

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NESPRESSO USA, INC.,
Petitioner,

v.

K-FEE SYSTEM GMBH,
Patent Owner.

Case No. IPR2024-00299
U.S. Patent 11,554,910

Before GRACE KARAFFA OBERMANN, JON B. TORNQUIST, and JAMES J.
MAYBERRY, *Administrative Patent Judges*.

PATENT OWNER SUR-REPLY

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LIST OF EXHIBITS

Exhibit	Description
Ex. 2001	EP 08171069 Application (filed Sept. 12, 2008)
Ex. 2002	U.S. Patent No. 9,545,121 (issued Jan. 17, 2017)
Ex. 2003	U.S. Patent No. 9,545,121 (issued Jan. 17, 2017), Response to June 6, 2016 Office Action (dated September 7, 2016)
Ex. 2004	WO 2008/148646A1 (issued Dec. 11, 2008) (“Yoakim I”)
Ex. 2005	U.S. Patent No. 10,800,600 (issued Oct. 13, 2020), File History (“’600 File History”)
Ex. 2006	WO 2008/148601A1 (issued Dec. 11, 2008) (“Yoakim ’601”)
Ex. 2007	Nestlé Nespresso SA, <i>The Nespresso History: From a Simple Idea To a Unique Brand Experience</i> (May 2016), https://nestle-nespresso.com/sites/site.prod.nestle-nespresso.com/files/Nespresso%20-%20History%20Factsheet(1).pdf
Ex. 2008	Nespresso, <i>Nespresso Pixie Instruction Manual</i> , https://www.nespresso.com/shared_res/manuals/pixie/2010/www_Pixie_Z2_NESPRESSO(EN_HE).pdf
Ex. 2009	United States Patent and Trademark Office, <i>CPC – Cooperative Patent Classification A 47J</i> , https://www.uspto.gov/web/patents/classification/cpc/html/cpc-A47J.html#A47J31/44
Ex. 2010	United States Patent and Trademark Office, <i>CPC – Cooperative Patent Classification A 23F</i> , https://www.uspto.gov/web/patents/classification/cpc/html/cpc-A23F.html#A23F5/26
Ex. 2011	<i>Nespresso USA, Inc. v. K-fee System GmbH</i> , IPR2023-00485, Transcript of Deposition of Michael J. Jobin (Nov. 28, 2023)

Exhibit	Description
Ex. 2012	U.S. Patent Appl. Pub. No. 2009/0007792 (Pub. Date Jan. 8, 2009)
Ex. 2013	U.S. Patent Appl. Pub. No. 2008/0302252 (Pub. Date Dec. 11, 2008)
Ex. 2014	WO2008100597A1 (issued Aug. 21, 2008)
Ex. 2015	Bialetti, <i>Moka Express</i> – <i>Bialetti</i> , https://www.bialetti.com/it_en/moka-express.html
Ex. 2016	<i>Nespresso USA, Inc. v. K-fee System GmbH</i> , IPR2022-01574, Transcript of Deposition of Michael J. Jobin (June 22, 2023)
Ex. 2017	EP 08102147 Application (filed Feb. 29, 2008)
Ex. 2018	<i>Nespresso USA, Inc. v. K-fee System GmbH</i> , IPR2022-01574, Paper No. 28, Record of Oral Hearing (PTAB Jan 12, 2024)
Ex. 2019	Declaration of Ian B. Brooks in Support of the Patent Owner’s Preliminary Response under 37 C.F.R. § 42.107 (Mar. 28, 2024)
Ex. 2020	Declaration of Dov Glucksman in Support of the Patent Owner’s Response (October 1, 2024)
Ex. 2021	U.S. Patent No. 10,294,020 (issued Jan. 17, 2017)
Ex. 2022	Declaration of Arnaud Gerbaulet re Application No. 14/358,404 (February 25, 2016)
Ex. 2023	Declaration of Alfred Yoakim re Application No. 12/602,542 (June 18, 2014)
Ex. 2024	U.S. Patent No. 5,103,081 (issued Apr. 7, 1992)
Ex. 2025	Transcript of Deposition of Michael J. Jobin (September 19, 2024)
Ex. 2026	Declaration of Arnaud Gerbaulet re Application No. 14/358,361 (February 8, 2016)
Ex. 2027	U.S. Patent No. 9,277,837 (issued March 8, 2016)

Exhibit	Description
Ex. 2028	U.S. Patent No. 9,271,598 (issued March 1, 2016)
Ex. 2029	U.S. Patent No. 9,668,604 (issued June 6, 2017)
Ex. 2030	U.S. Patent Appl. No. 14/901,912 to Société Des Produits Nestlé SA, Response to February 8, 2018 Office Action (dated June 8, 2018)
Ex. 2031	U.S. Patent Appl. No. 16/956,726 to Société Des Produits Nestlé SA, Response to September 9, 2022 Office Action (dated December 8, 2022)
Ex. 2032	WO2010076048 (issued Jul. 8, 2010)
Ex. 2033	Declaration of Ian B. Brooks in Support of the Patent Owner's Response under 37 C.F.R. § 42.120 (Oct. 1, 2024)

All challenged claims are patentable.¹ Petitioner mischaracterizes the law and the record and seeks to unjustifiably discredit K-fee’s expert.² But Petitioner fails to refute various evidence-based arguments presented in the Patent Owner Response (“POR”) that undermine the Petition’s arguments.

I. Glucksman’s Analysis Is Sound

Dov Glucksman undisputedly satisfies the proffered levels of ordinary skill and is qualified to speak from the perspective of a POSITA. Ex.2020, ¶¶25, 46-47; Reply.1-2 (failing to challenge Glucksman’s ability to speak from the POSITA perspective). Glucksman brings the benefit of *50 years of experience* in appliance design, coffee brewing, and development of coffee makers, and is recognized in the industry as a leading expert on coffee-making equipment. Ex.2020, ¶¶7, 10-21, 25.³

¹ All emphases added.

² Petitioner acknowledges Judge Wu construed the “identifier” and “to individualize” terms and contends the Petition addresses them. Reply.1n.1. But Judge Wu did not adopt either party’s proposed constructions on these terms. Ex.1070, 6-8.

³ Glucksman possesses *roughly five times* the years’ experience working on beverage machines as Jobin. Ex.2025, 21:19-23:21.

Unable to challenge Glucksman’s superior qualifications, Petitioner resorts to mischaracterizing isolated deposition snippets to argue his “methods” are somehow “flawed.” Reply.1-2. Petitioner’s reasons are meritless because Glucksman’s statements are consistent with the record and law.⁴ First, Petitioner wrongly contends Glucksman “does not understand enablement.” Reply.1. The testimony relates to a patent not in the record before the deposition that Glucksman offered no opinions. Ex.1071, 56:14-21, 65:5-66:2. This isolated exchange regarding an irrelevant patent does not establish that Glucksman (a prolific patentee himself) fails to understand enablement. Ex.2020, ¶39.

Second, Petitioner contends that Glucksman “applied the wrong obviousness standard by requiring element-by-element motivations within a reference.” Reply.1. Petitioner does not explain what it means by so-called “element-by-element motivations.” Regardless, this too mischaracterizes Glucksman’s testimony where he stated that “a POSITA would have to use its *own judgement* as to whether there is a motivation to combine” (Ex.1071, 87:3-10), applied the standard articulated in his declaration (Ex.2020, ¶38; Ex.1071, 81:9-82:17), and explained “a person skilled

⁴ Petitioner’s reliance on *Homeland Housewares* is unfounded. There, the court found three instances of expert testimony inconsistent with the intrinsic record. Here, there are no such inconsistencies.

in the art would have to be convinced that there is a motivation to combine different – different embodiments” (Ex.1071, 87:20-88:1) within a reference. Petitioner’s argument deflects from its failure to satisfy its burden to show motivation to combine embodiments within a reference. *In re Stepan Co.*, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017).

Third, Petitioner argues that Glucksman “did not apply the *Phillips* claim construction standard.” Reply.1. Not so. Ex.1071, 90:10-16 (“using the plain and ordinary meaning”); Ex.2020, ¶¶40-41. Glucksman followed the same standard as Jobin (*compare* Ex.2020, ¶¶40-41 and Ex.1003, ¶¶41-42).

Fourth, Petitioner wrongly contends that Glucksman “was unable to answer basic questions about K-fee’s patents.” Reply.1-2. Glucksman formed no opinion on non-specific topics outside his declaration and could not limit his answers to “yes” or “no.” Ex.1071, 104:15-105:22, 103:2-106:1, 47:19-49:1, 112:5-16.

Nothing Petitioner cites counsels that Glucksman’s analysis is entitled to “no weight.” Reply.2. Petitioner did not question Glucksman about most of his opinions in his declaration, which remain largely unchallenged and unrebutted. *See generally* Ex.1071 (taking only half a day of a noticed two-day deposition). Petitioner’s case citations are unavailing. Petitioner’s unpublished *Texas Instruments* dissent quotation fails to support disregarding Glucksman’s reasoned opinions and Petitioner identifies no Glucksman opinions inconsistent with the record.

Finally, Jobin is not entitled to greater weight. Petitioner’s claim that Jobin somehow “has more relevant experience with beverage and fluid systems integrating identifiers” is unfounded. The Glucksman deposition testimony cited in Reply relates to a Glucksman patent filed in 2021 and does not quantify his experiences with beverage and fluid systems integrating identifiers. It is undisputed that Glucksman possesses years of experience with sensors for recognizing identifiers. Ex.2020, ¶22.

II. POSITA

K-fee presents an alternative level of ordinary skill supported by the opinions of Glucksman, who sets forth detailed reasons for his opinions. Ex.2020, ¶¶42-45. Petitioner does not dispute the correctness of K-fee’s level of skill or the arguments in support in the POR.⁵

⁵ Jobin’s Reply Declaration presents opinions regarding K-fee’s proffered level of skill, but the Reply lacks such arguments. *See* Ex.1072, ¶¶2-12. Any Petitioner effort to rely on Jobin’s arguments is improper and should be rejected. 37 C.F.R. §42.6; *3M Co. v. Westech Aerosol Corp.*, IPR2018-00576, Paper 49, 8 (Feb. 4, 2020) (rejecting argument “not advanced in the briefing and is referenced only through citation to the expert reports”) *aff’d* 860 Fed. App’x 724 (Fed. Cir. 2021) (non-precedential).

III. Motivations to Combine Fail

A. No Motivations to Combine Yoakim's Many Embodiments

Petitioner does not dispute that Yoakim teaches multiple different embodiments, and Federal Circuit precedent requires a teaching or motivation why a POSITA would have combined multiple separate embodiments in Yoakim to arrive at K-fee's inventions. Reply, 3-8; *see Stepan*, 868 F.3d at 1346 n.1; POR.10-11 (citing cases). Nor does Petitioner dispute that it seeks to combine Yoakim's embodiments of at least Figs. 4, 6-7, 26-28, 35, 37-38, 54-61 to achieve the claimed combination. Reply, 3-8.⁶ Rather, Petitioner seeks to shift its burden, arguing K-fee "fails to establish any incompatibility between the cited features in Yoakim, or that any combination is unpredictable or outside a POSITA's skill." Reply, 3. That is improper. *See Intel Corp. v. Tela Innovations, Inc.*, IPR2019-01521, Paper 65 at 25 (Mar. 9, 2021).

Nonetheless, the evidence shows that a POSITA reading Yoakim as a whole would have lacked motivation to combine the different embodiments absent hindsight. Ex.2020, ¶¶86, 89-90, 95. Petitioner's attorney argument offered for the first time in Reply regarding some similarities in certain capsules (Reply.3-4) does

⁶ These are described as "alternative" or "another" embodiment or mode. Ex.1004, [0034]-[0035], [0446], [0474], [0484], [0525].

not demonstrate motivation to combine a multitude of different capsule features all into a single capsule, as claimed. *In re Wesslau*, 353 F.2d 238, 241 (CCPA 1965); Ex.2020, ¶¶82-110. This is merely an extension of a conclusory argument regarding embodiments allegedly in the same field of endeavor. *Markforged Inc. v Continuous Composites, Inc.*, IPR2022-00679, Paper 24 at 27, 34-35 (Sept. 26, 2023) (requiring reasons to combine). Jobin’s admission that “I don’t look at a specific embodiment” (Ex.2025, 186:10-19) confirms Petitioner’s lack of effort to meet its burden.

Petitioner’s glaring failure to explain *any* motivation to combine Yoakim’s embodiments cannot be excused by its newly raised contention that the differences in the capsules are “predictable variations.” Reply.4 (citing *Boston Sci. Scimed, Inc. v. Cordis Corp.*, 554 F.3d 982, 991 (Fed. Cir. 2009)). For this point, Petitioner cites no evidence and relies on unsupported attorney argument. But a Petitioner cannot simply rely on the presence of different embodiments in the same reference to “overcome[] its lack of explanation as to why a POSITA would have combined the different embodiments depicted in [the reference] in the manner proposed by Petitioner.” *Intel*, IPR2019-01521, Paper 65 at 25. “Petitioner must *also* explain why a POSITA would have combined the elements disclosed in the separate embodiments described in [the reference].” *Id.* (citing *KSR*). Unlike in *Boston Scientific* where a motivation to add a single feature from one embodiment to a second embodiment was found in the reference given the benefits of that feature,

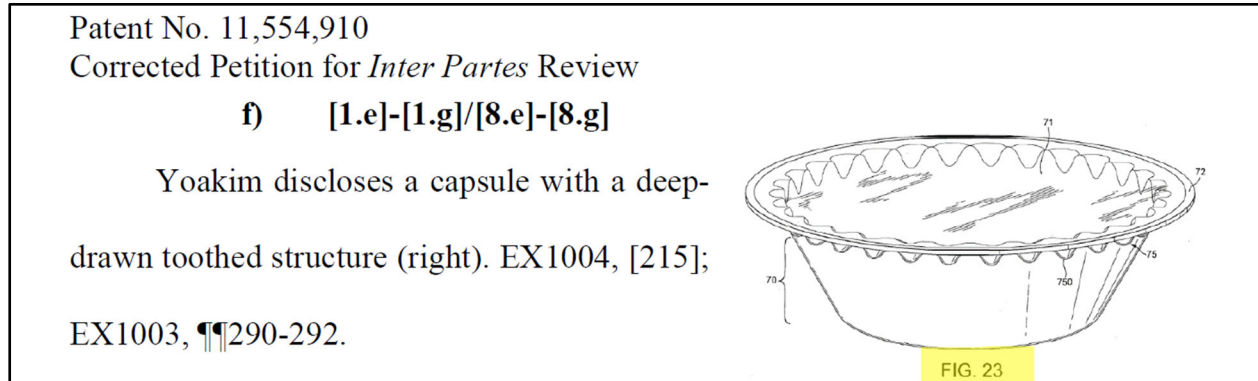
Petitioner seeks to combine various features without any motivation, reasoning, need, or benefit for doing so (other than to track K-fee's patent claims).

On Reply, Petitioner's arguments that embodiments are combinable under "Yoakim's collective teachings" and "common features" also fail. Reply.5-8. Yoakim did not describe one universal capsule or device but rather aggregates multiple patent filings into one, each having a bespoke capsule and device, a fact that is uncontested. Ex.2020, ¶¶75, 87. A POSITA would not have understood from Yoakim to combine every feature described. Ex.2020, ¶¶89-95.

Petitioner never rebuts the evidence that a POSITA would understand that among Yoakim's collection of embodiments from multiple patent filings are laboratory models connected by wing nuts (*see* FIG8/9) and lacking a capsule holder, i.e. a consumer unfriendly arrangement. Glucksman explains that a POSITA would have understood such primitive setups are understood to be unproven, not suitable as a beverage machine, and were subsequently abandoned by Yoakim—which would discourage combining. Ex.2020, ¶¶75, 79, 99, 100. These opinions are undisputed.

Second, Petitioner argues the toothed structure in FIG23 "do[es] not form Petitioner's element-mapping" and thus it waives future reliance. Reply.5. But the Petition (below) expressly relies on FIG23 for at least elements [1.e]-[1.g]/[8.e]-

[8/g] and uses it as the purported motivation in Yoakim for an expectation of success to combine with Rapparini.

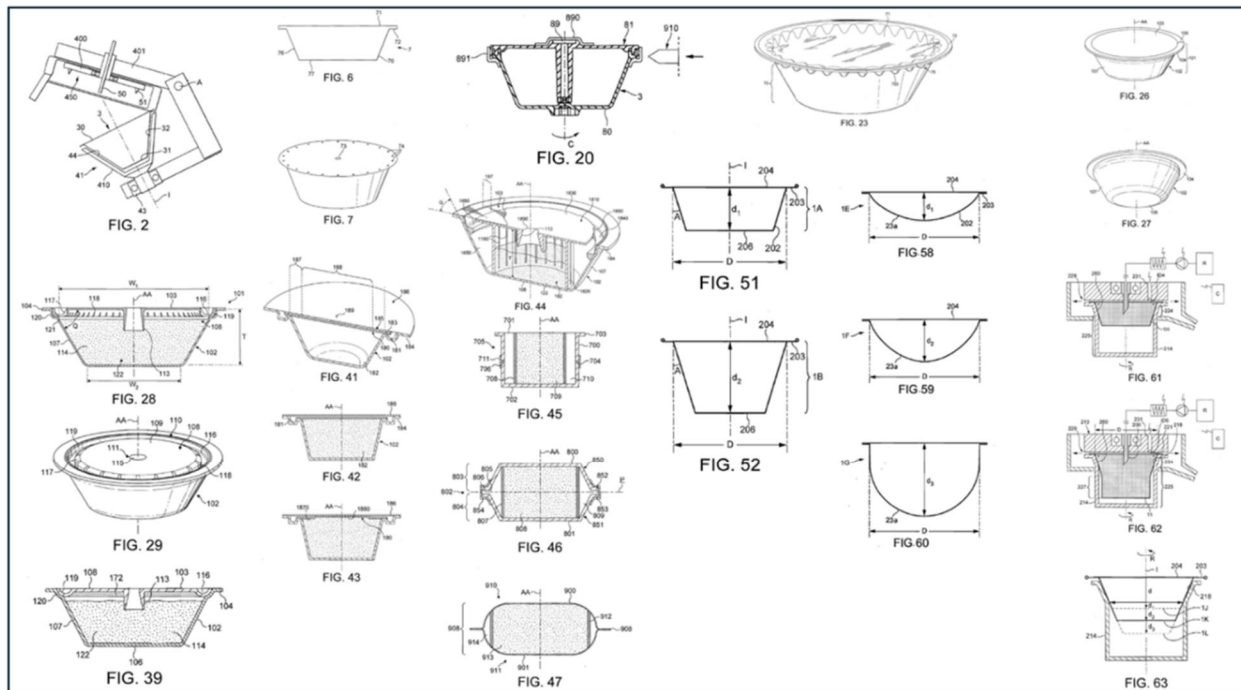


Pet.56. Yoakim lacks any motivation for applying the teachings of FIG23 to devices other than FIGS8-9, which attaches the capsule at the top and bottom unlike other embodiments in Yoakim. Ex.1004, [0217].⁷ Ex.2020, ¶107.

Third, Petitioner contends that “FIG35’s valve/seal assembly comports broadly across embodiments.” Reply.5-6. Petitioner’s citations to EX1004, [0018], [0369]-[0373] disregard FIG35. These citations only underscore that Yoakim is merely an assemblage of multiple continuation-in-parts and does not demonstrate some broad application of the FIG35 *embodiment* to every other embodiment. FIG35 and FIG61 undisputably are distinct and not combinable. Ex.2020, ¶¶92-97.

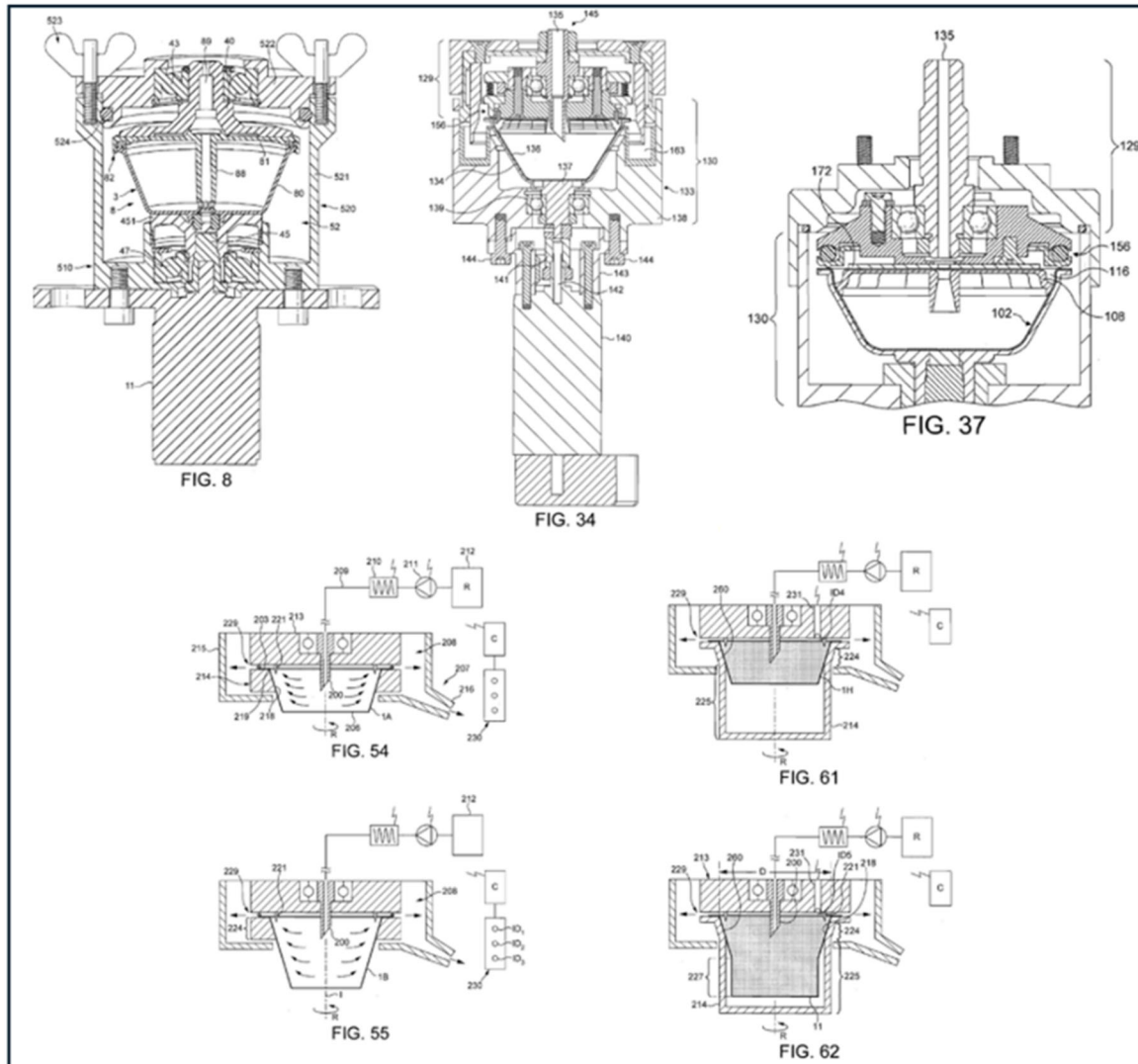
⁷ As explained, applying these teachings with Jarisch929 would result in a cell with textured surfaces that would hinder light passing through the rotating cell for reading any code. POR.38-39.

Ultimately, there is no dispute that the capsules used in Yoakim's varying plate and/or valve embodiments differ and lack interchangeability. Reply.6-7. Tellingly, the shapes of the capsules and their internal features are unique to particular plate/valve embodiments. *Id.* Not all are cup-shaped, have an identification means, have a flange, a membrane, a water inlet, areas for sealing, or are configured to be pierced. Ex.1004, FIG4, FIGS8-20, FIG35, FIGS37-40, FIG54, FIG61.



While Petitioner argues Yoakim does not require any kind of collecting recess to operate (Reply.7-8), it fails to present evidence to suggest such a modification and cites only passages of Yoakim that state that the form of the collecting recess can take different configurations. Ex.1004, [0420]. Unspecified “collective teachings”

do not excuse the absence of proof in the Petition for combining Yoakim embodiments.



Finally, Petitioner brushes aside its affiliate's prior statements solely through attorney argument, but it should not be allowed to take contradictory positions to obtain its patents while at the same time challenging K-fee's. Reply.8.

B. Combination with Jarisch929.

i. Jarisch929 Is Not Enabling

The challenged claims require the capsule identifier to be “optically detectable, machine readable.” [1.p]/[8.p]. The Jarisch929 inventors undisputedly stated in a subsequent patent that what they described in Jarisch929 exhibited “disadvantage ... in that reading conditions remain *specifically difficult* for different reasons, such as ... the *loss of a great part of energy*.” Ex.2021, 2:34-38. They proclaimed, “there is a *need for identifying* the type of capsule inserted in the beverage machine to enable the adjustment of the brewing parameters to the inserted type.” *Id.*, 2:1-4. As a result, they described in Ex.2021 “an improved code support *which enables* to provide a *reliable reading*” due to “a need for reliably reading information on a proper code support.” Ex.2021, 2:66-3:2, 3:16-22. This evidence without question establishes that the support in Jarisch929 did not work as an optically detectable and machine-readable identifier. Ex.2020, ¶¶110-113.

Petitioner’s argument that the Office has already determined Jarisch929 is enabling is wrong because it is based on other patents. Jarisch929 never issued.

Petitioner contends that Jarisch929 provides more disclosure than K-fee’s patent. Reply.8-9. This is irrelevant. Petitioner’s cases do not address the circumstances here, where there is evidence demonstrating that the solution in the reference did not work. *See Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d

1461, 1471 (Fed. Cir. 1997) (concluding “the record was sufficient to entitle the jury to conclude that the reference was enabling”); *Constant v. AMD, Inc.*, 848 F.2d 1560, 1569 (Fed. Cir. 1988) (similar). Moreover, in *Constant*, the arguments for non-enablement were “irrelevant to the claimed invention.” Patent Owner has shown exactly the claimed aspect that is non-enabled. While Jarisch929 may be enabling for what it teaches—a support that may be under the flange of a capsule—Petitioner has failed to demonstrate that it is enabling for an identifier that is optically detectable, machine readable.

Jarisch929 sought to address purported problems by moving the code location—but that does not establish that the code was in fact optically detectable and machine readable. Ex.1006. Petitioner argues that “Jarisch simply identified one downside of ‘difficult’ reading condition,” but this disregards what Ex.2021 actually says and purports to address. Tellingly, Petitioner truncates a quote from Ex.2021 to argue “Jarisch929 ... *is ‘able* to read the code support by rotating the capsule while the capsule is in place.” Reply.9. But the words Petitioner omits add important context that it is actually a goal of Jarisch929 “*to be able* to read the code support by rotating the capsule while the capsule is in place.” The solution in Jarisch929 was ineffective, and considerable modification was needed as seen by Ex.2021. Moreover, contrary to Petitioner’s arguments, Glucksman’s patents are irrelevant to

the question of whether Jarisch929 teaches an optically detectable and machine-readable support.

ii. References Lack a Motivation to Move Yoakim’s Code

Petitioner does not identify any teaching or suggestion in Yoakim that the code location in Yoakim’s identification means embodiments would have exhibited any problems. Yoakim teaches multiple recognition means, including “a barcode, a colour, a sign, a logo, etc., or by radio-frequency code (RFID), a magnetic element or by an identifiable shape.” Ex.1004, [0495]. There is no suggestion that any of these means would be impacted. Indeed, Petitioner does not even establish that the so-called “optical code” in Jarisch929 is the same or similar to those taught in Yoakim such that Jarisch929’s teachings would be applicable or interchangeable. Pet.38-39. Nor does Petitioner explain why a POSITA would single-out barcode to the exclusion of the other listed recognition means to resolve any potential concerns, much less why a POSITA would substitute a code that fixed in position with one that is read while rotating in view of different detection equipment needed in each respective system. Ex.2022, ¶6; POR.33-35, Ex.2020, ¶124.

Moreover, Yoakim teaches “[a] *cleaner operation*,” suggesting that Yoakim’s capsules avoided residue concern without having to relocate the identification means

(e.g. ID4). Ex.1004, [0319]-[0325].⁸ This suggests that Yoakim’s capsules adequately address any concern of residue without having to move the recognition means from the top of the capsule. At best, Petitioner articulates a “risk” from beverage residues in Jarisch929’s system, which depicts a different top-side capsule reader from what is taught by Yoakim (*compare* Jarisch929, FIG3 *with* Yoakim, FIG61), but is silent as to whether such residues result from prior brewing. There is no evidence that the problems observed by Jarisch929 would have existed in Yoakim’s devices. Moreover, buildup of residue is only a problem if it obscures the recognition means. Again, there is no evidence that Yoakim’s system would have suffered from such an issue. In fact, Glucksman explained the opposite is true. Ex.2020, ¶104.

Petitioner’s arguments regarding a flow restriction seal in Yoakim’s FIG35 embodiment do not suggest buildup of fluid in the chamber because Yoakim’s capsule is designed to retain the fluid in a collecting recess. As Yoakim explains, “[t]he collecting recess is positioned *to collect the centrifuged liquid* passing through the filter portion.” Ex.1004, [0272], [0332], [0416]. Thus, any fluid would

⁸ Petitioner admits that Yoakim’s teaching of a “cleaner operation” contrasts those systems where the filter is in the device. EX.1074 (directed to “Zentrifugal*filters* 12”); Reply.25n.9.

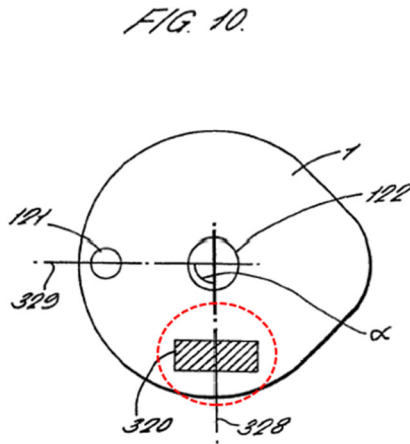
be in the collecting recess—not the area above the membrane adjacent to the seal. Petitioner’s cited Yoakim passages (Reply.7-8) at most state that the collecting recess can take different configurations, and the collecting recess flow and distribution benefits would discourage its removal. Ex.1004, [0344], [0348].

Petitioner’s continued reliance upon FIG35 and FIG38 embodiments for the “flow restriction seal” (Reply.12) is improper because those embodiments *have no code or detector*. FIG61/62 is the only embodiment with a code and detector, and Petitioner has not disputed that centrifugal forces would drive fluid outwards and away from the code in that embodiment. (Ex.2020, ¶¶105-106, POR.26-27). Only after the threshold pressure in the capsule is reached (long after the code reading) does the FIG61/62 plate lift and liquid exit (Ex.2020, ¶105), and therefore the flow restriction seal would not cause liquid to block the code. Petitioner misrepresents Glucksman’s testimony (Ex.1071, 123:10-20) since that passage discusses operation of FIG35, not FIG61.

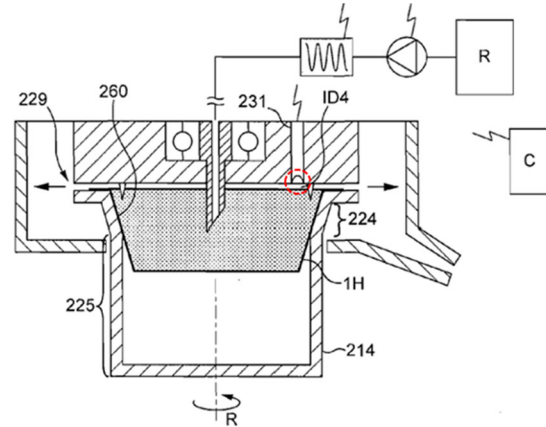
Petitioner contends K-fee is “wrong that the piercing location would not impact code reading” but offers no evidence that this was an issue in Yoakim. Petitioner disregards that a POSITA would have readily understood to not place the recognition means in the immediate area of piercing. Ex.2020, ¶104. Further, Panesar (EX1010) solved that alleged soiling problem (annotated FIG10 below), and

the Panesar code location solution is used in Yoakim (annotated FIG61 below).

Ex.1010, 19:22-20:13.



Panesar (Ex.1010) FIG10



Yoakim FIG61

Petitioner does not dispute that Yoakim lacks a pyramidal plate, which is a grid-like structure. Reply.12-13; Ex.2025, 151:8-12; Ex.2020, ¶104; *see also* Ex.2032, 6:1-7:17, 33:2-34:21, FIG17; EX1022, [0029]. There being no pyramid plate, there can be no motivation to avoid damage caused by such a non-existent pyramid plate; rationale in the Petition and the Institution Decision is unsubstantiated. Moreover, as explained, the reading of the recognition means occurs prior to rotation of the capsule, so tearing is not a concern. *See* POR.33-34. Petitioner's argument that Denisart (Ex.1007, FIG7 (newly relied upon)) and Yoakim (FIG4) depict the "same" plates is belied by the figures themselves (annotated below).

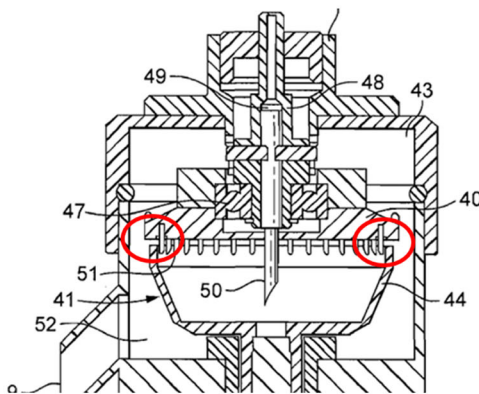


FIG. 4

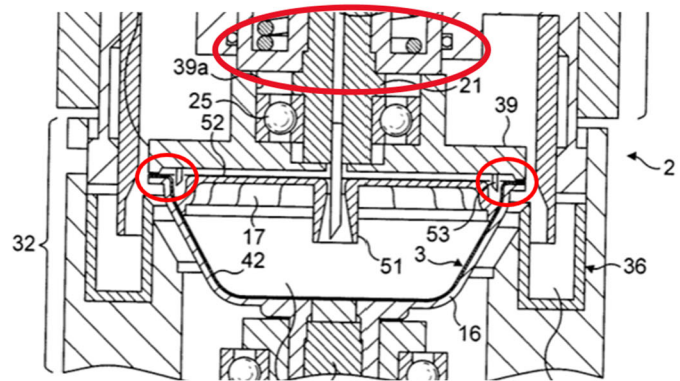


FIG. 7

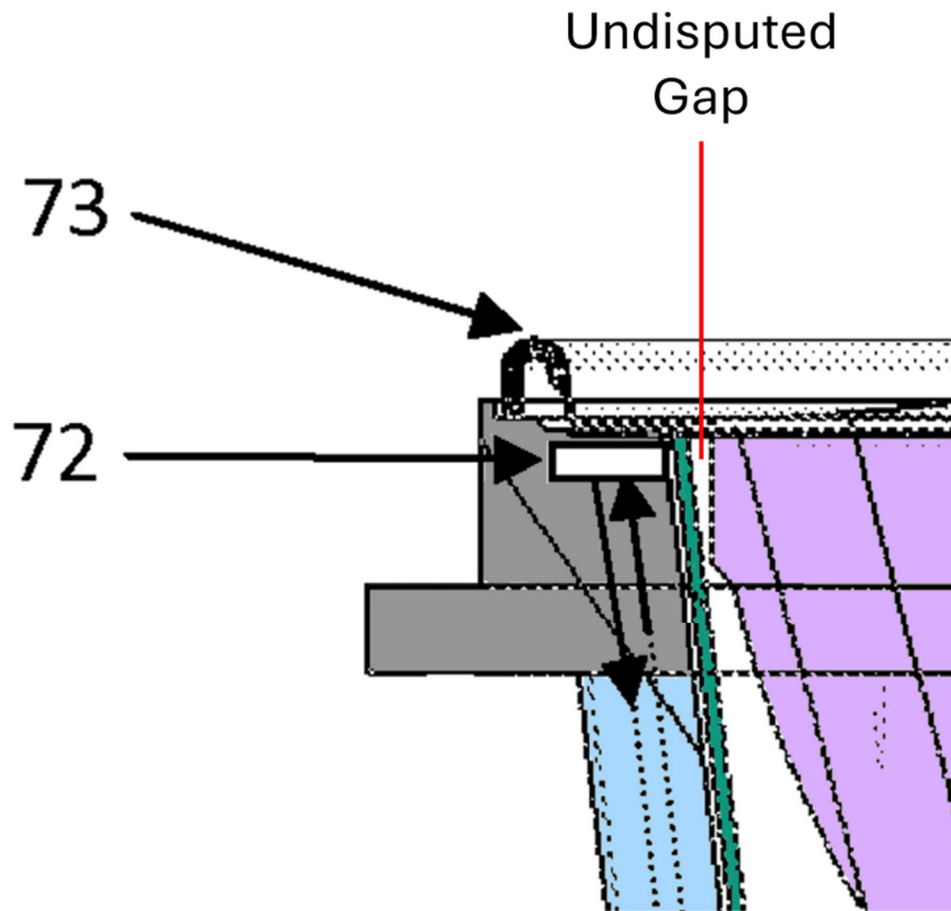
They differ visibly in various respects including no peripheral edge sealing in FIG4, no valving accommodation in FIG4, and in piercing element use. Additionally, efforts to equate processing module with brewing chamber is not supported by Glucksman because the cited testimony is inconclusive. Ex.1071, 127:5-19.

Finally, Petitioner contends that Yoakim's rim can be 5 mm, relying on the embodiment of FIGs26-27. But there remains no articulation of motivation to combine that embodiment with FIG61, relied upon for identification means reading. Pet.46. Petitioner also fails to demonstrate sufficient code spacing in view of Yoakim's teachings of ribs extending into the flange. EX1004, FIG23; Ex.1008, FIG6/6bis.

**iii.No Reasonable Expectations of Success in Combining
Yoakim/Jarisch929**

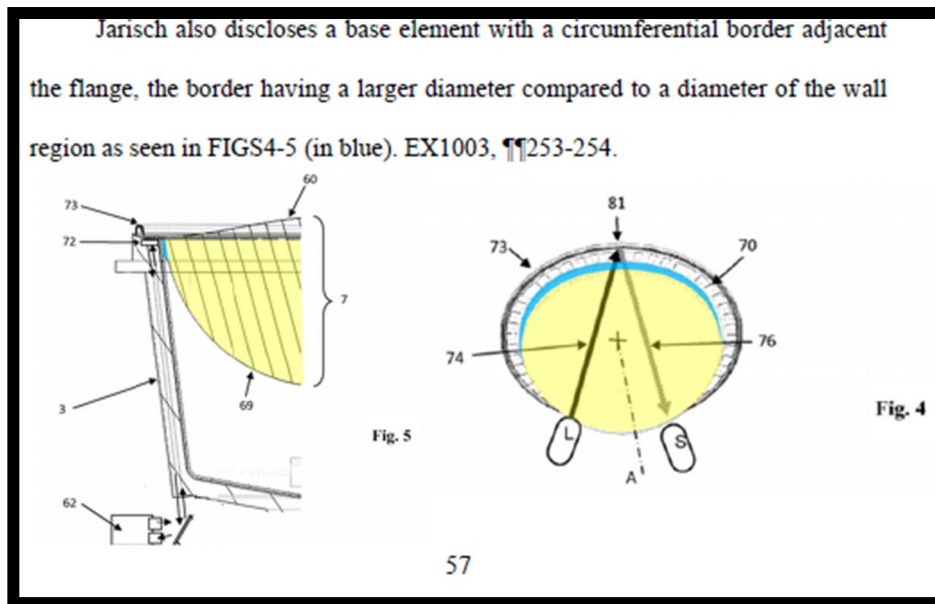
The POR identifies numerous problems with combining Yoakim and Jarisch929 undermining any expectation of success. POR.28-40. Petitioner’s “simple combination” argument fails because the evidence is otherwise. Ex.2025, 29:7-37:5; Ex.2020, ¶76, POR.8. Also, Petitioner ignores that the Jarisch929 FIG5 side wall has an angle that Yoakim indicated as *preventing* coffee flow. Ex.1004, [0261]. Yoakim identifies additional performance obstacles ignored by Petitioner (e.g., preferential flow paths, residence time). Ex.1004, [0018], [0023], [0027], [0124], [0188], [0191], [0209], [0309], [0442]-[0443], [0523]; Ex.2020, ¶73. Below, we address Petitioner’s specific reply arguments.

Snug fit/unbalance: It is undisputed that vibrations would result from Petitioner’s combination of Yoakim/Jarisch929 and such vibrations hinder reliable code reading. Ex.2020, ¶110. The Jarisch929 gap with the capsule holder exacerbates the problem (Ex.2020 at 119, annotated below).



In response, Petitioner contends “a POSITA would know how to design a capsule that fits while accounting for the teachings of both references.” Reply.14. But the deposition testimony cited by Petitioner offers no insight as to what efforts would be necessary to achieve all technical objectives while maintaining consistency with Yoakim’s teachings. As confirmed, “vibrations” and “unbalanced mass distribution” were critical factors admittedly “causing the loss of a great part of energy” in Jarisch929. Ex.2021, 2:34-38.

Petitioner's string cites and conclusory argument (Reply.15-16) fail to refute the gap. Jobin's testimony, Ex.2025, 142:7-143:3, refers to a different region exterior of the capsule holder (green in the above annotated Jarisch929 FIG5). Regarding the "manufactured gap," this is a creation of Petitioner and Jobin and relied upon by them in Petitions in IPR2021-01221 at 29, IPR2021-01222 at 30, and IPR2021-01223 at 29.



Rotation: Jarisch929 inventor, Gerbaulet, undisputably argued against modification of Yoakim with Fisher for code reading (as with Jarisch929) "while the capsule is driven in rotation." Ex.2022, 2. Gerbaulet concluded that such a modification "solves a problem that is already solved without the modification." *Id.* These statements confirm that the proposed Yoakim modification is "unnecessary" and "would do little more than add unwanted cost and complexity to the system." *In*

re Schweickert, 676 Fed. App'x 988, 995 (Fed. Cir. 2017); *see also* Ex.2021, 10:65-11:3 (describing complexity of specialized hardware required which would be beyond a POSITA's skill).

Machine-readable code: As explained above, the combination would not have yielded an optically detectable, machine-readable code. Ex.2021, 2:34-38.

Bend: Petitioner argued “to combine the brewing and capsule identification system of Yoakim with the repeat pattern of Jarisch 929 located on the bottom flange of the capsule.” Pet.38. On Reply, Petitioner newly suggests modifying Yoakim's brewing system to remove the bend depicted in each of Yoakim's rimmed-capsule compatible devices cited in the Petition. *See* Pet.46, Pet.65. Petitioner's new argument evidences its weak position and should not be considered. PTAB TPG Nov. 2019 at 73. Even if Petitioner's new argument is considered, the bend is one of many differences between Yoakim and Jarisch929. Even with a “straight chamber” as Petitioner now advocates, placement of the sensor/detector and the readability of any code remains unsolved.

C. No Motivation (Rossi)

Petitioner disputes that Yoakim's existing teachings of a safety feature would have discouraged combination with Rossi. Reply.16. In making its argument, Petitioner appears to *embrace* disparate embodiments of Yoakim, arguing that “Yoakim only discloses one embodiment with a ‘gripping structure’ to drive capsule

rotation.” *Id.* Petitioner thus takes Yoakim’s safety feature in isolation and argues that it would not be applied to Yoakim’s teachings as a whole. This is inconsistent with Petitioner’s positions regarding the combination of Yoakim’s embodiments. Petitioner’s argument confirms that there is no motivation to take every Yoakim capsule feature to arrive at a single capsule containing all such features.

Petitioner also argues Yoakim’s system can use a high-pressure pump and that centrifugation generates high pressure, but these positions are inconsistent with Yoakim’s teachings. Yoakim contrasts centrifugation with “normal type brewing methods using high pressure pumps” of the prior art. Ex.1004, [0009]-[0010]. Moreover, whether centrifugation generates pressure is irrelevant because water is introduced into the capsule prior to centrifugation and thus the brewing process has already begun. Ex.1004, [0530]. In contrast, the Petition seeks to rely on Rossi to “prevent unsafe system operation altogether” (Reply.17)—not any specific functionality such as a pump as Petitioner contends.

D. No Motivation (Rapparini)

Petitioner’s alleged “overwhelming” evidence of grooves relies on a single reference directed solely to filtering and permeable containers requiring reinforcement for high-speed production. Reply.17; Ex.1008, [0007]. There is no evidence, teaching, or suggestion that Yoakim’s device is compatible with such filtering and permeable containers such that a POSITA would have been motivated

to add ribs to reinforce the container during production. Ex.2020, ¶¶17, 144-146. Indeed, Yoakim showed that permeable containers are incompatible with centrifugation and would have its purpose defeated by a barrier sheet. *See* Ex.2023,10-11, 18-19; Ex.2030, 9. It is undisputed that a POSITA would not have selected a permeable material in combination with a barrier sheet, thus destroying its filtration purpose. Ex.2030, 9.

Petitioner argues that Rapparini “applies broadly to a variety of materials.” Reply.17. But similarity in materials is not the same as similarity in purpose, function, and motivation. For example, applying Rapparini’s teachings to Yoakim would involve adding ribs that extend to the flange of Yoakim’s capsule and limit the amount of space available for a machine-readable barcode. *See* Ex.2020, ¶182; Ex.1004, FIG23.

Ignoring Rapparini’s teachings of permeable materials and the reasons why Rapparini teaches adding ribs in the first place is improper and contrary to obviousness law. *Wesslau*, 353 F.2d at 241.

IV. The Claims Are Not Obvious

A. Using Encoded Information to Activate a Pump Is Not Obvious

It is undisputed that all challenged claims require “the individualization identifier” “encodes information *used* by the specific coffee machine *to activate a pump* of the specific coffee machine.” [1.r]/[8.r]. In Reply, Petitioner remains unable

to identify such information in any of the references. Petitioner identifies only adjusting encoded parameters/settings that are independent of pump activation.

It is not enough to show that the identification means are “associated” to control means as Yoakim teaches because that does not inform how the control means controls components in the coffee machine. Ex.2025, 175:6-18; Ex.2020, ¶¶167-168. As the undisputed evidence shows, a POSITA would have understood that activating a pump in Yoakim and Jarisch would have been achieved without using information encoded in the identification means through a binary signal, press of a button, or closing the brewing chamber. POR.58-59. None of this is disputed. It is only through hindsight that one could conclude that Yoakim teaches this claim element.

Similarly, it is undisputed that Jarisch929 and Rossi lack any such teachings. Reply.23-24. For Jarisch929, Petitioner again relies on beverage-making parameters but makes no showing that such parameters are used to activate a pump. And for Rossi, Petitioner relies on Rossi’s prevention of operation altogether but again fails to identify any teaching that once identification and validation elements are considered Rossi uses any such information *to activate* any specific component of the beverage machine.

B. Capsule Cavity Free of a Filter Is Not Taught or Obvious

For the first time on Reply, Petitioner argues that [0271] discloses embodiments where the brewing device could filter the beverage. Reply.20. But Petitioner does not argue that such an embodiment would result in a capsule free of a filter in the cavity. Indeed, for the many reasons presented in the POR, [0271] does not make an internal filter optional in Yoakim. Rather, by its first sentence it provides only that such a filter may preferably be placed at the periphery of the enclosure—as opposed to other areas of the enclosure as taught in different embodiments of Yoakim, e.g., FIG42 (illustrating a filter extending across the capsule cavity), FIGS44-47 (illustrating inclusion of a filter central to the capsule). The statement that “the filter could be part of the device” does not demonstrate lack of an internal capsule filter or filtering means altogether. Yoakim is a capsule-based system and there must be some manner of separating the beverage from the grounds while ensuring Yoakim’s “cleaner operation.” Ex.1004, [0319]-[0325]. Petitioner contends that [0271] “need not be the best option” (Reply.21), but Petitioner has not demonstrated that a filter solely in Yoakim’s device (and not also in the capsule) is “a *suitable* option.” *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 800 (Fed. Cir. 2021). As Glucksman explained, in the Yoakim context a capsule without a filter would result in a device that does not work as well, is dirtier, and requires more maintenance—contrary to Yoakim’s teachings. Ex.2020, ¶¶159-160.

In an attempt to overcome the fact that all of Yoakim’s capsules have at least one filtering means, Petitioner mischaracterizes the claimed cavity to be only where the beverage raw material is provided. Nothing limits “cavity” in that way. The ’910 Patent explains that the cavity “is closed by a membrane fastened to the base element.” Ex.1001, 1:30-32. Yoakim’s lid, which contains filtering outlets or slits, is beneath a 103 membrane and thus is inside the cavity. *See, e.g.*, Yoakim at Fig. 28, [0417] (describing sealing membrane 103).

Petitioner’s reliance on *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997) is misplaced. Petitioner bears the burden of demonstrating unpatentability. *Lockwood* does not excuse such evidence and still requires showing “the *claimed* features” to be taught or rendered obvious. *Id.*, 1570 (emphasis in original). Moreover, Petitioner’s reliance on *Inphi Corp. v. Netlist Inc.*, 805 F.3d 1350, 1355 (Fed. Cir. 2015) is misplaced. Reply.19. *Inphi* is directed to adequate written description for negative claim limitations—not whether a reference adequately teaches a claimed feature.

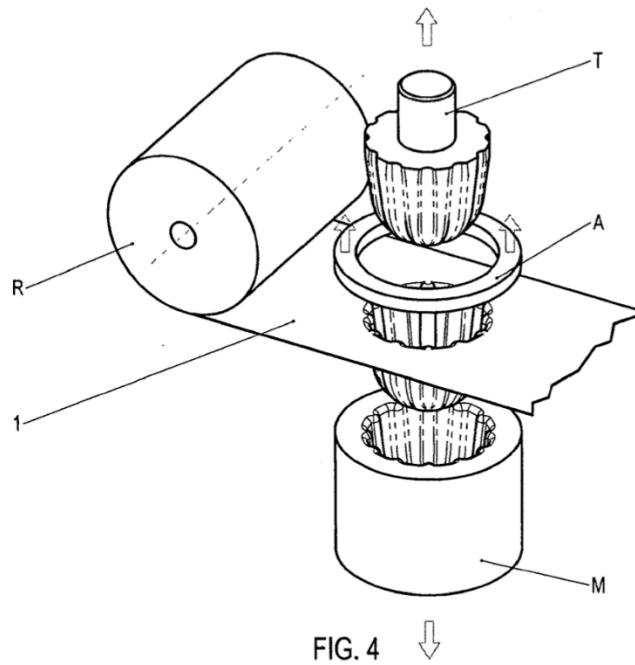
Petitioner repeats its “design choice” arguments in Reply, which K-fee addressed in the POR.56.

C. Grooves Spaced Between the Flange and Closed Bottom

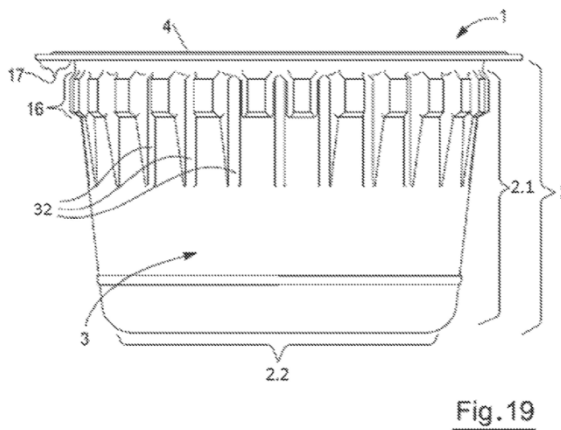
Petitioner mischaracterizes Rapparini’s teachings, which a POSITA understands teaches ribs that extend into the small rim of Rapparini’s container, as

depicted in FIGS6/6bis. To suggest otherwise, Petitioner relies upon Rapparini, [0011]. But [0011] describes ribs as illustrated in FIG10 that do not extend into the bottom region 5. [0010], in contrast, describes the ribs illustrated in FIGS6/6bis, “wherein the length of the ribs is variable along the surface of the body.” In FIGS6/6bis, all rib lengths extend to the bottom region 5.

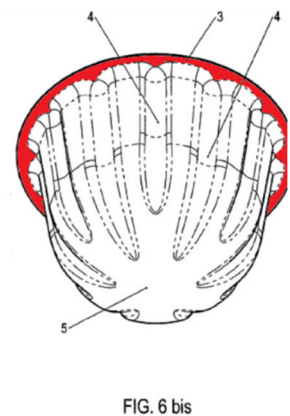
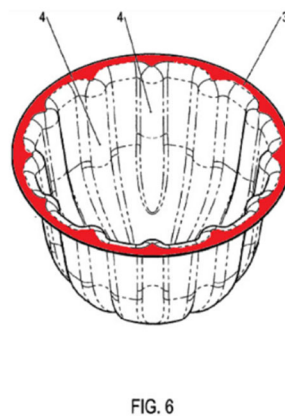
Regardless, in all embodiments illustrated, the ribs extend to the flange of the container. Ex.2025, 117:7-21. Glucksman explained, this is a consequence of Rapparini’s manufacturing process (Rapparini FIGS1-5). Ex.2020, ¶182 (explaining “there was no practical way to use the process taught by Rapparini to thermoform ribs on a capsule and still have the ribs not extend to the flange”). Whether the rim is “substantially flat,” it does not contradict the teachings (as informed by the knowledge of a POSITA) that Rapparini’s process results in ribs that are *not* spaced a distance between the rim and the bottom. *Id.*



Petitioner ignores this feature ('910 Patent FIG19 below), improperly relying upon grooves intersecting with the flange (*see* 6bis (below) and FIG4 (above)). Petitioner has not disputed the POR evidence at pages 62-66.



'910 Patent FIG19



Rapparini FIG6 & FIG6bis

Petitioner's Rapparini quote (Reply.24) fails because it only addresses rib termination location relative to the capsule bottom and not to the flange.

Petitioner has pointed to no evidence of a calculation/measurement of the percentage coverage for [1.g]/[8.g] and 4. Reliance on K-fee's preliminary infringement contentions (Reply.25) to justify its failure of proof is misplaced because K-fee need not prove its infringement case at the contentions stage. *Alpha & Omega Semiconductor Ltd. v. Force MOS Tech. Co.*, 706 F. Supp. 3d 936, 942 (N.D. Cal. 2023).

D. Petitioner Cannot Correct the Petition's Failure to Contend "Hot Water"

Petitioner makes new arguments regarding a POSITA's knowledge and cites new evidence not in the Petition, including reliance on Rossi for these elements. This is improper. PTAB TPG Nov. 2019 at 73.

E. Identifier On the Outside Surface of the Wall/Identifier Exhibiting Concavity and/or Convexity

The POR rebuts the Petition's contentions that Jarisch929 teaches an identifier "further provided on the outside surface of the wall of the base element" or one that "exhibits a concavity and/or a convexity." POR.67-71. Petitioner again reaches for *Lockwood* in an effort to excuse the Petition's shortcomings. Reply.26. *Lockwood* requires showing "the *claimed* features" to be taught or rendered obvious. 107 F.3d, at 1570 (emphasis original).

Next, Petitioner accuses K-fee of "ignor[ing] Jarisch929's teachings" while Petitioner cites new evidence not previously cited in the Petition. As Glucksman

explained, a POSITA would have understood that the part of the “body” where Jarisch929 teaches placing a code is limited to the rim of the capsule. Ex.2020, ¶189. Jarisch929’s [0019] is consistent with K-fee’s position. It is understood that “circumference or a part of the circumference of the body” refers to the top side and is contrasted with “on the bottom side of the rim of the capsule.” Similarly, [0049] describes a “body 69 **extending** by a flange-like rim 73”—indicating that the rim is part of the body. Taking Jarisch929’s teachings as a whole, it cannot be found that there is teaching or suggestion of a support on another part of the body.

Petitioner again points to K-fee’s infringement contentions, but the contentions merely provide an example of an identifier on the outside surface of the wall of the base element. In contrast, Petitioner fails to demonstrate that Jarisch929 teaches these elements.

To support its obviousness position, Petitioner mischaracterizes Glucksman’s opinions. Reply.28. Glucksman did not agree the claim elements would have been obvious but only stated that in the abstract “there might be benefit where, if for some unique reason, the identifier cannot be read in one of those two locations, then the opportunity for it to be read on the other location would enhance the -- you know, the experience” to improve readability. Ex.1071, 113:6-10. Glucksman’s testimony is not directed to Jarisch929’s teachings. *Id.*

Petitioner has no response to Jarisch929's failure to teach any possible way to read that code (or motivation to) if it were placed anywhere other than the bottom of the flange or the top of the capsule. Jarisch929 FIG5 shows the sensor 62 directing a beam within a cell directly to the rim of the capsule which cannot reach any other part of the capsule. A wall separates the transparent cell from the capsule. Petitioner's allegation that a repeating code resolves this issue (Reply.28) is irrelevant because Petitioner has failed to identify and explain the modifications needed to Jarisch929 FIG5 to provide the necessary capability. Petitioner's purported motivation to increase reliability of the code is unsupported.

Petitioner's "overprint" argument (Reply.27-28) is new and unsupported by Jarisch929's teachings and Jobin ¶396.

F. Identifier Is Electrically Conductive

Petitioner makes the logical leap from an aluminum capsule in Yoakim to an identifier that is electrically conductive. But this does not teach an electrically conductive individualization identifier. At best, it teaches the entire capsule body is electrically conductive.

Moreover, embossing on aluminum does not necessarily create an electrically conductive *identifier*. Ex.1071, 66:3-67:22. Petitioner presents no understanding from a POSITA that such an identifier would result from the teachings of Yoakim and Jarisch929.

K-fee's infringement contentions are silent as to the reference's teachings.

V. §102(e) References

The Federal Circuit's recent precedential *Lynk Labs, Inc. v. Samsung Elecs. Co.*, No. 23-2346 (Fed. Cir. 2025) decision governs here.

Date: January 31, 2025

Respectfully submitted,

/Douglas Carsten/

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CERTIFICATION UNDER 37 C.F.R. § 42.24

Under the provisions of 37 C.F.R. § 42.24, the undersigned hereby certifies that the word count for the foregoing Patent Owner Response totals 5,562 words, which is less than the 5,600 allowed under 37 C.F.R. § 42.24(c)(4).

Date: January 31, 2025

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CERTIFICATE OF SERVICE

I hereby certify, pursuant to 37 C.F.R. § 42.6, that on January 31, 2025, a complete copy of the foregoing document and exhibits were served upon the following by ELECTRONIC MAIL:

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