudential standing" to maintain the suit. *Histologics*, slip op. at 2–3; see also *Israel Bio-Eng'g Project v. Amgen, Inc.*, 475 F.3d 1256, 1264–65 (Fed. Cir. 2007) ("Absent the voluntary

joinder of all co-owners of a patent, a co-owner acting alone will lack standing.”). In further contrast to the present case, the Board found that both Petitioner and the district court treated the originally-filed patent infringement action as having been stayed, rather than dismissed, until the bankrupt co-owner could be joined. *Histologics*, slip op. at 6.

In *eBay*, Patent Owner agreed to dismiss an earlier-filed complaint and proceed under a second-filed action, which was filed “to avoid any concerns, confusions, or delay,” in the event a standing issue arose in the earlier-filed action. *eBay*, slip op. at 3. The Board, however, reviewed the patent assignment documents, found no obvious defects in Patent Owner’s chain of title, and determined that Patent Owner did not lack standing to file the earlier-filed complaint. *Id.* at 6. Here, in contrast, it is undisputed that Patent Owner lacked title to the ’658 patent at the time the 2014 Complaint was filed.

In *Apple*, an earlier filed complaint was dismissed without prejudice pursuant to a consolidation order in which the earlier complaint was consolidated into another existing complaint. The Board found that the earlier lawsuit, “although dismissed, was continued immediately” into the consolidated action. *Apple*, slip op. at 6. The *Apple* case is distinguishable because the earlier, first-filed lawsuit against Apple was not jurisdictionally defective for lack of standing.

Accordingly, on the record before us, we are not persuaded that the Petition should be barred under § 315(b).

B. Claim Construction

In an *inter partes* review, the Board interprets claim terms in an unexpired patent according to the broadest reasonable construction in light

of the specification of the patent in which they appear. 37 C.F.R. § 100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). Any special definitions for claim terms must be set forth with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner and Patent Owner offer competing constructions for several claim terms. Pet. 18–20; Prelim. Resp. 26–35. We determine that only the following claim terms require express construction for purposes of this Decision. *See, e.g., Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim terms need only be construed ‘to the extent necessary to resolve the controversy.’”) (citation omitted).

1. “sufficient mass”

Independent claim 1 recites a splash shield of “sufficient mass” defined in functional terms, namely a “sufficient mass to retain the vessel within the holder during relative movement of the mixing element and vessel from the first position to the second position when liquid is present in the vessel.” Independent claim 6 similarly recites “the mass of the splash shield preventing separation of the holder and the vessel during translation [of at least one of the mixing element and the holder].”

Claim 1 defines the “first position” of the mixing element as a position when the mixing element is “within the vessel” and “positioned further from the opening [of the vessel] . . . than when in the second

position.” During a mixing operation, the ’658 patent describes how the cup holder is reciprocated to move axially upward so the mixing element is in a position within the liquid-filled cup, i.e. the recited “first position,” then reciprocated downward so the mixing element is moved upward to the recited “second position” closer to the opening at the top of the cup, “to allow the blade to pass through the full contents of the cup more than one time.” Ex. 1001, 3:58–64. When the mixing element is moved upward within the cup to the second position, the weight of the splash shield must be sufficient to keep the liquid-filled cup in the cup holder. *Id.* at 4:3–10 (“heavy enough to create sufficient downward force on the cup to overcome any upward force created by the mixing blade being moved upwardly in the cup”). The force generated by upward movement of the mixing element is not further described in the ’658 patent, although the ’658 patent provides a preferred embodiment where a splash shield weighing 5 pounds (dependent claim 5) provides sufficient downward force to perform the recited function. *Id.* at 4:20–23.

Petitioner argues that “sufficient mass” in claim 1 should be construed in accordance with the interpretation allegedly offered by Patent Owner in the dismissed patent action: “the splash shield applies sufficient weight to the top of the cup to retain the cup in the cupholder during mixing.” Pet. 19 (no citation). Petitioner further argues that “the mass of the splash shield” limitation in claim 6 should be construed in accordance with the construction allegedly offered by Patent Owner in the dismissed patent action: “the splash shield applies sufficient weight to the top of the cup to prevent separation of the cup from the cupholder during mixing.” *Id.* (no citation). Patent Owner responds with a slightly different interpretation of a splash

shield having a “sufficient mass”: “heavy enough to retain the vessel within the holder during relative movement of the mixing element and vessel.”

Prelim. Resp. 31 (citing Ex. 1001, 4:3–24; Ex. 2025 (definition of “sufficient”)).

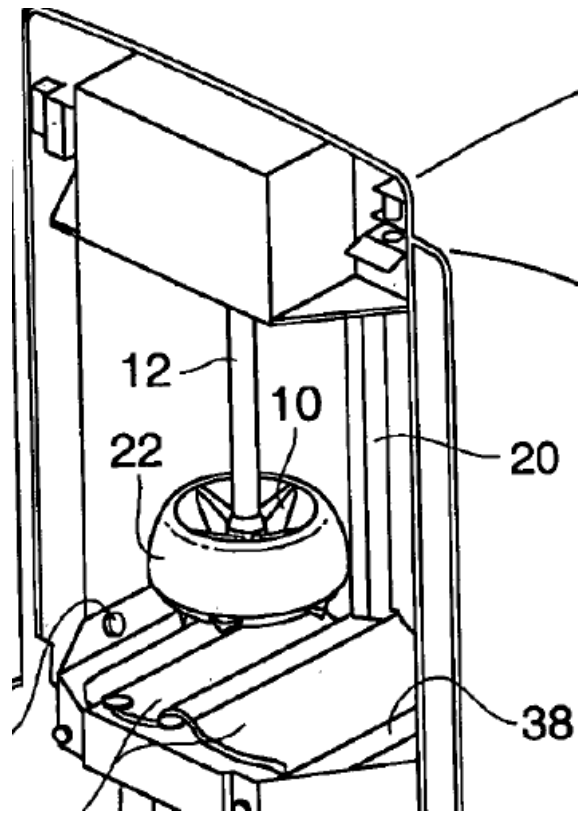
Both parties appear to agree that the ’658 patent describes the “sufficient mass” of the splash shield in functional terms as enough weight to retain the vessel or cup within the holder during mixing. Ex. 1001, 3:65–4:23. Based on the description provided in the ’658 patent, the claim language at issue in claim 1 – “the splash shield having sufficient mass to retain the vessel within the holder during relative movement of the mixing element and vessel from the first position to the second position when liquid is present in the vessel” – is entitled to its plain and ordinary meaning: “the splash shield is heavy enough to create sufficient downward force on the vessel so as to retain the vessel within the holder when the mixing element moves upwardly in the vessel from the first position to the second position when liquid is present.” See Ex. 1001, 4:3–10 (“heavy enough to create sufficient downward force on the cup to overcome any upward force created by the mixing blade being moved upwardly in the cup”). The claim language in claim 6 “the mass of the splash shield preventing separation of the holder and the vessel during translation” is similarly construed to mean “the splash shield is heavy enough to create sufficient downward force on the vessel so as to prevent separation of the holder and the vessel during translation of the mixing element or holder.”

2. *“the splash shield . . . being unrestrained against [upward] sliding movement on the shaft ”*

Claim 1 recites that when the splash shield is positioned to cover the opening of the vessel, the splash shield is “unrestrained against sliding movement on the shaft in a direction away from the opening [of the vessel].” Claim 6 similarly recites a splash shield “unrestrained against upward movement away from the opening.”

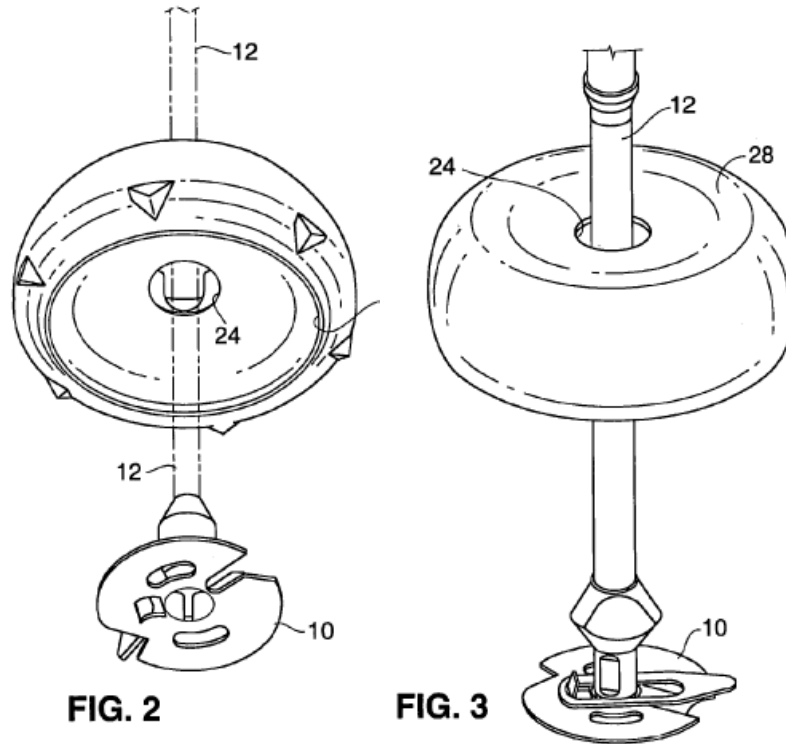
a. *The '658 patent specification*

The '658 patent does not use the word “unrestrained” when describing the splash shield, but it describes how the claimed mixing machine is configured to permit unrestrained upward movement of the splash shield. The '658 patent refers to Figure 1 and describes spaced apart ribs 30 (not labelled) “positioned along” inwardly tapered wall 28 (shown in Fig. 3). Ex. 1001, 3:20–22. A portion of Figure 1 is reproduced below:



In the reproduced portion of Figure 1, above, spaced apart ribs (mislabelled 10) are depicted along the underside of inwardly tapered wall 28 contacting a tapered portion of the lower end of shaft 12. The '658 patent describes the spaced apart ribs as functioning to “contact a tapered portion 32 [not labelled] of the machine’s mixing shaft (as shown in FIG. 1) when the shield 22 is lowered relative to the shaft.” *Id.* at 3:22–25.

When the shield is raised relative to the shaft (or the shaft is lowered relative to the shield), “shield 22 and tapered portion 32 separate as in Fig. 2.” *Id.* at 3:25–27; *see also id.* at 3:54–58 (referring to Fig. 6). Figures 2 and 3 are reproduced below.



Figures 2 and 3, above, depict the splash shield raised relative to shaft 12 and separated from the tapered portion of the shaft that appears just above mixing blade 10. Figure 2 is a bottom perspective view of the splash shield, shaft, and mixing blade 10, with the splash shield “displaced” from mixing blade 10. *Id.* at 2:25–27. When the splash shield is separated from the shaft and positioned to cover the top of the cup containing the liquid to be mixed, the cup holder reciprocates to move the cup and shield up and down to allow mixing blade 10 to pass through the full contents of the cup more than once. *Id.* at 3:47–64, Figs. 4–6. In such a configuration, with the splash shield separated from the tapered portion of the shaft, only gravity and the weight of the splash shield itself restrains the upward force created by the upward movement of the mixing blade during a mixing operation. *Id.* at 3:65–4:21.

that since Harr's "splash shield has a mass, it may assist in retaining the vessel within the holder," and noted "spring 22 as shown by the Harr reference is not excluded by the claimed scope as presented." *Id.*

Patent applicant amended application claim 18 to recite that when the splash shield is in position to cover the vessel, the splash shield is "unrestrained against sliding movement on the shaft in a direction away from the opening." *Id.* at 28. Patent applicant distinguished the amended claim over the Harr reference cited by the Examiner, as follows:

The Harr machine does not anticipate these claims, since it includes a spring 22 that restrains the cover 21 against sliding movement on the shaft in a direction away from the opening of the vessel. Thus the Harr cover is not unrestrained against movement away from the opening of the vessel. For this reason, the claims are patentable over Harr.

Id. at 32. Patent applicant's claim amendment and corresponding remarks, which included patent applicant's asserted distinction over the Harr reference, persuaded the Examiner to allow the claims to issue. *Id.* at 21.

c. Analysis

Patent applicant's claim amendment and argument distinguishing claim 1 (amended application claim 18) over Harr is consistent with the '658 patent's description of a splash shield being unrestrained against upward movement:

Making the weight of the shield sufficient to overcome this upward lifting force on the cup causes the cup to remain seated in the cup holder *without any other mechanical means of retaining it in the cup holder*, such as clamping or gripping mechanisms or the springs or lid placement and retention mechanisms previously described.

Ex. 1001, 4:14–20 (emphasis added). The ’658 patent reinforces the same distinction in the Background and Detailed Description sections, where it distinguishes the claimed weighted splash shield from Planck’s tension-spring lid, similar to Harr, and Neilson’s “releasable lid connector means.”⁵ *Id.* at 1:53–63, 3:65–4:3 (“This *eliminates the need* for springs . . . or some other mechanism such as those described in Neilson . . . to hold the shield in position during mixing.”) (emphasis added); Prelim. Resp. 33 (“[A] broadest reasonable construction excludes Neilson’s gear motors and the tensioned spring in Planck’s [patent].”) (citing Ex. 1001, 3:65–4:3). The ’658 patent describes “unrestrained” upward movement of the splash shield by emphasizing that, during mixing, only gravity and the weight of the splash shield itself restrains the upward lifting force created by the upward movement of the mixing blade, without any other mechanical means of retaining the cup in the cup holder. Such description directly informs the construction of the “unrestrained against [upward] sliding movement” limitation at issue.

The amended claim language, added during examination of the ’658 patent application claims, narrowed the scope of the claimed invention to distinguish over a mixing machine having a tension-spring to restrain upward movement of the splash shield during mixing. The amendment further informs the construction of a splash shield “unrestrained” against

⁵ U.S. Patent No. 5,145,250 to Planck et al., issued in September 1992 (“Planck”). Ex. 1001, 2 (references cited). The reference to “Neilson” includes U.S. Patent No. 5,439,289, identified in footnote 1 above, and U.S. Patent No. 5,328,263, issued in July 1994. Ex. 1001, 2 (references cited), 3:66–4:3.

upward sliding movement on the shaft, in view of the splash shield having “sufficient mass” discussed above. The upward movement of the mixing element within the liquid-filled “vessel” or cup creates an upward force against the splash shield covering the cup opening. Ex. 1001, 4:3–10. As stated by Patent Owner, “the objective is to make an ‘unrestrained’ or free floating splash shield” that is heavy enough to resist the upward force of the mixing element as it moves from the first position to the second position during a mixing operation. Prelim. Resp. 28–29 (citing Ex. 1001, 4:3–6). We also agree with Patent Owner that under the broadest reasonable interpretation standard, claim construction should be consistent with distinctions made between the claimed splash shield of the ’658 patent and the prior art of record. Prelim. Resp. 33; see *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fed. Cir. 2015) (“Even under the broadest reasonable interpretation, the Board’s construction ‘cannot be divorced from the specification and the record evidence,’” and “[t]he PTO should also consult the patent’s prosecution history in proceedings in which the patent has been brought back to the agency for a second review.”) (citations omitted). Having considered the ’658 claim language, specification, and prosecution history, based on the present record, we make the following determinations.

We are persuaded on the present record that: i) the ’658 patent characterizes a weighted splash shield, configured for unrestrained upward sliding movement during or after mixing, as a splash shield “without any other mechanical means” of restraining the splash shield’s upward movement on the shaft; ii) the ’658 patent distinguishes the claimed weighted splash shield from the prior art because it “eliminates the need” for

“any other mechanical means of retaining the cup in the cup holder,” apart from gravity and the “sufficient mass” or weight of the splash shield itself, to hold the shield in position over the cup and retain the cup in the cup holder during mixing; and iii) patent applicant amended claim 1 and relied on the “unrestrained against [upward] sliding movement ” claim limitation to distinguish over the Harr reference, disclosing a tension spring that restrains against upward sliding movement, and persuade the Examiner to allow the claims to issue.

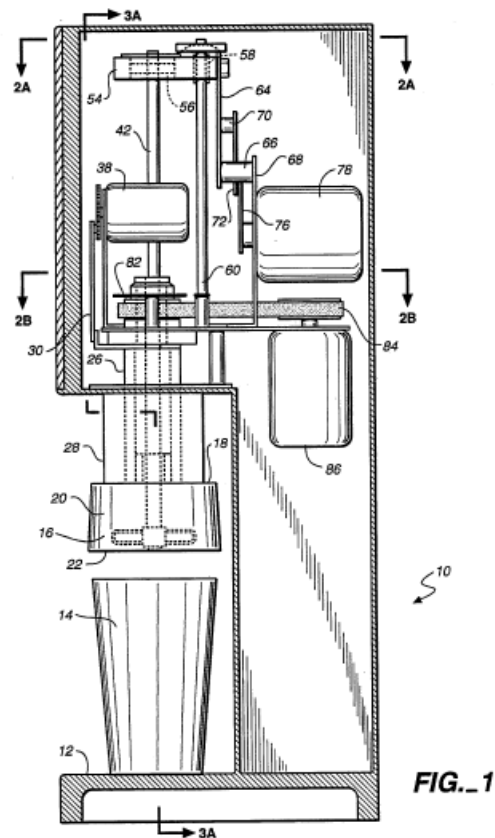
For the reasons given above, the broadest reasonable interpretation of the claim 1 phrase “the splash shield . . . being unrestrained against sliding movement on the shaft in a direction away from the opening,” in light of the ’658 patent claim language, specification, and prosecution history, is “without any other mechanical means of restraining the upward sliding movement of the splash shield on the shaft, apart from the mass or weight of the splash shield itself.” The broadest reasonable interpretation of the claim 6 phrase “the [splash] shield . . . being unrestrained against upward movement away from the opening,” in light of the ’658 patent claim language, specification, and prosecution history, is “without any other mechanical means of restraining the upward sliding movement of the splash shield on the shaft, apart from the mass or weight of the splash shield itself.”

C. Asserted Anticipation of Claims 1 and 6–11 by Neilson

Petitioner asserts that claims 1 and 6–11 of the ’658 patent are anticipated by Neilson. Pet. 20–29. Patent Owner opposes. Prelim. Resp. 36–46. We address the parties’ arguments below.

1. Neilson

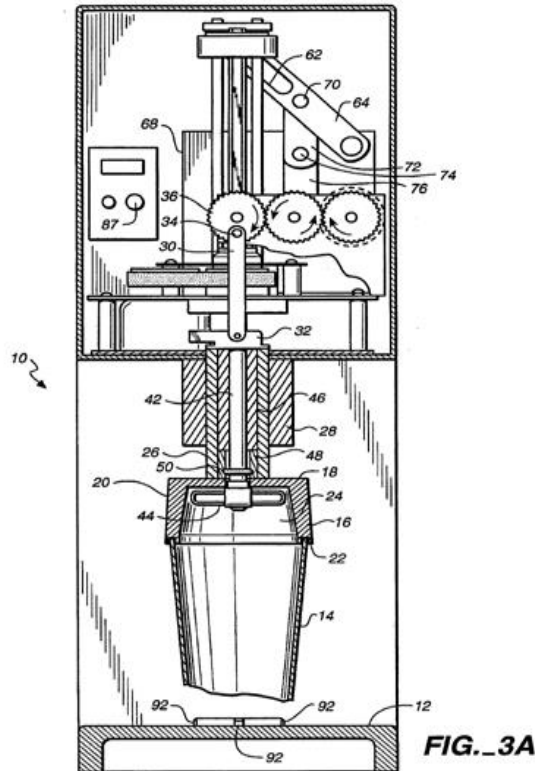
Neilson discloses an apparatus for mixing ingredients in a receptacle. Ex. 1002, 1:48–54. Neilson depicts a receptacle in the form of cup or container 14, which has a bottom and side wall defining an interior and an opening at the upper end, as shown in Figure 1, reproduced below. *Id.* at 2:62–68.



As shown in Figure 1, above, Neilson depicts housing 10 with platform 12 for supporting receptacle 14, the receptacle being manually positioned on and removed from platform 12. *Id.* at 2:62–68. Neilson features three separate gear motors. Motor 78 moves mixer shaft 42 up and down into receptacle 14. *Id.* at 3:46–4:3. Motor 86 rotates mixer shaft 42 to mix the ingredients when the mixer shaft is lowered into the receptacle. *Id.*

at 4:4–14, 4:30–42. Motor 38 lowers lid 16 onto the top of receptacle 14 before the ingredients are mixed. *Id.* at 3:12–29.

The operation of motor 38 to raise and lower lid 16 is best illustrated in Figure 3A of Neilson, reproduced below.



As seen in Neilson Figure 3A, above, motor 38 operates through rotatable gears 36 and crank arm 30 to translate the rotary motion of the gears into a linear motion that moves lid 16 up and down. *Id.* at 3:12–29. An operator turns on motor 38 to lower lid 16 so that the lid covers the opening of the receptacle and brings the lid “into engagement with the side wall of the receptacle.” *Id.* at 4:16–22, Fig. 7. Motors 86 and 78 are turned on to begin a mixing operation, and then turned off after mixing is complete. *Id.* at 4:30–42, Fig. 7. When mixing is complete, “the lid placement means

including motor 38 and crank arm 30 pulls the lid 16 to its elevated position.” *Id.* at 4:53–55.

In Neilson’s alternative embodiment, lid 16 is fixed in position and the receptacle moves up into “positive, sealed engagement” with the lid. *Id.* at 5:33–37, Figs. 9A–B, 10–10A. The lowering, raising, and rotation of the mixing shaft during a mixing operation is the same as described above. *Id.* at 5:52–59. In this alternative embodiment, the lid “does not move during operation of the device, being secured in position relative to support 10 by the support element including member 26.” *Id.* at 5:62–65.

2. *A splash shield of “sufficient mass” and “unrestrained”*

Neilson is one of the patents distinguished by patent applicant in the description of the ’658 patent. Petitioner acknowledges that Neilson does not explicitly disclose a splash shield satisfying the “sufficient mass” or “unrestrained against [upward] sliding movement” limitations. Pet. 23–24. Petitioner argues that Neilson inherently discloses both limitations because “the mass (or inertia) associated with the lid 16 is the *only part of the system* of Neilson that maintains the lid in place during operation . . . [e]specially in view of the backdrivable characteristics of lid 16.” Pet. 24 (citing Ex. 1008 ¶¶ 36, 38) (emphasis added). We disagree.

Petitioner’s argument and evidence do not establish a reasonable likelihood of satisfying the standard for inherent anticipation. To establish inherency, “the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference. . . .’” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (citing *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991)). Inherency is not proven “by probabilities or possibilities. The mere

fact that a certain thing may result from a given set of circumstances is not sufficient.” *Id.* Petitioner’s argument and evidence regarding Neilson do not satisfy the necessarily present standard for inherent anticipation.

Dr. Slocum testifies that Neilson does not disclose “a spring, or a locking or latch mechanism of any sort for fastening the lid to the receptacle.” Ex. 1008 ¶ 36. But the lid in both embodiments of Neilson positively engages the sidewall of the cup. Ex. 1002, 4:19–22 (“bring [the lid] into engagement with the side wall of the receptacle”), 4:29 (“when the lid rim engages the receptacle”), 5:35–37 (“bring the receptacle and lid into positive, sealed engagement”), 6:41–42 (“lid is positively engaged with and seals said receptacle”). The sectional view of Figure 3A, above, depicts a circumferential indent in rim 22 of lid 16 that engages and seals with the top of the receptacle side wall. *Id.* 3:7–8 (“rim 22 of lid 16 will engage the receptacle side wall”). Neilson additionally discloses complementary indents and detents in the base of the receptacle and platform that “prevent rotation of cup or receptacle 14 during the mixing operation.” Prelim. Resp. 41 (citing Ex. 1002, 5:1–13); Ex. 2023 ¶ 31. Thus, the positive, sealing engagement of the lid rim and receptacle side wall, and the complementary indents and detents at the base of the receptacle, contribute to keeping the lid in place and the receptacle in the holder.

With regard to the motorized control of the lid, as implicitly recognized by Dr. Slocum, the “system” comprised of lid 16, support element 26, cap 32, crank arm 30, gears 36, and electric motor 38 contributes to keeping the lid and receptacle in place. Ex. 1002, 3:12–22, Figs. 3A, 3B; Ex. 1008 ¶ 36. Petitioner and Dr. Slocum do not persuasively explain why the mass or inertia of only the lid restrains the lid against

upward sliding movement. For example, with regard to motor 38, Dr. Slocum testifies that “[o]nce the lid 16 is moved into place by the motor 38, the motor turns off.” Ex. 1008 ¶ 36 (citing Ex. 1002, 4:15–29). To the contrary, Neilson does not state that motor 38 turns off after lid placement and prior to mixing. Ex. 1002, 4:15–29. The operational flow chart in Figure 7 indicates that motor 38 is powered on to lower the lid and not powered off until after mixing is complete and the motor “pulls the lid 16 to its elevated position shown in FIG. 6F.” *Id.* at 4:53–55, Figs. 6F, 7.

Regardless, the descriptive matter missing from Neilson is a weighted splash shield capable of moving in the upward direction in a manner that is unrestrained (i.e., “without any other mechanical means of restraining the upward sliding movement of the splash shield on the shaft, apart from the mass or weight of the splash shield itself.”). Because Neilson’s lid (the recited “splash shield”) is actuated by a combination of an electric motor, gear drives, a crank arm, and support element, Neilson’s mixer configuration restrains upward movement of the lid even if motor 38 is “inherently backdriveable,” as argued by Petitioner. Prelim. Resp. 41–42 (citing Ex. 2023 ¶ 32), 45 (citing Ex. 2023 ¶ 39 (“[T]he gear motor would restrain Neilson’s lid to a pre-determined speed and course during the entire backdriving movement.”)). Moreover, components of the system other than the lid contribute to restraining upward movement of the lid, even if motor 38 were turned off after lowering the lid into engagement with the receptacle. Support element 26 is depicted as a cross-hatched rigid structure that directly connects the lid to the cap, which is affixed to the crank arm. Ex. 1002, 3:15–18; *see* MPEP § 608.02 (IX. DRAWING SYMBOLS). Such

a rigid structure would restrain against upward movement of the lid after it is lowered into engagement with the receptacle. *See* Ex. 1002, 5:62–65.

Any one of the reasons given above would be sufficient, by itself, to deny institution on Petitioner’s inherent anticipation ground. Therefore, we determine that Petitioner’s argument and evidence do not establish a reasonable likelihood of prevailing on the ground that Neilson inherently anticipates the challenged claims of the ’658 patent.

D. Asserted Obviousness of Claims 1 and 5–11 over Neilson and Brown

Petitioner argues that the combination of Neilson and Brown would have rendered the subject matter of claims 1 and 5–11 obvious to a person of ordinary skill in the art of mixer design (“POSA”).⁶ Pet. 30–40. Petitioner’s proposed combination relies on the assertion that Brown, like Neilson, inherently discloses the “sufficient mass” and “unrestrained against [upward] sliding movement” limitations. *Id.* at 31–32. Petitioner argues that Brown inherently discloses a lid having “sufficient mass” to retain the cup in the cup holder along with “unrestrained” upward sliding movement of the lid along the mixing shaft, because Brown does not disclose: i) any “need for an operator to manually hold and maintain the cup in place during operation;” ii) any means of securing the lid to the cup or otherwise restraining the lid; or iii) any problem with the lid “becoming displaced”

⁶ Dr. Slocum defines a POSA 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. 1008 ¶ 20. We adopt and apply Petitioner’s definition of a POSA for purposes of this decision.

during a mixing operation. *Id.* at 31–32 (citing Ex. 1008 ¶¶ 43–44). We are not persuaded.

We agree that Brown discloses nothing about how the cup is retained in the cup holder or how the lid is, or is not, secured to the cup. Relying on selected inferences drawn from such nondisclosure, however, is not sufficient to satisfy the inherency standard when other equally plausible inferences are not ruled out. As noted by Patent Owner, the cup could be jammed into the hole of the cup holder to secure the cup, or the cup could be made of heavy metal to keep it in place. Prelim. Resp. 49–50 (citing Ex. 2023 ¶¶ 35–36). Perhaps the lid and upper rim of the cup are configured for cooperative positive engagement when a user presses the lid down onto the cup. Brown simply does not address the point.

Brown also identifies a relatively large “transparent shield” attached to the housing to “form[] a three-sided protective guard *around the spindle . . . in order to prevent splash and . . . minimize user contact with the spindle . . . during operation.*” Ex. 1003, 3 ¶ 38 (emphasis added), Figs. 1, 2. Such a splash shield is entirely different from the splash shield claimed in the ’658 patent, and indicates that Brown’s lid, with a large hole in the top, is not configured for use as a splash shield. Brown also says nothing about the weight of the lid.

We also cannot say that Brown discloses “covering the opening of the vessel” as recited in claims 1 and 6, given the large opening in top of the lid to allow flavorings into the cup. Ex. 1003, 2 ¶ 33. Substituting Neilson’s lid in place of Brown’s lid (Pet. 33–35) would render Brown inoperable because the lid opening in Neilson is too small to allow Brown’s spindle to enter the cup or allow the flavorings to be injected through the cup opening. Prelim.

Resp. 53 (citing Ex. 2023 ¶ 44). The Petition also suggests substituting Brown’s lid in place of Neilson’s lid in Neilson’s mixing machine. Pet. 35–36. Either way, Petitioner’s rationale is unpersuasive given the large hole in Brown’s lid compared to the much narrower hole in Neilson’s lid, and the very different mechanisms used to control Neilson’s lid and cup holder. We are not persuaded, for example, that substituting a manually-placed lid for a motor-driven lid can accurately be characterized as an “improvement” of an automated mixing machine, such as Neilson’s. Ex. 1002, 4:56–60.

In sum, we are not prepared to accept the inferences Petitioner attempts to draw regarding a lid having “sufficient weight” and being “unrestrained” in its upward movement in view of Brown’s relative silence in describing the structure and function of the lid.

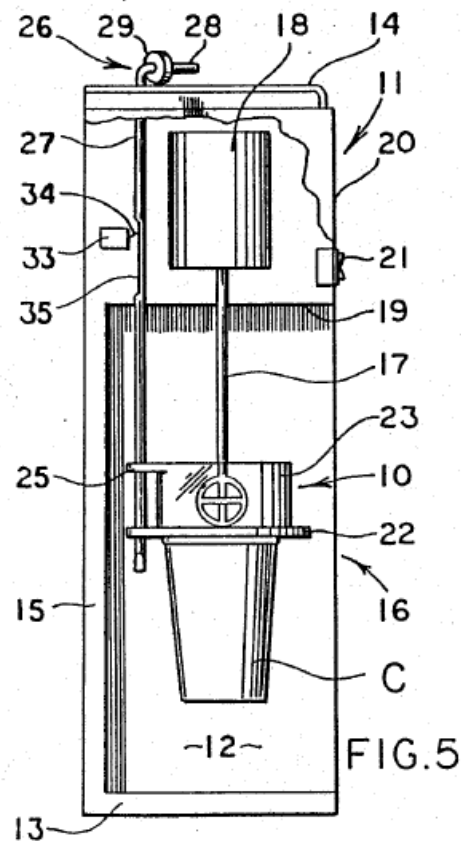
For the reasons given above, we determine Petitioner’s argument and evidence do not establish a reasonable likelihood of prevailing on the ground that the alleged inherent disclosures and teachings of Neilson and Brown would have rendered the subject matter of the challenged claims in the ’658 patent obvious to a POSA.

E. Asserted Obviousness of Claims 1 and 5–11 over Neilson, Barnard, and Kelly

Petitioner asserts that the subject matter of claims 1 and 5–11 would have been obvious over the combination of Neilson, Barnard, and Kelly. Pet. 40–54. As explained in Section II.C., above, Neilson does not disclose the “sufficient mass” or “unrestrained” movement of the splash shield limitations. For the reasons discussed below, we are not persuaded that Petitioner provides sufficient evidence and argument to show that the

limitations that are missing from Neilson are taught, disclosed, or suggested by either Barnard or Kelly.

Barnard is a cited reference that was distinguished by amendment and argument during prosecution, because Barnard does not disclose a cup holder. Ex. 1005, 21 (Notice of Allowability), 28 (amendment), 31 (argument), 44–45 (anticipation rejection over Barnard). Figure 5 of Barnard is reproduced below.

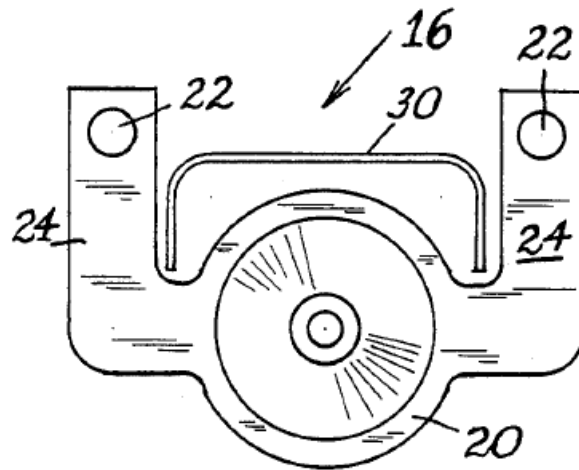


Barnard Figure 5, above, depicts splash guard 10 including base plate 22 and “ring member” 23. Ex. 1004, 3:29–31. Base plate 22 covers the opening of cup C except for an aperture, shown in Figure 2, which allows agitator 17 to pass through the base plate. *Id.* at 3:35–37. A user positions the top of cup C against the bottom of base plate 22 and maintains upward

pressure to push the cup up around agitator 17. *Id.* at 4:20–26. The user holds cup C in place during mixing and may move the cup side-to-side or in a circular motion to assist with mixing. *Id.* at 4:26–32; Ex. 1005, 31 (“Barnard et al. requires that the user hold the cup throughout mixing, and does not include a holder coupled to the mixing machine.”); Pet. 42 (“[T]he user can move the cup upward around the agitator.”); Prelim. Resp. 57 (citing Ex. 2023 ¶ 37 (“Barnard fails to disclose a cupholder [T]he user needs to hold the cup with their hand during the mixing process.”)). Therefore, it is undisputed that Barnard does not disclose a splash shield with sufficient mass to “retain the vessel within the holder,” as recited in claim 1, or to “prevent[] separation of the holder and the vessel during translation,” as recited in claim 6, because Barnard does not disclose “a holder coupled to the mixing machine” (claim 1) or “a holder on the mixing machine for receiving the vessel” (claim 6).

Barnard also discloses a splash guard that can be made of “inexpensive clear plastic material,” suggesting a splash guard of light weight. Ex. 1004, 3:41–43. A 5-pound splash shield (claim 5), for example, would not make sense in Barnard, because it would be difficult for a user to hold the cup and 5-pound splash shield and move them up and down during mixing. Ex. 1005, 31; Ex. 2023 ¶ 37. Therefore, we are not persuaded that Barnard discloses a splash shield of “sufficient mass” as recited in the claims of the ’658 patent.

Kelly discloses semi-circular splash shield 30 that “surrounds” mixing cone 18 (the recited “cup”) and saddle member 20 (the recited “cup holder”), as shown in Figure 3 reproduced below. Ex. 1007, 3:14–17.



As shown in Figure 3, above, Kelly’s splash shield 30 plays no role in retaining the mixing cone (the recited “vessel”) in saddle 20 (the recited “holder”), and it does not “cover” the mixing cone (“vessel”), as recited in claims 1 and 6 of the ’658 patent. *Id.* at Figs. 1, 3; Prelim. Resp. 58 (citing Ex. 2023 ¶ 38), 60 (citing Ex. 2023 ¶¶ 45–46). Kelly also does not disclose, teach, or suggest a splash shield of “sufficient mass” to “retain the vessel within the holder” (claim 1) or “prevent separation of the holder and the vessel during translation” (claim 6). Pet. 47–48 (citing Ex. 1008 ¶¶ 69–73); Prelim. Resp. 58 (citing Ex. 2023 ¶ 38). Petitioner’s rationale for the asserted combination, to use Kelly’s teaching of “sizeable forces” that require components of “substantial strength” (Ex. 1007, 2:65–3:3) to infer the “sufficient mass” of the Neilson/Brown lid as the recited “splash shield,” e.g. optimizing a result-effective variable, is also unpersuasive. Pet. 48–49 (citing Ex. 1008 ¶¶ 69–73, 89–90); Prelim. Resp. 58–60 (citing Ex. 2023 ¶¶ 38–45). Petitioner’s proposed combination not only omits disclosure of several claim limitations, as explained above, but it also relies on hindsight

picking and choosing of prior art teachings, in a strained effort to produce the claimed mixing machine (claim 1) and associated method (claim 6).

For the reasons given above, we determine Petitioner's argument and evidence do not establish a reasonable likelihood of prevailing on the ground that the alleged disclosures and teachings of Neilson, Barnard, and Kelly would have rendered the subject matter of the challenged claims in the '658 patent obvious to a POSA.

III. CONCLUSION

Petitioner has not demonstrated a reasonable likelihood of prevailing with respect to claims 1 and 5–11 of the '658 patent challenged in this Petition.

IV. ORDER

Accordingly, it is
ORDERED that the Petition is denied.

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Patent 7,520,658 B2

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