PATENT OWNER'S DEMONSTRATIVES

Nespresso USA, Inc. v. K-fee System GmbH

Inter Partes Reviews

- IPR2024-00299, U.S. Patent No. 11,554,910
- IPR2024-00304, U.S. Patent No. 11,465,830
- IPR2024-00257, U.S. Patent No. 11,548,722
- IPR2024-00254, U.S. Patent No. 11,465,829

March 20, 2025



K-FEE SYSTEM GMBH
NESPRESSO USA, INC. v. K-FEE SYSTEM GMBH
IPR2024-00299, EX. 2034;
IPR2024-00304, EX. 2034;
IPR2024-00257, EX. 2034;
IPR2024-00254, EX. 2034;

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NESPRESSO FAILS TO CARRY ITS BURDENS

IPR2024-00299 (US11,554,910) – Independent claims 1, 8 (8 claims)

- *No Motivation to Combine ('910 Patent all claims)*
  - Discrete Embodiments Within Yoakim
  - Yoakim, Jarisch 929, Rossi, Rapparini

- *Petitioner lacks evidence for the following claim limitations*
  - Plurality of vertically oriented grooves… ('910 Patent all claims)
    - "…spaced a distance between the flange and the closed bottom"
    - "…cover 20% to 80% of the wall between the flange and the closed bottom" / "…cover 40% to 60% of the wall between the flange and the closed bottom"
  - Identifier that exhibits concavity and/or convexity ('910 Patent Claims 6-7)
  - Identifier on the outside surface of the wall of the base element ('910 Patent Claims 1-7)
  - Portion capsule free of a filter inside of the cavity ('910 Patent all claims)
  - Encoded information used to activate a pump ('910 Patent all claims)
  - Quantity, pressure, and/or temperature of hot water ('910 Patent all claims)
  - Identifier that is electrically conductive ('910 Patent Claims 2-7)

See generally 910 Pet; 910 POPR; 910 ID; 910 POR; 910 Reply; 910 POSR.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NESPRESSO FAILS TO CARRY ITS BURDENS

IPR2024-00254 (US11,465,829) – Independent claims 1, 12 (19 claims)

- *No Motivation to Combine ('829 Patent all claims)*
  - Discrete Embodiments Within Yoakim
  - Yoakim, Jarisch, Rossi, Castellani

- *Petitioner lacks evidence for the following claim limitations*
  - Groove that is laterally offset from the chamfered mandrel ('829 Patent Claim 4)
  - Capsule free of a filter inside of the cavity ('829 Patent Claims 9, 18)
  - Pump controlled to supply hot water only upon detection of the identifier ('829 Patent all claims)

See generally 829 Pet; 829 POPR; 829 ID; 829 POR; 829 Reply; 829 POSR.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NESPRESSO FAILS TO CARRY ITS BURDENS

IPR2024-00257 (US11,548,722) – Independent claim 1 (24 claims)

- *No Motivation to Combine ('722 Patent all claims)*
  - Discrete Embodiments Within Yoakim
  - Yoakim, Jarisch 929, Rossi, Rapparini, Castellani

- *Petitioner lacks evidence for the following claim limitations*
  - Identifier located on the side wall of the base element ('722 Patent Claims 13, 16)
  - Portion capsule free of a filter ('722 Patent Claims 14-16)
  - Pump controlled to push water into the portion capsule only upon a determination that the read identifier agrees with a stored reference ('722 Patent all claims)

See generally 722 Pet; 722 POPR; 722 ID; 722 POR; 722 Reply; 722 POSR.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NESPRESSO FAILS TO CARRY ITS BURDENS

IPR2024-00304 (US11,465,830) – Independent claims 1, 8 (12 claims)

- *No Motivation to Combine ('830 Patent all claims)*
  - Discrete Embodiments Within Yoakim
  - Yoakim, Jarisch, Rossi, Rapparini

- *Petitioner lacks evidence for the following claim limitations*
  - Ledge at the inside surface of the wall projecting towards the central longitudinal axis ('830 Patent Claims 1-7, 9-12)
  - Capsule free of a filter inside of the cavity ('830 Patent Claims 7, 12)
  - Identifier configured to be read by a sensor/detector to activate a pump ('830 Patent all claims)

See generally 830 Pet; 830 POPR; 830 ID; 830 POR; 830 Reply; 830 POSR.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE: DISCRETE EMBODIMENTS WITHIN YOAKIM

’910 Patent (IPR2024-00299): All Claims

’829 Patent (IPR2024-00254): All Claims

’830 Patent (IPR2024-00304): All Claims

’722 Patent (IPR2024-00257): All Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE DISCRETE EMBODIMENTS WITHIN YOAKIM

- Combining Yoakim's discrete embodiments is not a 'predictable variation' requiring no 'leap of inventiveness'
- Yoakim's different embodiments are a mixture of laboratory models and schematic drawings
- Yoakim's various disclosed capsules are not compatible with various capsule holders within a centrifugal brewing device
- Yoakim aggregates various discrete embodiments from a series of continuations-in-part
- Petitioner's RPI argued against such a combination

910 POPR at 6-19; 910 POR at 6-20; 910 POSR at 5-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER MUST PROVIDE A RATIONALE FOR COMBINING SEPARATE EMBODIMENTS WITHIN YOAKIM

"Petitioner also fails to provide a sufficient rationale to combine the teachings of [a single prior art reference's] different embodiments. Petitioner simply fails to explain sufficiently why one skilled in the art would have found it obvious to combine those teachings."

Abiomed, Inc. v. Maquet Cardiovascular, LLC, IPR2017-01204, Paper 9, at 11 (PTAB Oct. 23, 2017)

"Whether a rejection is based on … combining multiple embodiments from a single reference … there must be a motivation to make the combination and a reasonable expectation that such a combination would be successful"

In re Stepan, 868 F.3d 1342, 1346 n.1 (Fed. Cir. 2017)

910 POPR at 6-19; 910 POR at 6-20; 910 POSR at 5-10.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BOSTON SCIENTIFIC DOES NOT SUPPORT PETITIONER'S POSITION

"Combining *two embodiments* *disclosed* *adjacent to each other* in a prior art patent does not require a leap of inventiveness"

Boston Scientific Scimed, Inc. v. Cordis Corp., 554 F.3d 982, 991 (Fed. Cir. 2009) (emphasis added)

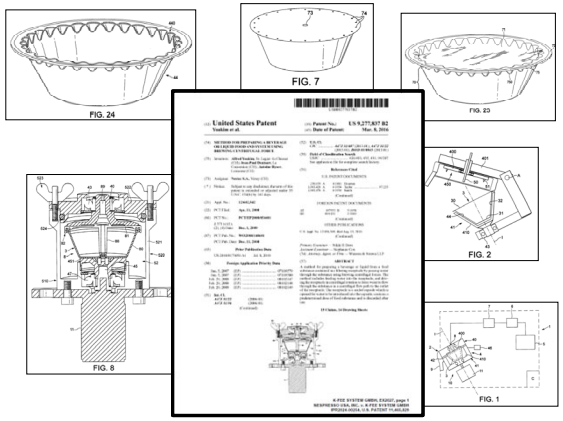
Here, Petitioner seeks to combine ***over five separate Yoakim embodiments*** across numerous paragraphs and figures.

See generally 910 Pet, 722 Pet, 829 Pet, 830 Pet

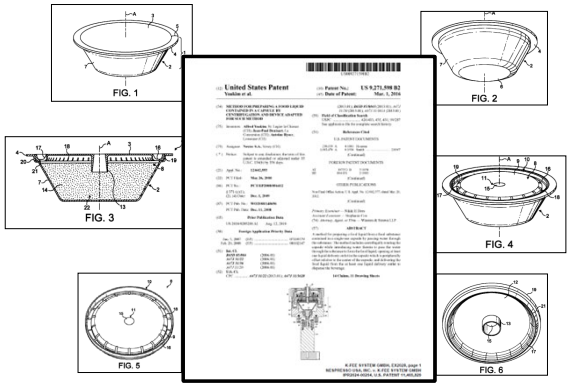
910 POR at 7; 910 POSR at 6.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

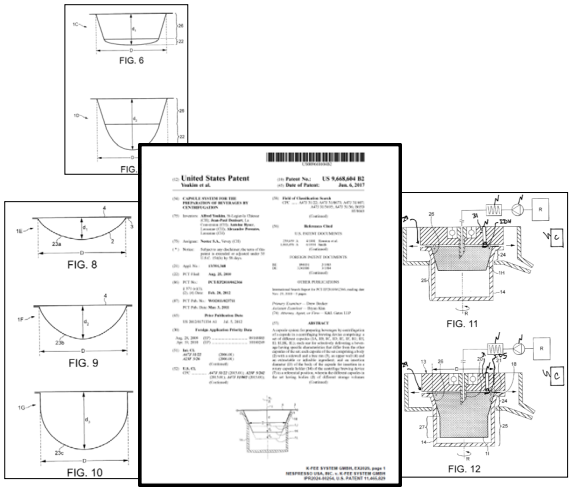
PETITIONER ALWAYS TREATED YOAKIM AS SEPARATE INVENTIONS



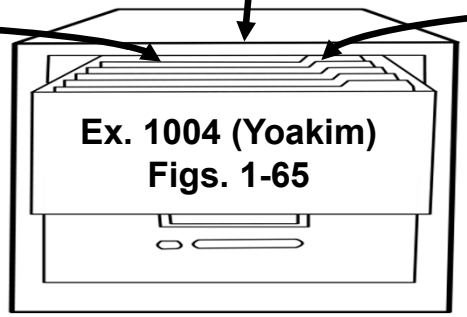
Ex. 2027 (US 9,277,837)
Figs. 1-25



Ex. 2028 (US 9,271,598)
Figs. 1-18



Ex. 2029 (US 9,668,604)
Figs. 1-15



Ex. 1004 (Yoakim)
Figs. 1-65

910 POR at 7-8; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-76.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD NOT COMBINE YOAKIM'S DISCRETE EMBODIMENTS

75. I note that the Institution Decision contends "the combination of features from different portion capsules is a 'predictable variation' that does not 'require a leap of inventiveness'" and concluded "it appears that Yoakim's different figures emphasize specific features of its capsule that may be used in other capsules." Institution Decision at 25. This is incorrect. Petitioner here seeks to combine *over five separate embodiments* across numerous paragraphs throughout Yoakim that have drastically different features, structures, and compatibilities. The Board's preliminary determination incorrectly disregards the fact that Yoakim aggregates various discrete embodiments that a POSITA would have understood were not intended to be combined. In fact, some embodiments are laboratory setups that would not be acceptable for a final functional product. Tellingly, Yoakim presents various capsule embodiments without ever presenting or suggesting a capsule having all of the features of Patent Owner's claims, and does not suggest a reason to combine the features of all Yoakim's capsules into a single capsule. Yoakim further sought to separately patent embodiments from Figures 1-25, 26-43, and 61/61, which suggests to a POSITA that they are discrete embodiments. Ex. 2027 at Figures; Ex. 2028 at Figures; Ex. 2029 at Figures.

76. Petitioner's argument also disregards a POSITA's understanding that capsule and device design are complementary such that a POSITA would seek to design a capsule for a particular device (and vice versa) and that would lead to the capsule to having specific features. *See* Ex. 2025 at 30:20-33:3. Most single-serve coffee makers use a unique single-serve portion container (such as a cartridge, satchel, pod, capsule, etc.). Especially in the Yoakim context of centrifugal brewing devices, a capsule suitable for one device did not assure suitability for all other devices. Furthermore, in the context of the present asserted modifications here, a change to one element has effects across a host of other elements. For these reasons, I agree with Mr. Jobin that designing an unproven capsule or beverage machine requires dozens of iterations and prototypes, and may not ultimately yield expected results. *See* Ex. 2025 at 30:20-33:3, 33:24-35:23.

Ex. 2020 (910 Glucksman Decl.) at ¶¶ 75-76
(Patent Owner Annotation)

910 POR at 7-8; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-76.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

'910 PETITION COMBINES MULTIPLE DISTINCT YOAKIM EMBODIMENTS TO COVER K-FEE'S INDEPENDENT CLAIMS 1 AND 8

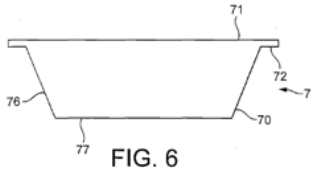


FIG. 6

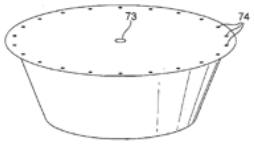


FIG. 7

Yoakim (Ex. 1004) at Figs. 6, 7
910 Pet at 46-51, 60-61, 67 (cited ISO 910 cls. [1.a] / [8.a], [1.b] / [8.b], [1.c] / [8.c], [1.j] / [8.j], [1.m] / [8.m], [1.n] / [8.n])

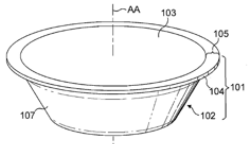


FIG. 26

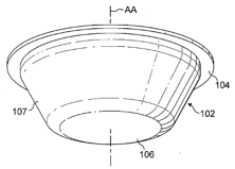


FIG. 27

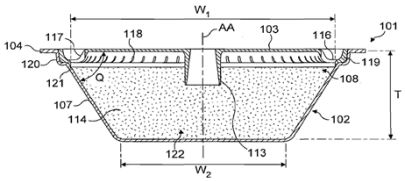


FIG. 28

Yoakim (Ex. 1004) at Figs. 26, 27, 28
910 Pet at 46-51, 60-61 (cited ISO 910 cls. [1.a] / [8.a], [1.b] / [8.b], [1.c] / [8.c], [1.j] / [8.j])

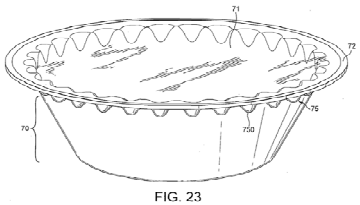


FIG. 23

Yoakim (Ex. 1004) at Fig. 23
910 Pet at 46-47, 56-50
(cited ISO 910 cls. [1.a] / [8.a], [1.d] / [8.d], [1.e]-[1.g] / [8.e]-[8.g])

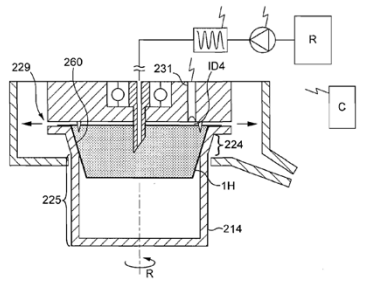


FIG. 61

Yoakim (Ex. 1004) at Fig. 61
910 Pet at 51-55, 70-73 (cited ISO 910 cls. [1.d] / [8.d], [1.q]-[1.s], [1.u]; [8.q]-[8.t])

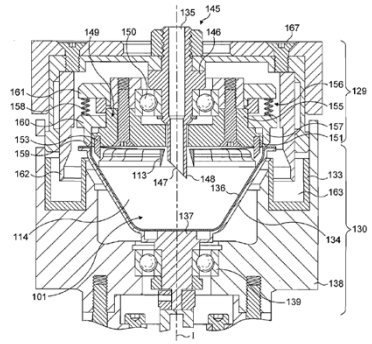


FIG. 35

Yoakim (Ex. 1004) at Fig. 35
910 Pet at 63-67 (cited ISO 910 cls. [1.m] / [8.m])

See 910 Pet at 45-52, 56, 60-61, 65-67; 910 POR at 6-20; 910 POSR at 5-11; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-95.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

’830 PETITION COMBINES MULTIPLE DISTINCT YOAKIM EMBODIMENTS TO COVER K-FEE’S INDEPENDENT CLAIMS 1 AND 8

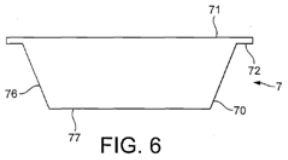


FIG. 6

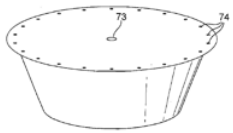


FIG. 7

Yoakim (Ex. 1004) at Figs. 6, 7
830 Pet at 47-48, 50-51, 54, 62-65 (cited ISO 830 cls. [1.a] / [8.a], [1.e] / [8.e], [1.h] / [8.h], [1.m] / [8.m], [1.o] / [8.o], [1.p] / [8.p], [1.q] / [8.q])

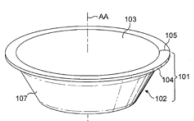


FIG. 26

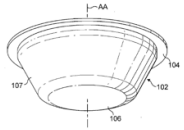


FIG. 27

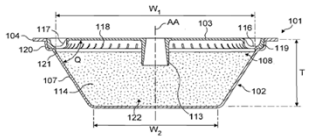


FIG. 28

Yoakim (Ex. 1004) at Figs. 26, 27, 28
830 Pet at 47-55, 62-65 (cited ISO 830 cls. [1.a] / [8.a], [1.b] / [8.b], [1.c] / [8.c], [1.d] / [8.d], [1.e] / [8.e], [1.g], [1.h] / [8.h], [1.n] / [8.n], [1.o] / [8.o], [1.p] / [8.p])

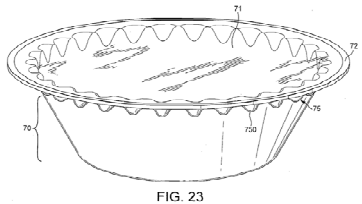


FIG. 23

Yoakim (Ex. 1004) at Fig. 23
830 Pet at 51 (cited ISO 830 cls. [1.f])

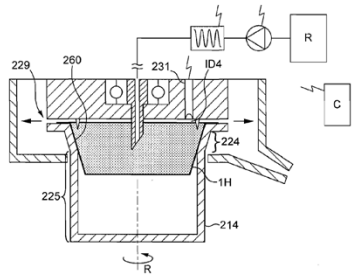


FIG. 61

Yoakim (Ex. 1004) at Fig. 61
830 Pet at 55-62 (cited ISO 830 cls. [1.i] / [8.i], [1.j] / [8.j], [1.k] / [8.k], [1.l] / [8.l])

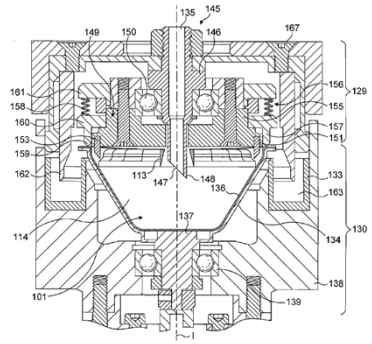


FIG. 35

Yoakim (Ex. 1004) at Figs. 35
830 Pet at 65-67 (cited ISO 830 cls. [1.q] / [8.q], [1.r] / [8.r])

See 830 Pet at 47-55, 60-62, 65-69, 72-75, and 78; 830 POR at 6-21; Ex. 2020 (830 Glucksman Decl.) at ¶¶ 76-105.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

’829 PETITION COMBINES MULTIPLE DISTINCT YOAKIM EMBODIMENTS TO COVER K-FEE’S CLAIMS

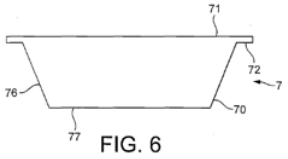


FIG. 6

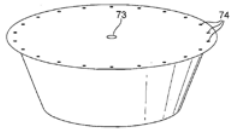


FIG. 7

Yoakim (Ex. 1004) at Figs. 6, 7
829 Pet at 44-49, 51 (cited ISO 829 cls. [1.a]/[12.a], [1.c]/[12.c], [1.d]/[12.d], [1.e]/[12.e], [1.f]/[12.f], [1.i]/[12.i], [1.m]/[12.m])

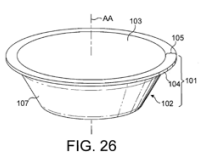


FIG. 26

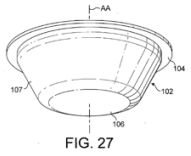


FIG. 27

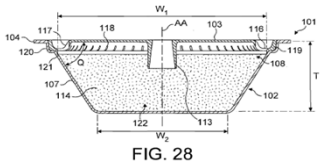


FIG. 28

Yoakim (Ex. 1004) at Figs. 26, 27, 28, 29, 30, 31
829 Pet at 44-49 (cited ISO 829 cls. [1.b]/[12.b], [1.c]/[12.c], [1.d]/[12.d], [1.e]/[12.e], [1.f]/[12.f])

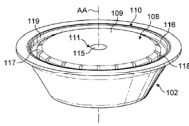


FIG. 29

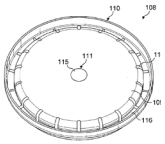


FIG. 30

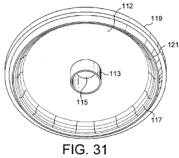


FIG. 31

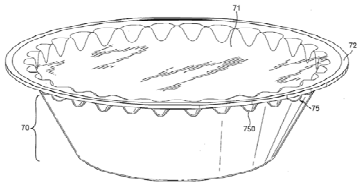


FIG. 23

Yoakim (Ex. 1004) at Fig. 23
829 Pet at 71 (cited ISO 829 cls. 6/15)

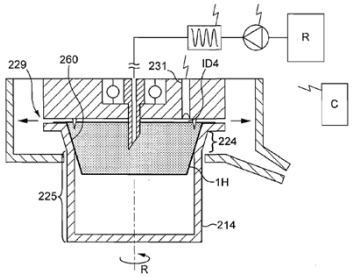


FIG. 61

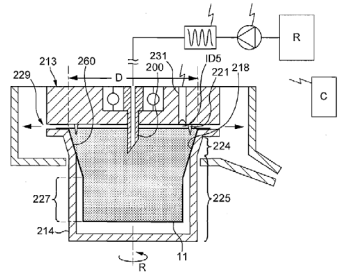


FIG. 62

Yoakim (Ex. 1004) at Figs. 61, 62
829 Pet at 55-56, 57-58, 62-66 (cited ISO 829 cls. [1.k]/[12.k], [12.n], [1.l]/[12.l], [1.o]/[12.p], 6/15)

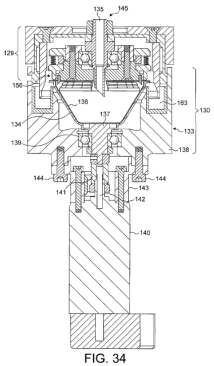


FIG. 34

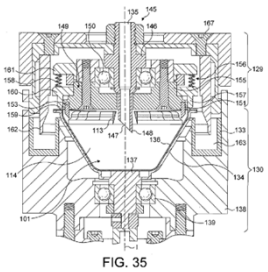


FIG. 35

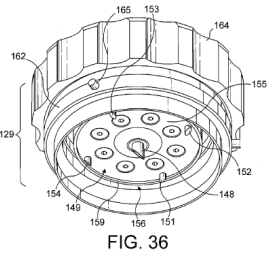


FIG. 36

Yoakim (Ex. 1004) at Figs. 34, 35, 36
829 Pet at 58-59 (cited ISO 829 cls. [1.m] / [12.m])

See 829 Pet at 42-43, 45-51, 55-56, 59-66, 68-71; 829 POR at 6-18; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 76-93.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

’722 PETITION COMBINES MULTIPLE DISTINCT YOAKIM EMBODIMENTS TO COVER K-FEE’S CLAIMS

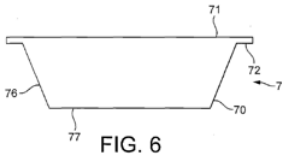


FIG. 6

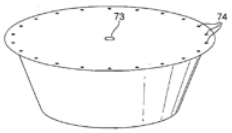


FIG. 7

Yoakim (Ex. 1004) at Figs. 6, 7
722 Pet at 45 (cited ISO 722 cls. [1.a], [1.b])

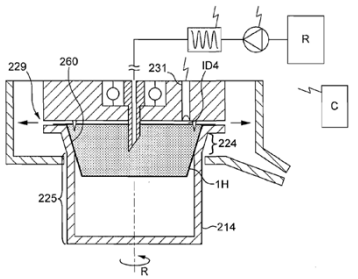


FIG. 61

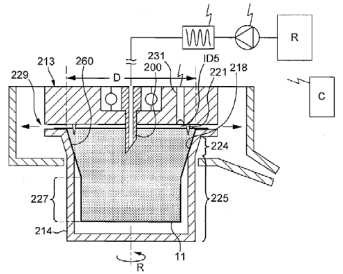


FIG. 62

Yoakim (Ex. 1004) at Figs. 61, 62
722 Pet at 46 (cited ISO 722 cl. [1.c])

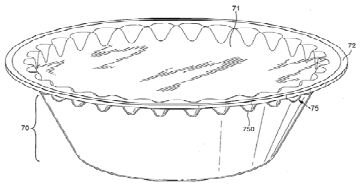


FIG. 23

Yoakim (Ex. 1004) at Fig. 23
722 Pet at 56-57 (cited ISO 722 cls. [1.h], [1.i])

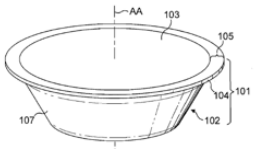


FIG. 26

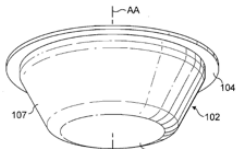


FIG. 27

Yoakim (Ex. 1004) at Figs. 26, 27
722 Pet at 45
(cited ISO 722 cls. [1.a], [1.b])

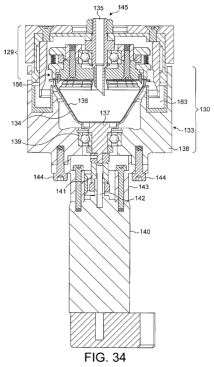


FIG. 34

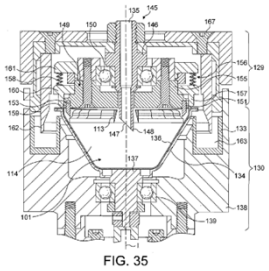


FIG. 35

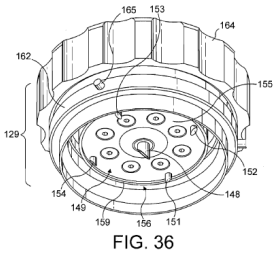


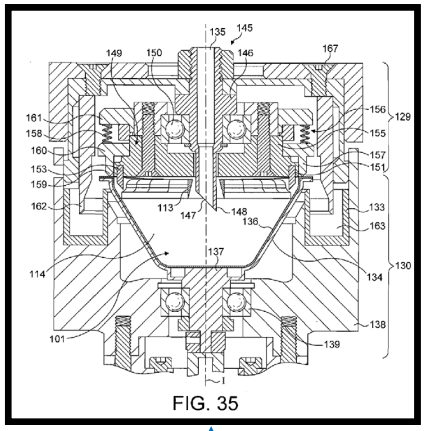
FIG. 36

Yoakim (Ex. 1004) at Figs. 34, 35, 36
722 Pet at 59-60 (cited ISO 722 cl. 5)

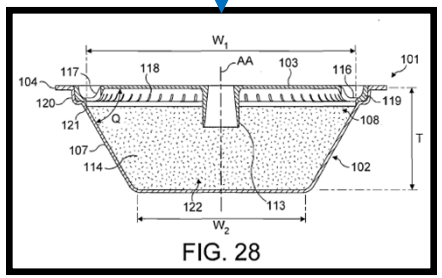
See 722 Pet, 44-47, 51-54, 57-58, 71; 722 POR at 6-19; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 81-110.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

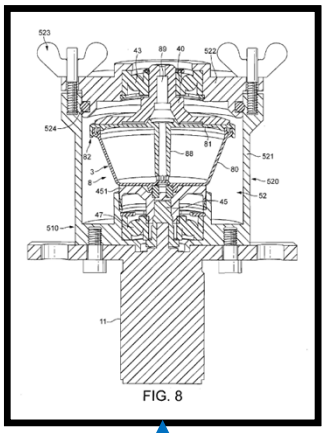
YOAKIM LINKS SPECIFIC CAPSULES WITH COMPATIBLE MACHINES



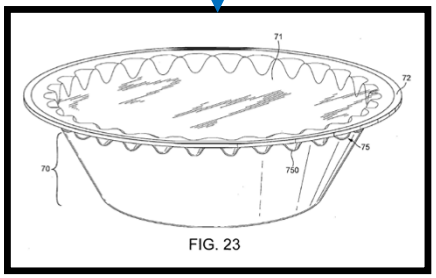
Ex. 1004 (Yoakim) at Fig. 35



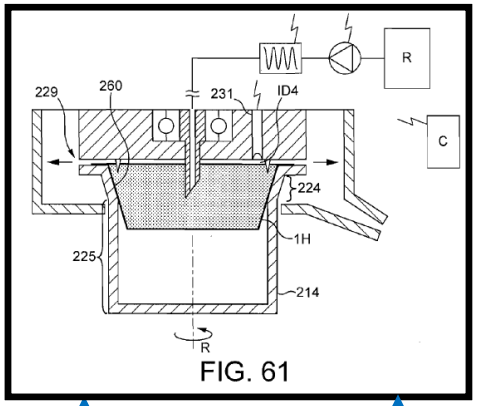
Ex. 1004 (Yoakim) at Fig. 28



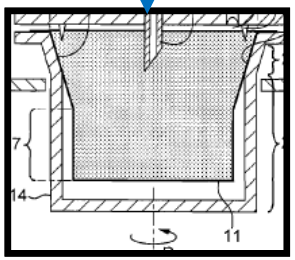
Ex. 1004 (Yoakim) at Fig. 8



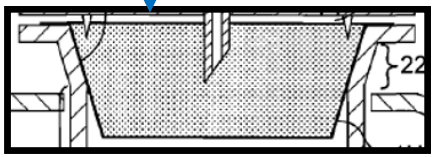
Ex. 1004 (Yoakim) at Fig. 23



Ex. 1004 (Yoakim) at Fig. 61



Ex. 1004 (Yoakim) at Fig. 62

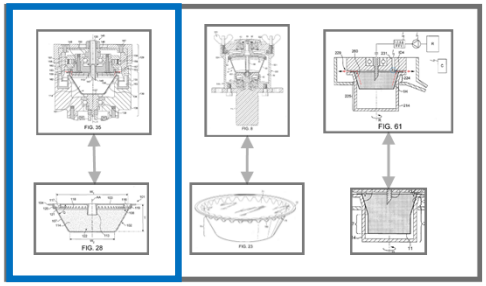


Ex. 1004 (Yoakim) at Fig. 61

910 POPR at 6-19; 910 POR at 6-20; 910 POSR at 5-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIG. 35 MACHINE WORKS WITH FIGS. 28-31 TYPE CAPSULE



[0440] The capsule system of the invention works basically according to the following principle. The capsule device is opened by moving **the two subassemblies 129, 130** relatively one another, e.g., by disconnecting the bayonet-type connection and separating the two subassemblies **129**, **130**. As a result, a single-use sealed **capsule 101** containing a food substance, such as a dose of roast and ground coffee, can inserted in the device, i.e., placed in the cavity of the rotating drum **136**. The capsule can be placed in the device while the

Ex. 1004 (Yoakim) at [0440]
(Patent Owner Annotation)

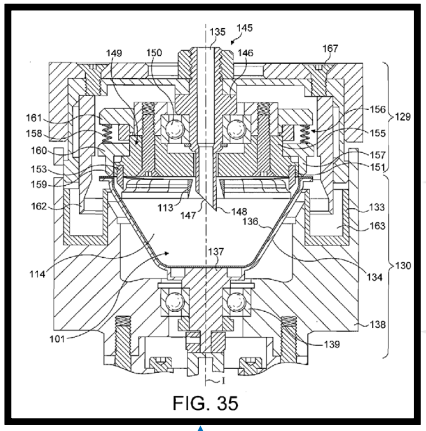


FIG. 35

Ex. 1004 (Yoakim)
at Fig. 35

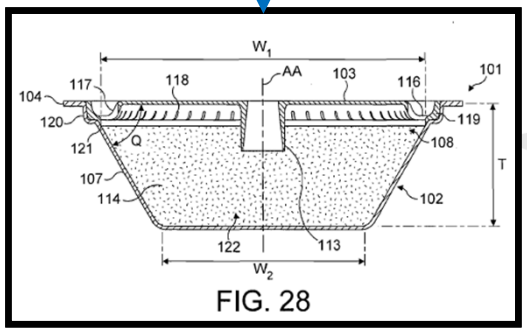


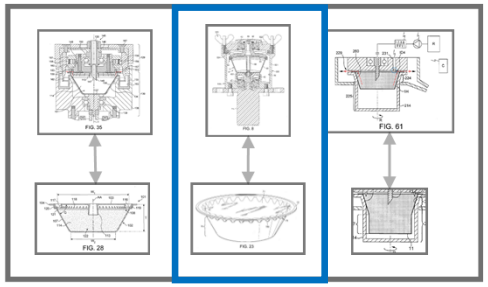
FIG. 28

Ex. 1004 (Yoakim) at Fig. 28

910 POPR at 8-13; 910 POR at 11-16; 910 POSR at 5, 8-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 78-83, 88, 91-93.

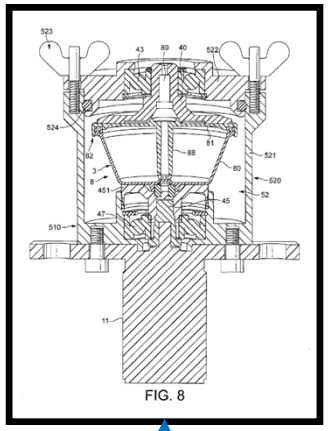
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIG. 8 MACHINE WORKS WITH FIG. 23 CAPSULE

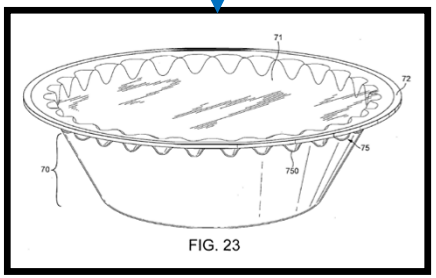


[0217] It should be noted that **the connecting or engaging structure of FIG. 23 can replace the structure of the capsule of FIGS. 8 and 9 or reciprocally.**

Ex. 1004 (Yoakim) at [0217]
(Patent Owner Annotation)



Ex. 1004 (Yoakim)
at Fig. 8

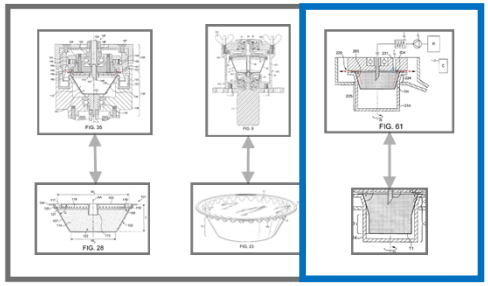


Ex. 1004 (Yoakim) at Fig. 23

910 POR at 8-11, 18-20; 910 POSR at 7-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 77-83, 88, 98-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIG. 61 MACHINE WORKS WITH FIG. 61/62 CAPSULES



[0512] In the embodiment of FIGS. **61** and **62**, the capsule holder **214** of the brewing device comprises a first portion **224** forming the support surface **218** for the upper portion **260** of the capsules and a lower portion **225** forming a closing surface below the capsule of sufficient length to accommodate both the smaller capsule 1H (FIG. **61**) and the larger capsule 1I (FIG. **62**).

Ex. 1004 (Yoakim) at [0512]
(Patent Owner Annotation)

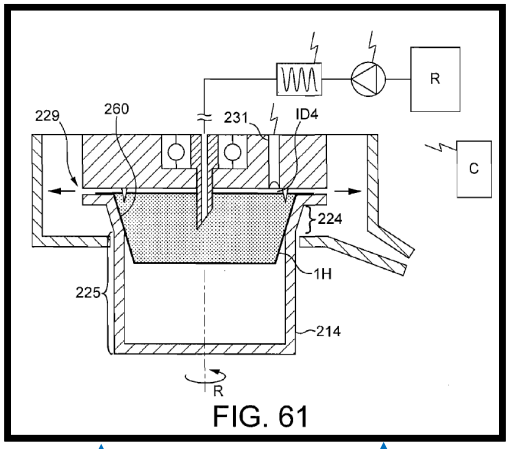
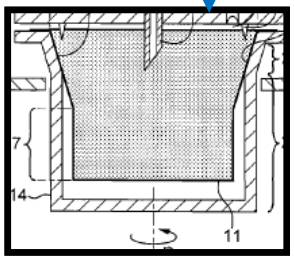
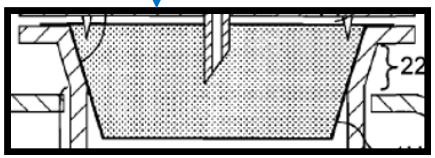


FIG. 61

Ex. 1004 (Yoakim)
at Fig. 61



Ex. 1004 (Yoakim) at Fig. 62

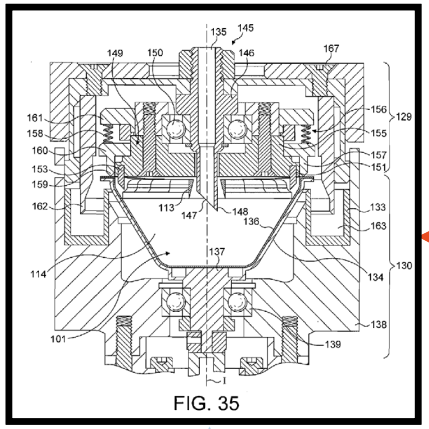


Ex. 1004 (Yoakim) at Fig. 61

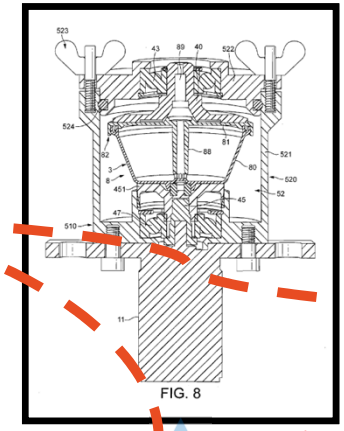
910 POR at 8-11, 18-20; 910 POSR at 5, 8-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-78, 88, 90-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

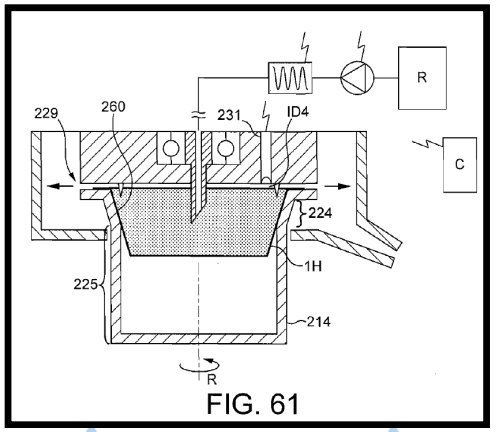
PETITIONER'S HINDSIGHT DRIVEN INCOMPATIBLE COMBINATIONS


FIG. 35

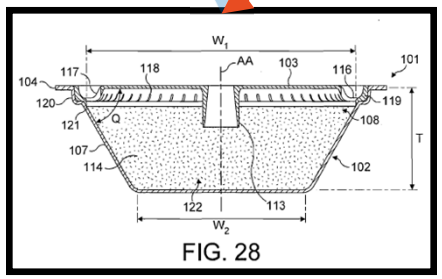
Ex. 1004 (Yoakim) at Fig. 35


FIG. 8

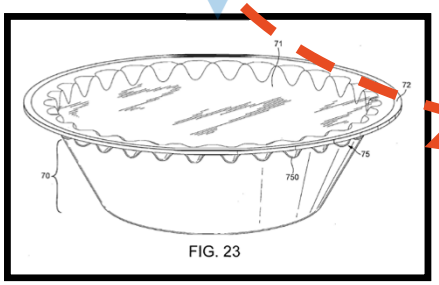
Ex. 1004 (Yoakim) at Fig. 8


FIG. 61

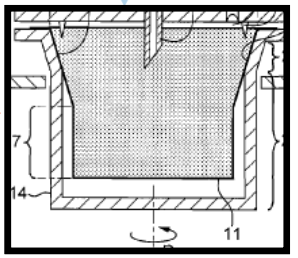
Ex. 1004 (Yoakim) at Fig. 61


FIG. 28

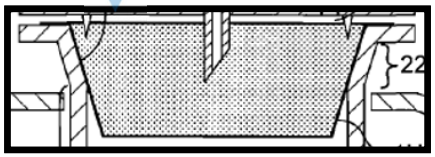
Ex. 1004 (Yoakim) at Fig. 28


FIG. 23

Ex. 1004 (Yoakim) at Fig. 23



Ex. 1004 (Yoakim) at Fig. 62



Ex. 1004 (Yoakim) at Fig. 61

910 Pet at 45-52, 56, 60-61, 65-67; 910 POPR at 6-19; 910 POR at 6-20; 910 POSR at 5-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIG. 61/62 MACHINE CANNOT RECEIVE FIG. 23 CAPSULE'S TOOTHED STRUCTURE

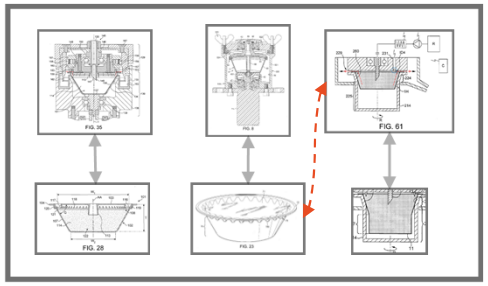


Fig. 23 capsule has a toothed structure, which the machine of Figs. 61 and 62 is not set up to receive.

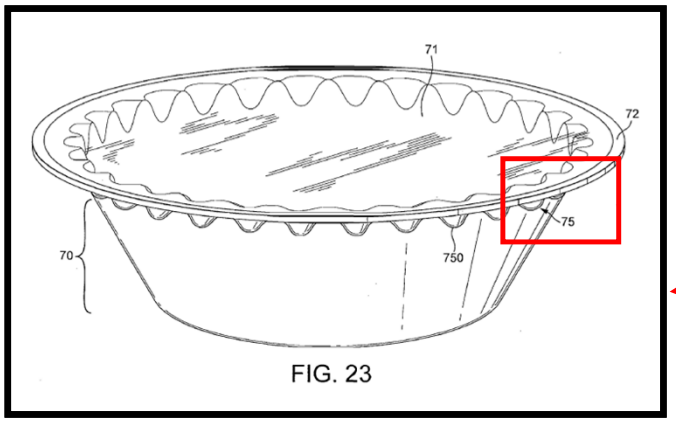


FIG. 23

Ex. 1004 (Yoakim) at Fig. 23
(Patent Owner Annotation)

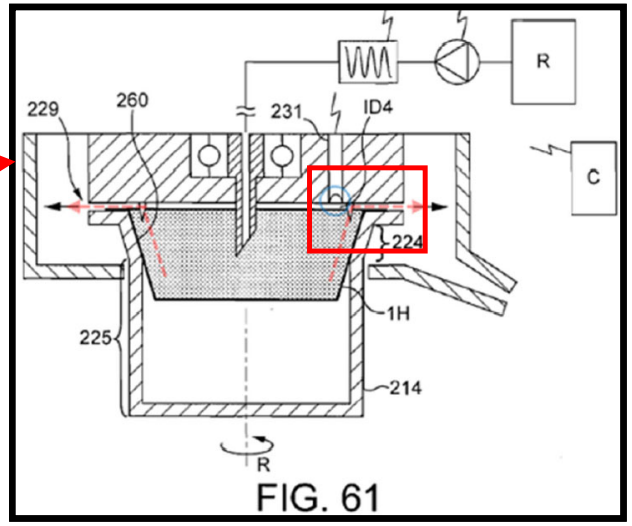


FIG. 61

Ex. 1004 (Yoakim) at Fig. 61
(Patent Owner Annotation)

910 POPR at 6-19; 910 POR at 6-20; 910 POSR at 5-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 74-78, 88, 90-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIG. 8/9 SYSTEM ILLUSTRATES A LABORATORY SET UP INCOMPATIBLE WITH OTHER YOAKIM EMBODIMENTS

79. A POSITA would have understood that Figures 8-9 (and related capsules) illustrate a laboratory setup (*not* a consumer-usable device) that would not be acceptable for a functional product and that Yoakim did not intend those teachings to be applied to later described embodiments due to their lack of acceptability. Ex. 1004 at Figs. 8-9 (shown below).

80. Additionally, Figures 8-9 show a capsule that is not pierced by a mandrel, does not have an identifier or flange, and does not bear against a seal. Ex. 1004 at Figs. 8, 9. These differences are a consequence of the devices in which the capsules are compatible. This all demonstrates to a POSITA that disclosed features of Yoakim's capsules are not interchangeable in a predictable way and a POSITA thus would not combine features from one capsule and arbitrarily add them into another capsule absent some need or motivation in the device design for doing so and would not have had a reasonable expectation of success in doing so. There are

Ex. 2020 (910 Glucksman Decl.) at ¶¶ 79-80 (Patent Owner Annotation)

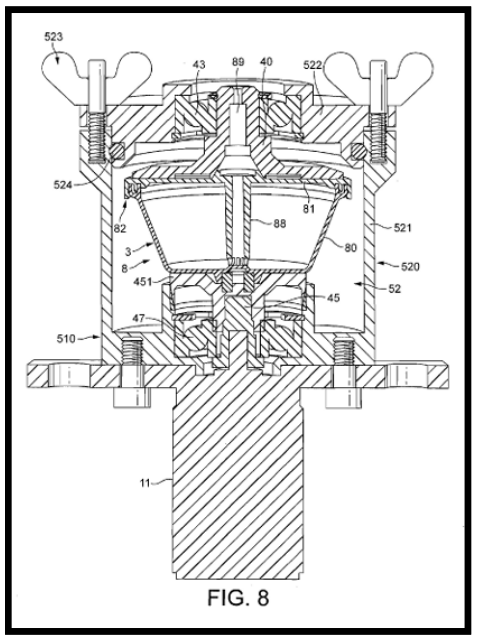


FIG. 8

Ex. 1004 (Yoakim) at Fig. 8

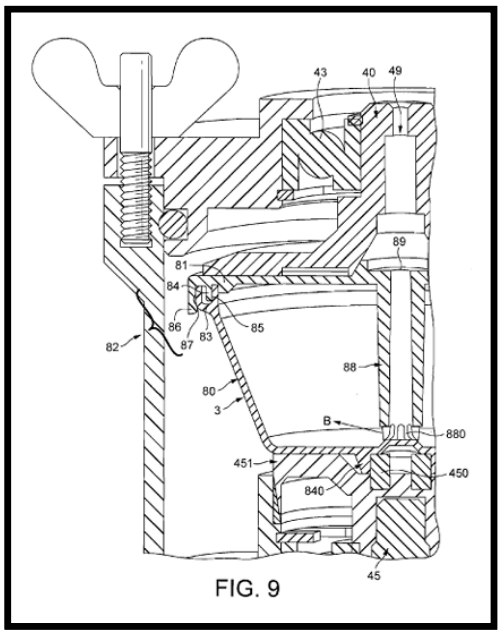


FIG. 9

Ex. 1004 (Yoakim) at Fig. 9

910 POR at 8-11, 18-20; 910 POSR at 7-10; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 77-83, 88, 98-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN HAS NOT EVEN CONSIDERED YOAKIM'S FIG. 8/9 SYSTEM

Q. Would you agree that the capsule depicted in Figure 28 is different from the one that would be used with the devices in Figures 4 and 8?

A. I haven't considered that particular combination of that figure with 4 and 8. It's still a rotationally symmetric capsule. It's roughly the size and shape of the capsule holder in Figure 4. It's pierced in the center. It's anticipating to be pierced around the periphery like Figure 4.

I think that Figures 39 and Figure 4 are recently compatible in that regard, and as for Figure 8, I haven't considered that one in detail.

Ex. 2025 (Jobin 9/19/24 Dep.) at 182:12-183:3
(Patent Owner Annotation)

910 POR at 8-9; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 77-78.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIG. 28-31 TYPE CAPSULE'S PERIPHERAL COLLECTION RECESS IS INCOMPATIBLE WITH FIG. 61/62 MACHINE

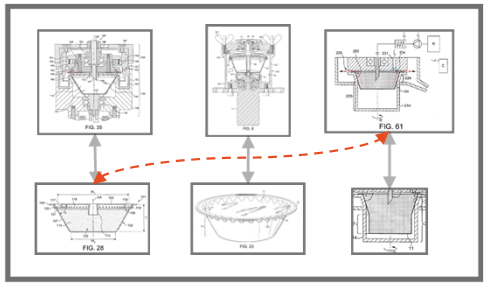


Fig. 28 capsule has a peripheral collection recess (116) to maintain fluid at the periphery, which the system of Figs. 61 and 62 is not set up to receive.

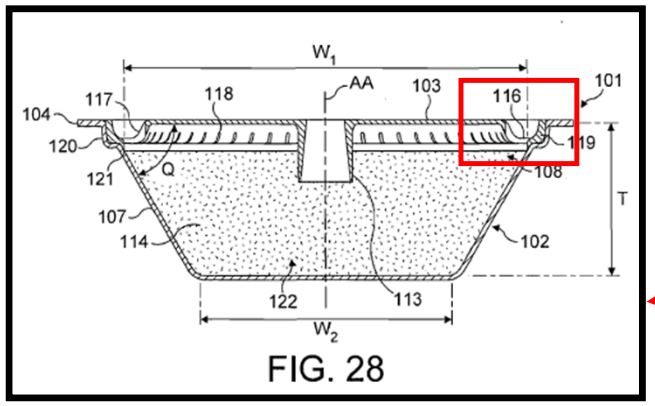


FIG. 28

Ex. 1004 (Yoakim) at Fig. 28
(Patent Owner Annotation)

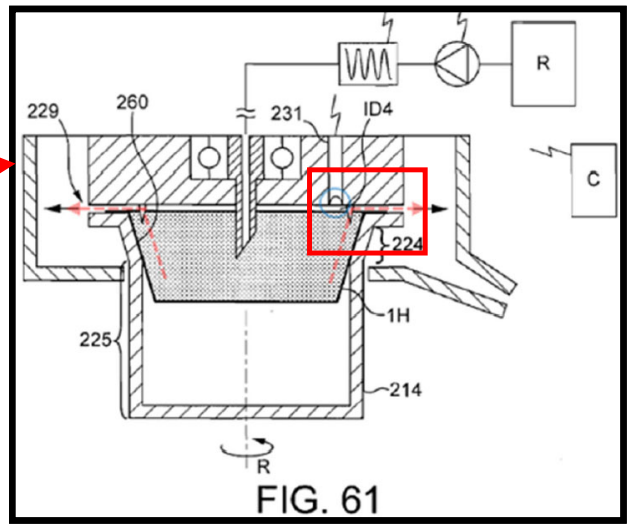


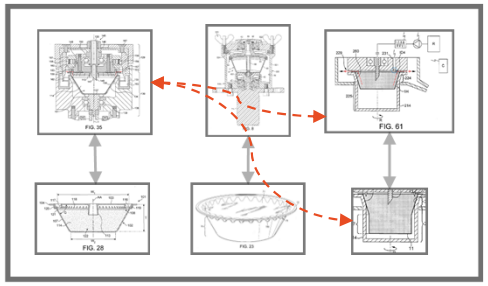
FIG. 61

Ex. 1004 (Yoakim) at Fig. 61
(Patent Owner Annotation)

910 POR at 13-15; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 91-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIGS. 35/38 VALVE SYSTEM IS INCOMPATIBLE WITH IDENTIFICATION MEANS FOR FIG. 61/62 MACHINE



Annular v-shaped valve system depicted in Figs. 35-36 lacks space for an identification means found in the valve plate of Figs. 61-62 machine and capsules

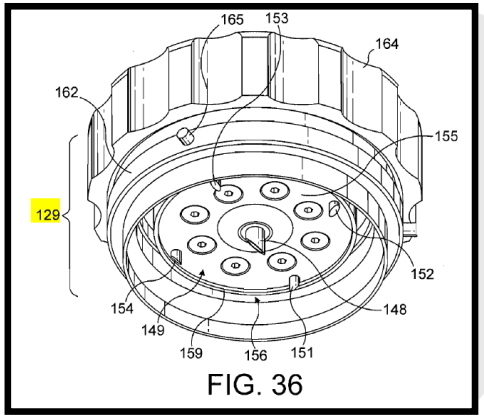


FIG. 36

Ex. 1004 (Yoakim) at Fig. 36
(Patent Owner Annotation)

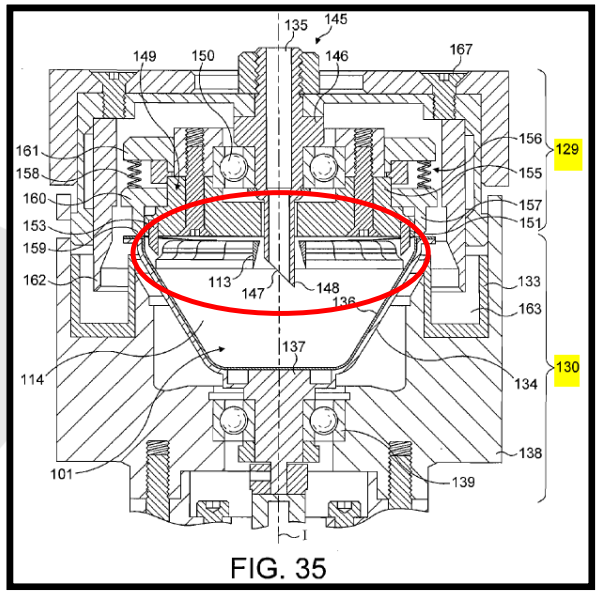


FIG. 35

Ex. 1004 (Yoakim) at Fig. 35
(Patent Owner Annotation)

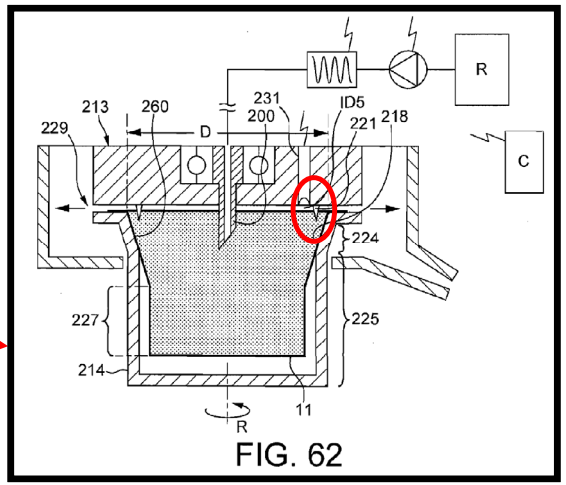


FIG. 62

Ex. 1004 (Yoakim) at Fig. 62
(Patent Owner Annotation)

910 POR at 11, 14-20; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 89-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIGS. 35/38 VALVE SYSTEM LACKS SPACE FOR AN IDENTIFICATION MEANS

93. Depicted in the lab models of Figures 35 and 36 above, the V-shaped surface/circular rib 159, which forms the lower edge of circular body 157 that Petitioner relies upon as teaching the claimed seal arrangement (*see* Pet. at 63-66) is actually used in the water injection subassembly of Figure 36 and dates to February 29, 2008 where it is described in combination with the capsules depicted in Figs. 28-31. *See* Ex. 2017 at Figs. 5-14. The disc-shaped engaging wall 155 is fixed vertically in place during brewing with a bottom surface that is juxtaposed inwardly with the peripheral rim 104. This "inwardly" arrangement of the disc-shaped engaging wall 155 is necessary to allow the coffee to escape from above the collecting recess in order to apply pressure to the V-shaped surface/circular rib 159. *See* Ex. 1004 at [0435]-[0436]. During brewing, the only movement of an element within the water injection subassembly is the raising of the V-shaped surface/circular rib 159 for allowing coffee to escape. The V-shaped surface/circular rib 159, which is an integrated component of the Fig. 36 assembly, is designed to be lifted by the pressure of coffee that escapes from the annular recess (and Petitioner has not explained where there is any real estate to accommodate the sensing device 231 of Fig. 61 or how the sensing device would be positioned to avoid the "unbalance" problem identified in Yoakim paragraphs [0006] and [0507]).

Ex. 2020 (910 Glucksman Decl.) at ¶93
(Patent Owner Annotation)

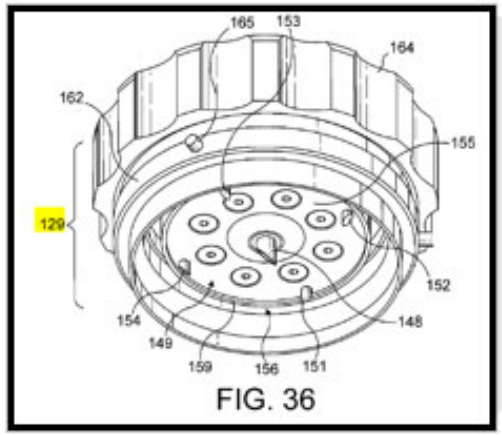


FIG. 36

Ex. 1004 (Yoakim) at Fig. 36
(Patent Owner Annotation)

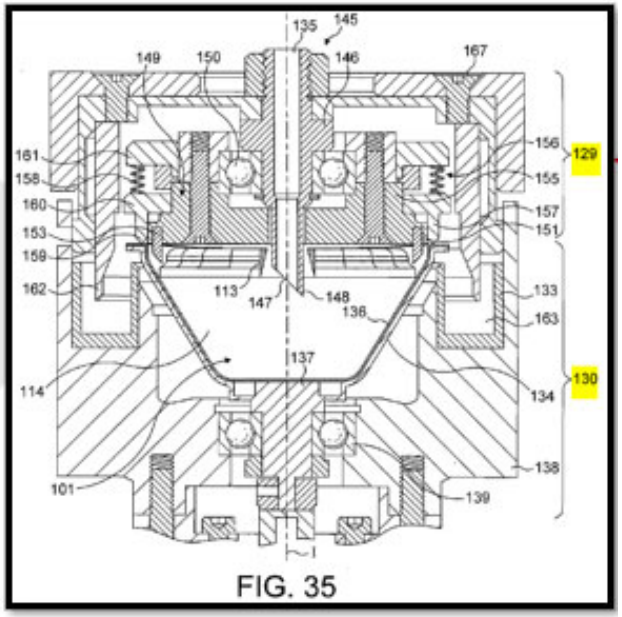


FIG. 35

Ex. 1004 (Yoakim) at Fig. 35
(Patent Owner Annotation)

910 POR at 11, 14-20; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 89-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIGS. 61/62 VALVE SYSTEM UTILIZES IDENTIFICATION MEANS

94. In contrast, the system of Figures 61 and 62 (below) (as with the system of Figures 54 (below) and 55) is configured to employ an alternative type of valve assembly and different capsules utilizing identification means. That valve requires that there be a plate-like interface assembly 213 that extends over the capsule flange. The interface itself forms a seal with the capsule rim during initial brewing. Because it is suspended from a spring axially above it, the entire interface assembly 213 is vertically translatable during brewing. In this manner, pressure build-up from centrifugation during brewing results in the interface assembly 213 wholly raising to form a radial gap for brewed coffee to escape. This valve has its origin in an application by Petitioner's affiliate (and real party-in-interest ("RPI")) dating to or about December 9, 2008. *See* Ex. 2001 (EP 08171069); Ex. 2002 at Cover (30) (citing EP 08171069 for priority), Figs. 4-6.

Ex. 2020 (910 Glucksman Decl.) at ¶94
(Patent Owner Annotation)

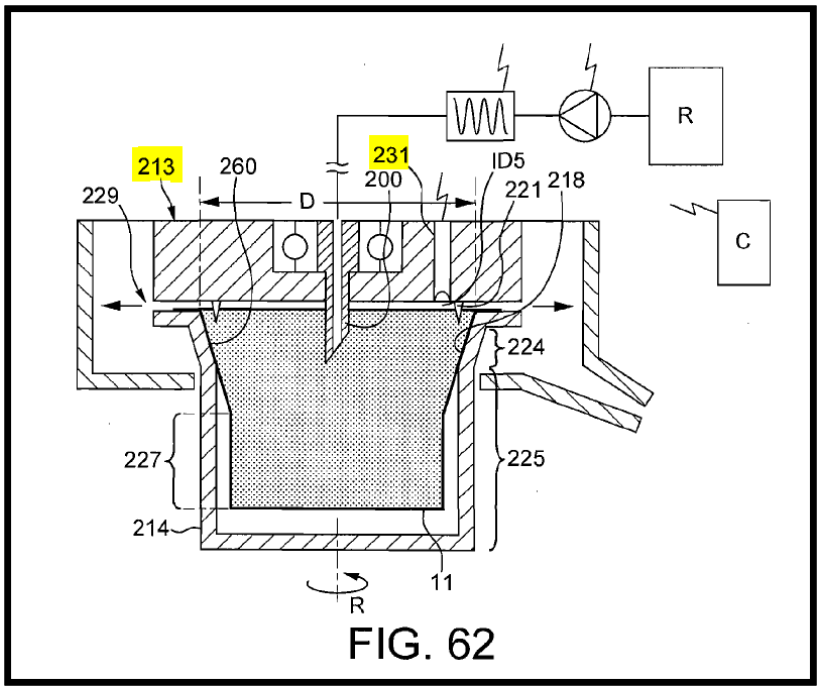


FIG. 62

Ex. 1004 (Yoakim) at Fig. 62
(Patent Owner Annotation)

Plate-like interface assembly 213 extends over the capsule flange, accommodates sensing device 231, and permits identification means

910 POR at 11, 14-20; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 89-100.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S AFFILIATE & RPI RECOGNIZES NON-COMBINABLE DIFFERENCES IN VALVE ENGAGEMENT WHILE PROSECUTING US 9,545,121

> The secondary reference *Yoakim I* teaches an annular engaging portion 57 that comprises a pressing surface 59 applying a closing force on the peripheral rim 4 of the capsule to be able to restrict the flow of liquid. See *Yoakim I*, page 14, second full paragraph. Increased pressure of liquid on the internal surface of the pressing surface 59 can lift the pressing surface 59 to create a small passage for the liquid. See *Yoakim I*, page 17, first full paragraph. Nevertheless, *Yoakim I* does not even suggest a plate that is pressed to engage the pressing surface portion with the force-setting portion.

Ex. 2003 (9/7/16 Response to OA in Appl. No. 14/254,574) at 5 (discussing Yoakim I (Ex. 2004))

910 POR at 17-18; Ex. 2020 (910 Glucksman Decl.) at ¶ 96; Ex. 1004 (Yoakim) at Figs. 35, 61; Ex. 2002 (US 9,545,121) at Fig. 6; Ex. 2003 (9/7/16 Response to OA in Appl. No. 14/254,574) at 5; Ex. 2004 (Yoakim I) at Fig. 10.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S RPI SOUGHT TO DISTINGUISH VALVE SYSTEMS BETWEEN "YOAKIM I" (*SIMILAR TO YOAKIM AT FIG. 35*) AND US 9,545,121 (*SIMILAR TO YOAKIM AT FIG. 61*)

Ex. 2004 (Yoakim I) at Fig. 10
(Patent Owner Annotation)

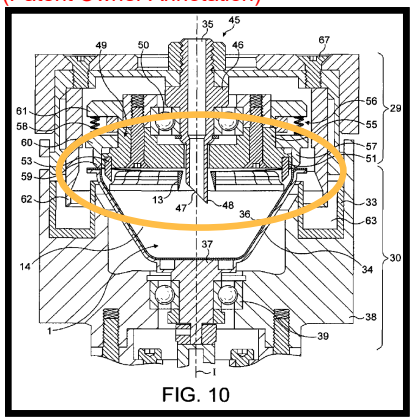


FIG. 10

Ex. 1004 (Yoakim) at Fig. 35
(Patent Owner Annotation)

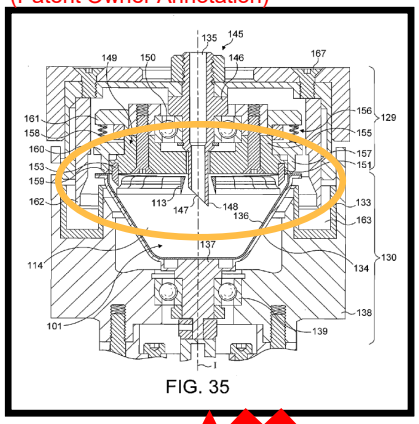


FIG. 35

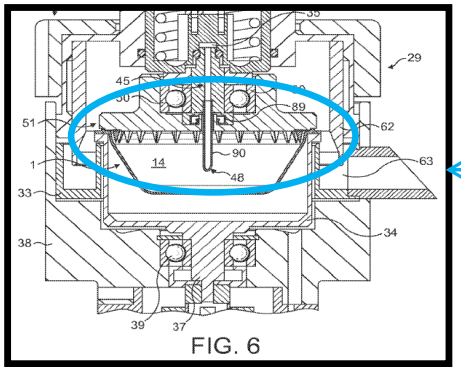


FIG. 6

Ex. 2002 (US 9,545,121) at Fig. 6
(Patent Owner Annotation)

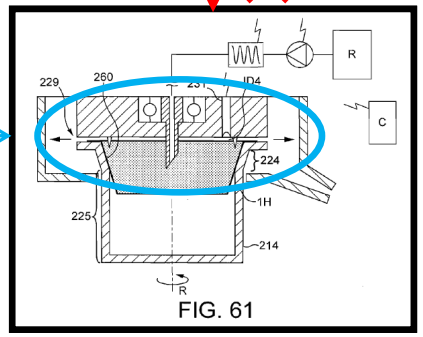


FIG. 61

Ex. 1004 (Yoakim) at Fig. 61
(Patent Owner Annotation)

910 POR at 17-18; Ex. 2020 (910 Glucksman Decl.) at ¶ 96; Ex. 1004 (Yoakim) at Figs. 35, 61; Ex. 2002 (US 9,545,121) at Fig. 6; Ex. 2003 (9/7/16 Response to OA in Appl. No. 14/254,574) at 5; Ex. 2004 (Yoakim I) at Fig. 10.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

GLUCKSMAN CONFIRMS PETITIONER SEEKS TO MAKE A CONTRADICTORY ARGUMENT HERE FROM PETITIONER'S AFFILIATE & RPI

97. The valve structure in Yoakim I (Ex. 2004) at Fig. 10 is similar to the valve structure at Figure 35 of Yoakim, while the structure of Yoakim's Figs. 54, 55, 61 and 62 exhibit a similar plate structure to that found in the '121 Patent's (Ex. 2002) Figures 5-7 and described in Yoakim at [0506]. Thus, even the patentee of Yoakim would not contend combining these embodiments would have been obvious and Petitioner should not be heard to argue otherwise here. Moreover, a POSITA would understand that capsules and machine are complementary to each other and therefore any teaching as to the machines would be applicable to the capsules compatible with and complementary to those machines.

Ex. 2020 (910 Glucksman Decl.) at ¶ 97
(Patent Owner Annotation)

910 POR at 17-18; Ex. 2020 (910 Glucksman Decl.) at ¶ 96; Ex. 1004 (Yoakim) at Figs. 35, 61; Ex. 2002 (US 9,545,121) at Fig. 6; Ex. 2003 (9/7/16 Response to OA in Appl. No. 14/254,574) at 5; Ex. 2004 (Yoakim I) at Fig. 10.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S RPI SOUGHT TO DISTINGUISH VALVE SYSTEMS BETWEEN "YOAKIM I" (*SIMILAR TO YOAKIM AT FIG. 35*) AND US 9,545,121 (*SIMILAR TO YOAKIM AT FIG. 61*)

97. The valve structure in Yoakim I (Ex. 2004) at Fig. 10 is similar to the valve structure at Figure 35 of Yoakim, while the structure of Yoakim's Figs. 54, 55, 61 and 62 exhibit a similar plate structure to that found in the '121 Patent's (Ex. 2002) Figures 5-7 and described in Yoakim at [0506]. Thus, even the patentee of Yoakim would not contend combining these embodiments would have been obvious and Petitioner should not be heard to argue otherwise here. Moreover, a POSITA would understand that capsules and machine are complementary to each other and therefore any teaching as to the machines would be applicable to the capsules compatible with and complementary to those machines.

Ex. 2020 (910 Glucksman Decl.) at ¶ 97
(Patent Owner Annotation)

Ex. 2004 (Yoakim I) at Fig. 10
(Patent Owner Annotation)

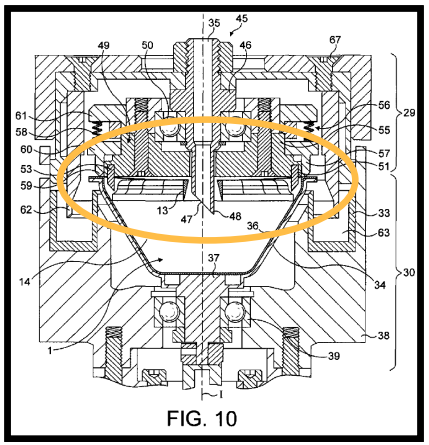


FIG. 10

Ex. 1004 (Yoakim) at Fig. 35
(Patent Owner Annotation)

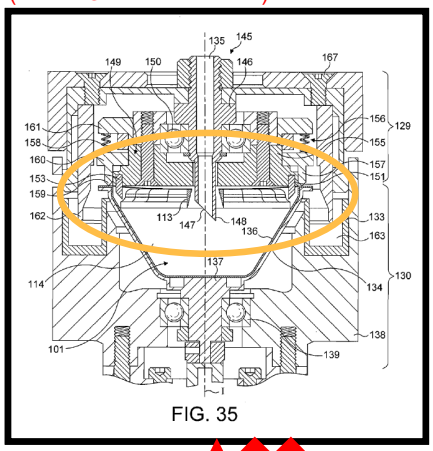


FIG. 35

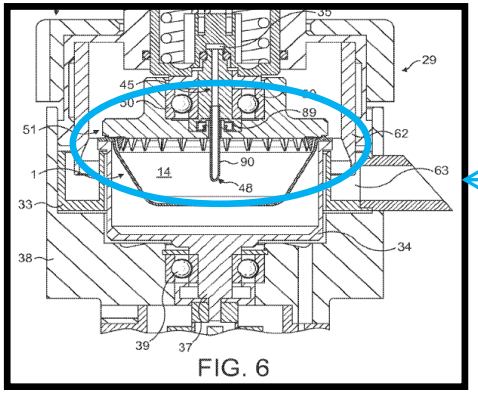


FIG. 6

Ex. 2002 (US 9,545,121) at Fig. 6
(Patent Owner Annotation)

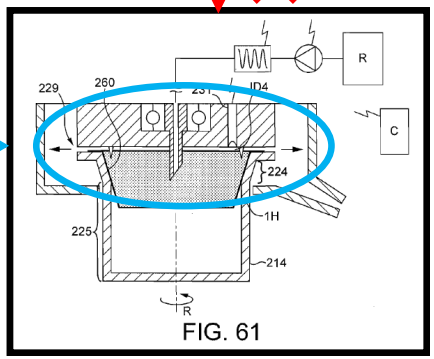


FIG. 61

Ex. 1004 (Yoakim) at Fig. 61
(Patent Owner Annotation)

910 POR at 17-18; Ex. 2020 (910 Glucksman Decl.) at ¶ 96; Ex. 1004 (Yoakim) at Figs. 35, 61; Ex. 2002 (US 9,545,121) at Fig. 6; Ex. 2003 (9/7/16 Response to OA in Appl. No. 14/254,574) at 5; Ex. 2004 (Yoakim I) at Fig. 10.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN AGREES DESIGNING COMPLEMENTARY CAPSULES AND MACHINES IS A COMPLICATED, ITERATIVE PROCESS

Q. And so if you're starting from an unproven approach with a beverage capsule that's been handed to you and you're asked to develop a machine to work with it, how much effort do you expect would have to go into getting that to a consumer product?

A. It can be years. It can be years.

Q. Do you have any idea how many prototypes you might expect to have to make?

ATTORNEY BONNER: Objection. Form. Relevance.

A. For a major product launch with brand-new technology, it could be dozens of iterations.

Ex. 2025 (Jobin 9/19/2024 Dep.) at 31:20-32:11
(Patent Owner Annotation)

910 POR at 23-24; Ex. 2020 (910 Glucksman Decl.) at ¶ 111.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CLAIMS OF THE ASSERTED PATENTS REQUIRE CAPSULE/MACHINE COMPATIBILITY

BACKGROUND

The present invention relates to a portion capsule for producing a beverage, comprising a base element having a cavity in which a beverage raw material is provided and which is closed by a membrane fastened to the base element.

Such capsules are well known and are being launched onto the market in abundant variety. Since these capsules are often quite similar, it is possible that the manufacturer's capsules are used in a coffee machine designed by another manufacturer, although they are not suited for it. This may result in significant security issues and/or the coffee machine may be damaged.

The object of the present invention is therefore to provide a portion capsule which only is suitable for a specific coffee machine.

See, e.g., 910 Patent at 1:22-25
(Patent Owner Annotation)

wherein the individualization identifier:

i) comprises at least two areas which differ in their optically detectable reflection properties;

ii) includes an optically detectable, machine readable, repeat pattern;

iii) encodes information used by the specific coffee machine to individualize the portion capsule so the portion capsule is permitted to be used with the specific coffee machine;

iv) encodes information used by the specific coffee machine to activate a pump of the specific coffee machine;

v) encodes information used by the specific coffee machine to control a beverage-making process, which includes setting a quantity of hot water, pressure of the hot water, and/or a temperature of the hot water;

vi) is further provided on the outside surface of the wall of the base element; and

See, e.g., 910 Patent at cl. 1
(Patent Owner Annotation)

910 ID at 26; 910 POR at 11-13; Ex. 2020 (910 Glucksman Decl.) at ¶ 95.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE: YOAKIM AND JARISCH/JARISCH 929

’910 Patent (IPR2024-00299): All Claims

’829 Patent (IPR2024-00254): All Claims

’830 Patent (IPR2024-00304): All Claims

’722 Patent (IPR2024-00257): All Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE:

- No motivation to combine Yoakim, Jarisch / Jarisch 929
  - There is no motivation to place a code on the bottom of Yoakim's flange
  - There is a lack of expectation of success in combining Yoakim and Jarisch / Jarisch 929
    - *Significant redesign required*: complicated optic assemblies; "unbalance" problem; Jarisch 929's pyramidal plate
  - Jarisch / Jarisch 929 do not enable an identifier on the bottom of the flange
  - Petitioner's RPI argued against such a combination

910 POPR at 20-35; 910 POR at 20-42; 910 POSR at 11-21; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 101-35.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION OR REASONABLE EXPECTATION OF SUCCESS

129. Not only would there be no motivation to make such a combination, a POSITA would also not have had a reasonable expectation of success in moving the sensor to the bottom of Yoakim's brewing device. For example, unlike the cell 3 in Jarisch 929 which has a straight chamber made of transparent material between the code and the sensor and still failed to yield a machine-readable code (*see* Ex. 2021 at 2:18-47), Yoakim's capsule holder 214 (above right) is comprised of a wall structure having a lower portion 225 and first portion 224, which are connected by a bend (or flare) in the structure. Ex. 1004 at Fig. 61 (below), [0512].

Ex. 2020 (910 Glucksman Decl.) at ¶ 129
(Patent Owner Annotation)

910 POPR at 20-35; 910 POR at 20-42; 910 POSR at 11-21; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 101-35.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL ASSERTED PATENTS REQUIRE AN IDENTIFIER TO BE READ BY SENSOR/DETECTOR

wherein the individualization identifier:
i) comprises at least two areas which differ in their optically detectable reflection properties;
ii) includes an optically detectable, machine readable, repeat pattern;
iii) encodes information used by the specific coffee machine to individualize the portion capsule so the portion capsule is permitted to be used with the specific coffee machine;
iv) encodes information used by the specific coffee machine to activate a pump of the specific coffee machine;
v) encodes information used by the specific coffee machine to control a beverage-making process, which includes setting a quantity of hot water, pressure of the hot water, and/or a temperature of the hot water;
vi) is further provided on the outside surface of the wall of the base element; and
vii)is compared to a stored reference to determine if the portion capsule is suitable for the specific coffee machine.

Ex. 1001 (910 Patent) at cl. 1

The invention claimed is:
1. A portion capsule for making a beverage comprising:
a base element having a cavity in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having an open end and a closed bottom portion, the base element has a first height that is defined between the open end and the closed bottom portion, the wall has an outside surface and an inside surface which faces the beverage material;
a plurality of indentations arranged on the outside surface of the wall, about the central longitudinal axis;
a ledge formed at the inside surface of the wall and projecting towards the central longitudinal axis, the ledge is spaced below the open end of the base element;
a rim at the open end of the base element, the rim having a top surface and an opposing bottom surface;
an optically detectable individualization identifier, which is carried by the bottom surface of the rim, the optically detectable individualization identifier includes surface areas having different optically detectable reflective properties, the optically detectable individualization identifier is configured to be read by a sensor/detector of a beverage machine to individualize the portion capsule and to activate a pump of the beverage machine;

Ex. 1001 (830 Patent) at cl. 1

The invention claimed is:
1. A beverage system for making a beverage, comprising:
A) a portion capsule comprising:
i) a base element with a cavity, in which a beverage material is provided, the base element being symmetrical about a central longitudinal axis thereof and having an open end and a bottom portion, the base element having a first height that is defined between the open end and the bottom portion;
ii) a rim extending outwardly from the base element, the rim comprising a top side and an opposing bottom side;
iii) a cover fastened to the base element to close the cavity, the cover is bowed outwardly in a central region of the cover relative to a peripheral region of the cover, the cover includes a region configured to be pierced at a location that is offset from the central longitudinal axis, the cover has a second height that is defined between the peripheral region and the central region, wherein the first height of the base element is greater than the second height of the cover;
iv) a barrier layer to prevent moisture or aroma from escaping out of the portion capsule; and
v) an identifier provided on the bottom side of the rim;
B) a beverage machine comprising:
i) a sensor/detector;

Ex. 1001 (829 Patent) at cl. 1

The invention claimed is:
1. A beverage system for producing a beverage, comprising:
a portion capsule comprising: a foil lid sealed to a base element having a cavity within which a beverage raw material is provided, the base element comprising a circumferential flange having a top side to which the lid is attached and a bottom side with a printed optically detectable identifier located on the bottom side, the optically detectable identifier includes a surface having at least two areas which differ in their reflection properties, and
a beverage machine comprising: a detector to read the optically detectable identifier, a media chute configured to receive and support the portion capsule, and a pump controlled to push water into the portion capsule only upon a determination that the read optically detectable identifier agrees with a stored reference,
wherein the base element has a wall region with an electrically conductive section and radial spaced and vertically oriented drawn grooves, the cavity has radially spaced and vertically oriented drawn ribs.

Ex. 1001 (722 Patent) at cl. 1

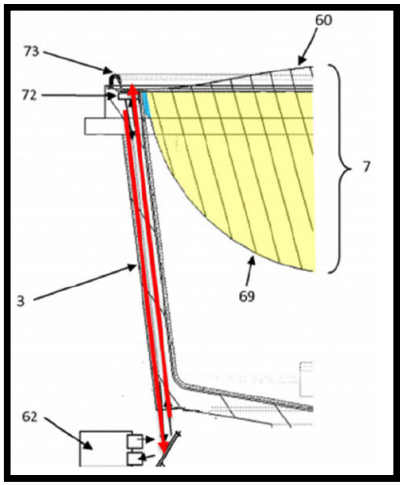
See generally 910 POPR at 20-35; 910 POR at 20-42; 910 POSR at 11-21; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 101-35; Ex. 1001 (910 Patent) at cls. 1-8; Ex. 1001 (830 Patent) at cls. 1-12; Ex. 1001 (722 Patent) at cls. 1-24; Ex. 1001 (829 Patent) at cls. 1-19.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

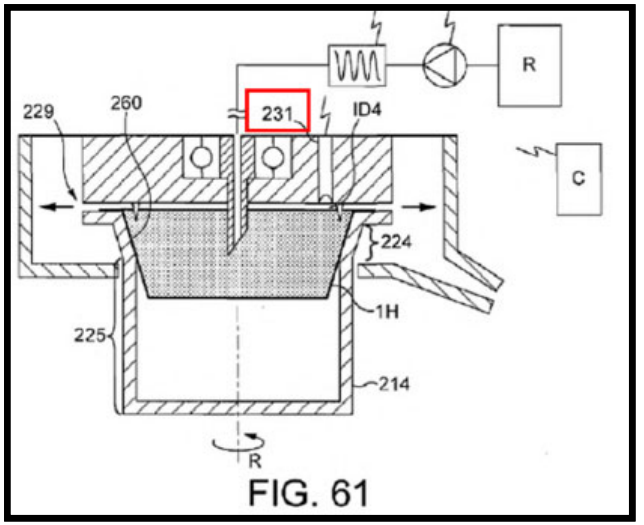
MOVING YOAKIM'S OPTICAL CODE WOULD REQUIRE SIGNIFICANT REDESIGN

- Optical codes—and detectors—on opposite sides of capsules
  - Jarisch / Jarisch 929 sensor 62
  - Yoakim sensing device 231

910 Pet at 37:



Ex. 1006 (Jarisch 929) at Fig. 5
(Petitioner Annotation)

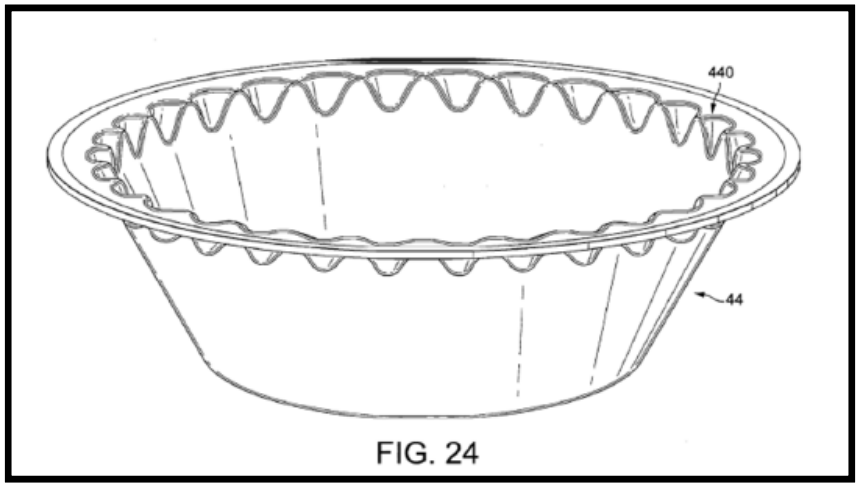


Ex. 1004 (Yoakim) at Fig. 61
(Patent Owner Annotation)

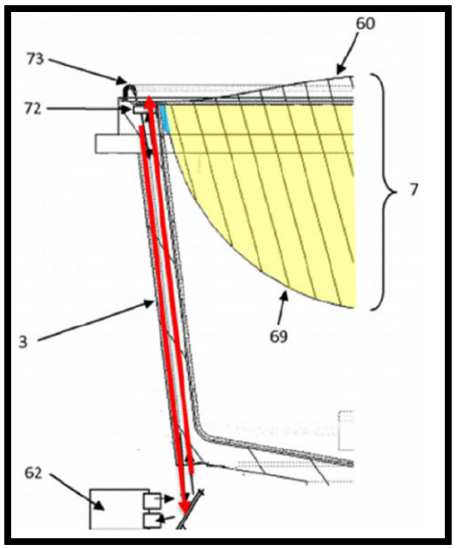
910 Pet at 37; 910 POPR at 28-35; 910 POR at 30-40; 910 POSR at 11-21; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 123-35.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

COMPLEX OPTICS ASSEMBLY FURTHER COMPLICATED BY YOAKIM'S CAPSULE HOLDER



Ex. 1004 (Yoakim) at Fig. 24



Ex. 1006 (Jarisch 929) at Fig. 5
(Petitioner Annotation)

Complex optics assembly must navigate capsule holders such as Yoakim Fig. 24 where the ***only path to the code on the flange*** is through the wave-like structure of the hollow teeth 440

910 POPR at 22-23, 33-35; 910 POR at 27-28; 910 POSR at 11-21; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 106-08.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM'S RIM, WITH AND WITHOUT TEETH, LACKS SUFFICIENT SPACE FOR JARISCH / JARISCH 929'S CODE

[0414] As shown in FIGS. **26** and **27**, a preferred capsule **101** of the invention generally comprises a dished body **102** onto which is sealed a sealing foil **103**. The sealing foil **103** is sealed onto a peripheral rim **104** of the body at a sealing annular portion **105**. The rim **104** can extend outwards forming a small annular portion, e.g., of about 2-5 mm. The dished

Ex. 1004 (Yoakim) at [0414], Fig. 27
(Patent Owner Annotation)

[0018] The support can be part of, or be formed directly on, the body of the capsule. The support can also be disposed on the bottom side of the rim of the capsule. Typically, the distance of the support from the peripheral edge is not more than 10 mm, more preferably not more than 8 mm. In particular, the support can be made of a paint and/or a lacquer and/or an embossed ply of material of the capsule itself.

Ex. 1006 (Jarisch 929) at [0018]
(Patent Owner Annotation)

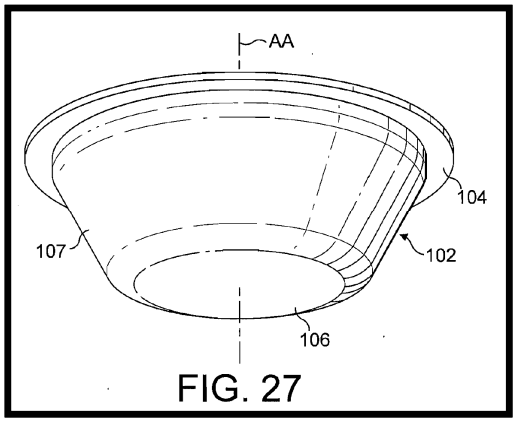


FIG. 27

Ex. 1004 (Yoakim) at Fig. 27

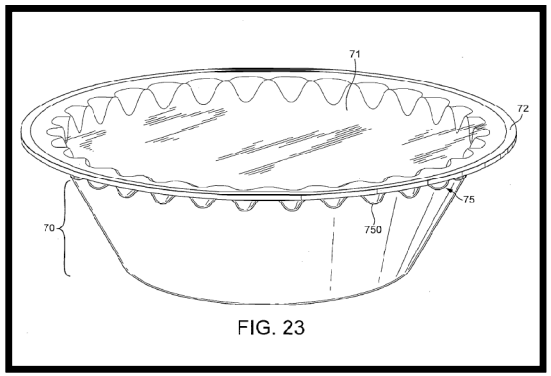


FIG. 23

Ex. 1004 (Yoakim) at Fig. 23

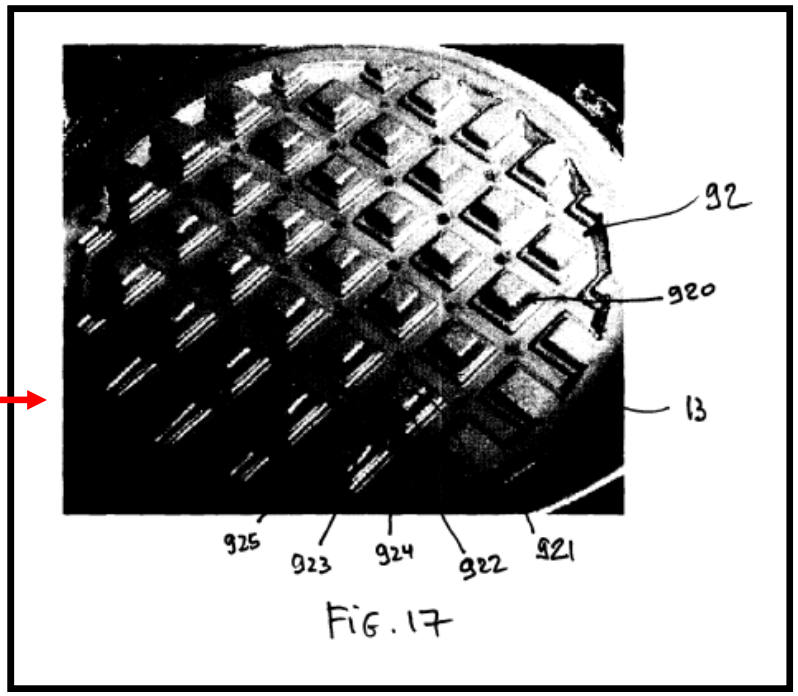
910 POPR at 22-23, 33-35; 910 POR at 27-28; 910 POSR at 11-21; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 106-08.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH 929 DOES NOT DESCRIBE THE PYRAMIDAL PLATE IN THE FOUR CORNERS OF THE REFERENCE

[0017] In an embodiment, the support can be a part of the capsule itself. In particular, the support may be spread along the circumference or a part of the circumference of the capsule. The support can be further located close to the peripheral edge of the capsule, the peripheral edge being defined as the outermost circular line of the capsule. These locations are particularly advantageous since they offer both a large area for the symbols to be disposed and is less prone to damages caused by the processing module and in particular by the pyramidal plate, and to ingredients projections. As a consequence, the amount of coded information and the reliability of the readings are both improved.

Ex. 1006 (Jarisch 929) at [0017]
(Patent Owner Annotation)



Ex. 2032 (WO2010076048A1) at Fig. 17

910 POR at 24-25; 910 POSR at 16-17; Ex. 2020 (910 Glucksman Decl.) at ¶ 104; Ex. 2032 (WO2010076048A1) at 6:1-7:17, 33:2-34:21, Fig. 17.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN DOES NOT RECALL WHETHER JARISCH 929 OR YOAKIM DISCLOSE PYRAMIDAL PLATES

Q. Does Jarisch 929 depict the pyramidal plate in any of the figures?

A. It's not something that I see illustrated here, and my understanding and the

Ex. 2025 (9/19/24 Jobin Dep.) at 150:5-6, 10-11

Q. Do you recall whether Yoakim discloses a pyramidal plate?

ATTORNEY BONNER: Objection. Form. Relevance.

A. I don't recall.

Ex. 2025 (9/19/24 Jobin Dep.) at 151:8-12
(Patent Owner Annotation)

910 POR at 24-25; 910 POSR at 16-17; 722 POR at 23; *see* Ex. 2020 (910 Glucksman Decl.) at ¶ 104; *SEE* Ex. 2032 (WO2010076048A1) at 6:1-7:17, 33:2-34:21, Fig. 17; Ex. 2025 (9/19/24 Jobin Dep.) at 150:5-6, 10-11, 151:8-12.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD UNDERSTAND JARISCH 929'S PYRAMIDAL PLATES TO BE DIFFERENT FROM YOAKIM'S TEACHINGS

Petitioner seeks to argue….

Jarisch 929 also discloses motivations for a POSITA 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. EX1003, ¶224. Jarisch 929 explicitly teaches positioning an optical code "on the rim of the capsule, in particular, on the bottom of the rim of the capsule which is opposed to the lid or foil of the capsule." EX1006, [0037]. Jarisch 929 explains that its proposed code positioning is desirable because it "is less prone to damages caused by the processing module and in particular by the pyramidal plate, and to ingredients projections." *Id.*, [0017], [0063]-[0064]. "As a consequence, the amount of coded information and the

910 Pet at 38 (Patent Owner Annotation)

But a POSITA would not combine…

above. *See* Ex. 1004 at Fig. 61. Similarly, Petitioner seeks to rely on Jarisch 929's teachings of potential damage from a "pyramidal plate," but makes no showing of any teaching in Yoakim utilizing such a plate. A POSITA would have understood pyramidal plates to be different from what is taught in Yoakim. *See* Ex. 1004 at Fig. 11 (12b), [0037], [0073]; *see, e.g.*, Ex. 2032 at Figs.6-9, Fig.17, 26:1-2, 33:8-34:21

Ex. 2020 (910 Glucksman Decl.) at ¶104
(Patent Owner Annotation)

910 Pet at 38; 910 POR at 24-25; 910 POSR at 16-17; *see* Ex. 2020 (910 Glucksman Decl.) at ¶ 104; Ex. 2032 (WO2010076048A1) at 6:1-7:17, 33:2-34:21, Fig. 17.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BOARD'S RELIANCE ON JARISCH 929'S PYRAMIDAL PLATE IS UNFOUNDED

THE BOARD STATES…

> We have considered Patent Owner's arguments and determine, on the current record, that they do not demonstrate a deficiency in Petitioner's position for purposes of instituting trial. Petitioner provides a reason to position a code on the bottom side of the rim of a capsule, taken directly from Jarisch '929. *See* Pet. 38 (referencing Ex. 1006 ¶¶ 17, 63, 64); *see also* Ex. 1006 ¶¶ 17 ("These locations are particularly advantageous since they . . . [are] less prone to damages caused by the processing module and in particular by the pyramidal plate, and to ingredients projections. As a consequence, the amount of coded information and the reliability of the readings are both improved."); *cf. KSR Int'l Co.*, 550 U.S. at 418 (stating that, to facilitate the analysis of an obviousness position, the proponent should provide "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness"). On the current record, Patent Owner's attorney argument does not identify sufficiently a deficiency in Petitioner's reasoning.

910 ID at 28-29 (Patent Owner Annotation)

BUT…

On the current record, Patent Owner prevails:

- A POSITA would understand Jarisch 929's pyramidal plate to be different from Yoakim's teachings
- Petitioner's expert admits Jarisch 929 does not depict a pyramidal plate

910 ID at 28-29; 910 POR at 24-25; 910 POSR at 16-17; Ex. 2020 (910 Glucksman Decl.) at ¶ 104; Ex. 2032 (WO2010076048A1) at 6:1-7:17, 33:2-34:21, Fig. 17.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM SEEKS TO AVOID IMBALANCE VIA "SNUG FIT" REQUIREMENT

[0006] In a centrifugal system, an additional risk exists to create vibrations if the capsules is not properly supported in the centrifugal device. For a set of capsules presenting different volumes and containing different amounts of ingredient, there is an increased risk of unbalance and, consequently a risk of producing vibrations. The brewing device can move when it vibrates and it may generate a very important noise. Furthermore, a lack of support in the capsule holder can cause deformation of the capsule during centrifugation and create potential failure of the container, in particular, for plastic capsules. Therefore, there is a need for providing a capsule system that is able to deliver conveniently a wider variety of beverages, in particular coffees having different characteristics (taste, crema, etc.) in the centrifuge brewing device.

Ex. 1004 (Yoakim) at [0006]
(Patent Owner Annotation)

119. First, there is the issue of vibrations when rotating the capsule. Yoakim recognized a propensity for "unbalance" that would produce undesired vibrations. *See* Ex. 1004 at [0006], [0479], [0482], [0484], [0507]. Yoakim sought to address this with a requirement for a "snug" fit between the capsule and the capsule holder. *See* Ex. 1004 at [0479], [0484], [0507]. In contrast, Jarisch 929's capsule does not engage with the interior of cell 3, which is taught to supposedly enable reading the code on the underside of the flange. As can be seen in Figure 5 of Jarisch 929 (zoomed in below), there is a deliberate gap between the capsule (purple) and the cell (green). Jarisch later acknowledged that vibrations were a problem in the system of Jarisch 929: "the light rays may incur significant angular deviations due to particular mechanical constraints born by the rotating assembly of the machine and possibly coming from different origins (e.g., vibrations, wearing, unbalanced mass distribution, etc.)." Ex. 2021 at 2:39-43.

Ex. 2020 (910 Glucksman Decl.) at ¶119
(Patent Owner Annotation)

910 POPR at 25-28; 910 POR at 29-31; 910 POSR at 18-21; Ex. 2020 (910 Glucksman Decl.) at ¶ 119.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD NOT ABANDON YOAKIM'S "SNUG FIT" ADVANTAGE

[0479] As a result, the risk of producing vibrations during centrifugation is reduced because all the capsules of the set are snugly fitted in the device with limited possible relative movement between each capsule and the device during rotation, i.e., capsule holder.

Ex. 1004 (Yoakim) at [0479] (Patent Owner Annotation)

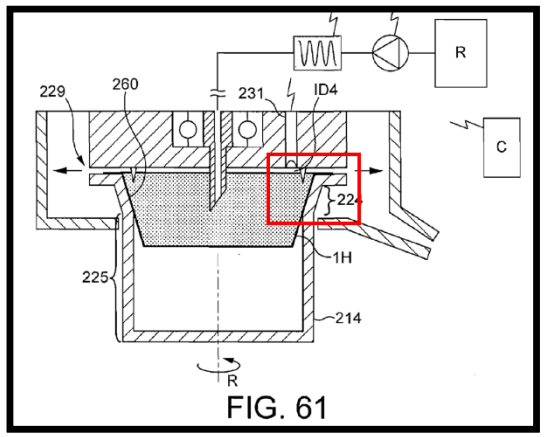
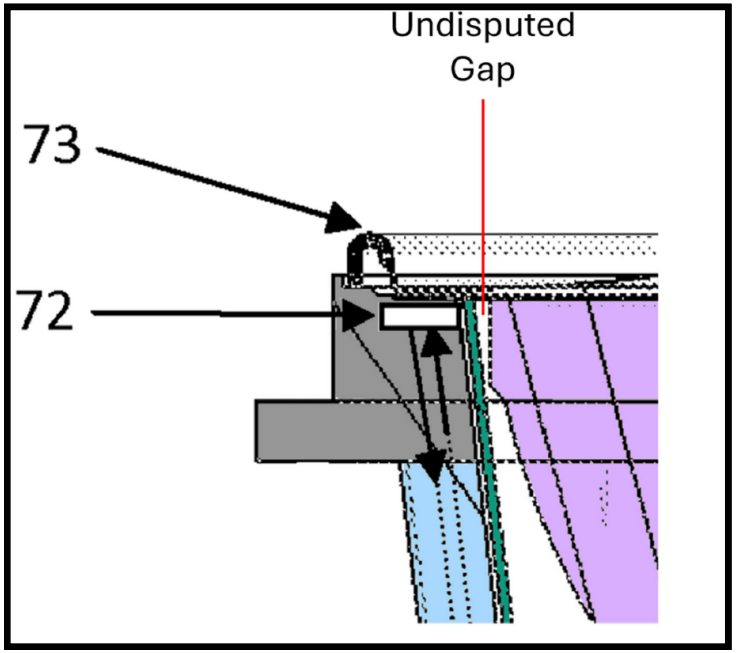


FIG. 61

Ex. 1004 (Yoakim) at Fig. 61 (Patent Owner Annotation)



Ex. 1005 (Jarisch) at Fig. 4 (Patent Owner Annotation)

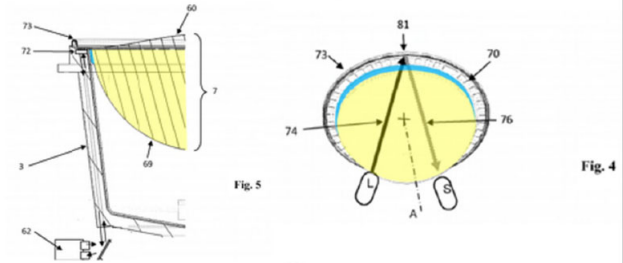
Ex. 1006 (Jarisch 929) at Fig. 5 (Patent Owner Annotation)

910 POPR at 25-28; 910 POR at 29-31; 910 POSR at 18-21; Ex. 2020 (910 Glucksman Decl.) at ¶ 119. DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S REPLY DOES NOT CITE ANY CONTRADICTORY EVIDENCE

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.

Jarisch also discloses a base element with a circumferential border adjacent the flange, the border having a larger diameter compared to a diameter of the wall region as seen in FIGS4-5 (in blue). EX1003, ¶¶253-254.



57

910 POSR at 20 (responding to Petitioner Reply arguments at pages 15-16)

910 Reply at 15-16; 910 POSR at 20.

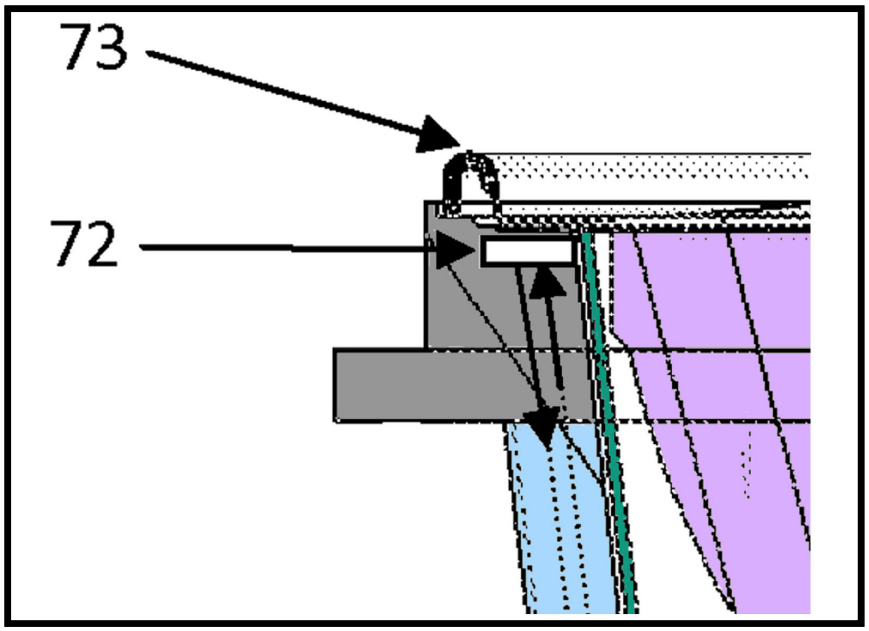
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM TEACHES THAT THE ANGLE OF THE WIDENING SIDE WALL DEPICTED IN JARISCH / JARISCH 929 RENDERS "POOR RESULTS"

[0261] Therefore, the angle of the widening sidewall has been determined to promote the exit of the liquid extract from the capsule at the outlet side of the capsule, i.e., at an annular, peripheral portion of the upper wall of the capsule. In particular, an angle of about 60 degrees has shown remarkable results whereas an angle of 85 degrees has shown poor results (i.e., coffee does not come out of the capsule).

Ex. 1004 (Yoakim) at [0261] (Patent Owner Annotation)

Jarisch / Jarisch 929's cell teaches a side wall angle shown by Yoakim to provide "poor results"



Ex. 1005 (Jarisch) at Fig. 4 (Patent Owner Annotation)

Ex. 1006 (Jarisch 929) at Fig. 5 (Patent Owner Annotation)

910 POR at 29-32; 910 POSR at 18; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 120-21.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN STATES DEVELOPING COMPATIBLE CAPSULES AND MACHINES REQUIRES YEARS

Q. And so if you're starting from an unproven approach with a beverage capsule that's been handed to you and you're asked to develop a machine to work with it, how much effort do you expect would have to go into getting that to a consumer product?

A. It can be years. It can be years.

Q. Do you have any idea how many prototypes you might expect to have to make?

ATTORNEY BONNER: Objection. Form. Relevance.

A. For a major product launch with brand-new technology, it could be dozens of iterations.

Ex. 2025 (9/19/24 Jobin Dep.) at 31:20-32:11
(Patent Owner Annotation)

910 POR at 23, 29-32; 910 POSR at 18; Ex. 2020 (910 Glucksman Decl.) at ¶ 111.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM TEACHES A CAPSULE FREE FROM SOILING OR DAMAGE

Petitioner seeks to argue….

> POSITAs further understood that positioning an optical identifier away from the liquid inlet and outlet would increase readability of the code by shielding it from liquid and loose coffee grinds. EX1003, ¶116. For example, Panesar disclosed the benefits of positioning the barcode away from the liquid injection areas to avoid soiling or tearing the barcode. EX1003, ¶117; EX1010, 2:29-3:12, 19:22-20:13.

910 Pet at 11 (Patent Owner Annotation)

But Yoakim already teaches such an advantage

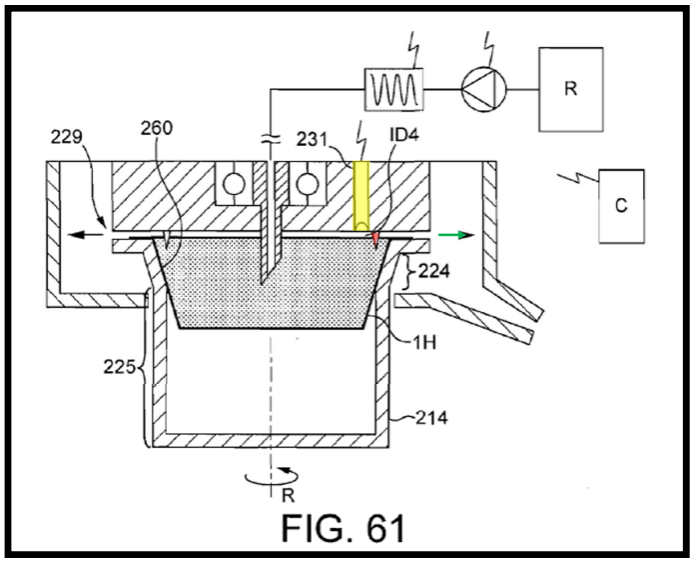


FIG. 61

Ex. 1004 (Yoakim) at 61 (Patent Owner Annotation)

910 POPR at 20-23; 910 POR at 25-28; 910 POSR at 15-16; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 104-08.

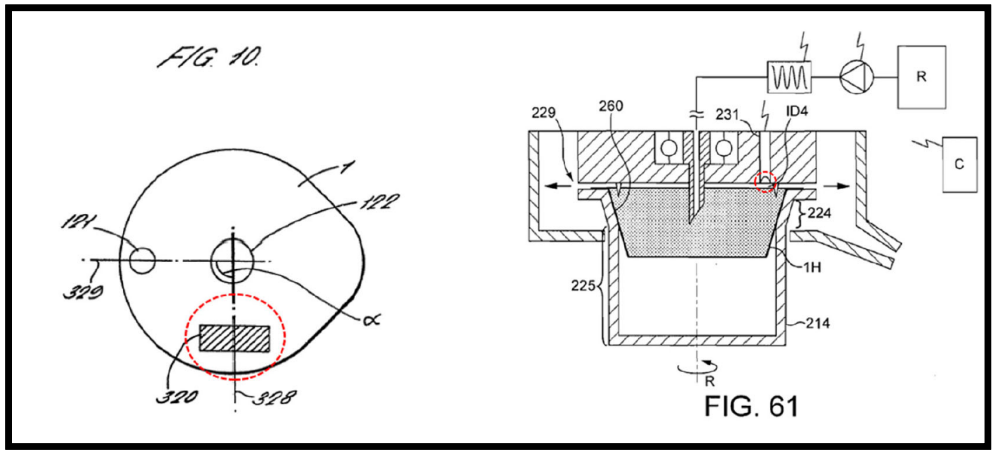
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM UTILIZES PANESAR CODE LOCATION TO SOLVE SOILING PROBLEM

104. A POSITA would not believe that Yoakim's placement of a "barcode" on the top of the membrane would suffer from readability issues given Yoakim's device reads the "barcode," without any obstruction before brewing when a capsule would not be soiled by beverage residues or damaged. *See* Ex. 1004 at [0192], [0525], [0526]. To the contrary, Petitioner identifies Panesar as a motivating reference, but Yoakim already teaches away the concerns flagged by Petitioner. Pet. at 11; Ex. 1010 at 18:24-20:21, Fig. 10. Indeed, Yoakim teaches capsule holders that would not exhibit the problems described with Jarisch 929's system. For example, Jarisch 929 illustrates a support on the top of the capsule that

Ex. 2020 (910 Glucksman Decl.) at ¶104 (Patent Owner Annotation)

910 POSR at 16:



Left: Ex. 1010 (Panesar) at Fig. 10 (Patent Owner Annotation)

Right: Ex. 1004 (Yoakim) at Fig. 61 (Patent Owner Annotation)

910 POR at 25-28; 910 POSR at 15-16; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 104-08.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD NOT EXPECT SOILING FROM THE INLET OF THE CAPSULE

piercing member. Moreover, given the depth of piercing expected at the water inlet, the support materials for the membrane, and the volume of substance, a POSITA would not expect soiling from the inlet of the capsule due to the pierced membrane forming a seal around the piercing inlet because the gap formed between the pierced membrane and the piercing member will not be large enough to allow the coffee granules/beverage material inside the capsule to escape outside the capsule. Ex. 1004 at [0128]. Moreover, Yoakim teaches it is preferrable to have the volume of substance in the capsule occupy less than 85% of the total volume, thereby providing "head space" which would further reduce the risk of any beverage material exiting the capsule when the inlet pierces the membrane. Ex. 1004 at [0449]. Thus, the Petition has not shown that Yoakim's sensor 231 or barcode would be soiled and such a modification to Yoakim would be necessary or beneficial.

Ex. 2020 (910 Glucksman Decl.) at ¶105 (Patent Owner Annotation)

910 POR at 25-28; 910 POSR at 15-16; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 104-08.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

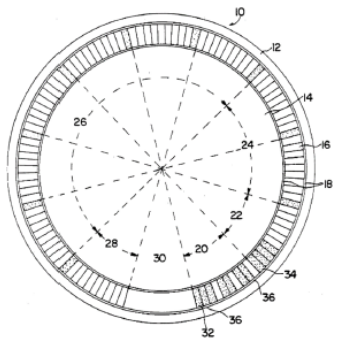
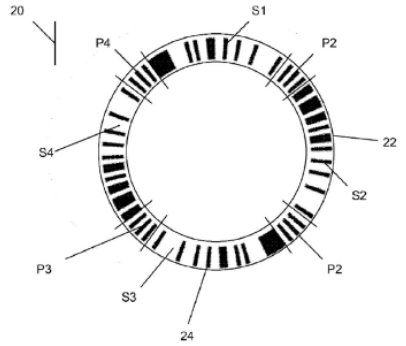
PETITIONER'S RPI ARGUED A POSITA WOULD NOT MODIFY YOAKIM'S CAPSULE TO INCLUDE JARISCH 929'S SEQUENTIAL READING FEATURE

4. In this regard, I note that the Patent Office admits that U.S. Patent App. Pub. No. 2010/0239734 to Yoakim et al. ("*Yoakim*") fails to disclose symbols that are sequentially readable while the capsule is driven in rotation along an axis of rotation and at least partly formed of surfaces arranged to reflect mainly diffusively, as required by the present claims. Office Action, pages 2-3.

5. In an attempt to remedy these deficiencies of *Yoakim*, the Patent Office cites U.S. Patent No. 5,103,081 to Fisher et al. ("*Fisher*") and alleges that the skilled artisan would have modified *Yoakim* with *Fisher* "to identify and authenticate an object." Office Action, page 4.

6. However, *Yoakim* already teaches an optically readable code (*Yoakim*, paragraph 192). Therefore, the capsule of *Yoakim* already is used to identify and authenticate an object, and thus modifying the capsule of *Yoakim* to have features of the secondary reference *Fisher* solves a problem that is already solved without the modification.

Ex. 2022 (2/25/16 Gerbaulet Decl.) at 2 (Patent Owner Annotation)

Fisher (Ex.2024 Fig. 1)	Jarisch929 (Ex.1006 Fig. 2)
 FIG.1	

910 POR at 34-36; 910 POSR at 15-16; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 125-28.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH 929'S CO-PENDING APPLICATION RECOGNIZES PROBLEMS WITH JARISCH 929'S CODE PLACEMENT ON BOTTOM OF FLANGE

Co-pending international patent application PCT/EP11/057670 relates to a support adapted to be associated with or be a part of a capsule for the preparation of a beverage. The support comprises a section on which at least one sequence of symbols is represented so that each symbol is sequentially readable, by a reading arrangement of an external device, while the capsule is driven in rotation along an axis of rotation, each sequence codes a set of information related to the capsule. Such invention enables to make a large volume

Ex. 2021 (US 10,294,020) at 2:18-26
(Patent Owner Annotation)

Another problem lies in that the support is relatively complex to integrate to the packaging structure forming the capsule itself and, in particular, manufacturing packaging constraints exist, such as the respect of proper material thickness for a proper forming of the capsule.

Ex. 2021 (US 10,294,020) at 3:9-13
(Patent Owner Annotation)

ready to brew position in the rotary capsule holder. However, one disadvantage lies in that those reading conditions remain specifically difficult for different reasons, such as because the incoming and outgoing rays of light must traverse the capsule holder when the capsule is held by the capsule holder, causing the loss of a great part of energy and/or because the light rays may incur significant angular deviations due to particular mechanical constraints born by the rotating assembly of the machine and possibly coming from different origins (e.g., vibrations, wearing, unbalanced mass distribution, etc.). Furthermore, it is not suitable to compensate the loss of reflectivity by improving the performance of the light emitting and sensing devices of the machine as it would make the beverage preparation machine too expensive.

Ex. 2021 (US 10,294,020) at 2:34-47
(Patent Owner Annotation)

- **Poor reading conditions** when barcode is placed on underside of flange due to light transversing capsule holder
- Light reading the barcode incurs **significant angular deviations due to unbalance, vibrations**
- **Improvements** to light emitting & sensing devices make machine **too expensive**

910 POR at 23-25, 38-40; 910 POSR at 15-16; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 110-13, 119, 129-35.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH / JARISCH 929 CONCLUSORY STATEMENT DOES NOT ENABLE A MACHINE-READABLE CODE ON THE BOTTOM OF THE FLANGE

[0106] In the embodiment of the FIG. **5**, the light source is placed at the bottom of the centrifugal cell **3**. This cell is light conductive allowing the beam to reach the bottom side **72** of its rim **73**. The reflected light is conducted by the transparent (or light conductive) centrifugal cell **3** to reach the sensor **62**. In case that the sensor **62** cannot be aligned with the transparent part of the centrifugal cell **3**, a mirror can be placed as illustrated in the FIG. **5** to deflect the forward and backward beams.

Ex. 1006 (Jarisch 929) at [0106]

111. Thus, a POSITA would have understood that the support on the capsule of Jarisch 929 lacked an optically detectable, machine-readable code and Jarisch 929 lacked sufficient disclosure to enable a support that could be read/detected. Christian Jarisch also conceded challenges due to the support being

Ex. 2020 (910 Glucksman Decl.) at ¶111 (Patent Owner Annotation)

910 POR at 23-25, 38-40; 910 POSR at 15-16; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 110-13, 119, 129-35.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE: YOAKIM, JARISCH / JARISCH 929 AND ROSSI

’910 Patent (IPR2024-00299): All Claims

’829 Patent (IPR2024-00254): All Claims

’830 Patent (IPR2024-00304): All Claims

’722 Patent (IPR2024-00257): All Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE:

- No motivation to combine Yoakim, Jarisch / Jarisch 929, & Rossi
  - Yoakim has its own safety mechanism
  - Rossi discloses high pressure system while Yoakim and Jarisch / Jarisch 929 disclose low pressure systems with rotation
  - Petitioner ignores important nuances of Rossi's validation element
  - Significant redesign would be required to combine references

910 POPR at 35-38; 910 POR at 42-44; 910 POSR at 21-22; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 136-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ROSSI SAFETY MECHANISM DOES NOT PROVIDE MOTIVATION TO COMBINE

- In arguing motivation to use Rossi's safety mechanism, Petitioner ignores Yoakim's own safety mechanism
  - No motivation to look elsewhere
  - No explanation of how to reconcile the systems

910 POPR at 35-38; 910 POR at 42-44; 910 POSR at 21-22; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 136-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM ALREADY DISCLOSES ITS OWN SAFETY MECHANISM

[0205] The driving means of the device further comprise a drive shaft **45** associated to a support **451** for holding the bottom of the capsule. Of course, the shape of the gripping means can take many other variations without departing from the scope of the present invention. FIGS. **12** and **13** show a gripping structure **840** having a central recess **841** and four arched recesses **842**, **843**, **844**, **845** extending from the central recess **841**. This gripping structure forms a lock into which is fitted a complementary engaging structure **450**, i.e., a key, of the capsule holder **451**. The complementary shapes of the capsule and capsule holder enable to fulfill both the gearing function for driving the capsule at high speeds in rotation and a safety function for ensuring that only capsules adapted to the system can be used and brewed successfully.

Ex. 1004 (Yoakim) at [0205]
(Patent Owner Annotation)

910 POPR at 35-38; 910 POR at 42-44; 910 POSR at 21-22; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 136-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ROSSI "VALIDATION ELEMENT" DOES NOT SUPPLY MOTIVATION TO COMBINE

- Petitioner ignores Rossi validation element nuances
  1. Distinct from "identification" element
  2. Used to preclude reuse
  3. Preferably destroys validation element
  4. Best if validation is clear to user, visibly not reusable
  5. May take place outside of the machine
  6. Used to "unlock" the machine

910 POPR at 35-38; 910 POR at 42-44; 910 POSR at 21-22; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 136-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

INCOMPATIBILITIES BETWEEN SYSTEMS BELIE ARGUED MOTIVATION TO COMBINE

- Rossi: high pressure system
- Yoakim & Jarisch / Jarisch 929: low pressure rotational systems

[0132] The method of the invention comprises an operation wherein hot water is introduced into the capsule at substantially no pressure. Water can be brought by a hot water feed mechanism using a principle of aspiration or vaporisation.

[0133] Alternatively, for a higher flow consistency, hot water can be introduced using a low pressure pump such as a peristaltic pump or a diaphragm pump and the like.

Ex. 1004 (Yoakim) at [0132] (Patent Owner Annotation)

137. Petitioner also suggests that the safety features of Rossi would be necessary in Yoakim due to Yoakim's teaching of pressure. Pet. at 40. But the Petition fails to identify any teaching in Yoakim of ***high*** pressures that are the concern in Rossi. Indeed, Yoakim contrasts his methods to "known methods using brewing water pressurized by a pump." Ex. 1004 at [0124]; *see also* Ex. 1004 at [0009] ("the effect of centrifugal forces to brew coffee or other food substances ***presents many advantages compared to normal type brewing methods using high pressure pumps***."), [0010]. For frame of reference and showing such contrast, in 2011 Petitioner offered the Pixie espresso making machine and marketed it as having 19 bar pressure. Ex. 2007 at 3; Ex. 2008 at 13 (describing specification "Pmax 19 bar").

Ex. 2020 (910 Glucksman Decl.) at ¶ 137

910 POPR at 35-38; 910 POR at 42-44; 910 POSR at 21-22; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 136-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD NOT BE MOTIVATED TO COMBINE TEACHINGS OF LOW-PRESSURE SYSTEM WITH HIGH PRESSURE SYSTEM

Yoakim: low pressure, 0-2 bars

[0132] The method of the invention comprises an operation wherein hot water is introduced into the capsule at substantially no pressure. Water can be brought by a hot water feed mechanism using a principle of aspiration or vaporisation.

Ex. 1004 (Yoakim) at [0132]
(Patent Owner Annotation)

to heat water to the desired temperature. It can be noted that water could be heated in the reservoir itself and water could be transported from the reservoir by effect of vaporisation. Water can be fed into the module **4** at low or substantially no pressure. For example, a pressure between 0 and 2 bars above atmospheric pressure can be envisaged at the inlet **8** of the module.

Ex. 1004 (Yoakim) at [0180]
(Patent Owner Annotation)

Rossi: high pressure

140. Yoakim's teachings relating to "espresso" are directed to the size of the beverage—not the method for making the beverage or any pump pressure. *See, e.g.*, Ex. 1004 at [0471], [0476], [0526] ("in particular coffees, of different volumes (e.g., risetto, espresso, lungo, americano, etc.)"). A POSITA would have understood from Yoakim's disclosure that Yoakim's device lacks the necessary pressure to brew a traditional espresso beverage. Cursory mentions of "espresso" do not overcome the necessary conclusion from Yoakim as a whole—Yoakim is a low-pressure system and not the type that Rossi's teachings seek to improve. Yoakim thus teaches away from high-pressure pump systems in favor of centrifugal, low or no water delivery pressure, systems.

Ex. 2020 (910 Glucksman Decl. at ¶ 140

910 POPR at 35-38; 910 POR at 42-44; 910 POSR at 21-22; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 136-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE: YOAKIM, JARISCH /JARISCH 929 AND RAPPARINI

’910 Patent (IPR2024-00299): All Claims (Ground 1)

’830 Patent (IPR2024-00304): All Claims (Ground 2)

’722 Patent (IPR2024-00257): All Claims (Grounds 1 and 2)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE:

- No motivation to combine Yoakim, Jarisch / Jarisch 929, & Rapparini
  - Rapparini's container is not suitable for use in a centrifugal brewing machine, such as taught by Yoakim and Jarisch
  - A POSITA would not have looked to Rapparini's permeable containers to modify non-permeable capsules

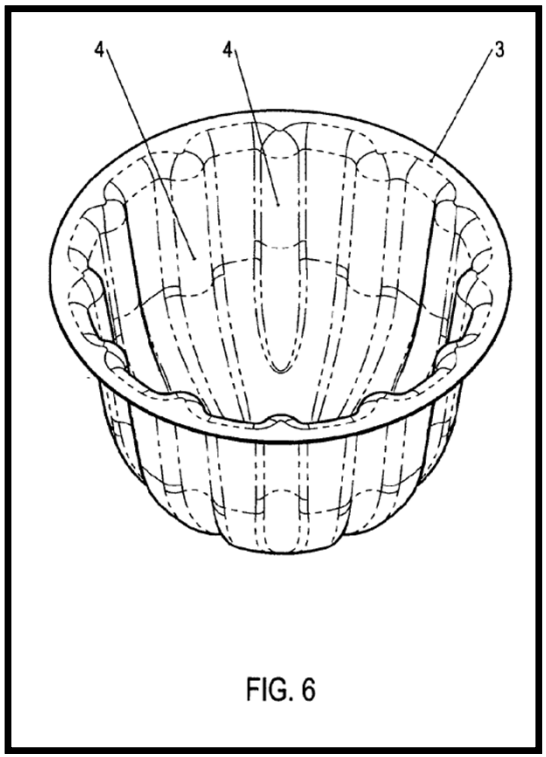
910 POR at 44-47; 910 POSR at 22-23; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 143-46.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RAPPARINI TEACHES A SOLUTION FOR FILTERING, PERMEABLE CONTAINERS

[0007] The present invention allows overcoming the problems and drawbacks of the systems known in the prior art. In particular, the present invention guarantees stability of the structure of filtering and permeable containers so that they can easily be handled in packaging and/or filling machines even when these machines operate at very high rates. Moreover, the present invention provides containers which are easily employed in automatic machines both for domestic and industrial use.

Ex. 1008 (Rapparini) at [0007]
(Patent Owner Annotation)



Ex. 1008 (Rapparini) at FIG. 6

910 POR at 44-47; 910 POSR at 22-23; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 143-46.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RAPPARINI'S CONTAINER IS NOT SUITABLE FOR USE IN A CENTRIFUGAL ESPRESSO MACHINE

143. A POSITA would not have been motivated to combine Yoakim/Jarisch 929 with Rapparini. Rapparini describes a manufacturing process for containers by means of thermoforming starting from a flat strip of permeable, filtering and thermoformable material, wherein the body of the container comprises longitudinal stiffening ribs. Ex. 1008 at Abstract, [0010], [0023]. The ribs are provided for stability in packaging and/or filling at high production rates. Ex. 1008 at [0003], [0007]. A POSITA reading the application would have understood that while Rapparini describes the use and application of the container in moka pots, suspending it by a wire, and including a suspension tab, no figure or description is offered for use in centrifugal espresso machines, such as Yoakim and Jarisch 929. *See generally* Ex. 1008. Indeed, a POSITA would have understood from the figures of Rapparini that no specific embodiment for any espresso machine is depicted. and that Rapparini's container is not suitable for use in a centrifugal espresso machine due to its body's permeability, which would result in food liquid spillage in such machines. Moreover, Petitioner's argument based on Rapparini at

Ex. 2020 (910 Glucksman Decl.) at ¶ 143
(Patent Owner Annotation)

910 POR at 44-47; 910 POSR at 22-23; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 143-46.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM ARGUED AGAINST COMBINING ALTERNATIVE EXTRACTION METHODS

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Alfred YOAKIM, do declare that:

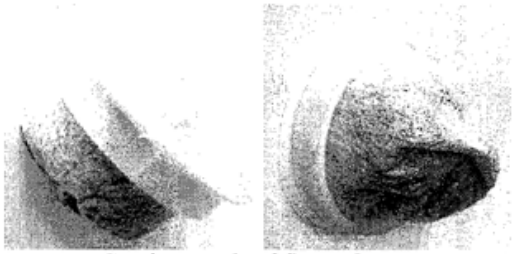
5. It is thus my opinion, as one of ordinary skill in the art, that it would not have been obvious to modify or combine Sylvan and Guerin to arrive at the presently claimed method of preparing a food liquid such as coffee. There is no teaching in either disclosure to suggest this combination, and, the combination would not lead to a functional or practical result. In fact, I am not aware of any single-serving beverage extraction devices on the market that implement the Applicants' methods or have the same extraction potential. The Applicants have invented a beverage extraction method that pairs the application of centrifugal force with the formation of a plurality of liquid delivery outlets along the periphery of the sealing lid of a beverage capsule. This pairing is what allows for optimal pressure, liquid distribution, and liquid velocity throughout the capsule without oversizing the extraction device or driving the capsule at excessive rotational speeds. It is my belief that the Applicants' invention represents a significant advancement over the prior art, and there is no reading of Sylvan or Guerin that would render the present method claims obvious.

Ex. 2023 (Yoakim Decl.) at 2 (Patent Owner Annotation)

15. The results show that the capsule of the present application provided enhanced extraction and a uniform production of the beverage, whereas the capsules representative of Guerin or Sylvan had low extraction and inconsistent beverage preparation even if they could be made at all. The Report details all the differences of the beverages that were able to be produced from the capsules that were tested.

Ex. 2023 (Yoakim Decl.) at 4-5 (Patent Owner Annotation)

The modified rotating extraction interface for the machine was identical to the one utilized in the previous modes, i.e., for Guerin capsule - Figure A, B1 and B2.



Guerin capsule of figure C

Ex. 2023 (Yoakim Decl.) at 11

910 POR at 46-47; 910 POSR at 22-23; Ex. 2020 (910 Glucksman Decl.) at ¶ 145.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE: YOAKIM, JARISCH /JARISCH 929 AND CASTELLANI

’722 Patent (IPR2024-00257): Claims 2-3 (Ground 2)

’829 Patent (IPR2024-00254): Claims 10, 11, 19 (Ground 2)

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO MOTIVATION TO COMBINE

11,548,722 (IPR2024-00257) Ground 2

- Combining 5 references:
  - Yoakim
  - Jarisch 929
  - Rapparini
  - Castellani
  - Rossi

11,465,829 (IPR2024-00254) Ground 2

- Combining 4 references:
  - Yoakim
  - Jarisch
  - Castellani
  - Rossi

722 Pet at 75-79, 722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 Pet at 72-77; 829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO REASONABLE EXPECTATION OF SUCCESS

- No reasonable expectation of success in combining Yoakim, Jarisch / Jarisch 929, and Castellani
  - Castellani's teachings are not compatible with centrifugal brewing systems
  - Castellani's fork element would generate friction against the rotating capsule
  - Applying Castellani's teachings to system with detector under flange would obscure optical code reader

722 Pet at 75-79, 722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 Pet at 72-77; 829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CASTELLANI IS NOT COMPATIBLE WITH CENTRIFUGAL SYSTEMS

Yoakim (Ex. 1004): Centrifugal Device Rotating Capsule Holder

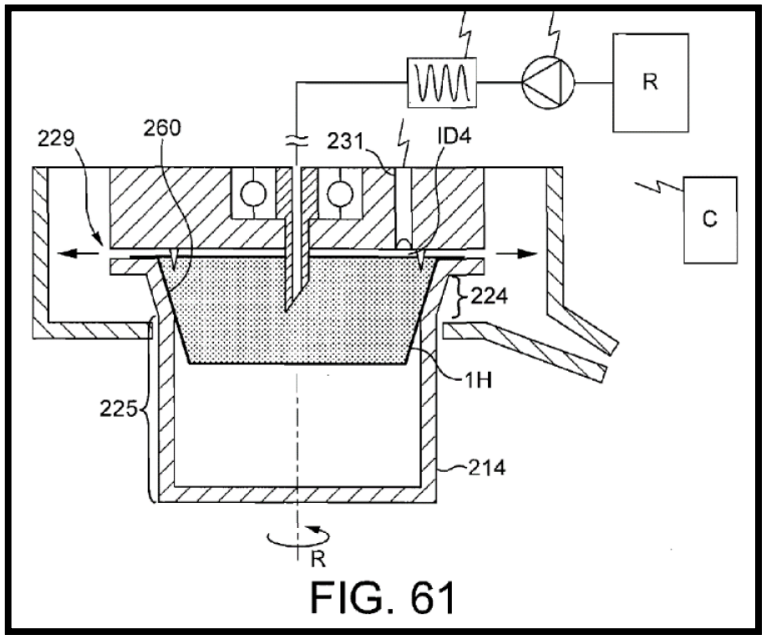
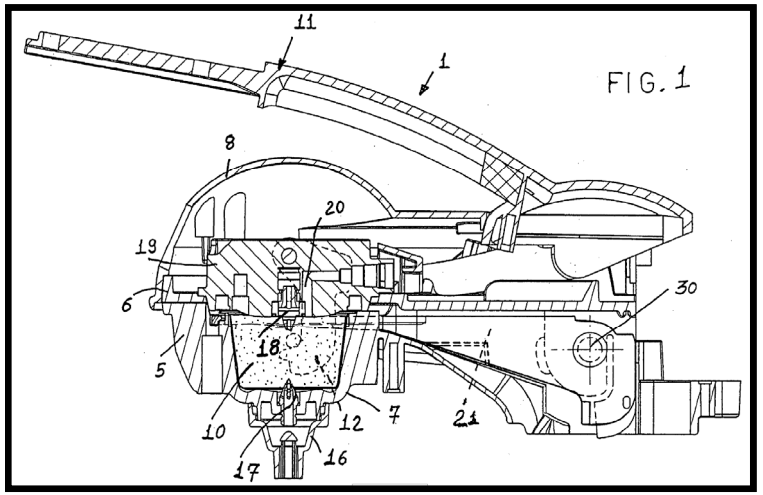


FIG. 61

Ex. 1004 (Yoakim) at Fig. 61

Castellani (Ex. 1009): Stationary Capsule Holder Without Detector

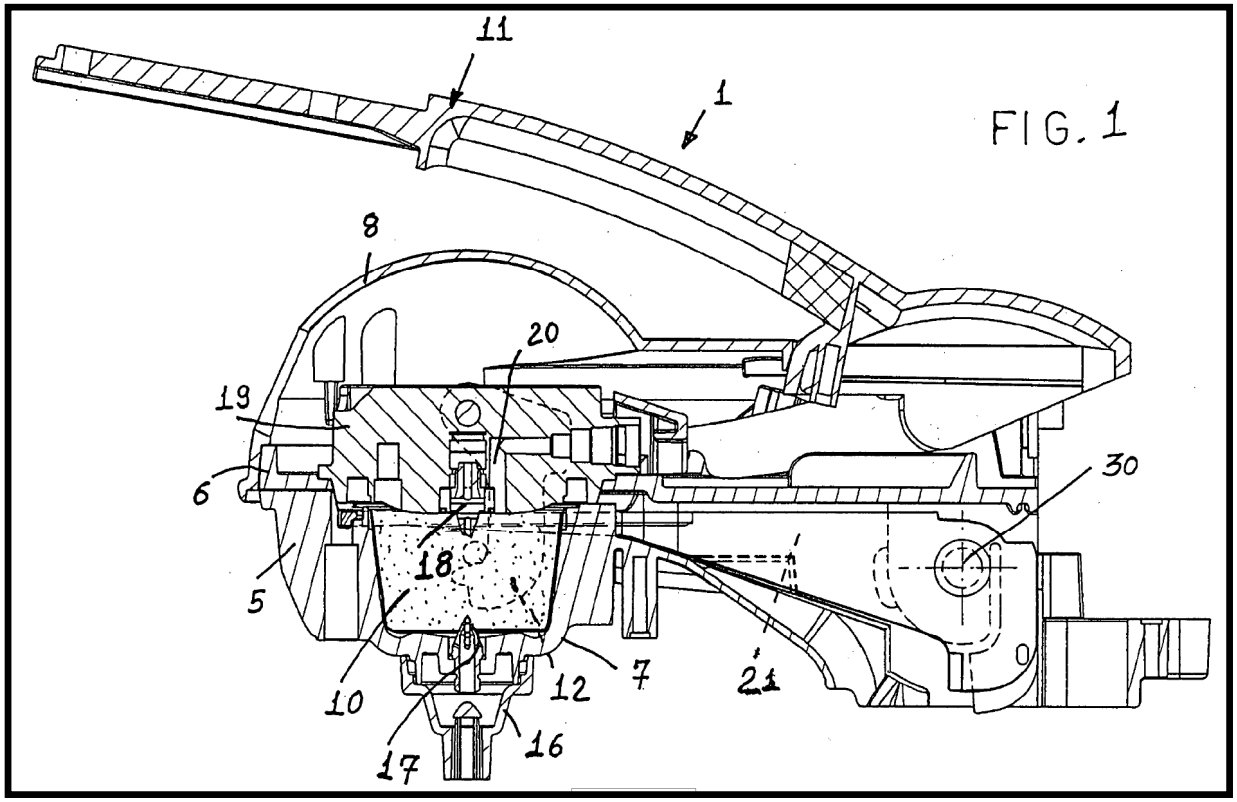


Ex. 1009 (Castellani) at Fig. 1

722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CASTELLANI'S FORK LIMITS PLACEMENT OF READER

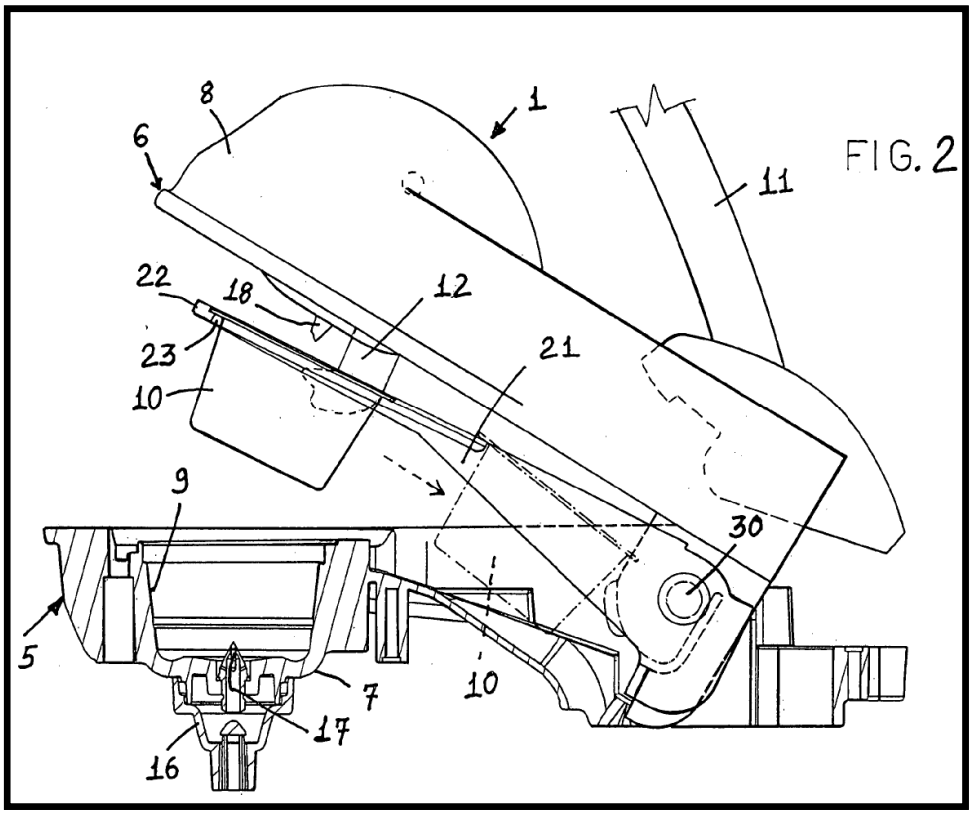


Ex. 1009 (Castellani) at Fig. 1

722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RESIDUE FROM USED CAPSULE WILL DRIP ON DETECTOR

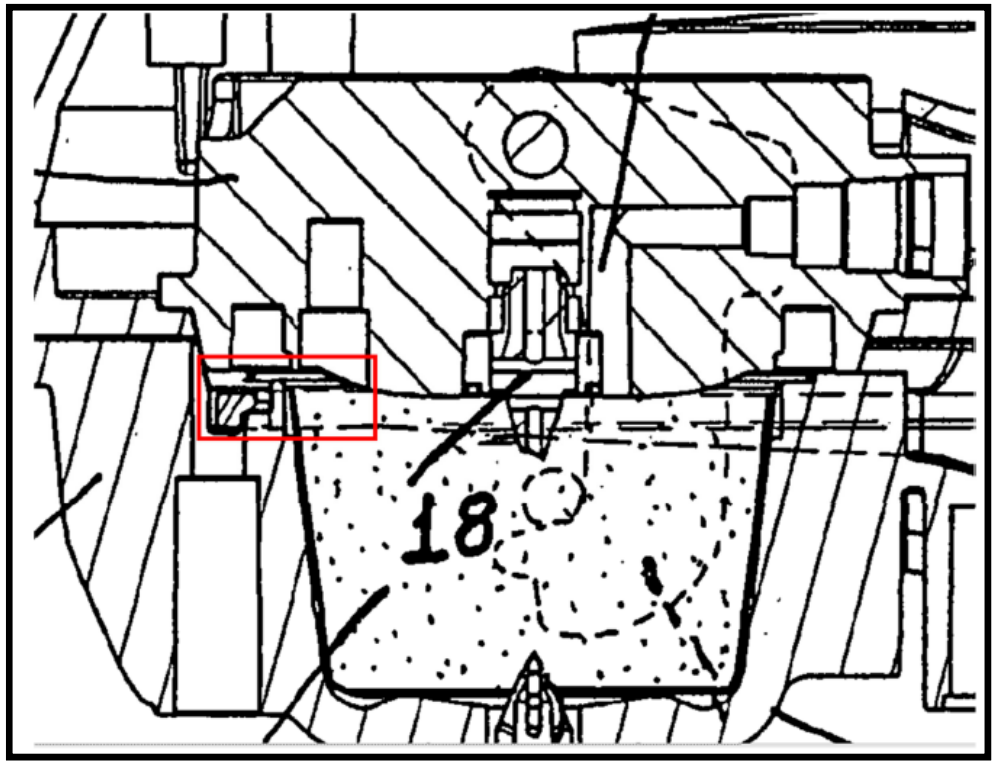


Ex. 1009 (Castellani) at Fig. 2

722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CASTELLANI'S FORK ELEMENT TOUCHES THE CAPSULE



Ex. 1009 (Castellani) at Fig. 1
(Patent Owner Annotation)

722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CASTELLANI'S FORK DOES NOT DROP OUT OF THE WAY

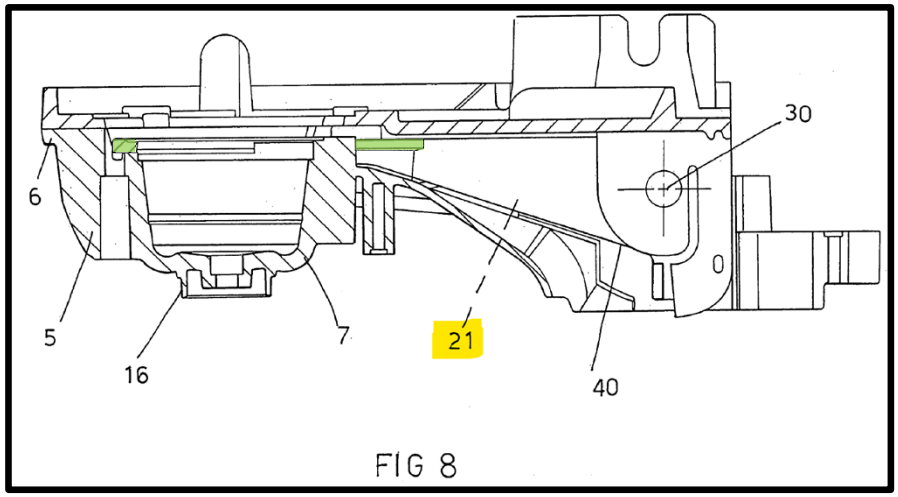


FIG 8

Ex. 1009 (Castellani) at Fig. 8 (Patent Owner Annotation)

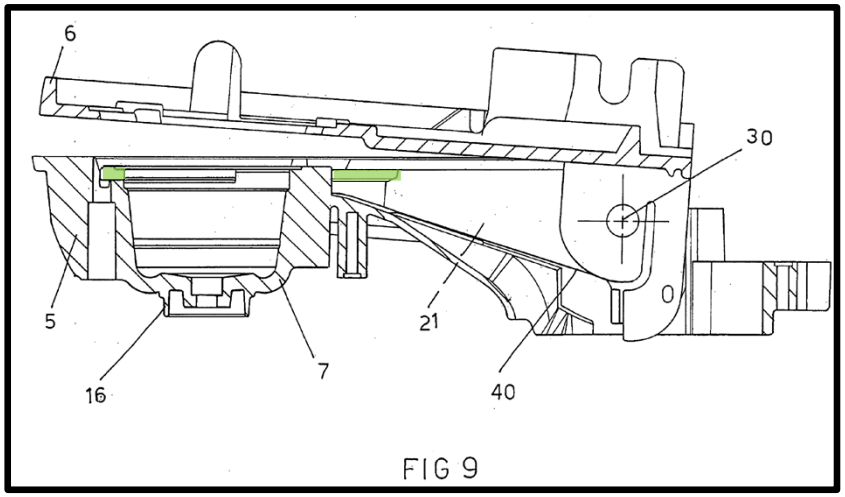


FIG 9

Ex. 1009 (Castellani) at Fig. 9 (Patent Owner Annotation)

[0022] FIG. **8** shows a rest position of the ejecting fork element;

Ex. 1009 (Castellani) at [0022] (Patent Owner Annotation)

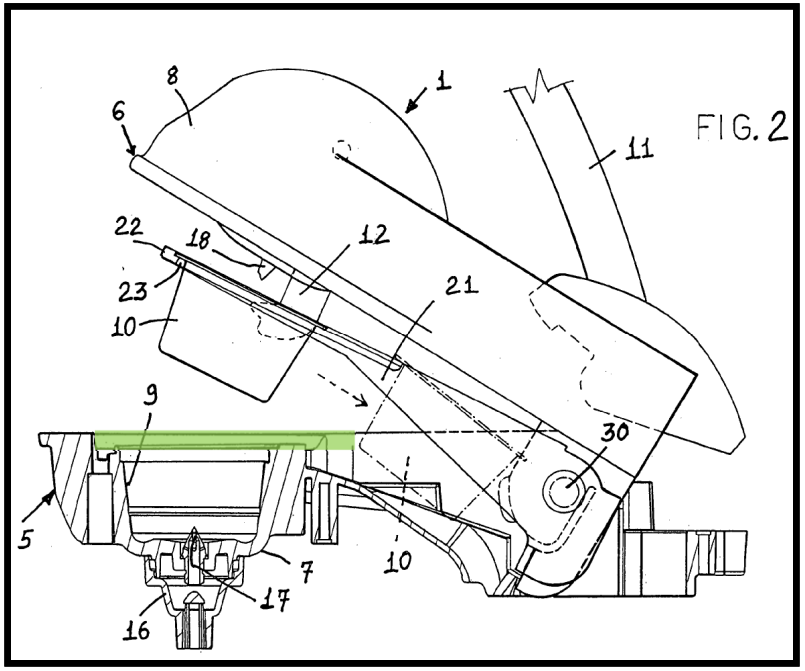
[0023] FIG. **9** shows an initial opening position of the top supporting element, the ejecting fork element being held in its rest position:

Ex. 1009 (Castellani) at [0023] (Patent Owner Annotation)

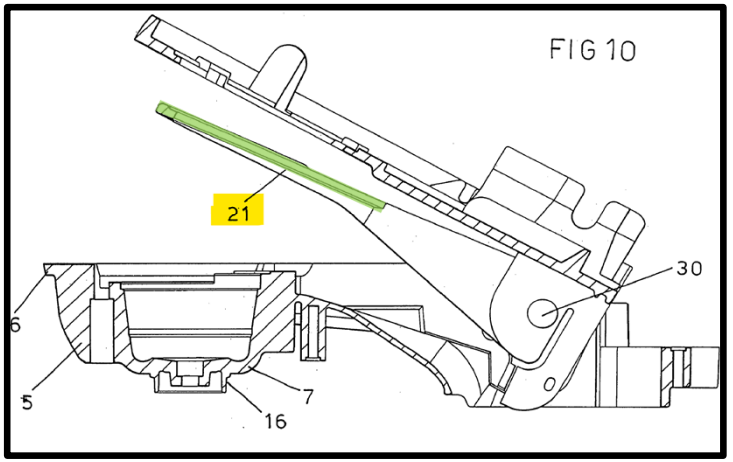
722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CASTELLANI'S FORK DOES NOT DROP OUT OF THE WAY



Ex. 1009 (Castellani) at Fig. 2 (Patent Owner Annotation)



Ex. 1009 (Castellani) at Fig. 10 (Patent Owner Annotation)

[0024] FIG. **10** shows a maximum opening position of the top supporting element before disengaging the fork element upward driving means in which, at the end of the coffee capsule unloading operation, the top supporting element starts to disengage from the fork element which will return to its rest position by gravity;

Ex. 1009 (Castellani) at [0024] (Patent Owner Annotation)

722 POR at 45-51, 722 POSR at 24-25; Ex. 2020 (722 Glucksman Decl.) at ¶¶ 158-63.
829 POR at 41-46; 829 POSR at 20-21; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 133-40.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

GROOVE THAT IS LATERALLY OFFSET FROM THE CHAMFERED MANDREL

’829 Patent (IPR2024-00254): Dependent Claim 4

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

’829 CLAIM 4 REQUIRES

4. The beverage system according to claim **3**, wherein the beverage machine comprises a groove that is laterally offset from the chamfered mandrel, and the seal is at least partially seated in the groove.

Ex. 1001 (829 Patent) at cl. 4
(Patent Owner Annotation)

Ex. 1001 (829 Patent) at cl. 4.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BOARD PRELIMINARILY FOUND FOR PATENT OWNER

> The Board rejected this same argument from Petitioner in the Final Written Decision in IPR2022-01574, which involved the same parties and included claims that recited the same subject matter. *See Nespresso USA, Inc. v. K-Fee Sys. GmbH*, Paper 29, 25–31, 32–45 (PTAB April 10, 2024).

829 ID at 49

829 ID at 47-50; 829 POR at 55; 829 POSR at 27; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 156-57.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BOARD'S PRIOR CONSTRUCTION RULING APPLIES HERE

> Based on the information above, we conclude that the limitation "a groove that is laterally offset from the chamfered mandrel" requires the groove to be entirely to the side of any part of the mandrel. This construction is consistent with the words of the claim—the claim states that the groove is laterally offset from, or to the side of, *the chamfered mandrel*, not merely offset from a portion of or the centerline of the mandrel. This construction is also consistent with the one embodiment describing the relationship between the mandrel and groove containing the seal, which depicts the groove entirely to the side of the chamfered mandrel.

Nespresso USA, Inc. v. K-Fee Sys. GmbH, IPR2022-01574, Paper 29 at 25-31, 32-45 (PTAB April 10, 2024) (Patent Owner Annotation)

829 ID at 47-50; 829 POR at 55-58; 829 POSR at 28-29; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 156-60.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DISTRICT COURT REJECTED NESPRESSO'S BROADENED CONSTRUCTION

The claim language discloses a groove completely off to the side of the chamfered mandrel. Claim 1 of the '491 Patent discloses "a groove that is laterally offset from the chamfered mandrel." '491 Patent, Claim 1. This language does not say offset from a portion of or an axis of the mandrel. In other limitations, the applicant uses more specific language to describe positioning. For instance, Claim 1 discloses, "a chamfered mandrel that is configured to pierce the cover at the location that is offset from the central longitudinal axis." *Id.* Thus, the applicant chose different words to describe the offset of the piercing location (relative to the central longitudinal axis of the base element of the capsule) and the groove offset (laterally). This suggests that "laterally offset" means completely off to the side because the patentee did not specify any axis relationship. *Phillips*, 415 F.3d at 1314-15 ("Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.") (citations omitted).

• • •

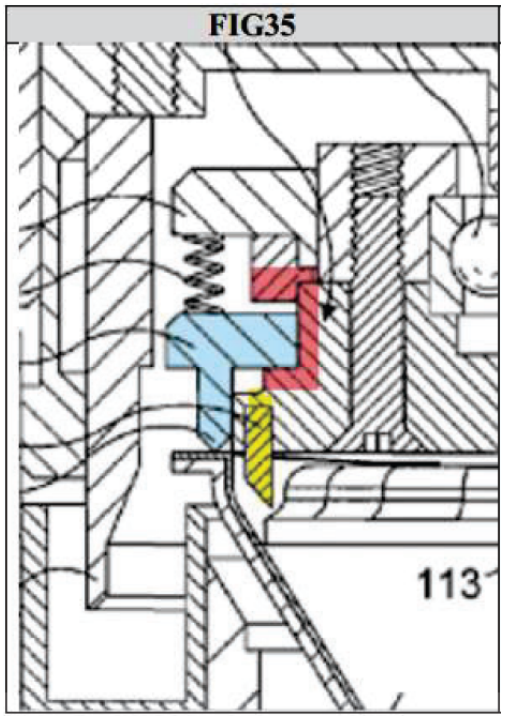
For the foregoing reasons, the Court would not apply Nespresso's broadened construction. Laterally offset means the "groove is entirely off to the side of any part of the chamfered mandrel."

Ex. 1070 at 9-11 (*K-Fee Sys. GmbH v. Nespresso USA, Inc.*, CV 21-3402-GW-AGRx, Dkt. 352 (C.D. Cal. Dec. 16, 2024))
(Patent Owner Annotation)

829 ID at 47-50; 829 POR at 55-58; 829 POSR at 28-29; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 156-60. DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S YOAKIM FIG. 35 ANNOTATIONS DO NOT DEPICT A GROOVE LATERALLY OFFSET FROM A "MANDREL"

829 Pet at 69:



Ex. 1004 (Yoakim) at Fig. 35 (Petitioner Annotation)

- Petition argues:
  - Blue: seal
  - Red: groove
- Nespresso ignores
  - Groove (red) ***above*** piercing spike (yellow), **not** laterally offset

829 Pet at 69; 829 POR at 58-59; 829 POSR at 28-29; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 161-62.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER ARBITRARILY ANNOTATES THE GROOVE

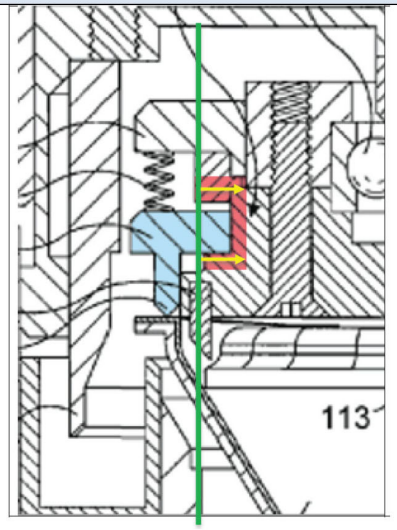
Petitioner cites:

[0436] According to one aspect of the invention, the water injection subassembly **129** further comprises a valve system **156** for controlling the flow of liquid that is discharged from the device. The valve system **156** can be arranged on the capsule rotary engaging part **149** in the form of an annular engaging portion **157** which is biased under the force of elastic loading means **158** such as springs. The annular engaging portion **157** includes a pressing peripheral surface **159** which applies a closing force on the peripheral rim **104** of the capsule to be able to restrict the flow of liquid under the force of the elastic loading means. The surface **159** can form a cone or "V" for increasing the sealing pressure in a localized area. The engaging portion **157** further comprise an internal base portion **160**. The elastic loading means **158** is thus inserted in a space located between the base portion **160** and a counter-force portion **161** of the engaging part **149**. Therefore, at a rest position, the engaging portion **157** of the valve system keeps closing on the rim of the capsule under the compressive effect of the resilient means **158**.

Ex. 1004 (Yoakim) at [0436] (Patent Owner Annotation)

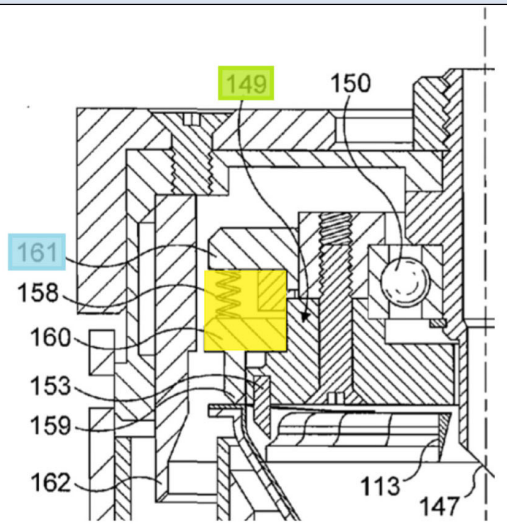
But:

Fig. 35 (Petitioner Annotation)



Ex. 1004 (Yoakim) at Fig. 35 (Petitioner Annotation)

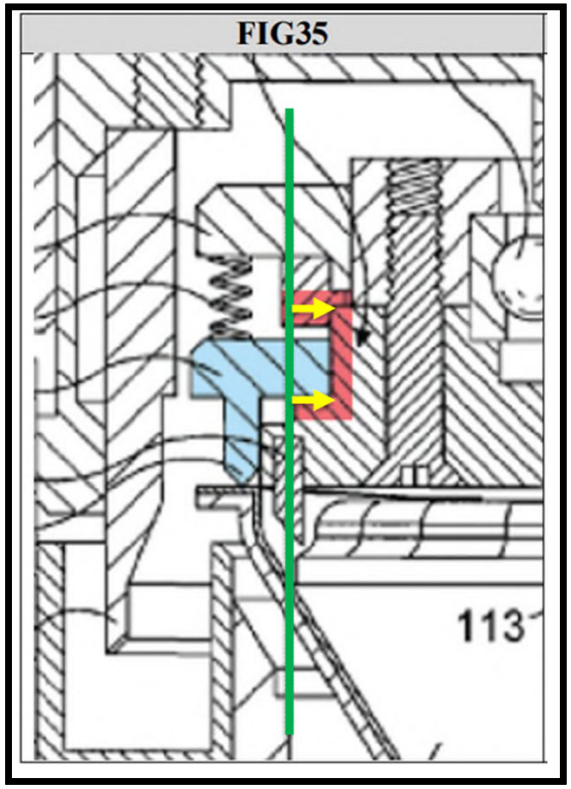
Fig. 35 (PO Annotation)



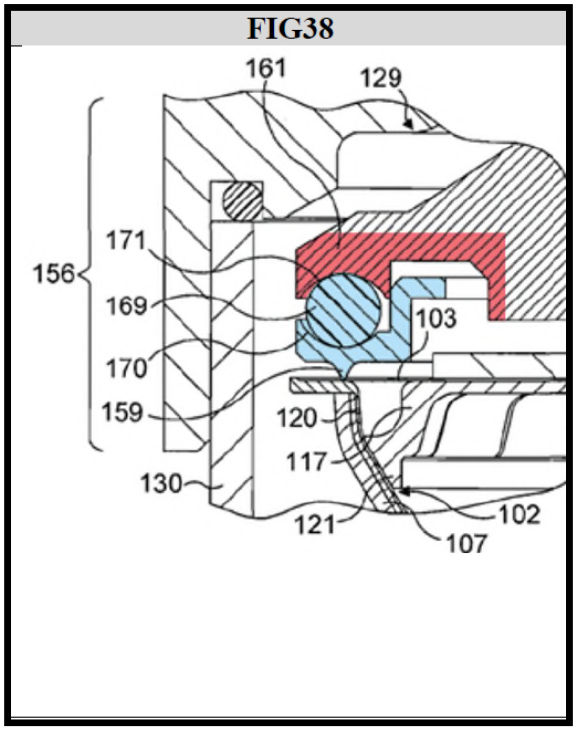
Ex. 1004 (Yoakim) at Fig. 35 (Patent Owner Annotation)

829 Pet at 68-70; 829 POR at 63-64; 829 POSR at 28-29; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 161-68. DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

“GROOVE” NOT OBVIOUS FROM YOAKIM’S TEACHINGS



Ex. 1004 (Yoakim) at Fig. 35
(Petitioner Annotation)



Ex. 1004 (Yoakim) at Fig. 38
(Petitioner Annotation)

829 Pet at 68-70; 829 POR at 58-65; 829 POSR at 28-29; Ex. 2020 (829 Glucksman Decl.) at ¶¶ 161-68. DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

PORTION CAPSULE FREE OF A FILTER

’829 Patent (IPR2024-00254): Dependent Claims 9, 18

’910 Patent (IPR2024-00299): All Claims

’830 Patent (IPR2024-00304): Dependent Claims 7, 12

’722 Patent (IPR2024-00257): Dependent Claims 14-16

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO TEACHINGS IN PRIOR ART:

- Single-serve capsule free of a filter
  - Petition fails to identify Yoakim's capsule "free of a filter"
  - Exemplary Yoakim Fig. 28 discloses a filter within the cavity
  - Yoakim at [0171] teaches an additional filter to the original filter within the cavity
  - Yokaim at [0271] discloses an additional filter in the brewing machine

910 POPR at 38-49; 910 POR at 47-57; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 147-65.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

THE ASSERTED CLAIMS REQUIRE…

14. The beverage system according to claim **5**, wherein the optically detectable identifier has a plurality of reflective zones, the portion capsule is free of a filter, the portion capsule is made of metal, and the optically detectable identifier includes a repeat pattern.

Ex. 1001 (722 Patent) at cls. 14-16 (Patent Owner Annotation)

wherein the portion capsule is free of a filter inside of the cavity; and

Ex. 1001 (910 Patent) at cls. 1, 8 (Patent Owner Annotation)

9. The beverage system according to claim **7**, wherein the portion capsule is free of a filter inside of the cavity.

Ex. 1001 (829 Patent) at cls. 9, 18 (Patent Owner Annotation)

7. The portion capsule according to claim **4**, wherein the portion capsule is free of a filter inside of the cavity.

Ex. 1001 (830 Patent) at cls. 7, 12 (Patent Owner Annotation)

910 POPR at 38-49; 910 POR at 47-57; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 147-65.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FILTER DESCRIPTION IN ASSERTED PATENTS

According to the invention it is further provided that a filter element is arranged into the cavity. Such a filter element divides the cavity into a first region for accommodating the beverage raw material and into a second region for accommodating a beverage extract. In particular, it is provided that the filter element is made of a non-woven material.

Ex. 1001 (910 Patent) at 7:12-19
(Patent Owner Annotation)

910 Pet at 67; 910 POR at 47-48; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 147-48.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONS' ARGUMENT DOES NOT DEMONSTRATE DISCLOSURE OF A CAVITY FREE OF A FILTER

910 Pet at 67

m) [1.n]/[8.n]

Yoakim discloses a capsule that does not include a filter and expressly confirms that a filter is optional. EX1004, [0171] ("An additional filtering layer can be used to filter the liquid depending on the size of the outlets."), [0343] (disclosing optional filter embodiment); [0255], [0288], [0300], [0461]; EX1003, ¶¶344-345. As depicted in FIGS6-7, 54-60 and described in [0197]-[0199], Yoakim discloses embodiments using capsules that do not have a filter. EX1003, ¶346-347. It would also have been an obvious design choice to a POSITA to not use a filter in a centrifuge based brewing system in order to simplify the capsule design. *Id.*

829 Pet at 72

x) Claim 9/18

Yoakim discloses a capsule with a base element that does not include a filter inside of the cavity, and expressly confirms that a filter is optional. EX1004, [0171] ("An additional filtering layer can be used. . . ."), [0343] (disclosing optional filter embodiment); EX1003, ¶¶320-321. As depicted in FIG54, Yoakim expressly discloses embodiments using capsules without a filter in the base element cavity. EX1004, FIG54; EX1003, ¶¶322-323.

910 Pet at 67; 829 Pet at 72; 722 Pet at 71; 830 Pet at 72-73.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONS' ARGUMENT DOES NOT DEMONSTRATE DISCLOSURE OF A CAVITY FREE OF A FILTER

722 Pet at 71

Free of a Filter: Yoakim discloses a capsule that does not include a filter and expressly confirms that a filter is optional. EX1004, [0171] ("An additional filtering layer can be used to filter the liquid depending on the size of the outlets."), [0343] (disclosing optional filter embodiment); [0255], [0288], [0300], EX1003, ¶358. As depicted in FIGS6-7, 54-60, and described in [0197]-[0199], Yoakim expressly discloses embodiments using capsules that do not have a filter. EX1003, ¶358. It would also have been obvious design choice to a POSITA to not use a filter in a centrifuge based brewing system, in order to simplify the capsule design. *Id.*

830 Pet at 72-73

7. Claim 7

Yoakim discloses a capsule with a base element that does not include a filter inside of the cavity, and expressly confirms that a filter is optional. EX1004, [0171] ("An additional filtering layer can be used. . . ."), [0343] (disclosing optional filter embodiment), [0255], [0288], [0300]; EX1003, ¶¶332-333. As depicted in FIG54, Yoakim expressly discloses embodiments using capsules without a filter in the base element cavity. EX1004, FIG54; EX1003, ¶¶332-333. As depicted in FIGS6-7, 54-60, and described in [0197]-[0199], Yoakim expressly discloses embodiments using capsules that do not have a filter. EX1003, ¶¶334-335. It would also have been obvious design choice to a person of ordinary skill in the art to not use a filter in a centrifuge based brewing system, in order to simplify the capsule design. *Id.*

910 Pet at 67; 829 Pet at 72; 722 Pet at 71; 830 Pet at 72-73.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT [0171] DOES NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE THE CAVITY

[0171] In this mode, premade radial outlets for the brewed liquid are provided in the capsule. For instance, a series of slits are provided in the lid and/or body. When the capsule is driven in rotation, the brewed liquid can pass through the slits whereas the solid particles are retained in the capsule. An additional filtering layer can be used to filter the liquid depending on the size of the outlets.

Ex. 1004 (Yoakim) at [0171]
(Patent Owner Annotation)

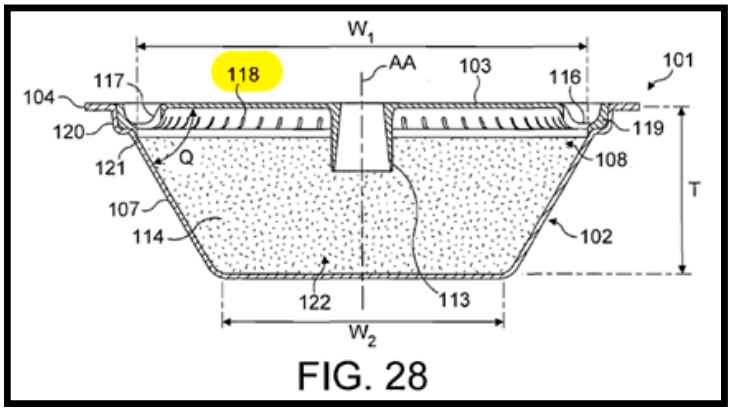


FIG. 28

Ex. 1004 (Yoakim) at Fig. 28
(Patent Owner Annotation)

An "*additional* filtering layer" is *additive* to the *filtering outlets/slits*

Yoakim Fig. 28, element 118 depicts "a series of slits," which is a filter

910 POR at 49-52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 149-55.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NOT ALL CLAIMS REQUIRE A FILTER IN THE CAVITY

14. The beverage system according to claim **5**, wherein the optically detectable identifier has a plurality of reflective zones, the portion capsule is free of a filter, the portion capsule is made of metal, and the optically detectable identifier includes a repeat pattern.

Ex. 1001 (722 Patent) at cls. 14-16 (Patent Owner Annotation)

Petitioner's arguments that Yoakim's lid with filtering means (*i.e.* "slits") are not inside the cavity are not applicable

Ex. 1001 (722 Patent) at cls. 14-16; 722 POR at 62-69.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT [0343] DOES NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE OF THE CAVITY

[0343] In a possible mode, the portion of wall with the outlet openings can be formed from a paper filter or woven, non-woven fibres, meshed material, porous polymer membrane or combination thereof. In this case, part of the portion of wall can be formed by a band or different parts of the filter, fibres or meshed material. The meshed material can be of metal and/or polymeric wires, for instance. The fibres can be a fabric of polymer and/or natural fibres. In these different cases, the openings can be formed of the pores formed between the fibres of the material. In particular, polymer woven or meshed material or a porous polymer membrane can be both tear resistant and designed with a low porosity, i.e., lower than 200 microns, more preferably between 1 and 100 microns, for providing a significant pressure drop, i.e., within about 1-4 bar. A suitable material can be a PET woven membrane.

Ex. 1004 (Yoakim) at [0343] (Patent Owner Annotation)

[0343] discloses the outlet openings

m) [1.n]/[8.n]

Yoakim discloses a capsule that does not include a filter and expressly confirms that a filter is optional. EX1004, [0171] ("An additional filtering layer can be used to filter the liquid depending on the size of the outlets."), [0343] (disclosing optional filter embodiment); [0255], [0288], [0300], [0461]; EX1003, ¶¶344-345. As depicted in FIGS6-7, 54-60 and described in [0197]-[0199], Yoakim discloses embodiments using capsules that do not have a filter. EX1003, ¶346-347. It would also have been an obvious design choice to a POSITA to not use a filter in a centrifuge based brewing system in order to simplify the capsule design. *Id.*

910 Pet at 67 (Patent Owner Annotation)

Petitioner *admits* Yoakim at [0343] expressly discloses filters within Yoakim's capsule

910 Pet at 67; 910 POR at 51-52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶ 156.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT [0255], [0288] AND [0300] DO NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE OF THE CAVITY

[0255] The liquid delivered from the capsule can also be filtered by filtering means provided in the capsule. Such a configuration has many advantages because the device is simplified, the filter does not require cleaning since it is discarded with the capsule.

Ex. 1004 (Yoakim) at [0255] (Patent Owner Annotation)

[0300] The capsule may comprise a filter means to filter the centrifuged before the liquid is released from the outlets at the sidewall. Preferably, the filter is distant from the sidewall along the median transversal plane inside the capsule. The filter can be a cylindrical filter extending from the upper wall to the lower wall.

Ex. 1004 (Yoakim) at [0300] (Patent Owner Annotation)

[0288] The capsule may comprise a filter means to filter the centrifuged before the liquid is released from the outlets at the sidewall.

Ex. 1004 (Yoakim) at [0288] (Patent Owner Annotation)

Yoakim at [0255], [0288] and [0300] disclose a filter inside the cavity

910 Pet at 67; 722 Pet at 71; 830 Pet at 72-73; 910 POR at 51-52; 722 POR at 65-66; 830 POR at 56-57; Ex. 2020 (910 Glucksman Decl.) at ¶ 156; Ex. 2020 (722 Glucksman Decl.) at ¶ 189; Ex. 2020 (830 Glucksman Decl.) at ¶ 184.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT FIG. 45 DOES NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE OF THE CAVITY

erties. The upper walls and lower walls can be flexible or rigid depending on said materials. For example, wall **701** can be a flexible sealing membrane welded on upper rim **703** of the body **705** forming the sidewall **700** and lower wall **702**. The side wall **700** may comprise outlets **704**, **706** for release of the liquid when centrifuged in the beverage preparation device around central axis AA of the capsule. Optionally, the capsule may comprise a filter part **708** delimiting the cavity **709** for the substance and a collecting recess **710** peripherally placed relative to the central cavity. The filter part may, for instance, be an integral part of the body **705** or a part which is added in the capsule, e.g., a filter cylinder. The centrifuged liquid passed through the cylindrical wall **700** in outlets **704**, **706** positioned, for example, at about the median transversal plane of the capsule. A series of outlets can be distributed at intervals around the side wall **700**. The outlets may be already pre-made in the wall **700** and covered by a gastight sealing membrane **711**. The sealing membrane can be a flexible band

Ex. 1004 (Yoakim) at [0461] (Patent Owner Annotation)

Element 708 is a "filter part"

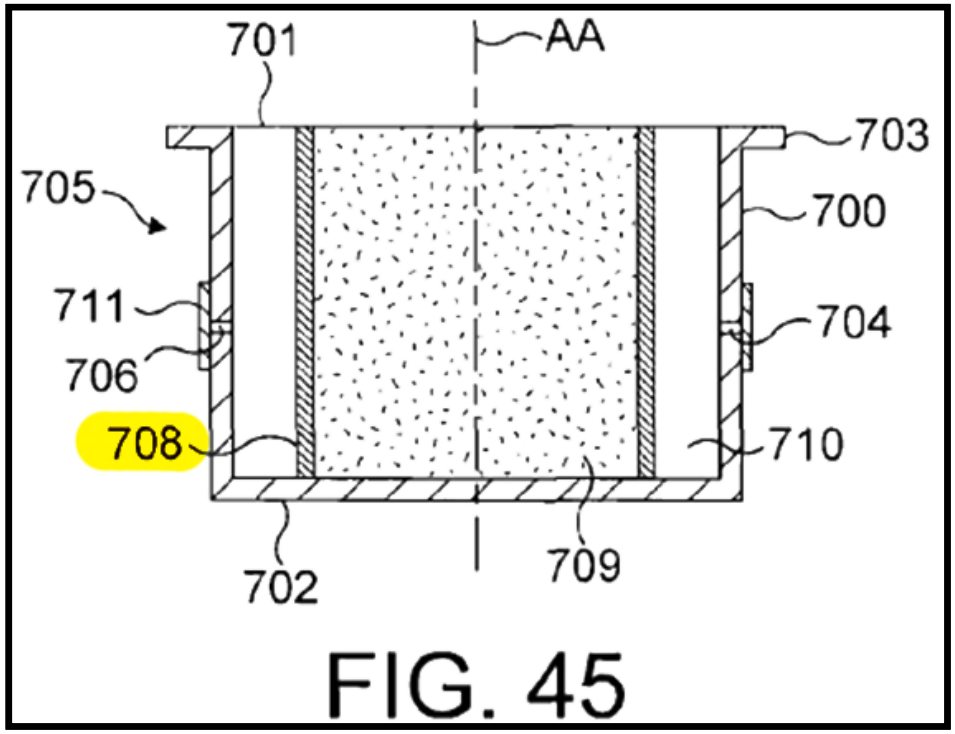


FIG. 45

Ex. 1004 (Yoakim) at Fig. 45 (Patent Owner Annotation)

910 Pet at 67; 910 POR at 51-52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶ 157.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT [0461] DOES NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE OF THE CAVITY

Yoakim at [0461] discloses a filter

[0461] FIGS. **45** to **50** are other variants of capsules according to the invention. For example, the capsule of FIG. **45** has a cylindrical side wall **700**, an upper wall **701** and a lower wall **702** both sealed or connected to the side wall **700**. The capsule is gastight by choosing materials for the walls, e.g., aluminium and/or suitable plastics, which have gas barrier properties. The upper walls and lower walls can be flexible or rigid depending on said materials. For example, wall **701** can be a flexible sealing membrane welded on upper rim **703** of the body **705** forming the sidewall **700** and lower wall **702**. The side wall **700** may comprise outlets **704**, **706** for release of the liquid when centrifuged in the beverage preparation device around central axis AA of the capsule. Optionally, the capsule may comprise a filter part **708** delimiting the cavity **709** for the substance and a collecting recess **710** peripherally placed relative to the central cavity. The filter part may, for instance, be an integral part of the body **705** or a part which is added in the capsule, e.g., a filter cylinder. The centrifuged liquid passed through the cylindrical wall **700** in outlets **704**, **706** positioned, for example, at about the median transversal plane of the capsule. A series of outlets can be distributed at intervals around the side wall **700**. The outlets may be already pre-made in the wall **700** and covered by a gastight sealing membrane **711**. The sealing membrane can be a flexible band surrounding the wall which can be pierced at the outlets, cut or removed, e.g., peeled off, by the user for uncovering the outlets before it is inserted in the centrifugal brewing device. The size of the outlets can be small enough to provide a flow restriction to the liquid.

Ex. 1004 (Yoakim) at [0461] (Patent Owner Annotation)

910 Pet at 67; 910 POR at 52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶ 156.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT FIGS. 6 & 7 DOES NOT SHOW THE CAVITY OF THE CAPSULE

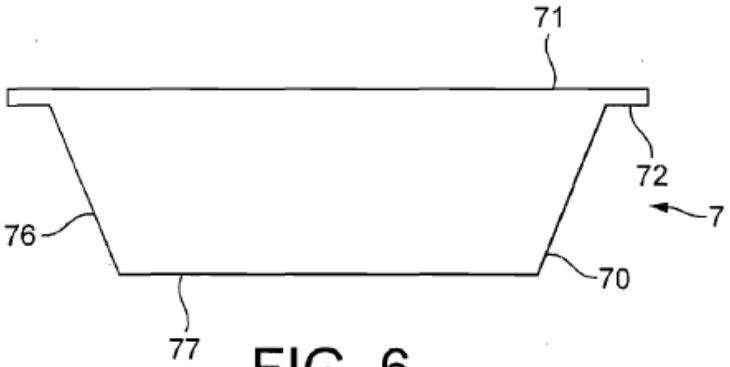


FIG. 6

Ex. 1004 (Yoakim) at Fig. 6

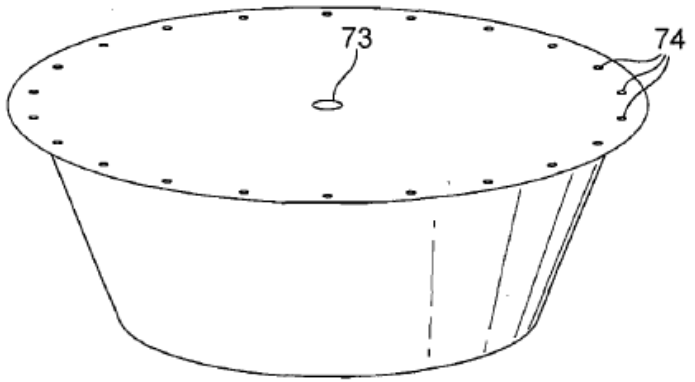


FIG. 7

Ex. 1004 (Yoakim) at Fig. 7

Yoakim Figures 6 & 7 fail to show inside the cavity of the capsule with the filtering means

910 Pet at 67; 910 POR at 41-42; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶ 116.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT FIG. 54 DOES NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE OF THE CAVITY

[0083] FIG. **54** is a schematic representation of the centrifugal device into which is inserted the capsule of FIG. **51**;

Ex. 1004 (Yoakim) at [0083] (Patent Owner Annotation)

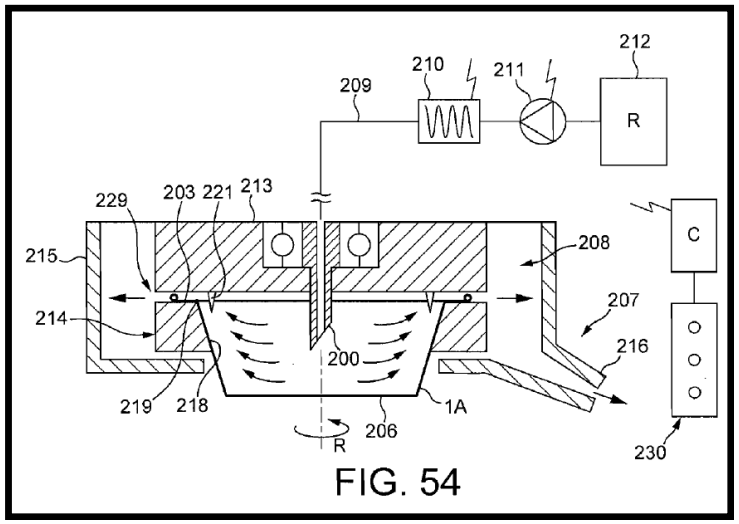


FIG. 54

Ex. 1004 (Yoakim) at Fig. 54

According to Yoakim, Fig. 54 is a schematic drawn at a high level

164. Tellingly, each of Figures 54-60 depict a "schematic" view of a capsule, which does not contain every detail of the capsule. *See* Ex. 2011 at 50:24-56:1 (Mr. Jobin admitting Yoakim's schematic views are "at a very high level," "drawn with less detail," and "there are details which are excluded in this view because it's intended to represent particular information"). The primary focus of Figure 54 is to underscore the different capsule sets and the arrangement of the interface assembly for forming the valve. For example, Figure 54 reflects a "schematic side view of a capsule of small volume" (i.e., a simplified view) and not a cross-sectional view like figures 41 and 42. *See* Ex. 1004 at [0080], [0083]; *see also* Ex. 1004 at Fig. 1, [0030]. Indeed, it does not depict any of the detailed features of the capsule, such as the food substance and lid. Figures 55-60 depict different sized capsules and shapes, without more detail. Moreover, any suggestion by Petitioner that the figures teach a capsule free of a filter is inconsistent with the disclosures of Yoakim that consistently and repeatedly describe a capsule having a filter element in the cavity.

Ex. 2020 (910 Glucksman Decl.) at ¶164

910 Pet at 67; 910 POR at 53-54; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶ 164.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN AGREES THAT SCHEMATIC VIEWS DO NOT CONTAIN EVERY DETAIL

Do you understand that Figure 2 does not show all the details?

ATTORNEY MCCRAW: Object to form. Objection. Relevance.

THE WITNESS: Paragraph 31 states [as read]:

"Figure 2 is a schematic representation of a brewing module in open position of the system of the invention into which is inserted a capsule."

They are depicting a view which shows the various components of the brewing module. Whether all of the details are included or not is not stated.

But, you know, there are other -- obviously, this subsystem goes into a larger system. And there are details which are excluded in this view because it's intended to represent particular information.

Ex. 2011 (11/28/23 Jobin Dep.) at 53:2-22 (Patent Owner Annotation)

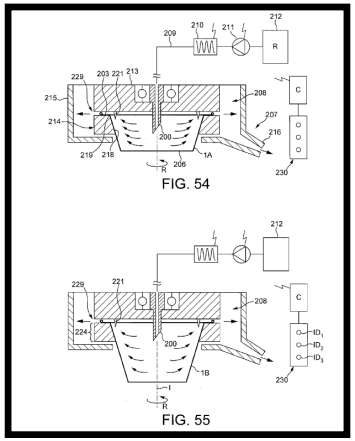
I see that the schematic representations of Figure 2 and 3 are drawn with less detail.

Ex. 2011 (11/28/23 Jobin Dep.) at 55:20-22 (Patent Owner Annotation)

910 POR at 54-55 (citing Ex. 2011 (11/28/23 Jobin Dep.)); Ex. 2020 (910 Glucksman Decl.) at ¶ 164.

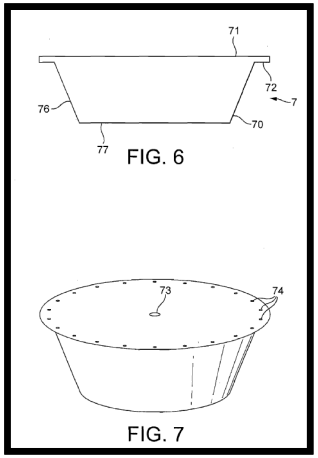
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

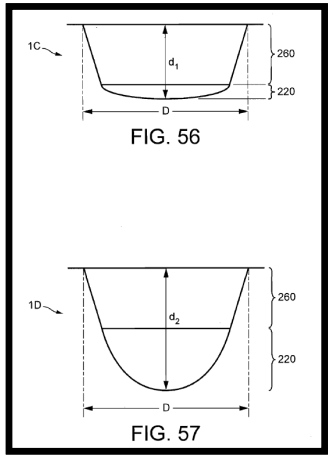
NO MOTIVATION TO COMBINE FIGS. 54/55 MACHINE WITH INCOMPATIBLE CAPSULES

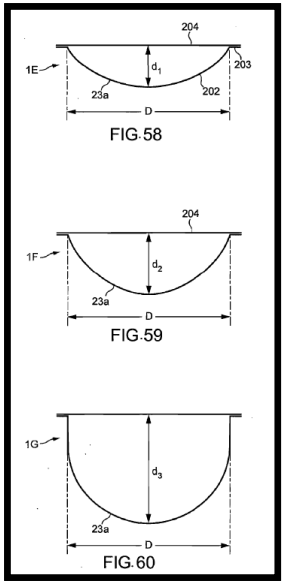


[0506] The capsules **1A**, **1B** are indented to be inserted in the centrifuge brewing device **207** (FIGS. **54** and **55**). As illustrated in FIG. **54**, the device comprises a brewing unit **800** fed with heated liquid, preferably hot water, by a fluid circuit **209** comprising a heater **210**, a pump **211** for metering liquid in the capsule and a liquid supply, e.g., a water reservoir **212**. The brewing unit comprises an interface assembly **213**, a capsule holder **214** and a collector **215**. A peripheral outlet **29**,

Ex. 1004 (Yoakim) at Figs. 54, 55, [0506] (Patent Owner Annotation)







Ex. 1004 (Yoakim) at Figs. 6, 7, 56-60

Discrete embodiments within Yoakim with no motivation to combine provided by Petitioner

See 910 Pet at 67; 910 POR at 16-18, 53-54; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 94-97, 162-64.

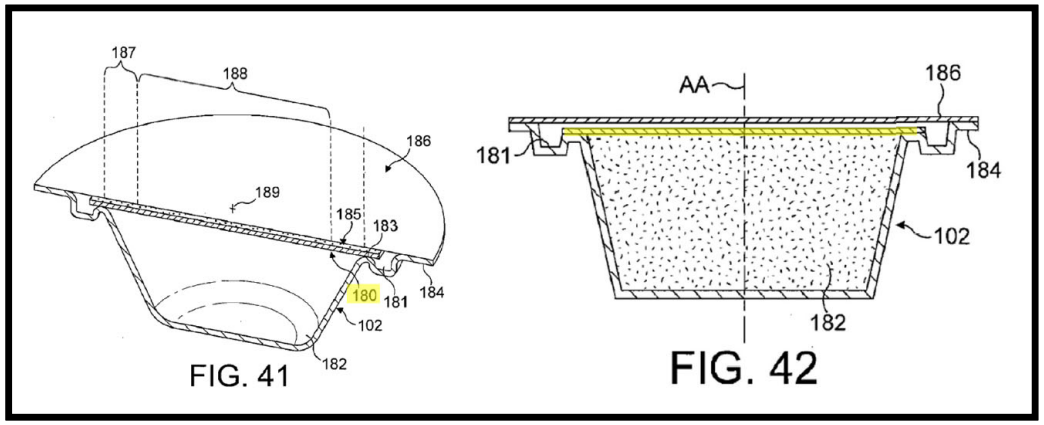
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT FIGS. 41 & 42 DO NOT DISCLOSE A CAPSULE FREE OF A FILTER THAT IS LOCATED INSIDE OF THE CAVITY

[0451] According to FIGS. **41** and **42**, the capsule in the system of the invention may also comprise an enclosure which is formed of a dished body **102** and a porous wall **180**. The dished body comprises a main cavity **182** for storing the food substance and a peripheral recess **181** for receiving the liquid extract that traverses the porous wall **180** during the centrifugation process. The recess **181** is delimited by an inner edge **183** and an outer rim **184**. The porous wall **180** can be attached to an inner edge **183** of the recess **181**. A gastight foil membrane **186** is preferably attached onto the outer rim **184** of the body. The inner edge is preferably placed below the outer rim in order to leave a free space **185** between porous wall **180** and the foil membrane **186**. The porous wall can be sealed by heat or ultrasonic welding onto the inner edge **183**. In order to leave a certain gap to let liquid travels to the recess, the inner edge **183** is slightly lower than the outer rim **84** onto which is sealed the outer membrane **186**.

[0452] The porous wall **180** can have openings (i.e., pores) along its whole surface or along a peripheral portion of wall only. FIG. **41** shows a portion of the wall **187** of wall **180**, which normally have the openings whereas the central portion **188** is free of openings.

Ex. 1004 (Yoakim) [0451] (Patent Owner Annotation)



Ex. 1004 (Yoakim) at Figs. 41, 42 (Patent Owner Annotation)

Figure 42 depicts a porous wall 180, which is a filter for separating the liquid from the food substance.

910 Pet at 67; 910 POR at 49-52; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 164-65.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S RELIANCE ON NEW CITATIONS IN REPLY SHOULD BE REJECTED

"Board did not abuse its discretion in holding [Petitioner] to its word and disregarding its new theory first raised in reply."

Henny Penny Corp. v. Frymaster LLC, 938 F.3d 1324, 1330-31 (Fed. Cir. 2019)

"We do not direct the Board to take new evidence or, even, to accept new briefing."

Ariosa Diagnostics v. Verinata Health, Inc., 805 F.3d 1359, 1367-68 (Fed. Cir. 2015)

910 POR at 56-57.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM AT [0271] DOES NOT CORRECT PETITION'S GAPS

[0271] Preferably, the capsule comprises an internal filter portion placed at the periphery of the enclosure. The internal filter portion can be an internal perforated lid and/or a portion of porous material. The cup-shaped body and internal lid can delimit the enclosure of the capsule. The perforated lid has preferably a peripheral portion of wall comprising a plurality of radial slots. The band of porous material can be placed distant from the upper wall inside the capsule. For instance, the perforated portion of lid or porous portion can be placed a few millimetres, e.g., 1-5 mm, away from the upper wall. It can be placed parallel to the upper wall or inclined (e.g. at 90 degrees) with respect to said upper wall. The said portion is not parallel to the widening sidewall but forms an angle with the sidewall of more than 15 degrees, preferably more than 45 degrees. In another mode, the filter could be part of the device or be formed by the puncturable membrane and piercing members.

Ex. 1004 (Yoakim) at [0271]

910 ID at 44-45; 910 POR at 52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 158-62.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

EMBODIMENTS PRECEDING/FOLLOWING [0271] DEPICT FILTERING MEANS

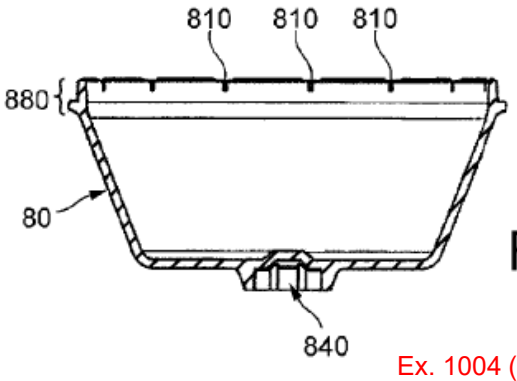


FIG. 16

Ex. 1004 (Yoakim) at Fig. 16

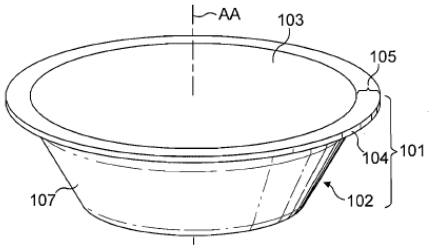


FIG. 26

Ex. 1004 (Yoakim) at Fig. 26

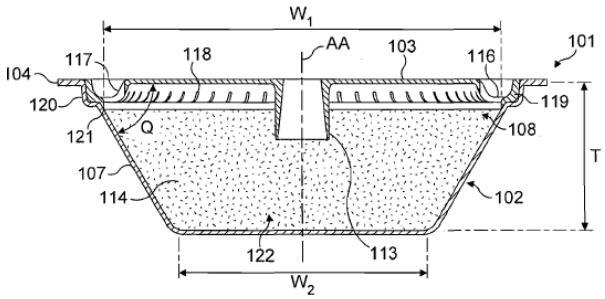


FIG. 28

Ex. 1004 (Yoakim) at Fig. 28

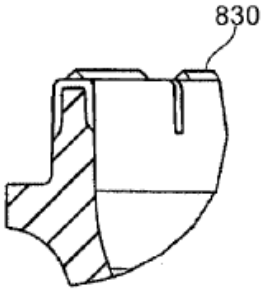


FIG. 17

Ex. 1004 (Yoakim) at Fig. 17

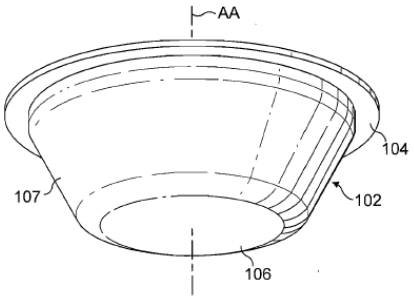


FIG. 27

Ex. 1004 (Yoakim) at Fig. 27

910 ID at 44-45; 910 POR at 52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 158-62.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD UNDERSTAND DISADVANTAGES OF A FILTER SOLELY IN THE DEVICE

159. Second, Yoakim never describes or illustrates an embodiment where the device has a filter and thus does not enable such a centrifugal device. A POSITA would have understood that a filter solely in the device would result in beverage material solids exiting the capsule and dirtying the device, negatively impacting the device's performance and the ability to achieve "[a] cleaner operation" (Ex. 1004 at [0325], [0318]-[0319]). This is the very disadvantage in the prior art that Yoakim seeks to overcome. Ex. 1004 at [0004], [0012], [0014]. Yoakim itself thus elsewhere teaches away from having a filter solely in the device. It is only with hindsight of Patent Owner's claims that one would even suggest a capsule in Yoakim absolutely free of any filter.

160. Additionally, a POSITA would not understand a filter to be in the device because Yoakim does not teach what to do with solids retained by a system where the filter is solely in the device. *See generally* Ex. 1004. Unlike a capsule filter, which is discarded with the capsule, a device filter would require removing/cleaning a dirty device after each use.

161. Third, the Petition does not explain how a filter in the device would be understood or achieved in Yoakim, relying instead solely on Yoakim's capsule embodiments. *See* Pet. at 67.

Ex. 2020 (910 Glucksman Decl.) at ¶¶159-161 (Patent Owner Annotation)

A filter solely in the device requires removing/cleaning the dirty device after every use

910 ID at 44-45; 910 POR at 52; 910 POSR at 25-26; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 158-62.

PETITIONER'S CONCLUSORY "DESIGN CHOICE" ARGUMENT IS IMPROPER

"Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference."

In re Kotzab, 217 F.3d 1365, 1370 (Fed. Cir. 2000)

"Design choice may serve as a basis for obviousness where alternative elements or configurations in the prior art perform the same function as the claimed aspects with no unexpected results."

Ex Parte Elliott, 2020 WL 5231583, at *3 (Aug. 28, 2020)

910 POR at 55-56.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

PUMP

’910 Patent (IPR2024-00299): All Claims

’829 Patent (IPR2024-00254): All Claims

’830 Patent (IPR2024-00304): All Claims

’722 Patent (IPR2024-00257): All Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL 910 PATENT CLAIMS REQUIRE

wherein the individualization identifier:

i) comprises at least two areas which differ in their optically detectable reflection properties;

ii) includes an optically detectable, machine readable, repeat pattern;

iii) encodes information used by the specific coffee machine to individualize the portion capsule so the portion capsule is permitted to be used with the specific coffee machine;

iv) encodes information used by the specific coffee machine to activate a pump of the specific coffee machine;

v) encodes information used by the specific coffee machine to control a beverage-making process, which includes setting a quantity of hot water, pressure of the hot water, and/or a temperature of the hot water;

vi) is further provided on the outside surface of the wall of the base element; and

vii)is compared to a stored reference to determine if the portion capsule is suitable for the specific coffee machine.

Ex. 1001 (910 Patent) at cl.1 (Patent Owner Annotation)

- Pump activated by *machine using encoded information*

Ex. 1001 (910 Patent) cls. 1-8; 910 POR at 57-62; 910 POSR at 23-35; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 166-78.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM LACKS ANY TEACHING THAT INFORMATION IN THE IDENTIFICATION MEANS IS USED TO ACTIVATE A PUMP

[0477] The capsule system further comprises an identification means associated to the different capsules in the set for identifying each capsule and adjusting brewing parameters accordingly. The adjustable parameters can be the rotational speed, the back-pressure at the outlet of the capsule, and/or the volume of liquid fed in the capsule. The identification means participates to deliver a wider range of beverages having differentiated characteristics (volume, taste, strength, crema, colour, etc.). The identification means are associated to control means placed in the centrifugal brewing device which controls the adjustment of the said parameters, by controlling the rotational motor driving the capsule holder or/and the pump supplying liquid in the capsule.

Ex. 1004 (Yoakim) at [0477] (Patent Owner Annotation)

[0521] The system of the invention advantageously comprises an identification means ID**1**, ID**2**, ID**3** (FIGS. **54** and **55**) or ID**4**, ID**5** (FIGS. **61** and **62**) associable to each capsule to ensure control of the brewing parameters, in particular, the flow rate and the volume of injected liquid in the capsule, as a function of the volume of the capsule and/or the product characteristics of the capsule (granulometry, roasting, etc.) and/or the beverage to be delivered (ristretto, espresso, lungo, etc.). The system of the invention is capable of delivering

Ex. 1004 (Yoakim) at [0521] (Patent Owner Annotation)

Adjusting settings is NOT activation of a pump

910 POR at 57-58; 910 POSR at 23-35; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 167-68.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN NEVER ANALYZED HOW YOAKIM'S CONTROL MEANS ACTIVATES THE PUMP

Q. Does Yoakim say how the control means activates the pump?

ATTORNEY BONNER: Objection. Form.

A. I'm not sure I understand the question.

Q. Does Yoakim inform a person of ordinary skill in the art how the control means activates the pump?

A. Well, it's not getting into the detail of the software, if that's what you mean, but it's talking about having a control means. In this particular paragraph, it's teaching -- you know, it's teaching that there is identification means and how that information is interpreted and used.

I haven't cited in particular the how of control means because it's not central to my analysis.

Ex. 2025 (Jobin Dep. 9/19/24) at 174:25-176:18 (Patent Owner Annotation)

910 POR at 58-59; 910 POSR at 23-35; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 168-69.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD HAVE UNDERSTOOD PUMP ACTIVATION VIA ENCODED INFORMATION IS NOT INHERENT IN YOAKIM'S TEACHINGS

> 169. Moreover, pump activation using information in the identification means is not inherent from Yoakim's teachings. Petitioner's arguments are a consequence of hindsight from K-fee's inventions. For example, Schifferle (Ex. 1039) teaches a coffee maker where "[a]s soon as the brewing chamber 5 is closed, the pump 2 is operated." Ex. 1039 at [0021]. A POSITA would have understood Yoakim's system could operate in this way, i.e., operating the pump without information encoded in the identification means. In my experience, pump activation is left to the user's discretion since developers and consumers alike want to preserve user autonomy in deciding when brewing will take place.

Ex. 2020 (Glucksman Decl.) at ¶169

910 POR at 57-62; 910 POSR at 23-35; Ex. 2020 (910 Glucksman Decl.) at ¶169.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALTERNATIVES TO OPERATING A PUMP WITH INFORMATION ENCODED IN THE IDENTIFICATION MEANS

closing plate member **11** not only closes the brewing chamber **5**, but also presses the cartridge cover **21** against the top end face of the cartridge retainer **12** along an annular contact area, thereby hydraulically sealing the upper portion of the cartridge **20** against the bottom **22** of the cartridge **20**. As soon as the brewing chamber **5** is closed, the pump **2** is operated. The amount of brewing water fed into the brewing chamber **5** per unit of time is restricted, as compared to the

Ex. 1039 (Schifferle) at [0021] (Patent Owner Annotation)

58. At a high level, single-serve coffee capsule extraction systems operate similarly. Ground coffee is sealed by the manufacturer in small, single use capsules or pods. These capsules are convenient for customers, who don't have to measure loose coffee grounds or deal with the mess that loose coffee grounds can sometimes create. Consumers typically place the single-serve capsule into a brewing chamber of the machine, close the chamber to seal it, and press a button or switch to initiate the extraction process, which causes the machine to mix heated water with coffee grounds inside the capsule to brew coffee.

Ex. 1003 (Jobin Decl.) at ¶58 (Patent Owner Annotation)

A POSITA would have understood Yoakim's system could operate in these ways

910 POR at 58-60; 910 POSR at 23-35; Ex. 2020 (910 Glucksman Decl.) at ¶¶169-70.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL 722 PATENT CLAIMS REQUIRE

1. A beverage system for producing a beverage, comprising:

a portion capsule comprising: a foil lid sealed to a base element having a cavity within which a beverage raw material is provided, the base element comprising a circumferential flange having a top side to which the lid is attached and a bottom side with a printed optically detectable identifier located on the bottom side, the optically detectable identifier includes a surface having at least two areas which differ in their reflection properties, and

a beverage machine comprising: a detector to read the optically detectable identifier, a media chute configured to receive and support the portion capsule, and a pump controlled to push water into the portion capsule only upon a determination that the read optically detectable identifier agrees with a stored reference,

wherein the base element has a wall region with an electrically conductive section and radial spaced and vertically oriented drawn grooves, the cavity has radially spaced and vertically oriented drawn ribs.

Ex. 1001 (722 Patent) at cl.1 (Patent Owner Annotation)

- Pump pushes water *only upon* both:
  - –Detection
  - –Determination

Of a ***read*** identifier

Ex. 1001 (722 Patent) at cls. 1-24.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL 830 PATENT CLAIMS REQUIRE

1. A portion capsule for making a beverage comprising:
a base element having a cavity in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having an open end and a closed bottom portion, the base element has a first height that is defined between the open end and the closed bottom portion, the wall has an outside surface and an inside surface which faces the beverage material;
a plurality of indentations arranged on the outside surface of the wall, about the central longitudinal axis;
a ledge formed at the inside surface of the wall and projecting towards the central longitudinal axis, the ledge is spaced below the open end of the base element;
a rim at the open end of the base element, the rim having a top surface and an opposing bottom surface;
an optically detectable individualization identifier, which is carried by the bottom surface of the rim, the optically detectable individualization identifier includes surface areas having different optically detectable reflective properties, the optically detectable individualization identifier is configured to be read by a sensor/detector of a beverage machine to individualize the portion capsule and to activate a pump of the beverage machine;

Ex. 1001 (830 Patent) at cl.1 (Patent Owner Annotation)

- Pump activated by:
  - –Detection
  - –Individualization / Determination

Ex. 1001 (830 Patent) at cls. 1-12.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL 829 PATENT CLAIMS REQUIRE

B) a beverage machine comprising:
i) a sensor/detector;
ii) an insertion shaft configured to receive the portion capsule and to enable detection of the identifier on the bottom side of the rim by the sensor/detector;
iii) a chamfered mandrel that is configured to pierce the cover at the location that is offset from the central longitudinal axis;
iv) a seal that is configured to bear against a top side of the cover in a region between the peripheral region of the cover and the region of the cover that is pierced by the chamfered mandrel; and
v) a pump controlled to supply hot water into the portion capsule only upon detection of the identifier by the sensor/detector and a determination by the beverage machine that the portion capsule is suitable for use with the beverage machine.

Ex. 1001 (829 Patent) at cl.1 (Patent Owner Annotation)

- Pump supplies hot water *only upon* both:
  - –Detection
  - –Determination

Ex. 1001 (829 Patent) at cls. 1-19.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM DOES NOT DISCLOSE CLAIMED PUMP CONTROL

[0180] The system **1** of the invention is illustrated in FIG. **1** in the more general sense. The system comprises a device **2** and a capsule **3**. The device has a brewing module **4** into which the capsule can be inserted for being brewed and is removed after use for being discarded (e.g., for waste or recycling). The module is in fluid communication with a water reservoir **5** containing fresh or, alternatively heated water. A fluid transport means such as a low pressure pump **6** can be provided in the water circuit to transport water from the reservoir to the module. A water heater **7** is further provided to heat water to the desired temperature. It can be noted that water could be heated in the reservoir itself and water could be transported from the reservoir by effect of vaporisation. Water can be fed into the module **4** at low or substantially no pressure. For example, a pressure between 0 and 2 bars above atmospheric pressure can be envisaged at the inlet **8** of the module.

Ex. 1004 (Yoakim) at [0180] (Patent Owner Annotation)

Yoakim "pump **6**" teachings

≠

Pump controlled to supply water *only* upon detection of identifier

910 POR at 57-62; 830 POR at 48-53; 722 POR at 51-60; 829 POR at 46-55.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM "FLOW RATE" TEACHINGS DO NOT DISCLOSE CLAIMED PUMP CONTROL

[0521] The system of the invention advantageously comprises an identification means ID**1**, ID**2**, ID**3** (FIGS. **54** and **55**) or ID**4**, ID**5** (FIGS. **61** and **62**) associable to each capsule to ensure control of the brewing parameters, in particular, the flow rate and the volume of injected liquid in the capsule, as a function of the volume of the capsule and/or the product characteristics of the capsule (granulometry, roasting, etc.) and/or the beverage to be delivered (ristretto, espresso, lungo, etc.). The system of the invention is capable of delivering different flow rates which are influenced by two key parameters: the rotational speed of the capsule in the device and the back-pressure exerted on the centrifuged liquid. For a given back-pressure, the higher the rotational speed, the larger the flow. Conversely, for a given rotational speed, the larger the back-pressure, the smaller the flow. The back-pressure can be

Ex. 1004 (Yoakim) at [0521] (Patent Owner Annotation)

Yoakim "flow rate" teachings

≠

Pump controlled to supply water *only* upon detection of identifier

910 POR at 57-58; 830 POR at 48-50; 722 POR at 51-53; 829 POR at 46-48; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 167-68.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM TEACHES CONTROL OF FLOW RATE BY A VALVE AS A KEY PARAMETER – NOT A PUMP

[0521] The system of the invention advantageously comprises an identification means ID1, ID2, ID3 (FIGS. **54** and **55**) or ID4, ID5 (FIGS. **61** and **62**) associable to each capsule to ensure control of the brewing parameters, in particular, the flow rate and the volume of injected liquid in the capsule, as a function of the volume of the capsule and/or the product characteristics of the capsule (granulometry, roasting, etc.) and/or the beverage to be delivered (ristretto, espresso, lungo, etc.). The system of the invention is capable of delivering different flow rates which are influenced by two key parameters: the rotational speed of the capsule in the device and the back-pressure exerted on the centrifuged liquid. For a given back-pressure, the higher the rotational speed, the larger the flow. Conversely, for a given rotational speed, the larger the back-pressure, the smaller the flow. The back-pressure can be varied by varying the closing force of a flow restriction valve placed downstream of the enclosure of the capsule and/or by varying the cross-section of the restriction outlets, such as described in co-pending patent application WO 2009/106175.

Ex. 1004 (Yoakim) at [0521] (Patent Owner Annotation)

- Yoakim discloses numerous controllable features, *e.g.*,
  - Restriction valve
  - Flow rate
  - Rotational speed
- Only reach claim with benefit of hindsight

910 POR at 57-58; 830 POR at 48-50; 722 POR at 51-53; 829 POR at 46-48; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 167-68.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM DOES NOT DISCLOSE CLAIMED PUMP CONTROL

[0522] As known per se, the control of the rotational speed is carried out by the control means selectively activating the rotational motor (not shown) which drives part of the interface assembly **213**, the capsule holder **214** and the capsule together in rotation. The control of the volume of liquid injected in the capsule is carried out by the control means selectively activating the pump **211** to meter the proper volume of liquid.

Ex. 1004 (Yoakim) at [0522] (Patent Owner Annotation)

Yoakim "pump **211**" teachings

≠

Pump controlled to supply water *only* upon detection of identifier

910 POR at 57-58; 830 POR at 48-50; 722 POR at 51-53; 829 POR at 46-48; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 166-78.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM TEACHES CENTRIFUGAL ROTATION CAN OCCUR BEFORE WATER INTRODUCED

means. In the locked position, the capsule is opened by the water injector that pierces through the sealing foil of the capsule and introducing itself through the water inlet **135** of the capsule. At the same time, several liquid outlets are pierced at the periphery of the sealing foil by the outlet piercing members **151**, **152**, **153**, **154**. Water can thus be introduced in the capsule via the central water injector **145**. Venting holes can be produced in the injection subassemblies to allow gas to escape the capsule while water is introduced in. The capsule can be driven in rotation by activating the rotary motor **140**. The start of the centrifugal operation can be carried out at the same time as water injection start being introduced in the capsule or slightly after or before this water injection operation starts.

Ex. 1004 (Yoakim) at [0440] (Patent Owner Annotation)

- "Centrifugal rotation"—a step in production process—can occur even before water introduced into capsule
- Thus, "activating a cycle of production" would not necessarily involve controlling a pump to supply water to capsule

829 POR at 53-54; Ex. 2020 (829 Glucksman Decl.) at ¶ 154.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM CONFIRMS: PUMP NOT NECESSARY TO SUPPLY HEATED WATER TO CAPSULE

[0132] The method of the invention comprises an operation wherein hot water is introduced into the capsule at substantially no pressure. Water can be brought by a hot water feed mechanism using a principle of aspiration or vaporisation.

Ex. 1004 (Yoakim) at [0132] (Patent Owner Annotation)

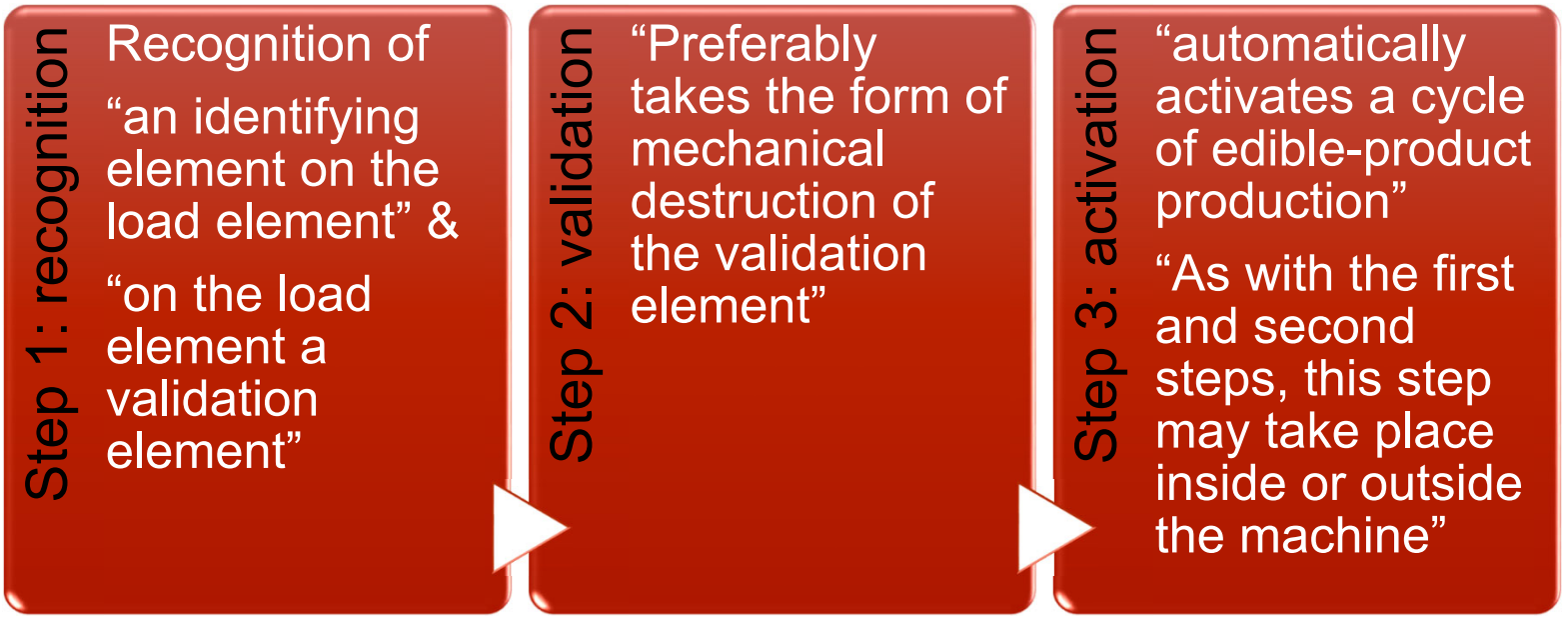
[0180] The system **1** of the invention is illustrated in FIG. **1** in the more general sense. The system comprises a device **2** and a capsule **3**. The device has a brewing module **4** into which the capsule can be inserted for being brewed and is removed after use for being discarded (e.g., for waste or recycling). The module is in fluid communication with a water reservoir **5** containing fresh or, alternatively heated water. A fluid transport means such as a low pressure pump **6** can be provided in the water circuit to transport water from the reservoir to the module. A water heater **7** is further provided to heat water to the desired temperature. It can be noted that water could be heated in the reservoir itself and water could be transported from the reservoir by effect of vaporisation. Water can be fed into the module **4** at low or substantially no pressure. For example, a pressure between 0 and 2 bars above atmospheric pressure can be envisaged at the inlet **8** of the module.

Ex. 1004 (Yoakim) at [0180] (Patent Owner Annotation)

910 POR at 59-62; 830 POR at 48-50; 722 POR at 51-53; 829 POR at 46-48; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 141-42, 172-78.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ROSSI'S 3 STEPS DISCLOSE 0 PUMPS



Ex. 1041 (Rossi) at 6-13; 910 POR at 57-62; 830 POR at 48-50; 722 POR at 51-53; 829 POR at 46-48; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 166-78.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD NOT BE MOTIVATED TO COMBINE TEACHINGS OF LOW-PRESSURE SYSTEM WITH HIGH PRESSURE SYSTEM

Yoakim: low pressure, 0-2 bars

[0132] The method of the invention comprises an operation wherein hot water is introduced into the capsule at substantially no pressure. Water can be brought by a hot water feed mechanism using a principle of aspiration or vaporisation.

Ex. 1004 (Yoakim) at [0132]
(Patent Owner Annotation)

to heat water to the desired temperature. It can be noted that water could be heated in the reservoir itself and water could be transported from the reservoir by effect of vaporisation. Water can be fed into the module **4** at low or substantially no pressure. For example, a pressure between 0 and 2 bars above atmospheric pressure can be envisaged at the inlet **8** of the module.

Ex. 1004 (Yoakim) at [0180]
(Patent Owner Annotation)

Rossi: high pressure

140. Yoakim's teachings relating to "espresso" are directed to the size of the beverage—not the method for making the beverage or any pump pressure. *See, e.g.*, Ex. 1004 at [0471], [0476], [0526] ("in particular coffees, of different volumes (e.g., risetto, espresso, lungo, americano, etc.)"). A POSITA would have understood from Yoakim's disclosure that Yoakim's device lacks the necessary pressure to brew a traditional espresso beverage. Cursory mentions of "espresso" do not overcome the necessary conclusion from Yoakim as a whole—Yoakim is a low-pressure system and not the type that Rossi's teachings seek to improve. Yoakim thus teaches away from high-pressure pump systems in favor of centrifugal, low or no water delivery pressure, systems.

Ex. 2020 (910 Glucksman Decl. at ¶ 140

910 Pet at 71-73; 910 POR at 59-62; 830 Pet at 60-61; 830 POR at 48-50; 722 Pet at 54-56; 722 POR at 51-53; 829 Pet at 62-66; 829 POR at 46-48; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 141-42, 172-78.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

K-FEE SYSTEM GMBH, EX2034, page 130
NESPRESSO USA, INC. v. K-FEE SYSTEM GMBH
IPR2024-00304, U.S. PATENT 11,465,830

PRIOR ART FAILING:

IDENTIFIER ON THE OUTSIDE SURFACE OF THE WALL OF THE BASE ELEMENT

’910 Patent (IPR2024-00299): Claims 1-7

’722 Patent (IPR2024-00257): Claims 13, 16

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

910 CLAIMS 1-7 REQUIRE

wherein the individualization identifier:

i) comprises at least two areas which differ in their optically detectable reflection properties;

ii) includes an optically detectable, machine readable, repeat pattern;

iii) encodes information used by the specific coffee machine to individualize the portion capsule so the portion capsule is permitted to be used with the specific coffee machine;

iv) encodes information used by the specific coffee machine to activate a pump of the specific coffee machine;

v) encodes information used by the specific coffee machine to control a beverage-making process, which includes setting a quantity of hot water, pressure of the hot water, and/or a temperature of the hot water;

vi) is further provided on the outside surface of the wall of the base element; and

vii)is compared to a stored reference to determine if the portion capsule is suitable for the specific coffee machine.

Ex.1001 (910 Patent) at cl. 1 (Patent Owner Annotation)

Ex.1001 (910 Patent) at cls. 1-7.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

722 CLAIMS 13, 16 REQUIRE

> **13**. The beverage system according to claim **7**, wherein the optically detectable identifier is located on a side wall of the base element.

Ex. 1001 (722 Patent) at cl. 13 (Patent Owner Annotation)

Ex. 1001 (722 Patent) at cls. 13, 16.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO TEACHINGS IN PRIOR ART:

- Identifier on the wall of the base element
  - Jarisch 929 lacks teaching of placing a support on cup-shaped area of the capsule
  - A POSITA would have understood that the part of the “body” where Jarisch 929 teaches placing a support is limited to the circumference of the capsule

910 Pet at 74; 910 POR at 67-69; 910 POSR 29-31; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 188-92.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

UNDISPUTED THAT THE SUPPORT IS ON THE "CIRCUMFERENCE"

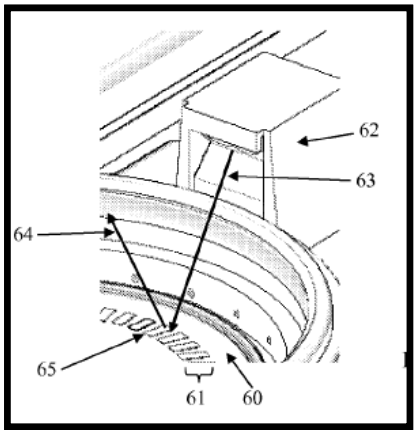
[0050] The capsule is designed for rotating around an axis A. This axis A crosses perpendicularly the center of the membrane which has the form of a disk. This axis A exits at the center of the bottom of the body. This axis A will help to define the notion of "circumference" which is a circular path located on the capsule and having the axis A as reference axis. This circumference can be on the lid, e.g., membrane or on the body part such as on the flange-like rim. The lid may be impervious to liquid before insertion in the device or it may be pervious to liquid by means of small openings or pores provided in the center and/or periphery of the lid.

Ex. 1006 (Jarisch 929) at [0050] (Patent Owner Annotation)

ing such a support so as to add such information. Depending on the configuration of the reading arrangement, the support can be positioned so as the section containing the sequence of symbols is spread along the circumference or a part of the circumference of the body of the capsule, or on the bottom side of the rim of the capsule. The support may be simply

Ex. 1006 (Jarisch 929) at [0019] (Patent Owner Annotation)

Membrane



Ex. 1006 (Jarisch 929) at Fig. 3

Flange-like Rim

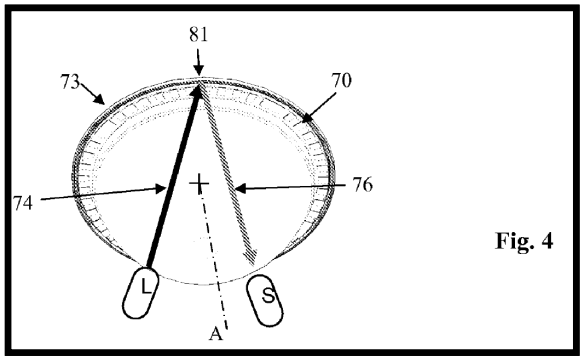


Fig. 4

Ex. 1006 (Jarisch 929) at Fig. 4

910 POR at 67-68; 910 POSR at 30; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 188-92.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

THE RIM IS PART OF THE "BODY OF THE CAPSULE"

Petitioner cites:

[0064] The support can be part of, or be formed directly on, the body of the capsule. The support can also be disposed on the bottom side of the rim of the capsule. Typically, the distance of the support from the peripheral edge is not more than 10 mm, more preferably not more than 8 mm. In particular, the support can be made of a paint and/or a lacquer and/or an embossed ply of material of the capsule itself.

Ex. 1006 (Jarisch 929) at [0064]

But:

[0050] The capsule is designed for rotating around an axis A. This axis A crosses perpendicularly the center of the membrane which has the form of a disk. This axis A exits at the center of the bottom of the body. This axis A will help to define the notion of "circumference" which is a circular path located on the capsule and having the axis A as reference axis. This circumference can be on the lid, e.g., membrane or on the body part such as on the flange-like rim. The lid may be impervious to liquid before insertion in the device or it may be pervious to liquid by means of small openings or pores provided in the center and/or periphery of the lid.

Ex. 1006 (Jarisch 929) at [0050]

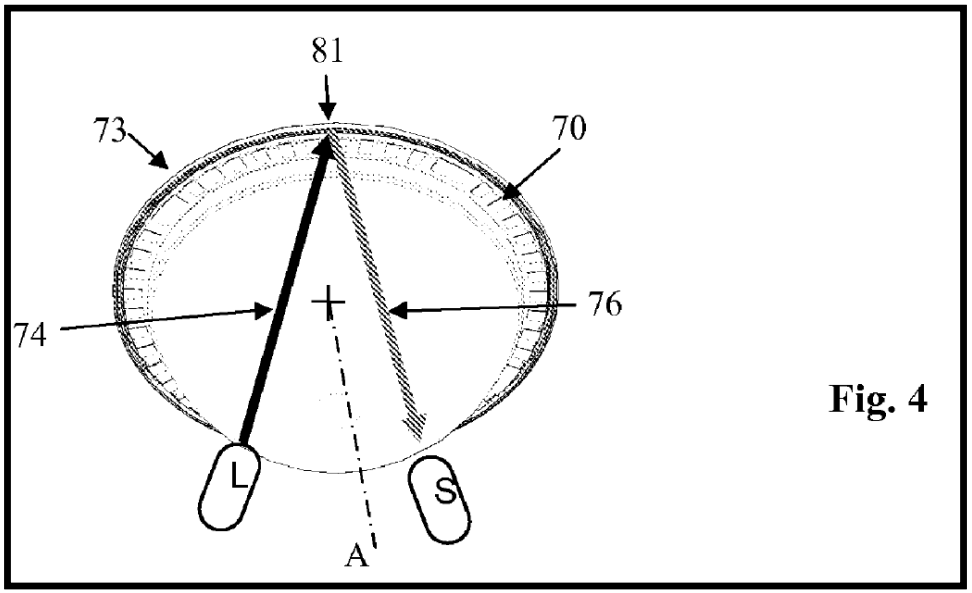


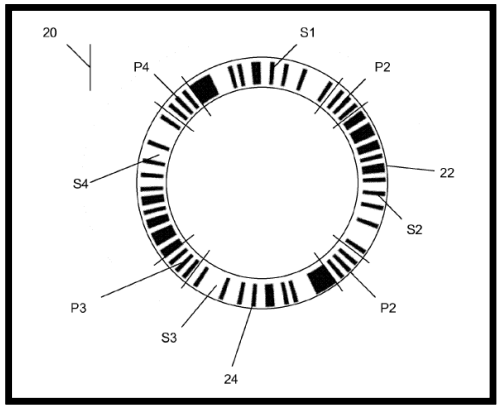
Fig. 4

Ex. 1006 (Jarisch 929) at Fig. 4

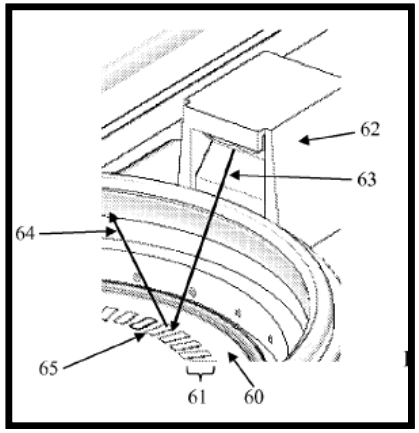
910 Pet at 74; 910 POR at 67; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 188-92.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

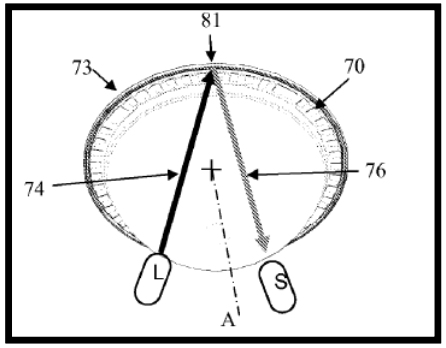
NO JARISCH / JARISCH 929 EMBODIMENT INCLUDES SUPPORT ON THE WALL OF THE BASE ELEMENT



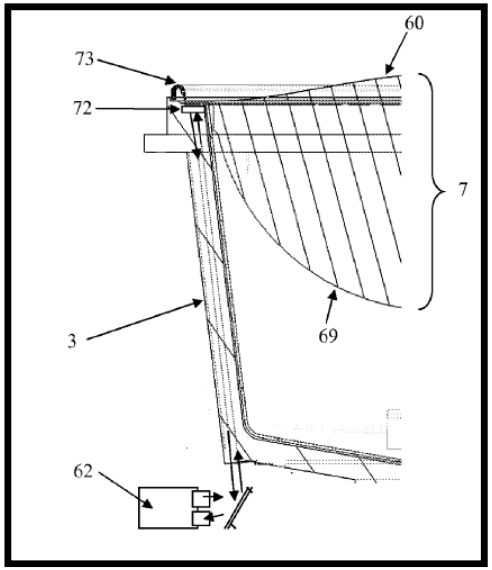
Ex. 1006 (Jarisch 929) at Fig. 2



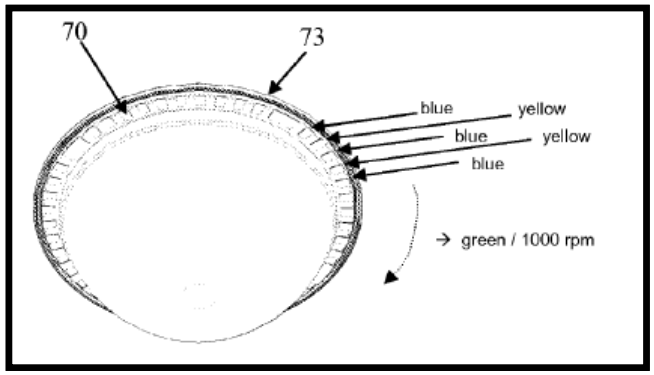
Ex. 1006 (Jarisch 929) at Fig. 3



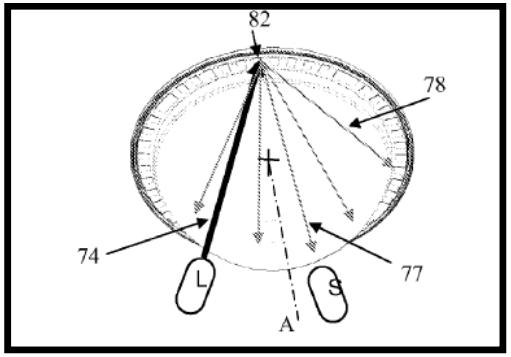
Ex. 1006 (Jarisch 929) at Fig. 4



Ex. 1006 (Jarisch 929) at Fig. 5



Ex. 1006 (Jarisch 929) at Fig. 8



Ex. 1006 (Jarisch 929) at Fig. 7

910 POR at 67.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH 929 LACKS MOTIVATION TO PLACE SUPPORT ELSEWHERE

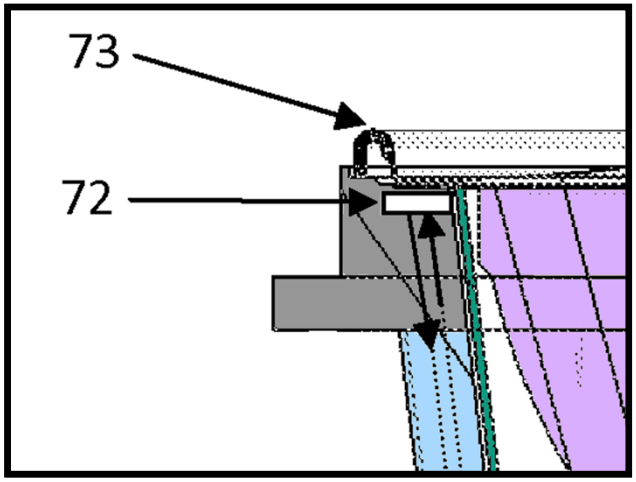
Jobin states:

371. Furthermore, it would have been obvious to a person skilled in the art to also print the individualization identifier both on the bottom of the flange and on the outside surface of the wall of the base element to provide an alternative location to read the code in order to increase the chances of the code being read.

372. Accordingly, Yoakim in view of Jarisch 929 disclose a portion capsule wherein the individualization identifier: "(iv) is further provided on the outside surface of the wall of the base element," as required by claim [1.t].

Ex. 1003 (910 Jobin Decl.) at ¶¶ 371-72 Patent Owner Annotation)

But:



Ex. 1006 (Jarisch 929) at Fig. 5 Patent Owner Annotation); *see id.* at [0106]

- There is no motivation to print the support on Jarisch / Jarisch 929's base element wall
- Cannot read Jarisch / Jarisch 929's support if it is placed on the wall of Jarisch / Jarisch 929's base elemen

910 POR at 69; 910 POSR at 31, Ex. 2020 (910 Glucksman Decl.) at ¶¶ 188-92.

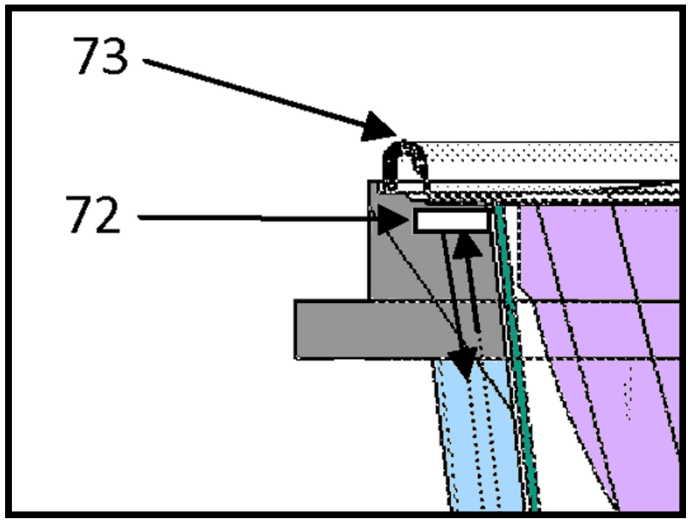
DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH 929 DIRECTS A POSITA TO ACHIEVE RELIABLE READINGS BY REPEATING THE SEQUENCE ON THE CIRCUMFERENCE

Jarisch 929:

[0068] The sequence is preferably repeated along the circumference in order to ensure a reliable reading. The sequence is repeated at least twice on the circumference.

Ex. 1006 (Jarisch 929) at [0068]



Ex. 1006 (Jarisch 929) at Fig. 5 (Patent Owner Annotation)

910 POR at 68-69; 910 POSR at 31; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 188-92.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

SETTINGS FOR HOT WATER

’910 Patent (IPR2024-00299): All Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL 910 CLAIMS REQUIRE

wherein the individualization identifier:

i) comprises at least two areas which differ in their optically detectable reflection properties;

ii) includes an optically detectable, machine readable, repeat pattern;

iii) encodes information used by the specific coffee machine to individualize the portion capsule so the portion capsule is permitted to be used with the specific coffee machine;

iv) encodes information used by the specific coffee machine to activate a pump of the specific coffee machine;

v) encodes information used by the specific coffee machine to control a beverage-making process, which includes setting a quantity of hot water, pressure of the hot water, and/or a temperature of the hot water;

Ex. 1001 (910 Patent) at cl. 1 (Patent Owner Annotation)

Ex. 1001 (910 Patent) at cls. 1-8; 910 POR at 66-67; 910 POSR at 29.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DISCLOSURE OF CONTROLLING "TEMPERATURE" IS NOT THE SAME AS "HOT WATER"

E. The Petition Fails To Make a Prima Facie Showing of Settings for Hot Water (All Claims)

Claim elements [1.s]/[8.s] require "setting a quantity of ***hot water***, pressure of the ***hot water***, and/or a temperature of the ***hot water***." The Petition contends that Yoakim and Jarisch929 use encoded information to control water quantity, pressure or temperature, but makes no contention or showing of such settings controlling "hot water," as claimed. Pet., 71. Petitioner thus fails to demonstrate unpatentability on elements [1.s]/[8.s]. 37 C.F.R. 42.104(b); 35 U.S.C. §312(a)(3).

910 POR at 66-67

910 POR at 66-67; 910 POSR at 29.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER CANNOT MAKE NEW ARGUMENTS ON REPLY

I. Reply to Patent Owner Response and Reply to Petitioner Opposition to a Motion to Amend; Sur-Replies

A petitioner may file a reply to a patent owner response, and a patent owner may file a reply to an opposition to a motion to amend. 37 C.F.R. § 42.23. Additionally, in response to issues arising from the Supreme Court's decision in *SAS* (138 S. Ct. at 1358), the Board will permit the petitioner, in its reply brief, to address issues discussed in the institution decision. The patent owner will similarly be allowed to address the institution decision in its sur-reply, if necessary to respond to petitioner's reply. Petitioner may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability. A party also may submit rebuttal evidence in support of its reply. *See Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1077–78 (Fed. Cir. 2015). If a party submits a new expert declaration with its reply, the opposing party may cross-examine the expert, move to exclude the declaration, and comment on the declaration and cross-examination in any sur-reply. *Id.* at 1081–82.

PTAB TPG Nov. 2019 at 73 (Patent Owner Annotation)

910 POR at 66-67; 910 POSR at 29.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

PLURALITY OF VERTICALLY ORIENTED GROOVES SPACED A DISTANCE BETWEEN THE FLANGE AND BOTTOM

- "…spaced a distance between the flange and the closed bottom"
- "…cover 20% to 80% of the wall between the flange and the closed bottom" / "…cover 40% to 60% of the wall between the flange and the closed bottom"

'910 Patent (IPR2024-00299): All Claims

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALL ’910 CLAIMS REQUIRE

a plurality of vertically oriented grooves arranged on the outside surface of the wall, the plurality of vertically oriented grooves each have a radiused top end and a radiused bottom end and are spaced a distance between the flange and the closed bottom, the plurality vertically oriented grooves cover 20% to 80% of the wall between the flange and the closed bottom;

Ex. 1001 (910 Patent) at cl. 1 (Patent Owner Annotation)

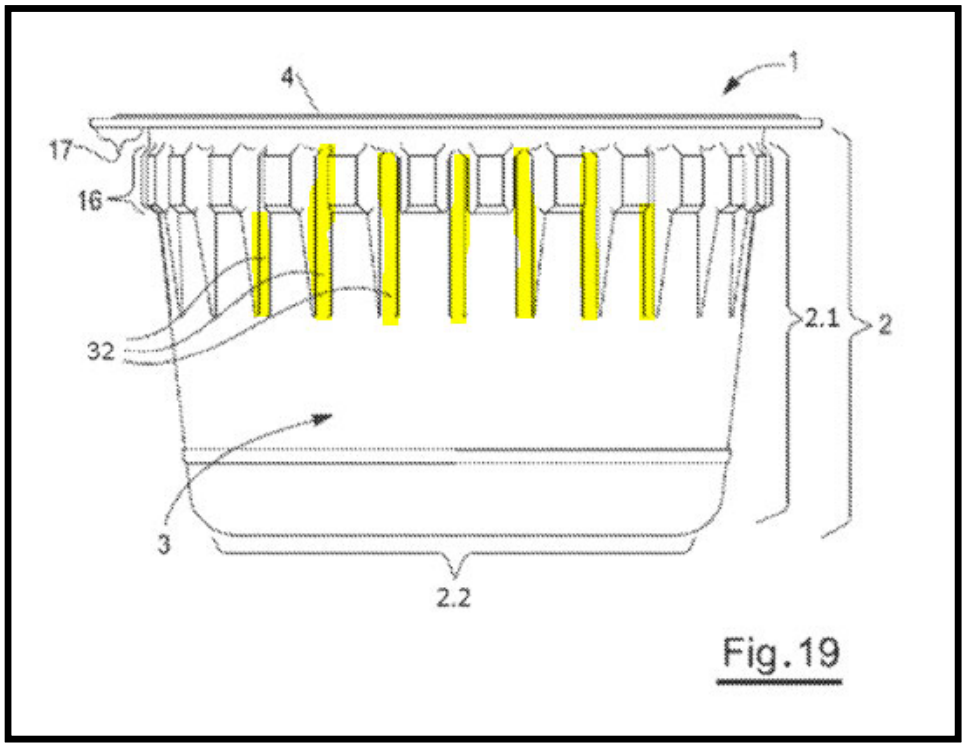
4. The portion capsule according to claim 3, wherein the vertically-oriented grooves cover 40% to 60% of the wall between the flange and the closed bottom.

Ex. 1001 (910 Patent) at cl. 4 (Patent Owner Annotation)

Ex. 1001 (910 Patent) at cls. 1-8; 910 POR at 62-66; 910 POSR at 26-29; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 179-87.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

FIGURE 19 ILLUSTRATES GROOVES SPACED A DISTANCE BETWEEN THE FLANGE AND THE CLOSED BOTTOM

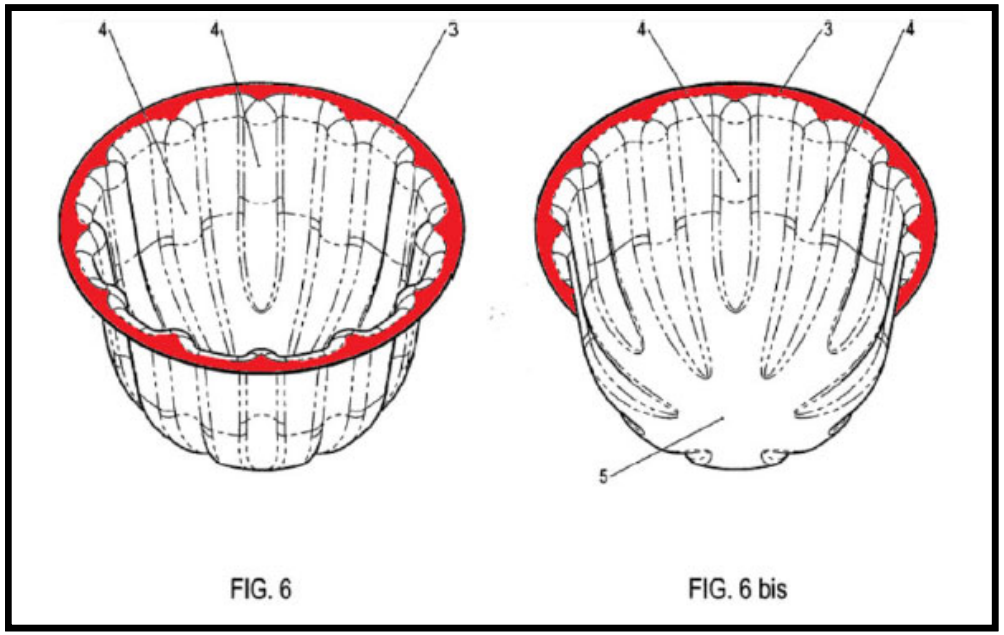


Ex. 1001 (910 Patent) at Fig. 19 (Patent Owner Annotation)

910 POR at 63; POSR at 28; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 179-87.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RAPPARINI'S RIBS INTERSECT WITH THE FLANGE



Ex. 1008 (Rapparini) at Figs, 6, 6bis
(Patent Owner Annotation)

[0011] According to a further embodiment of the present invention, a container is provided, wherein long and short ribs are alternated along the surface of the body. The stability of the container is accordingly optimized by providing for example long ribs extending at least partially in the bottom region of the container alternated to short ribs extending only along the side region of the container.

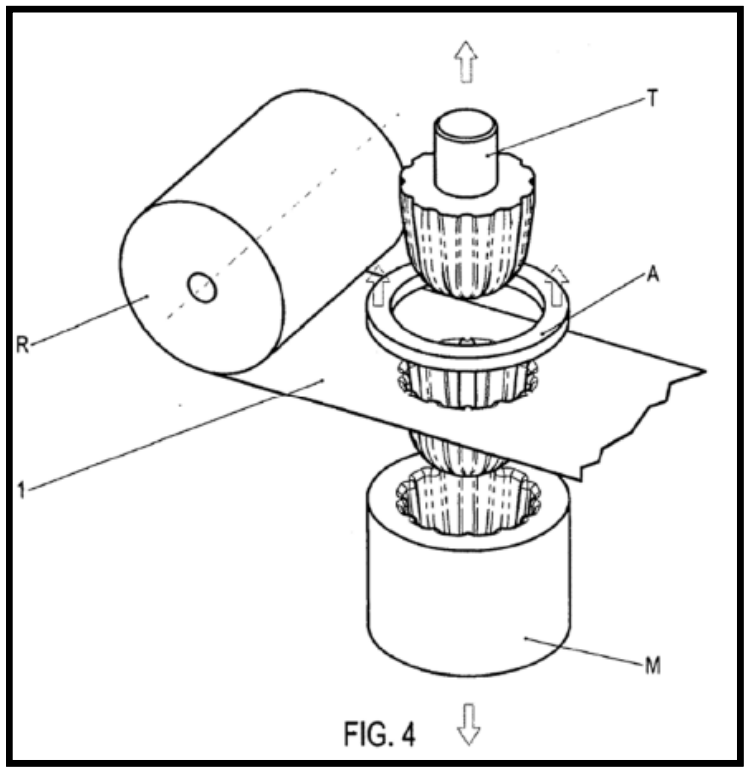
Ex. 1008 (Rapparini) at [0011]
(Patent Owner Annotation)

Rapparini's ribs are not spaced a distance between the flange and the closed bottom

910 POR at 63-64; Ex. 2020 (910 Glucksman Decl.) at ¶ 180.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RAPPARINI'S DIE EXTENDS RIBS TO THE TOP SURFACE OF THE THERMOFORMED MATERIAL



Ex. 1008 (Rapparini) at Fig. 4

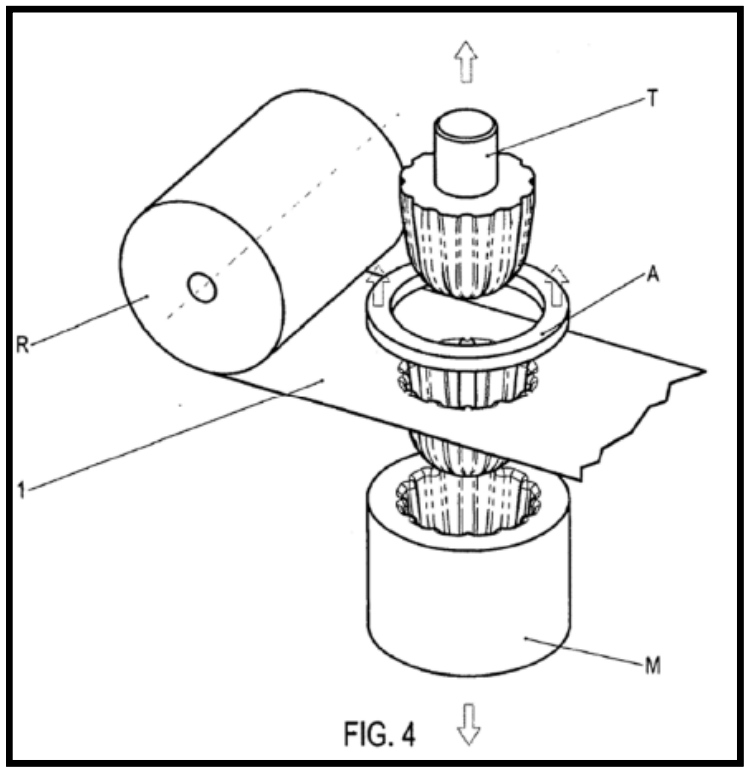
182. A POSITA would have understood there was no practical way to use the process taught by Rapparini to thermoform ribs on a capsule and still have the ribs not extend to the flange. Rapparini teaches a fast assembly line process that would require only a few seconds to perform this operation and such a process would result in the ribs extending all the way to the flange as illustrated above. *See* Ex. 1008 at Fig. 4. Rapparini being an experienced designer of high-speed packaging equipment would have understood the impracticality of a rib that ends at a distance from the flange. There is no inherent motivation here to stray from the present design which perfectly meets the required needs.

Ex. 2020 (910 Glucksman Decl.) at ¶182

910 POR at 64; Ex. 2020 (910 Glucksman Decl.) at ¶ 181.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN ADMITS THE RIBS EXTEND FROM THE FLANGE



Ex. 1008 (Rapparini) at Fig. 4

A. I cite to Paragraph 10, which states that: The capsule body is formed from a flat sheet using a thermoforming process with the annular flange at the top and a generally cupped shaped body. I further cite to and understand that they use a matched die set. It's used during the thermoforming. It creates longitudinal stiffening ribs that extend from the flange toward the bottom region of the capsule. So that's Figures 1 through 5 that are informing that understanding.

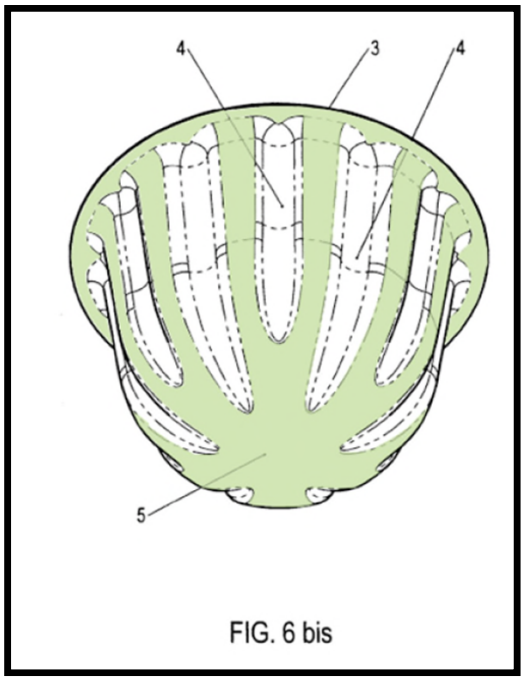
Ex. 2025 (9/19/24 Jobin Dep.) at 117:16-19

910 POR at 64; POSR at 27; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 181-82.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JOBIN FAILS TO DEMONSTRATE 20%-80%, 40%-60% COVERAGE

JOBIN:



Ex. 1008 (Rapparini) at Fig. 6bis (Petitioner Annotation);
Ex. 1003 (910 Jobin Decl.) at ¶ 385

BUT:

"patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue"

See Mahle Behr Charleston Inc. v. Frank Amidio Catalano, IPR2023-00861, Paper 18, at 3 (PTAB May 24, 2024).

910 POR at 65-66; Ex. 1003 (910 Jobin Decl.) at ¶ 385; Ex. 1008 (Rapparini) at Fig. 6bis.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RAPPARINI LACKS DISCLOSURE FOR PERCENTAGES OF COVERAGE

JOBIN COULD NOT IDENTIFY ANY DISCLOSURE OF THE PERCENTAGE OF COVERAGE:

Q. Okay. But in Paragraph 385, you say: Rapparini discloses grooves covering 40 percent to 60 percent of the wall between the flange and the closed bottom.

So where is that disclosure?

A. Well, it's -- it's -- it's disclosed because it's obvious upon reviewing this reference, and you don't have to measure them to see that some portion of the wall is covered by grooves. The disclosure in the description describes that the grooves can be of varying lengths.

Ex. 2025 (9/19/24 Jobin Dep.) at 121:11-17
(Patent Owner Annotation)

910 POR at 65; Ex. 2025 (9/19/24 Jobin Dep.) at 121:11-17.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

VARIABLE LENGTH TO OPTIMIZE STABILITY DOES NOT SUGGEST 20%-80%, 40%-60% COVERAGE

Petitioner argues:

> ranges. (EX1008, [0009].) Rapparini explains these variable grooves/ribs provide an optimized capsule structure that is stiffer and more stable. (EX1008, [0007]-[0009], [0053]-[0054].) It would have been obvious to a POSITA to vary the lengths within the claimed ranges to optimize capsule structural stability. (EX1003, ¶¶290-305; Pet. 4-5; EX2025, 121:11-128:21.)

910 Reply at 26

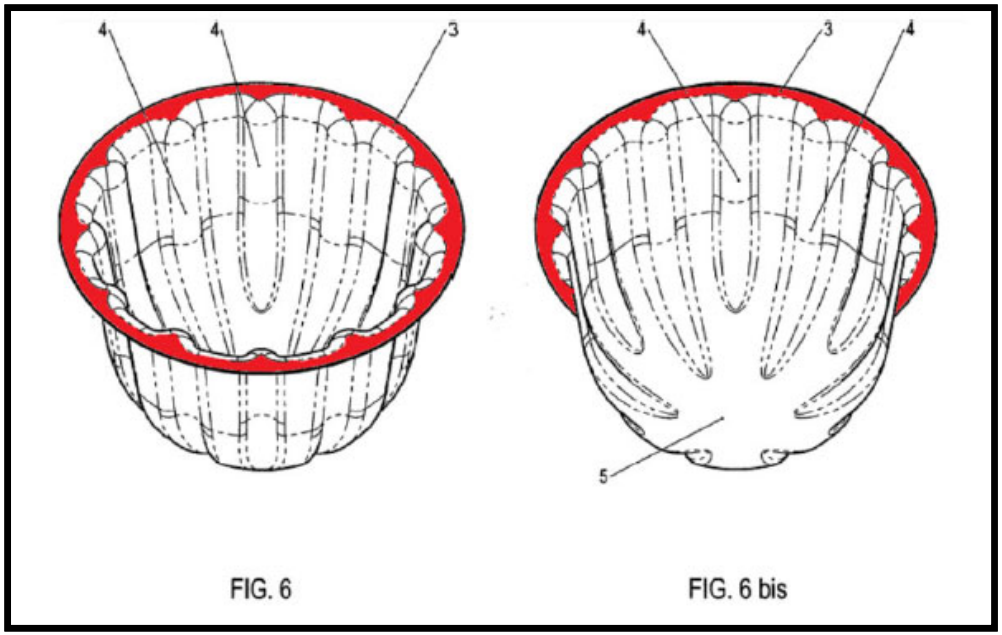
BUT:

- There is NO evidence that 20%-80%, 40%-60% coverage optimizes or increases structural stability

910 Reply at 26; 910 POR at 65-66; 910 POSR at 29; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 186-87.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

RAPPARINI'S RIBS INTERSECTING WITH FLANGE CANNOT CARRY CODE



Ex. 1008 (Rapparini) at Figs, 6, 6bis
(Patent Owner Annotation)

910 POR at 63-65; Ex. 2020 (910 Glucksman Decl.) at ¶ 180.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

LEDGE AT THE INSIDE SURFACE OF THE WALL PROJECTING TOWARDS THE CENTRAL LONGITUDINAL AXIS

’830 Patent (IPR2024-00304): Claims 1-7, 9-12

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

’830 PATENT CLAIMS 1-7, 9-12 REQUIRE

The invention claimed is:

1. A portion capsule for making a beverage comprising:

a base element having a cavity in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having an open end and a closed bottom portion, the base element has a first height that is defined between the open end and the closed bottom portion, the wall has an outside surface and an inside surface which faces the beverage material;

a plurality of indentations arranged on the outside surface of the wall, about the central longitudinal axis;

a ledge formed at the inside surface of the wall and projecting towards the central longitudinal axis, the ledge is spaced below the open end of the base element;

Ex. 1001 (830 Patent) at cl. 1
(Patent Owner Annotation)

Ex. 1001 (830 Patent) at cls. 1-7, 9-12; 830 POR at 61-70; 830 POSR at 27-30; Ex. 2020 (830 Glucksman Decl.) at ¶¶ 191-201.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALLEGED LEDGE IS NOT FORMED AT THE INSIDE SURFACE OF THE WALL

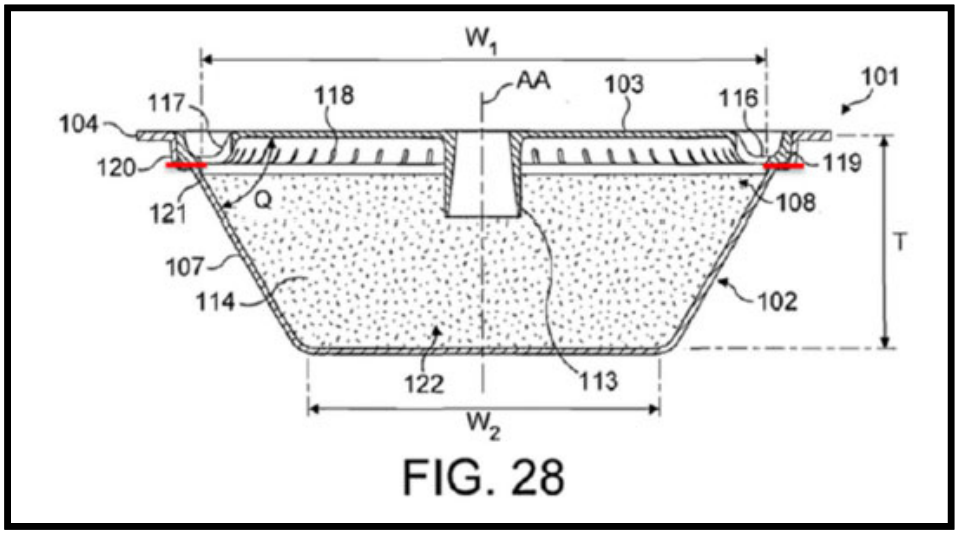
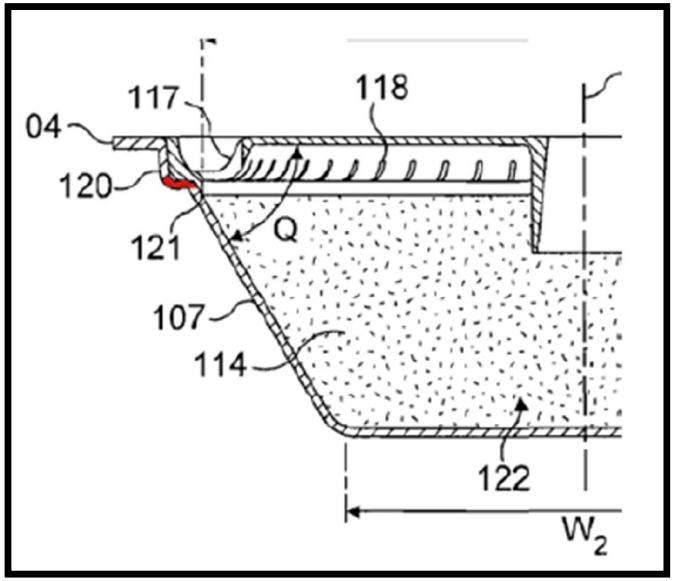


FIG. 28



Ex. 1004 (Yoakim) at Fig. 28 (Petitioner Annotation)

Petitioner's annotated ledge comprising the "collecting recess 116" is *above* food substance 122

830 Pet at 53-54; 830 POR at 61-64; 830 POSR at 27-30; Ex. 2020 (830 Glucksman Decl.) at ¶¶ 192-96.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

COLLECTING RECESS 116 IS LOCATED OUTSIDE OF THE CAPSULE

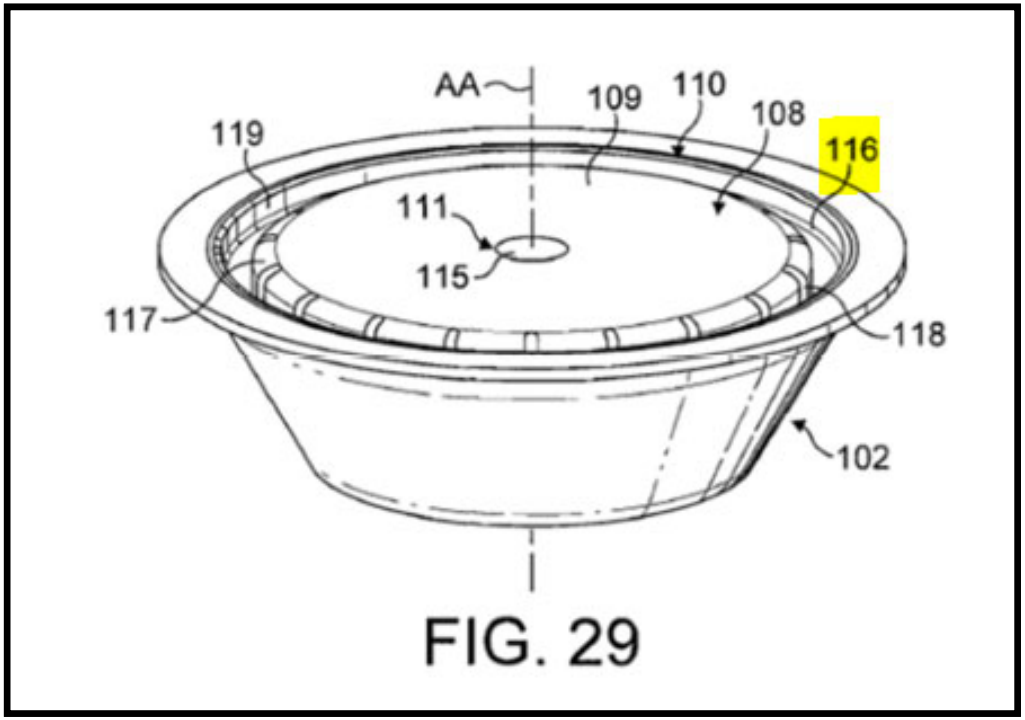


FIG. 29

Ex. 1004 (Yoakim) at Fig. 29 (Patent Owner Annotation)

830 POR at 64-68; 830 POSR at 27-30; Ex. 2020 (830 Glucksman Decl.) at ¶ 197.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALLEGED LEDGE DOES NOT FACE BEVERAGE MATERIAL

The invention claimed is:

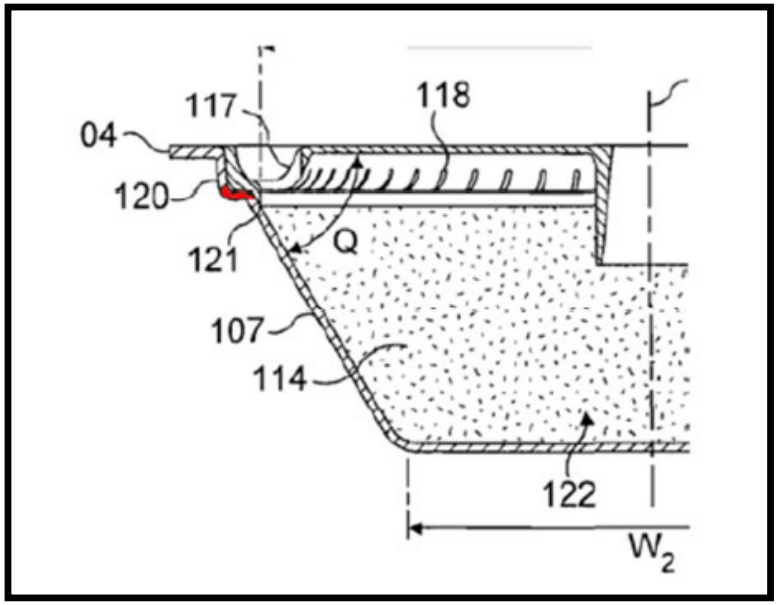
1. A portion capsule for making a beverage comprising:

a base element having a cavity in which a beverage material is provided, the base element including a wall that is symmetrical about a central longitudinal axis thereof and having an open end and a closed bottom portion, the base element has a first height that is defined between the open end and the closed bottom portion, the wall has an outside surface and an inside surface which faces the beverage material;

a plurality of indentations arranged on the outside surface of the wall, about the central longitudinal axis;

a ledge formed at the inside surface of the wall and projecting towards the central longitudinal axis, the ledge is spaced below the open end of the base element;

Ex. 1001 (830 Patent) at cl. 1 (Patent Owner Annotation)

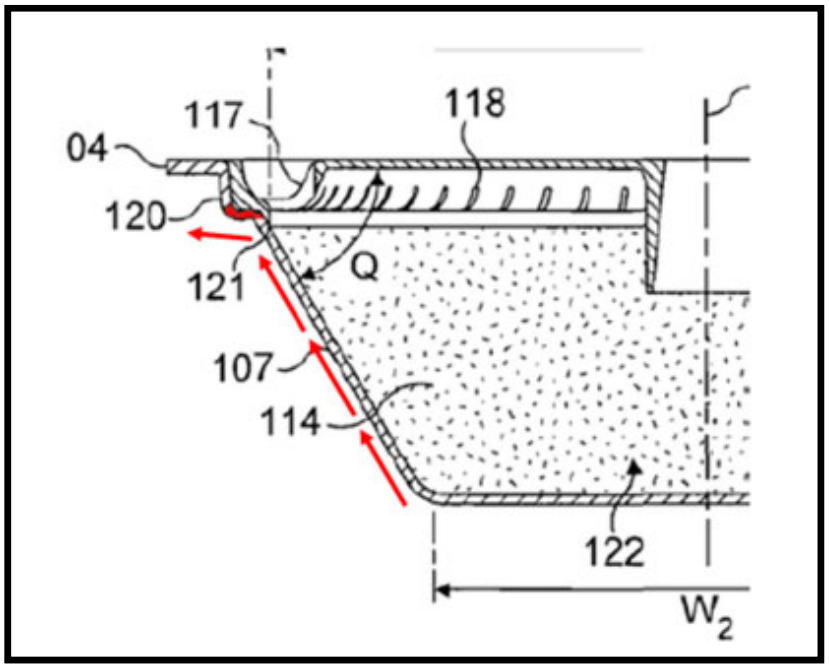


Ex. 1004 (Yoakim) at Fig. 28 (Petitioner Annotation)

830 Pet at 53-54; 830 POR at 61-64; 830 POSR at 27-30; Ex. 2020 (830 Glucksman Decl.) at ¶¶ 192-96, 199-201.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

ALLEGED LEDGE IS NOT PROJECTING *TOWARDS* THE CENTRAL LONGITUDINAL AXIS



Ex. 1004 (Yoakim) at Fig. 28
(Ledge annotated by Petitioner)
(Arrows annotated by Patent Owner)

830 Pet at 53-54; 830 POR at 69-70; 830 POSR at 27-30; Ex. 2020 (830 Glucksman Decl.) at ¶¶ 199-201.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

K-FEE SYSTEM GMBH, EX2034, page 163
NESPRESSO USA, INC. v. K-FEE SYSTEM GMBH
IPR2024-00304, U.S. PATENT 11,465,830

PRIOR ART FAILING:

IDENTIFIER IS ELECTRICALLY CONDUCTIVE

’910 Patent (IPR2024-00299): Claims 2-7

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO TEACHINGS IN PRIOR ART:

- Identifier is Electrically Conductive
  - Yoakim teaches solely an aluminum capsule, *not* an aluminum individualization identifier
  - Jarisch 929 does not disclose electrical conductivity of an individualization identifier
  - A POSITA would understand that Jarisch 929 (Ex. 1006) at [0027] does not teach an electrically conductive individualization identifier

910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

910 PATENT CLAIMS 2-7 REQUIRE

> **2**. The portion capsule according to claim **1**, wherein the individualization identifier is electrically conductive.

Ex. 1001 (910 Patent) at cl. 2 (Patent Owner Annotation)

Ex. 1001 (910 Patent) at cls. 2-7; 910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITION FAILS TO SHOW ELECTRICALLY CONDUCTIVE IDENTIFIER

3. Claim 2

Yoakim discloses that the base element has an exterior wall region that may be comprised of an electrically conductive metal such as aluminum, which forms an electrically conductive section under K-fee's apparent construction. EX1004, [0128]-[0129], [0496]; EX1003, ¶¶373-374. Aluminum is known to be an excellent electrical conductor, and it has been acknowledged that an aluminum capsule is electrically conductive. EX1044, [0044]-[0045]. Yoakim discloses that the entire capsule may be made of aluminum. EX1004, [0128]-[0129], [0215]; EX1003, ¶374.

Jarisch 929 discloses that the identifier "may be printed or embossed" on the capsule rim and may vary by "magnetic field, induced magnetic field, resistivity, [or] capacity." EX1006, [0027], [0102]-[0104], [0113]-[0115]. A POSITA would understand Jarisch 929's code provided on Yoakim's aluminum capsule would therefore be electrically conductive. It would also be obvious to a POSITA for a code placed on an aluminum capsule to maintain the electrical conductivity of the capsule surface to serve as a means for recognition. EX1003, ¶¶375-376.

910 Pet at 74-75

910 Pet at 74-75; 910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

YOAKIM DISCLOSES AN ALUMINUM CAPSULE, NOT AN ELECTRICALLY CONDUCTIVE IDENTIFIER

[0215] FIG. **23** illustrates another capsule of the invention. The capsule comprises means for connecting it to the external rotational driving means of the device. For this, capsule has a toothed structure **75** on at least one of its outer surface. The capsule has a body **70** comprising an upper edge **72** which can be closed by an upper membrane **71**. The toothed structure comprises a series of teeth which is positioned below the edge or rim **72** of the body of the capsule. The teeth are placed along the whole periphery of the body of the capsule. The body of the capsule can be made of plastic and/or aluminium or aluminium alloy. For example, it can be moulded by injection of plastic or deep drawn in aluminium. For example, the shape of the teeth could be slightly triangular, oval, rectangular or pyramidal. It should be noticed that the teeth could be replaced by other equivalent structures such as series of elements in relief and/or hollow. For example, slits, pins or small needles can be envisaged.

Ex. 1004 (Yoakim) at [0215]
(Patent Owner Annotation)

[0128] The capsule can comprise a sealing lid. The sealing lid can comprise a flexible membrane. The membrane can comprise gas barrier and support layers made of polymers, aluminium and/or aluminium alloys.

Ex. 1004 (Yoakim) at [0128]
(Patent Owner Annotation)

[0129] The capsule can also comprise a cup-shaped body onto which the sealing lid is sealed. The cup-shaped body may also comprise gas barrier materials, such as metal, e.g., thin aluminium and/or plastic.

Ex. 1004 (Yoakim) at [0129]
(Patent Owner Annotation)

910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

EMBOSSING ON ALUMINUM DOES NOT NECESSARILY CREATE AN ELECTRICALLY CONDUCTIVE IDENTIFIER

Q And if you were embossing something made of metal, how do you understand that to work?

A As I said, there is a dye that has a reverse image of what you are looking to create in that piece of metal, and the dye is applied under pressure to the piece of metal and it forms a variation in the height of the surface, which is readable.

Q I see.

So it changes the shape of the metal; is that correct?

A If you say so, yes.

Q I'm asking you. Does it change the shape of the metal?

A When you say "the shape of the metal," it locally -- it creates an image. It creates -- yeah, it changes the shape of the metal in that particular area.

Ex. 1071 (12/17/24 Glucksman Dep.) at 66:21-67:19

910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH 929 DOES NOT TEACH AN ELECTRICALLY CONDUCTIVE IDENTIFIER

[0027] Each symbol may be represented in the section by an entity having a measurable characteristic, readable by the measuring arrangement, the measurable characteristic varying according to the value conveyed by said symbol. Each symbol may be printed and/or embossed. The shape of the symbols may be chosen amongst the following non-exhaustive list: arch-shaped segments, segments which are individually rectilinear but extend along at least a part of the section, dots, polygons, geometric shapes. The symbols may be readable by an optical sensor included in the reading arrangement, the color and/or the shape of each symbol being chosen according to the value of said symbol. The symbols may be printed by an ink which is not visible by human eyes under natural light e.g., ink visible under UV. The symbols may be printed or embossed by a pattern which possesses surfaces having different reflective and/or absorbing properties to light. The pattern may possesses first surfaces having inclined mirroring or absorbing properties to light and second surfaces having flat mirroring or flat reflective properties to light. Other variable physical characteristics may be chosen to distinguish each symbol, for example the color, the reflectivity, the opacity, the light absorption level, the magnetic field, the induced magnetic field, the resistivity, the capacity, etc. For

Ex. 1004 (Yoakim) at [0027] (Patent Owner Annotation)

Petitioner makes no showing that such Jarisch 929's symbols disclose, expressly or inherently, having electrical conductivity.

A POSITA would have understood that these characteristics in [0027] apply to insulators.

Petitioner does not identify any teaching to suggest obviousness

910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

A POSITA WOULD HAVE UNDERSTOOD JARISCH 929 AT [0027] TO APPLY TO INSULATORS

193. Claims 2-7 require "the individualization identifier is electrically conductive." The Petition fails to identify any teaching or suggestion of such an identifier. Petitioner contends that Yoakim's capsule is aluminum but identifies no teaching that the aluminum there is an "individualization identifier," as claimed. Pet. at 74-75. Petitioner then identifies Jarisch 929's teaching of "printed and/or embossed" (Ex. 1006 at [0027]) symbols having "magnetic field, induced magnetic field, resistivity, [or] capacity." Pet. at 75. But Petitioner makes no showing that such symbols disclose, expressly or inherently, electrical conductivity.

194. A POSITA would have understood that these characteristics in [0027] apply to insulators. Moreover, Petitioner fails to identify any teaching to suggest for the obviousness of an individualization identifier that is electrically conductive.

Ex.2020 (910 Glucksman Decl.) at ¶¶ 193-94
(Patent Owner Annotation)

910 POR at 69-70; 910 POSR at 31-32; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 193-94.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PRIOR ART FAILING:

IDENTIFIER EXHIBITING CONCAVITY AND/OR CONVEXITY

’910 Patent (IPR2024-00299): Claims 6-7

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

910 PATENT CLAIMS 6-7 REQUIRE

> **6**. The portion capsule according to claim **3** wherein the individualization identifier exhibits a concavity and/or a convexity.

Ex. 1001 (910 Patent) at cl. 6
(Patent Owner Annotation)

Ex. 1001 (910 Patent) at cls. 6-7; 910 POR at 70-71; 910 POSR at 29-31; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 195-99.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

NO TEACHINGS IN PRIOR ART:

- Identifier exhibiting concavity and/or convexity
  - Jarisch 929 teaches placing a code on the rim of the capsule
  - The capsule in Jarisch 929 has a flat rim which does not exhibit concavity or convexity
  - A POSITA would understand that the part of the "body" where Jarisch 929 teaches placing a code is limited to the rim of the capsule

910 Pet at 78-79; 910 POR at 70-71; 910 POSR at 29-31; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 195-99.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

UNDISPUTED THAT THE SUPPORT IS ON THE "CIRCUMFERENCE"

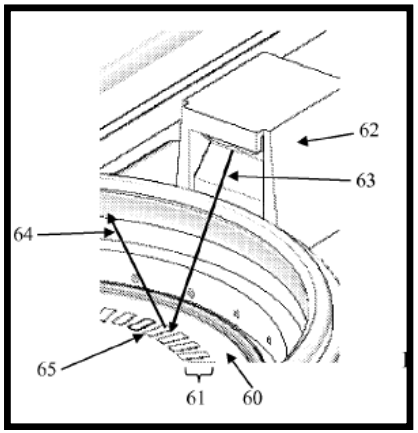
[0050] The capsule is designed for rotating around an axis A. This axis A crosses perpendicularly the center of the membrane which has the form of a disk. This axis A exits at the center of the bottom of the body. This axis A will help to define the notion of "circumference" which is a circular path located on the capsule and having the axis A as reference axis. This circumference can be on the lid, e.g., membrane or on the body part such as on the flange-like rim. The lid may be impervious to liquid before insertion in the device or it may be pervious to liquid by means of small openings or pores provided in the center and/or periphery of the lid.

Ex. 1006 (Jarisch 929) at [0050] (Patent Owner Annotation)

ing such a support so as to add such information. Depending on the configuration of the reading arrangement, the support can be positioned so as the section containing the sequence of symbols is spread along the circumference or a part of the circumference of the body of the capsule, or on the bottom side of the rim of the capsule. The support may be simply

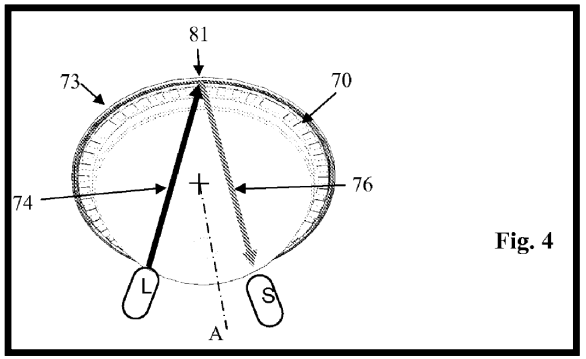
Ex. 1006 (Jarisch 929) at [0019] (Patent Owner Annotation)

Membrane



Ex. 1006 (Jarisch 929) at Fig. 3

Flange-like Rim



Ex. 1006 (Jarisch 929) at Fig. 4

910 POR at 70-71; 910 POSR at 30; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 195-99.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

THE RIM IS PART OF THE "BODY OF THE CAPSULE"

[0050] The capsule is designed for rotating around an axis A. This axis A crosses perpendicularly the center of the membrane which has the form of a disk. This axis A exits at the center of the bottom of the body. This axis A will help to define the notion of "circumference" which is a circular path located on the capsule and having the axis A as reference axis. This circumference can be on the lid, e.g., membrane or on the body part such as on the flange-like rim. The lid may be impervious to liquid before insertion in the device or it may be pervious to liquid by means of small openings or pores provided in the center and/or periphery of the lid.

Ex. 1006 (Jarisch 929) at [0050] (Patent Owner Annotation)

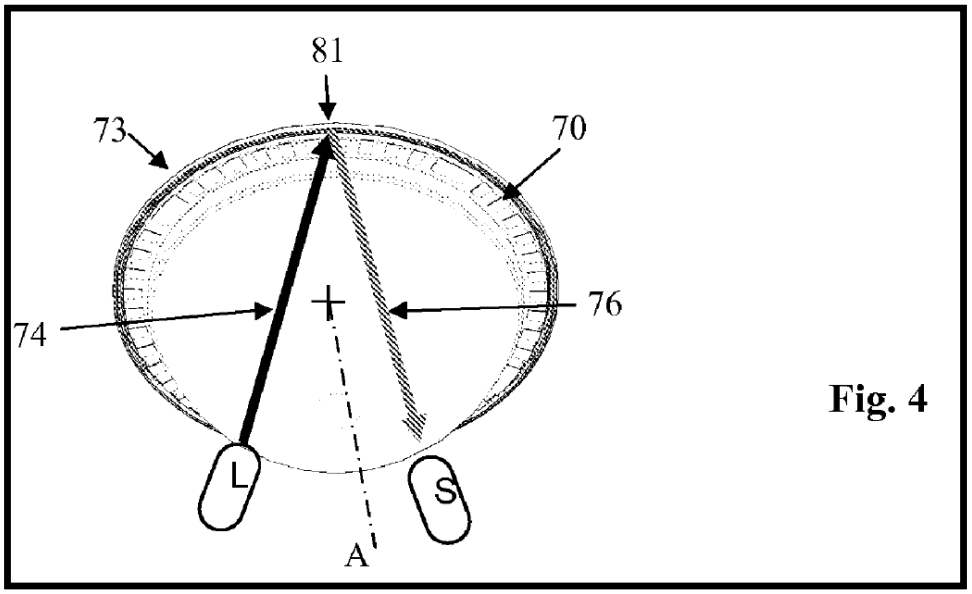


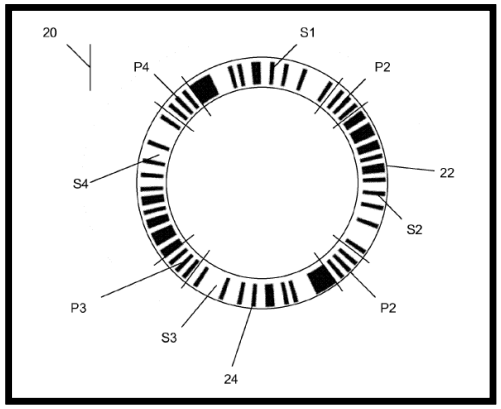
Fig. 4

Ex. 1006 (Jarisch 929) at Fig. 4

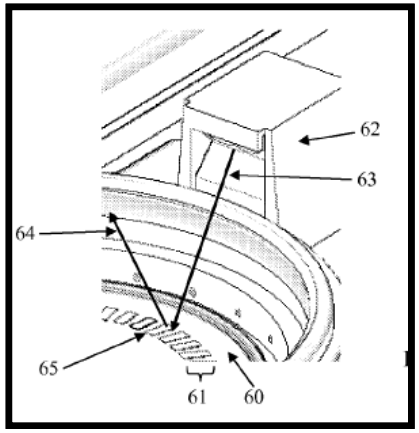
910 POR at 70-71; 910 POSR at 29-31; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 195-99.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

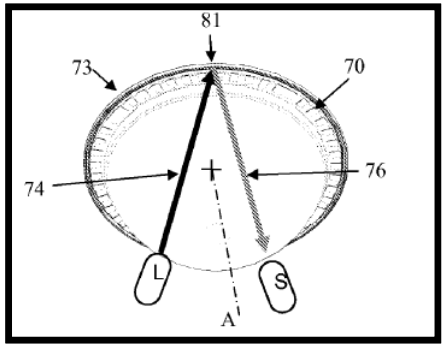
NO JARISCH / JARISCH 929 EMBODIMENT INCLUDES SUPPORT ON THE WALL OF THE BASE ELEMENT



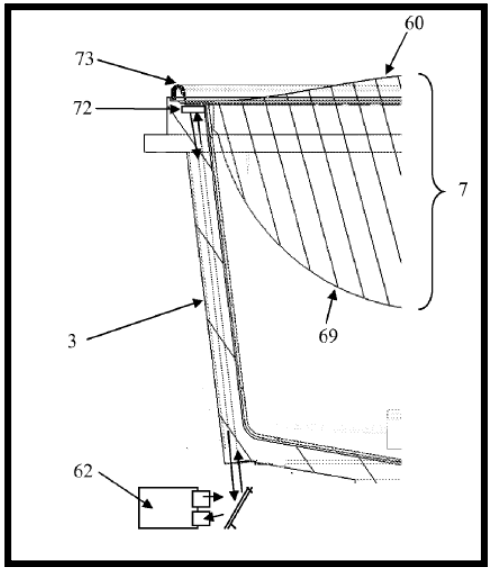
Ex. 1006 (Jarisch 929) at Fig. 2



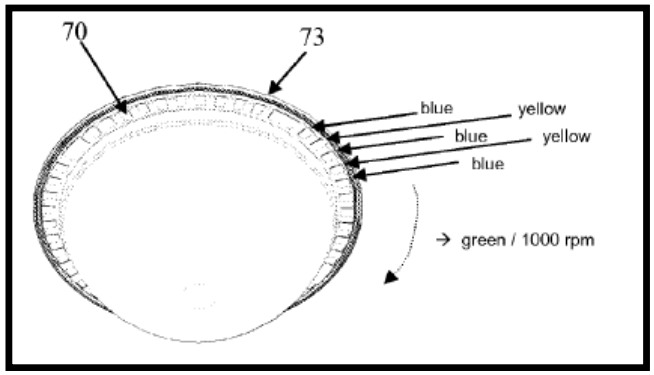
Ex. 1006 (Jarisch 929) at Fig. 3



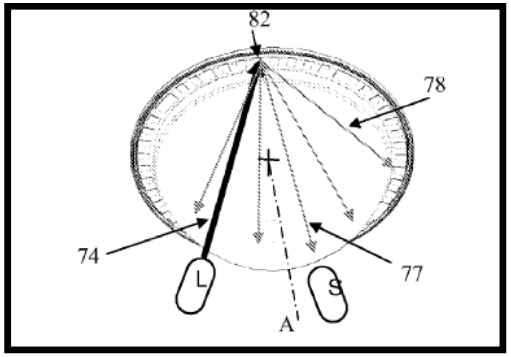
Ex. 1006 (Jarisch 929) at Fig. 4



Ex. 1006 (Jarisch 929) at Fig. 5



Ex. 1006 (Jarisch 929) at Fig. 8



Ex. 1006 (Jarisch 929) at Fig. 7

910 POR at 70-71; Ex. 1005 (Jarisch) at 1-7; Ex. 1006 (Jarisch 929) at Figs. 1-8.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

JARISCH 929 LACKS MOTIVATION TO PLACE SUPPORT ELSEWHERE

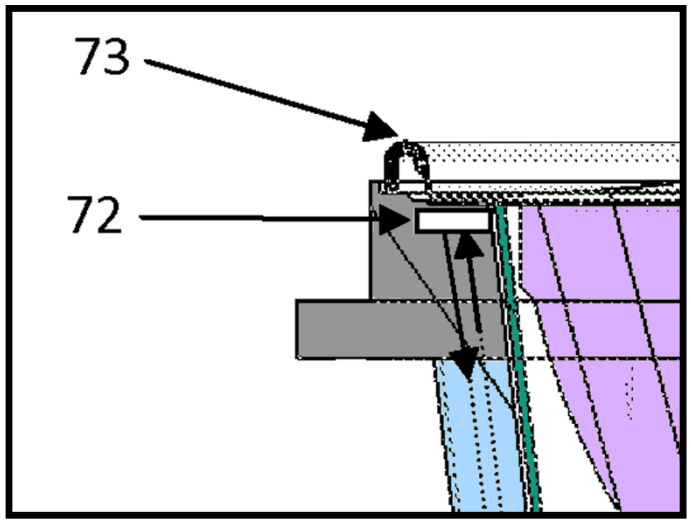
Jobin states:

371. Furthermore, it would have been obvious to a person skilled in the art to also print the individualization identifier both on the bottom of the flange and on the outside surface of the wall of the base element to provide an alternative location to read the code in order to increase the chances of the code being read.

372. Accordingly, Yoakim in view of Jarisch 929 disclose a portion capsule wherein the individualization identifier: "(iv) is further provided on the outside surface of the wall of the base element," as required by claim [1.t].

Ex. 1003 (910 Jobin Decl.) at ¶¶ 371-72 (Patent Owner Annotation)

But:



Ex. 1006 (Jarisch 929) at Fig. 5; *see id.* at [0106] (Patent Owner Annotation)

- There is no motivation to print the support on Jarisch / Jarisch 929's base element wall
- Cannot read Jarisch / Jarisch 929's support if it is placed on the wall of Jarisch / Jarisch 929's base element
- Jarisch / Jarisch 929 disclose a barrier (depicted in green above) separating the transparent (or light conductive) centrifugal cell from the capsule, which would prohibit readability of a support/code on the wall

910 POR at 70-71; 910 POSR at 31; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 195-99.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S NEW "DESIGN CHOICE" ARGUMENT IS IMPROPER

"Board did not abuse its discretion in holding [Petitioner] to its word and disregarding its new theory first raised in reply."

Henny Penny Corp. v. Frymaster LLC, 938 F.3d 1324, 1330-31 (Fed. Cir. 2019)

"Design choice may serve as a basis for obviousness where alternative elements or configurations in the prior art perform the same function as the claimed aspects with no unexpected results."

Ex Parte Elliott, 2020 WL 5231583, at *3 (Aug. 28, 2020)

See 910 Reply at 29-30; 910 POSR at 31.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

K-FEE SYSTEM GMBH, EX2034, page 181
NESPRESSO USA, INC. v. K-FEE SYSTEM GMBH
IPR2024-00304, U.S. PATENT 11,465,830

EXPERTS

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BOARD PRELIMINARILY ADOPTED PETITIONER'S PROPOSED STANDARD

Petitioner contends that a person of ordinary skill in the art would have had "a bachelor's degree in engineering plus five years of experience in design of mechanical beverage systems, or similar products, and experience with sensors for recognizing an identifier." Pet. 16 (referencing Ex. 1003 ¶ 40; IPR2022-01574, Paper 12, 15).

Patent Owner does not dispute Petitioner's characterization of the level of ordinary skill in the art of the '910 patent.

For purposes of this Decision, based on the prior art, the sophistication of the technology at issue, and Mr. Jobin's Declaration testimony, we adopt Petitioner's unopposed definition of the level of ordinary skill. The '901 patent, as well as the prior art of record, includes

910 ID at 17 (Patent Owner Annotation)

910 ID at 17; 910 POR at 4.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PATENT OWNER CHALLENGES PRIOR STANDARD

New Proposed Standard NOT Considered by the Board

> The level of skill should be at least 5 years of technical experience, with at least 1 year of experience in designing, testing, and/or evaluating single-serve coffee/ beverage makers, with working knowledge of identifying means such as barcodes, sensors, etc. Ex.2020, ¶¶42-45.

910 POR at 4

910 POR at 4; *see* 910 ID at 17; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 42-45.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

GLUCKSMAN MEETS BOTH PROPOSED POSITA STANDARDS

Bachelors and Masters in Engineering:

47. I would have qualified as a person of at least ordinary skill in the art as of July 22, 2011, and I have a sufficient level of knowledge, experience, and education to provide an expert opinion in the field of the challenged claims of the '910 Patent. I base my opinion on having been involved with developing electrical appliances for about 50 years, having had many years' experiences in developing single-serve beverage making appliances.

Ex. 2020 (910 Glucksman Decl.) at ¶ 47

5+ years of Experience in Design of Mechanical Beverage Systems:

10. I have designed and developed approximately 50 hot beverage brewing appliances for home use, primarily for my clients in the United States. My design and development experience with hot beverage appliances dates back to the mid-1970s.

Ex. 2020 (910 Glucksman Decl.) at ¶ 10 (Patent Owner Annotation)

7. I am Founder and President of Appliance Development Corporation ("ADC"). My expertise is in the development and production of household electric appliances, including single-serve coffee machines. Since founding ADC in 1974, my team and I have developed over 100 products for our clients, have authored and filed over 120 patents, and worked with scores of large and small companies throughout North America, Europe, and the Far East, primarily in the fields of environmental, kitchen, and personal care appliances. Notable clients of ADC include Mr. Coffee, Kitchen-Aid, Cuisinart, Starbucks, Dunkin Brands, Bun-O-Matric, WIK, and Braun.

Ex. 2020 (910 Glucksman Decl.) at ¶ 7 (Patent Owner Annotation)

910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 7, 10, 47.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

GLUCKSMAN MEETS BOTH PROPOSED POSITA STANDARDS AND PETITIONER DOES NOT DISPUTE THIS

50 Years of Experience in Appliance Design, Coffee Brewing, and Sensor Identification:

> 10. I have designed and developed approximately 50 hot beverage brewing appliances for home use, primarily for my clients in the United States. My design and development experience with hot beverage appliances dates back to the mid-1970s.

Ex. 2020 (910 Glucksman Decl.) at ¶ 10

> 22. In addition, I have years of experience with sensors for recognizing identifiers, including RFID interrogation devices or other machine readable indicia readers (such as those used to read and recognize alphanumeric text, barcodes, security inks, etc.). I utilized such sensors and identifiers to develop a smartphone-based beverage system, which I patented. US Pat. No. 11,565,930 (issued January 11, 2023).

Ex. 2020 (910 Glucksman Decl.) at ¶ 22

910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 10, 22.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S PROPOSED STANDARD IS IMPROPERLY NARROW

***Compare* 910 POR at 4**

> The level of skill should be at least 5 years of technical experience, with at least 1 year of experience in designing, testing, and/or evaluating single-serve coffee/ beverage makers, with working knowledge of identifying means such as barcodes, sensors, etc. Ex.2020, ¶¶42-45.

***with* 910 Pet at 16**

> A POSITA, for purposes of this Petition only: a bachelor's degree in engineering plus five years of experience in design of mechanical beverage systems, or similar products, and experience with sensors for recognizing an identifier. EX1003, ¶40. IPR2022-01574, Paper 12, 15.

910 Pet at 16; 910 ID at 17; 910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 43-47.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER'S PROPOSED STANDARD IS IMPROPERLY NARROW

44. Moreover, active workers in the field need not have a strict number of years of experience. From my own experience, the two most accomplished developers of single-serve coffee makers in my company had no engineering degrees. Furthermore, during my years of involvement in the development of beverage systems I met and worked with developers of beverage systems and coffee makers throughout the world and observed that not only did their professional background and experiences vary, but also the common denominator amongst all these developers was a passion for coffee, and the ability to discern the quality of one brewed product from the other through tasting, smelling, and viewing the appearance of the coffee.

Ex. 2020 (910 Glucksman Decl.) at ¶ 44 (Patent Owner Annotation)

- Active workers in the field do not require engineering degrees
- Professional backgrounds and experiences of active workers in the field vary
- Common denominator is a passion for coffee

910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 43-47.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

TOO NARROW: PETITIONER DOES NOT ACCOUNT FOR EDUCATIONAL LEVEL OF THE INVENTOR

Jobin states:

15	Q. Do you know whether Marc Krüger,
16	the named inventor on the patents, had at
17	least a bachelor's degree in engineering when
18	he came up with these ideas?
21	A. I don't know anything about
22	Mr. Krüger's background.

Ex. 2025 (9/19/24 Jobin Dep.) at 51:15-22 (Patent Owner Annotation)

910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 43-47.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

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DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

K-FEE SYSTEM GMBH, EX2034, page 190
NESPRESSO USA, INC. v. K-FEE SYSTEM GMBH
IPR2024-00304, U.S. PATENT 11,465,830

GLUCKSMAN DESIGNED, DEVELOPED, AND PATENTED MULTIPLE BEVERAGE SYSTEMS

13. I have experience developing and adapting beverage system apparatuses to the tastes of consumers in various geographic markets. For example, as coffee tastes in the United States shifted to flavored coffee in the mid-1990s, I developed a coffee brewing apparatus for dispensing selectively flavored beverage compositions into a receptable, covered by US Pat. No. 5,676,041 (issued October 14, 1997).

Ex. 2020 (910 Glucksman Decl.) at ¶ 13 (Patent Owner Annotation)

identifying whether a capsule can be used in a particular appliance. I am listed as an inventor on US Pat. No. 11,565,930 covering a capsule based drink maker where the identifying code may be read by the apparatus or by a smart phone using an app that connects to the appliance by blue tooth and controls the operation of the appliance resulting in preparation of the drink from ingredients in the capsule.

Ex. 2020 (910 Glucksman Decl.) at ¶ 17 (Patent Owner Annotation)

16. The original single-serve brewer was meant to be refilled with water before each single-serve portion was brewed, which limited the broader use of the apparatus to a single dweller, or a hotel room. I subsequently developed and patented a capsule-based single-serve coffee brewer which could brew a number of single-serve cups. US Pat. No. 9,192,260 (issued November 25, 2015).

Ex. 2020 (910 Glucksman Decl.) at ¶ 16 (Patent Owner Annotation)

12. My early experience developing coffee makers was primarily focused on carafe-type coffee makers where coffee was prepared in relatively large volumes at a time (up to 1800 ml) and where the liquid coffee was brewed into a carafe which was usually kept warm and consumed by pouring the liquid coffee into consumer's cups. One of my earliest patents, US Pat. No. 5,168,794 (issued December 8, 1992), was based on solving a long-needed problem with carafe-type coffee brewers where typically it took over 12 minutes of contact between hot water and ground coffee resulting in over extraction and unfavorable taste. I came up with an appliance that was able to limit the time of contact to the ideally prescribed time of 5-7 minutes and resulted in a much better tasting coffee.

Ex. 2020 (910 Glucksman Decl.) at ¶ 12 (Patent Owner Annotation)

22. In addition, I have years of experience with sensors for recognizing identifiers, including RFID interrogation devices or other machine readable indicia readers (such as those used to read and recognize alphanumeric text, barcodes, security inks, etc.). I utilized such sensors and identifiers to develop a smartphone-based beverage system, which I patented. US Pat. No. 11,565,930 (issued January 11, 2023).

Ex. 2020 (910 Glucksman Decl.) at ¶ 22 (Patent Owner Annotation)

portion options that would not be affected by oxidation. On or around 2005, I finalized the design of a single-serve coffee brewing system which included a single-serve capsule made of thermoplastic material which would act as an oxygen barrier alongside the capsules I developed a low-cost and a compact brewer designed to receive these capsules. I filed and was granted US patents covering the capsule and the brewer. *See* US Pat. No. 8,322,271 (issued December 12, 2012); US Pat. No. 9,247,846 (issued February 2, 2016).

Ex. 2020 (910 Glucksman Decl.) at ¶ 15 (Patent Owner Annotation)

19. I am the first named inventor on Ex. 1015, which is titled "Infusible Material Capsule For Brewing A Beverage" and published January 8, 2009, from an application filed July 2, 2007. Ex. 1015, codes (54), (43), (22). Ex. 1015 is directed to "[a] sealed capsule for use in apparatus including a capsule receiving station and a water delivery system for brewing a hot beverage in which a hot liquid under pressure infuses a material." Ex. 1015 at Abstract.

Ex. 2020 (910 Glucksman Decl.) at ¶ 19 (Patent Owner Annotation)

910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 12-22.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

PETITIONER NITPICKS ANSWERS: TESTIMONY CITED IN REPLY RELATES TO 2023 PATENT IRRELEVANT TO PRESENT CASE

MR. McCRAW: I'd like to mark a new exhibit, I believe it's Exhibit 1068.

Could you mark that, please.

(Exhibit 1068 marked for identification and attached to the transcript.)

Q This is United States Patent Number 11,565,930, issued on January 31, 2023, to Dov Glucksman.

Ex. 1071 (12/17/24 Glucksman Dep.) at 56:14-21

Do you understand this patent to be enabled?

MR. BROOKS: Objection. Relevance.

A Which are you talking about?

Q I'm referring to the '903 patent, Exhibit 1068.

A Oh, the '930?

Q I'm sorry, you're correct, and I was incorrect. The '930 patent.

A Right.

Q Do you understand this patent to be enabled?

MR. BROOKS: Objection.

A I don't understand the term "enable," I apologize.

Ex. 1071 (12/17/24 Glucksman Dep.) at 65:7-21

Ex. 1071 (12/17/24 Glucksman Dep.) at 56:14-21, 65:5-66:2; 910 POR at 4; 910 POSR at 1-5; Ex. 2020 (910 Glucksman Decl.) at ¶¶ 16-19.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

GLUCKSMAN APPLIES CORRECT OBVIOUSNESS STANDARD

Ex. 2020 (910 Glucksman Decl.) at ¶38

38. Counsel has informed me and I understand that a claim can be obvious in light of a single prior art reference or multiple prior art references. To be obvious in light of a single prior art reference or multiple prior art references, there must be a reason that would have prompted a POSITA to modify the single prior art reference, or combine two or more references, in a manner that provides the elements of the claimed invention. This reason may come from a teaching, suggestion, or motivation to combine, the reference(s) themselves, the knowledge or "common sense" of a POSITA, or from the nature of the problem to be solved. The reason that would have prompted a POSITA to modify the single prior art reference, or combine two or more references may be explicit or implicit from the prior art as a whole. I have been informed that, under the law, the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. I also understand it is improper to rely on hindsight in making the obviousness determination.

Ex. 1071 (12/17/24 Glucksman Dep.) at 87:3-10

And I'm saying, as a -- as a technical person, I would -- I would understand that different embodiments entail descriptions of concepts that being -- are being discussed in the -- in the -- in the application. But a POSITA would have to use its own judgment as to whether there is a motivation to combine these within a single reference. That's my understanding.

910 POSR at 2; Ex.1071 (12/17/24 Glucksman Dep.) at 81:9-82:17, 87:3-10, 87:20-88:1; Ex. 2020 (910 Glucksman Decl.) at ¶ 38.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

BOTH EXPERTS CITE THE SAME PHILLIPS STANDARD

Ex. 2020 (910 Glucksman Decl.) at ¶¶ 40-41

40. Counsel has informed me and I understand that claim construction is a matter that will be decided by the Board presiding over this IPR. I understand that the relevant inquiry in claim construction is the question of how a person of ordinary skill in the art would have understood the claim terms at the time of the earliest priority date, in light of the patent specification, the prosecution history, and any other relevant intrinsic and extrinsic evidence.

41. I understand the first step in determining whether a patent claim is valid is to properly construe the claims. I understand that each claim of a patent subject to *inter partes* review is to be interpreted in light of the language of the claim, the written description, the figures, and the prosecution history of the patent.

Ex. 1003 (910 Jobin Decl.) at ¶¶ 41-42

41. I understand the first step in determining whether a patent claim is valid is to properly construe the claims. I understand that each claim of a patent subject to *inter partes* review is to be interpreted in light of the language of the claim, the written description, the figures, and the prosecution history of the patent.

42. I further understand that in the absence of a specific definition within the specification or the reliance on a specific meaning in the prosecution history, the terms as used in the challenged claims of the '910 Patent are to be afforded their plain and ordinary meaning at the time of the invention. I understand that the "plain and ordinary meaning" of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention and that the ordinary and customary meaning of a term may be evidenced by a variety of sources, including the words of the claims, the specification, drawings, and prior art.

910 POSR at 2-3; *compare* Ex. 2020 (910 Glucksman Decl.) at ¶¶ 40-41 *with* Ex. 1003 (910 Jobin Decl.) at ¶¶ 41-42.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

GLUCKSMAN'S TESTIMONY IS CONSISTENT WITH CLAIM LANGUAGE DESPITE PETITIONER'S IMPRECISE QUESTIONS

Q Which is, do the claims require a capsule that has an identifier both on the bottom of the flange and on the side wall? It's a yes-or-no question.

A And I truly understand it's a yes-or-no question. And it requires that I understand the -- it -- I'm -- I'm really -- I don't feel qualified to answer that question because I can see where these two things are mentioned in a claim, and I -- I'm not qualified -- I don't feel myself being qualified to answer this question in a yes-or-no manner. Sorry.

Ex. 1071 (12/17/24 Glucksman Dep.) at 112:5-16

wherein the individualization identifier:

i) comprises at least two areas which differ in their optically detectable reflection properties;

ii) includes an optically detectable, machine readable, repeat pattern;

iii) encodes information used by the specific coffee machine to individualize the portion capsule so the portion capsule is permitted to be used with the specific coffee machine;

iv) encodes information used by the specific coffee machine to activate a pump of the specific coffee machine;

v) encodes information used by the specific coffee machine to control a beverage-making process, which includes setting a quantity of hot water, pressure of the hot water, and/or a temperature of the hot water;

vi) is further provided on the outside surface of the wall of the base element; and

Ex. 1001 (910 Patent) at cl. 1 (Patent Owner Annotations)

910 claim language states "is further provided" NOT "and"

910 POSR at 2-3; Ex. 1071 (12/17/24 Glucksman Dep.) 112:5-16; Ex. 1001 (910 Patent) at cl. 1.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

GLUCKSMAN IS ENTITLED TO EQUAL WEIGHT

Glucksman's years of experience working on beverage machines

=

≈ 5 times Jobin's years of experience working on beverage machines

Ex. 2020 (910 Glucksman Decl.) at ¶¶ 1-26; Ex.1003 (910 Jobin Decl.) at ¶¶ 5-30, Appendix A; Ex. 2025 (Jobin 9/19/24 Dep.), 21:19-23:21; 910 POSR at 1.

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

K-FEE SYSTEM GMBH, EX2034, page 197
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IPR2024-00304, U.S. PATENT 11,465,830

CITATION ABBREVIATIONS

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CITATION ABBREVIATIONS

Abbreviation	Description
910 Pet	IPR2024-00299, Paper 7, Corrected Petition for *Inter Partes* Review of U.S. Patent No. 11,554,910
830 Pet	IPR2024-00304, Paper 7, Corrected Petition for *Inter Partes* Review of U.S. Patent No. 11,465,830
722 Pet	IPR2024-00304, Paper 1, Petition for *Inter Partes* Review of U.S. Patent No. 11,548,722
829 Pet	IPR2024-00304, Paper 1, Petition for *Inter Partes* Review of U.S. Patent No. 11,465,829

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CITATION ABBREVIATIONS

Abbreviation	Description
910 POPR	IPR2024-00299, Paper 8, Patent Owner Preliminary Response of U.S. Patent No. 11,554,910
830 POPR	IPR2024-00304, Paper 8, Patent Owner Preliminary Response of U.S. Patent No. 11,465,830
722 POPR	IPR2024-00304, Paper 8, Patent Owner Preliminary Response of U.S. Patent No. 11,548,722
829 POPR	IPR2024-00304, Paper 7, Patent Owner Preliminary Response of U.S. Patent No. 11,465,829

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CITATION ABBREVIATIONS

Abbreviation	Description
910 ID	IPR2024-00299, Paper 9, Decision Institution of *Inter Partes* Review of U.S. Patent No. 11,554,910
830 ID	IPR2024-00304, Paper 9, Decision Institution of *Inter Partes* Review of U.S. Patent No. 11,465,830
722 ID	IPR2024-00304, Paper 9, Decision Institution of *Inter Partes* Review of U.S. Patent No. 11,548,722
829 ID	IPR2024-00304, Paper 8, Decision Institution of *Inter Partes* Review of U.S. Patent No. 11,465,829

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CITATION ABBREVIATIONS

Abbreviation	Description
910 POR	IPR2024-00299, Paper 16, Patent Owner Response of U.S. Patent No. 11,554,910
830 POR	IPR2024-00304, Paper 16, Patent Owner Response of U.S. Patent No. 11,465,830
722 POR	IPR2024-00304, Paper 16, Patent Owner Response of U.S. Patent No. 11,548,722
829 POR	IPR2024-00304, Paper 15, Patent Owner Response of U.S. Patent No. 11,465,829

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CITATION ABBREVIATIONS

Abbreviation	Description
910 Reply	IPR2024-00299, Paper 18, Petitioner's Reply to Patent Owner Response for U.S. Patent No. 11,554,910
830 Reply	IPR2024-00304, Paper 18, Petitioner's Reply to Patent Owner Response for U.S. Patent No. 11,465,830
722 Reply	IPR2024-00304, Paper 18, Petitioner's Reply to Patent Owner Response for U.S. Patent No. 11,548,722
829 Reply	IPR2024-00304, Paper 17, Petitioner's Reply to Patent Owner Response for U.S. Patent No. 11,465,829

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE

CITATION ABBREVIATIONS

Abbreviation	Description
910 POSR	IPR2024-00299, Paper 20, Patent Owner Sur-Reply of U.S. Patent No. 11,554,910
830 POSR	IPR2024-00304, Paper 20, Patent Owner Sur-Reply of U.S. Patent No. 11,465,830
722 POSR	IPR2024-00304, Paper 20, Patent Owner Sur-Reply of U.S. Patent No. 11,548,722
829 POSR	IPR2024-00304, Paper 19, Patent Owner Sur-Reply of U.S. Patent No. 11,465,829

DEMONSTRATIVE EXHIBIT – NOT EVIDENCE