

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHAMPION LABORATORIES, INC.,
FIRST BRANDS GROUP, LLC,
Petitioner,

v.

HENGST SE,
Patent Owner.

IPR2024-00603
Patent 9,023,203 B2

Before MITCHELL G. WEATHERLY, KIMBERLY McGRAW, and
SHELDON M. McGEE, *Administrative Patent Judges*.

McGEE, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Petitioner filed a Petition (Paper 2, “Pet.”) for institution of an *inter partes* review of claims 1, 3, 5, 8–11, 15–17, 19, 23–25, and 28–30 of U.S. Patent No. 9,023,203 B2 (Ex. 1001, “the ’203 patent”). Patent Owner filed a Preliminary Response (Paper 6, “Prelim. Resp.”). Pursuant to our authorization, Petitioner filed a Reply to Patent Owner’s Preliminary Response (Paper 7) and Patent Owner filed a Sur-reply (Paper 8). After considering this preliminary record, we instituted this *inter partes* review as to all challenged claims. Paper 9 (“Inst. Dec.” or “DI”).

During the course of trial, Patent Owner filed a Patent Owner Response (Paper 14, “PO Resp.”); Petitioner filed a Reply to the Patent Owner Response (Paper 20, “Pet. Reply”); and Patent Owner filed a Sur-reply (Paper 23, “PO Sur-reply”). Petitioner filed the Declaration of Mr. Michael Nranian (Ex. 1003) in support of the Petition, and Patent Owner filed the Declaration of Dr. Mehdi Basirat in support of its Response (Ex. 2017). The parties also filed transcripts of the depositions of Mr. Nranian (Ex. 2018) and Dr. Basirat (Ex. 1017).

An oral hearing was held on June 18, 2025, and a transcript of the hearing is included in the record. Paper 27 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This decision is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of claims 1, 3, 5, 8–11, 15–17, 19, 23–25, and 28–30 of the ’203 patent. For the reasons discussed *infra*, we hold that Petitioner has not demonstrated by a preponderance of the evidence that claims 1, 3, 5, 8–11, 15–17, 19, 23–25, and 28–30 are unpatentable.

II. BACKGROUND

A. *Real Parties-in-Interest*

Petitioner identifies Champion Laboratories, Inc. and First Brands Group, LLC as the real parties-in-interest. Pet. 3. Patent Owner identifies Hengst SE as the real party-in-interest. Paper 3, 1.

B. *Related Proceedings*

The parties identify a district court action as a related matter: *Hengst SE v. Champion Laboratories, Inc.*, No. 23-cv-00794 (N.D. Ill). Pet. 4; Paper 3, 1.

C. *The '203 Patent (Ex. 1001)*

The '203 patent “relates to a liquid filter, in particular an oil filter for an internal combustion engine.” Ex. 1001, 1:5–6. The filter has a filter material body having top and bottom panels, where “an eccentric blocking element [is] arranged on the bottom front panel for engaging an eccentric opening in [a] filter housing.” *Id.* at 17:37–43 (independent claim 15); *see also* 15:59–65 (independent claim 1). One embodiment of the '203 patent's eccentric blocking element is illustrated in Figure 8, reproduced below:

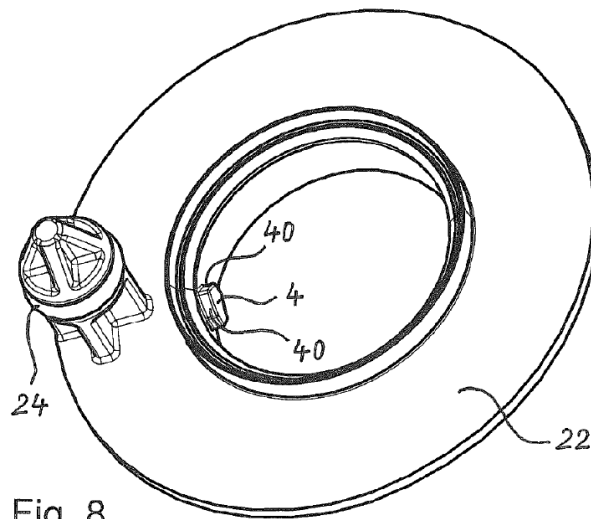


Figure 8 of the '203 patent, reproduced above, depicts a “bottom view” of front panel 22, which has a through hole “located in the center of the front panel 22.” Ex. 1001, 8:52–58. Nose 4 is located on the inner circumference of the through hole in front panel 22, with blocking element 24 eccentrically located on the bottom of front panel 22. *Id.*

Figure 7 of the '203 patent, reproduced below, shows the opposite side of front panel 22, and illustrates how nose 4 fits between two partial inclined planes 3.1 and 3.2 “which run towards each other and which merge into an axial guide 31 at the lower end.” Ex. 1001, 8:27–33.

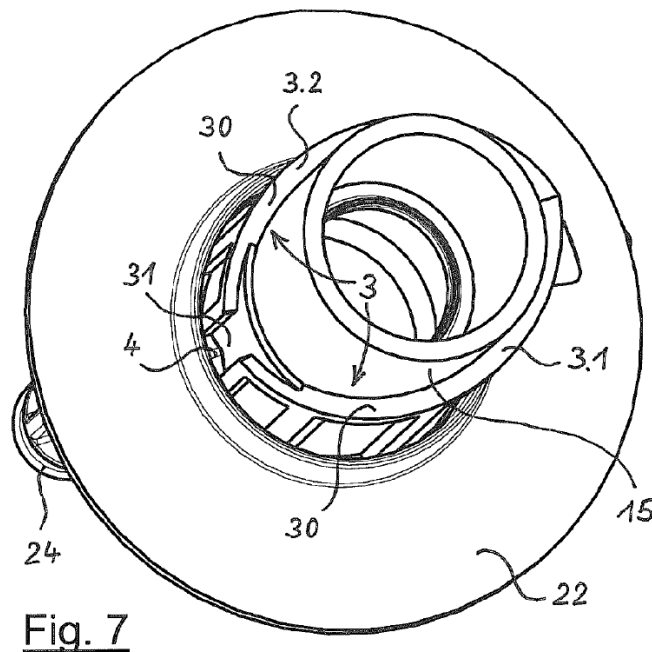


Figure 7, reproduced above, depicts the top view of front panel 22 and illustrates how nose 4 slots through guide 31 as front panel 22 slides down pipe nozzle 15. Ex. 1001, 8:27–33. If front panel 22 is not positioned to properly align the eccentric blocking element and the eccentric opening in the filter housing, “nose 4 initially impacts the inclined plane 3, here one of

its partial planes 3.1 or 3.2. In response to a further downwards movement, the front panel 22 is inevitably brought into the correct rotation . . . by means of the nose 4, which slides on the inclined plane 3.” *Id.* at 8:39–44. This is the “correct position” for eccentric blocking element 24 vis-à-vis “the outlet, which is engagement-compatible for the blocking element.” *Id.* at 8:44–45.

D. Challenged Claims

Claims 1 and 15 are representative of the challenged claims and are reproduced below with Petitioner’s limitation identifiers for ease of reference:

1. [pre] A liquid filter, comprising
 - [a] a filter housing,
 - [b] a ring filter insert, replaceably arranged in the filter housing,
 - [c] a removeable cover arranged to close the filter housing during operation,
 - [d] the filter housing including at least one inlet for raw liquid to be filtered, which inlet leads into a raw side of the filter housing, and
 - [e] a return extending from a clean side of the filter housing for filtered clean liquid,
 - [f] an eccentric opening arranged in a bottom of a filter housing,
 - [g] the ring filter insert comprising a hollow-cylindrical material body, surrounded on the front sides by top and bottom front panels, the ring filter insert separating the raw side of the filter housing and the clean side of the filter housing from each another,
 - [h] an eccentric blocking element for the eccentric opening arranged on the bottom front panel,
 - [i] first and second interacting positioning means each on one of the ring filter insert and the filter housing and arranged to bring the blocking element into engagement with the eccentric opening when the ring filter insert is inserted into the filter housing,
 - [j] the first positioning means comprising an inclined plane,

- [k] the second positioning means comprising a protruding nose which is arranged opposite the inclined plane, and
- [l] the inclined plane and the nose arranged to be movable in relation to each other in such a way that they slide along each other and bring the blocking element into engagement with the eccentric opening, by rotating the ring filter insert relative to the filter housing,
- [m] the inclined plane being one of embodied and arranged on one of the inner circumference of the ring filter insert and the outer circumference of a filter housing part arranged inside the ring filter insert and the protruding nose being one of embodied and arranged on the other of the inner circumference of the ring filter insert and the outer circumference of the filter housing part,
- [n] the inclined plane comprising an incline which excludes a self-locking and
- [o] the eccentric opening being an outlet for emptying the filter housing when the filter insert is removed.

15. [pre] A ring filter insert for a liquid filter, comprising
- [a] a hollow-cylindrical filter material body surrounded on front sides by top and bottom front panels and which can be replaceably arranged in a filter housing,
 - [b] an eccentric blocking element arranged on the bottom front panel for engaging an eccentric opening in the filter housing,
 - [c] first positioning means on the ring filter insert, which interact with second positioning means on the filter housing when the ring filter insert is inserted into the filter housing and which are arranged to bring the blocking element into engagement with the eccentric opening,
 - [d] the first positioning means being one of an inclined plane and a protruding nose, with the second positioning means being the other of the inclined plane and the protruding nose,
 - [e] the inclined plane and the nose arranged to be moved in relation to each other in such a way that they slide along each other and bring the blocking element into engagement with the eccentric opening, by rotating the ring filter insert relative to the filter housing,

[f] the first positioning means being one of embodied and arranged on an inner circumference of the ring filter insert.

Ex. 1001, 15:46–16:22, 17:37–60; Pet. -vi-, -vii-, -viii-.

E. Asserted Grounds of Unpatentability

Petitioner advances three grounds of unpatentability asserting that the subject matter of claims 1, 3, 5, 8–11, 15–17, 19, 23–25, and 28–30 would have been unpatentable as set forth in the following table.

Claim(s) Challenged	Statutory Basis¹	Reference(s)/Basis
15–17, 19, 23, 25, 30	§ 103(a)	Yokoyama ²
15–17, 19, 23–25, 28, 30	§ 103(a)	Yokoyama, Cline ³
1, 3, 5, 8–11, 15, 17, 19, 23–25, 28–30	§ 103(a)	Honermann, ⁴ Cline

Pet. 5. Petitioner’s challenge is supported by the Declaration of Mr. Michael Nranian (Ex. 1003).

F. Overview of the Prior Art

1. Yokoyama (Ex. 1008)

Yokoyama discloses a filter device having a filter case with “an upper case half that opens downward and a lower case half that opens upward, wherein both case halves are connected by screwing a male thread formed

¹ Because the ’203 patent was filed prior to March 16, 2013, pre-AIA 35 U.S.C. §103(a) applies. MPEP § 2159.

² JP 2004-136203 A, published May 13, 2004 (Ex. 1007), the certified English translation of which is filed as Exhibit 1008. Our opinion relies on the certified English translation.

³ US 2004/0232063 A1, published November 25, 2004 (Ex. 1009).

⁴ US 2010/0044295 A1, published February 25, 2010 (Ex. 1006).

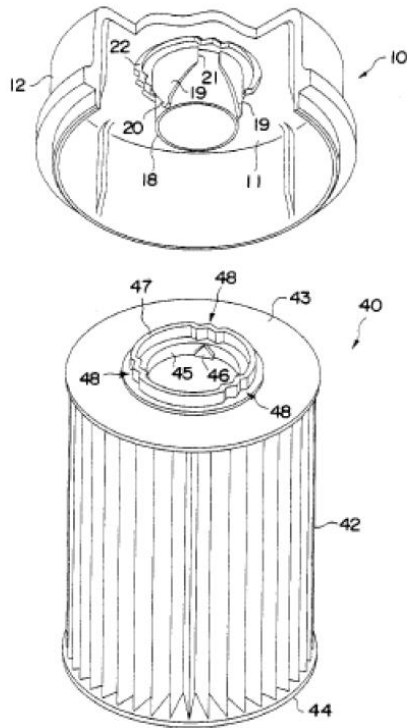
on the outer periphery of one into a female thread formed on the outer periphery of the other.” Ex. 1008 ¶ 7. Within the filter case housing 5, filter element 40 has “a ring-shaped sealing member 47 [] provided on the upper surface side of the upper plate 43 at a position surrounding the opening 45 so as to protrude upward.” *Id.* ¶ 20, Figs 1, 2. “[T]hree locking protrusions 46 are provided on the inner periphery of the opening 45 of the upper plate 43, protruding toward the center of the opening 45” and “these three locking protrusions are configured to fit into depressions 21 formed between adjacent ones of the three pleated portions 19 provided on the upper case side 10.” *Id.* ¶ 19.

To assemble the filter element 40 into the filter case 5, first, the filter element 40 is pushed upward so that the pipe portion 18 (and the three pleated portions 19) of the upper case half 10 passes through the opening 45 of the upper plate 43 in the filter element 40 from above. As a result, the three locking protrusions 46 provided on the upper plate 43 are guided by the side surfaces 19a of the three pleated portions 19 provided on the upper case half 10, and move upward.

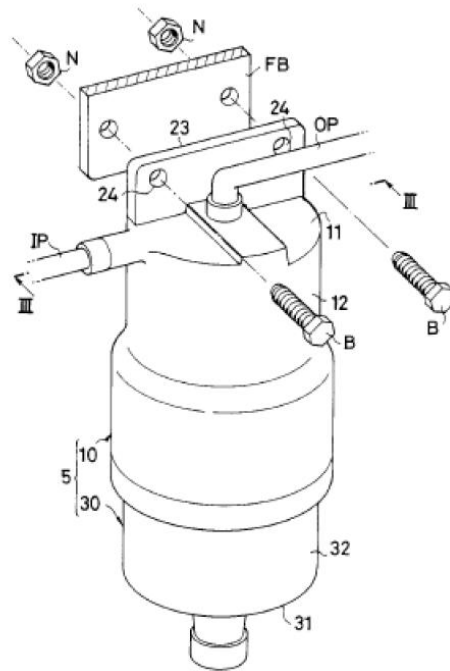
Id. ¶ 21.

These features are illustrated in Yokoyama’s Figures 1 and 2, which are reproduced below:

[FIG. 1]



[FIG. 2]



Yokoyama's Figures 1 and 2 depict various features of filter 1, filter case 5 having upper case half 10 and lower case half 30, and filter element 40. Ex. 1008, code (57), ¶¶ 13, 14; Figs. 1, 2.

2. Cline (Ex. 1009)

Cline discloses a filter element having a quick drain valve member 56, which "is spaced apart from the central axis of the center tube 48." Ex. 1009 ¶¶ 11, 26. Quick-drain valve member 56 comprises post 64 and flow blocker 66 secured to the post. *Id.* ¶ 27. Flow blocker 66 comprises a surface 78 for engaging a valve seat 60 when filter element is positioned inside a filter housing. *Id.* ¶ 29. These features are illustrated in Cline's Figure 5, which is reproduced below:

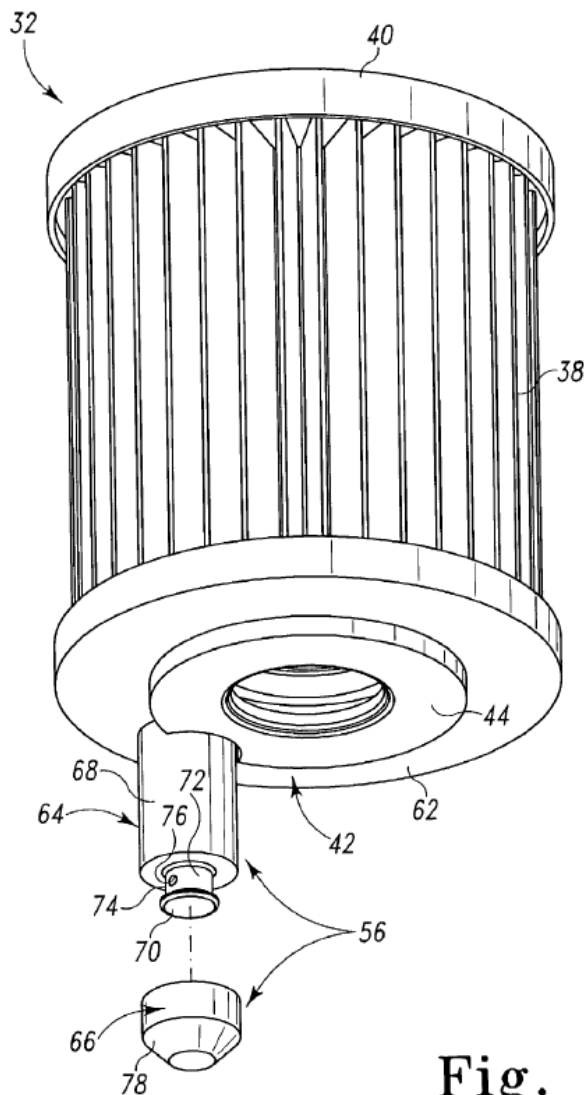


Fig. 5

Cline's Figure 5 depicts quick-drain valve member 56 comprising post 64 and flow blocker 66.

3. Honermann (Ex. 1006)

Honermann discloses a filter system 30 having a filter head 32 and several filter assemblies 34. Ex. 1006, Fig. 1. Filter system 30 contains a lock-out mechanism to ensure “that the filter system 30 cannot be operated unless the filter cartridge 38 has been operably assembled within filter bowl 36.” *Id.* ¶ 174. More specifically, protrusions 121, 122 of filter cartridge 38

must engage with basket 304 of the filter housing before the system can operate. *Id.* Figs. 7, 8. “[A]s the first protrusion 121 engages [the] first slide surface 314, it causes the basket 304 to rotate . . . from [a] first locked position (FIGS. 19 and 30) to the second unlocked position (FIG. 20).” *Id.* ¶ 178.

III. ANALYSIS

A. *Level of Ordinary Skill in the Art*

The level of ordinary skill in the art at the time of invention is an issue of fact that serves as “a prism or lens through which a judge or jury views the prior art and the claimed invention” and which “supplies the primary guarantee of objectivity in” the obviousness analysis. *Al-Site Corp. v. VSI Intern., Inc.*, 174 F.3d 1308, 1324 (Fed. Cir. 1999) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966); *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991)).

Petitioner contends that a person having ordinary skill in the art (“POSITA”) would have had

at least a master’s degree in chemical, electrical, mechanical, or automotive engineering, and at least two or more years of experience in the automotive industry designing, developing, testing, and engineering automotive components or practical experience servicing, assembling, repairing, and/or developing internal combustion engines and/or engine oil filters (or equivalent experience).

Pet. 5–6 (citing Ex. 1003 ¶ 50). Petitioner also states “that more education could compensate for less experience and vice versa.” *Id.* at 6 (citing Ex. 1003 ¶ 50).

Petitioner’s position is, therefore, consistent with Patent Owner’s proffered level of skill in the art which reflects less education and more experience in substantially the same fields. Specifically, Patent Owner asserts that such a skilled artisan “would have at least a bachelor’s degree in mechanical or automotive engineering and/or five or more years of experience in the automotive industry designing, developing, testing, and engineering automotive components or practical experience servicing, assembling, repairing, and/or developing internal combustion engines and/or engine oil filters.” PO Resp. 14–15.

On this record, we determine that the level of ordinary skill is reflected in the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (specific findings on the ordinary skill level are not required “where the prior art itself reflects an appropriate level and a need for testimony is not shown” (quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163–64 (Fed. Cir. 1985))).

Because the level of ordinary skill in the art is not in dispute, and because the parties’ definition is consistent with the disclosures in the ’203 patent, the prior art, and the declaration testimony of Mr. Nranian and Dr. Basirat, we view the prior art and arguments through this lens when determining whether the claims are unpatentable as obvious over the prior art.⁵ *See Graham*, 383 U.S. at 17 (identifying “the level of ordinary skill in the pertinent art” as an underlying factual inquiry to be resolved in deciding obviousness, which is a question of law).

⁵ This is the same unopposed definition we applied in our Decision on Institution. DI 7.

B. Claim Construction

We apply the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). Under that standard, claim terms “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (1996) (“[T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.”).

There is no dispute between the parties regarding the proper construction of limitations reciting “means” in claims 1 and 15, i.e., that they should not be construed pursuant to 35 U.S.C. § 112, ¶ 6. Pet. 7–13; PO Resp. 17 (“Hengst does not dispute Champion’s claim construction positions set forth in the Petition at pages 7–13 for the purposes of this proceeding”). According to Petitioner, even though claims 1 and 15 recite “means,” the claims also expressly recite the structure of each “means” rather than a function performed by each “means.” Pet. 7–13. Patent Owner asserts that “the Board need not make a determination on claim construction in assessing the validity of the ’203 Patent in Grounds I–III.” PO Resp. 17.

We note, however, the parties' dispute regarding how to apply the definition of the term "eccentric" throughout the trial briefing. *See, e.g.*, PO Resp. 18–25 (discussing how the '203 patent intrinsically uses the term "eccentric" vis-à-vis something that is "central," providing extrinsic definitions of "eccentric," and arguing that Petitioner has not shown how Yokoyama discloses an "eccentric blocking element"); Pet. Reply 2–10 (disputing Patent Owner's position regarding the proper interpretation of the term "eccentric"); PO Sur-reply 1–14.

Although the parties spend significant portions of their briefing discussing the term "eccentric" and how it applies to certain figures from the '203 patent and the relied-upon prior art, we determine that it is not necessary to expressly construe the term "eccentric" beyond the parties' agreed-upon definition. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Ltd.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (holding that only claim terms in controversy need to be construed, and only to the extent necessary to resolve the controversy (citing *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Rather, we adopt Patent Owner's proffered definition because it is consistent with the intrinsic record and because it is not in dispute. Specifically, Patent Owner asserts that the plain meaning of the term "eccentric" is defined as "located elsewhere than at the geometric center; *also: having the axis or support so located.*" PO Resp. 18–19 (citing the Merriam-Webster online dictionary definition of the term "eccentric" for support). Petitioner agrees with this definition. Pet. 35 (asserting that certain prior art elements are eccentric "because they are not located at the center of the filter insert or housing"); Pet. Reply 9 (arguing that certain

elements are eccentric because they “do not have an axis located at the geometric center”); *id.* at 10 (arguing the eccentricity of an element that does “not have an axis in the center” which has “an off-center axis”); *see also* Ex. 2017 ¶ 33 (Dr. Basirat testifying that “[a] POSITA would understand that ‘eccentric’ in the context of [the] ’203 patent, means that central axis is located elsewhere than at the geometric center [and] not placed centrally or not having its axis or other part placed centrally”). The parties’ definition of “eccentric” is also consistent with the usage of the term in the ’203 patent. Ex. 1001, 10:23–31; Fig. 17.

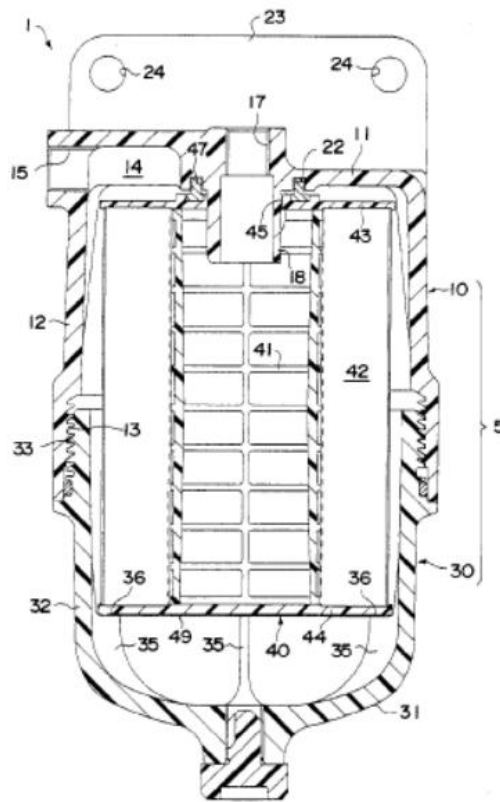
C. Ground 1 — Asserted Obviousness over Yokoyama

Petitioner asserts that claims 15–17, 19, 23, 25, and 30 would have been obvious over Yokoyama. Pet. 28–52. Of these challenged claims, only claim 15 is independent and requires, *inter alia*, “an eccentric blocking element arranged on the bottom front panel for engaging an eccentric opening in the filter housing.” Ex. 1001, 17:41–43.

1. Yokoyama’s 180° inversion

Yokoyama’s Figure 3 is reproduced below:

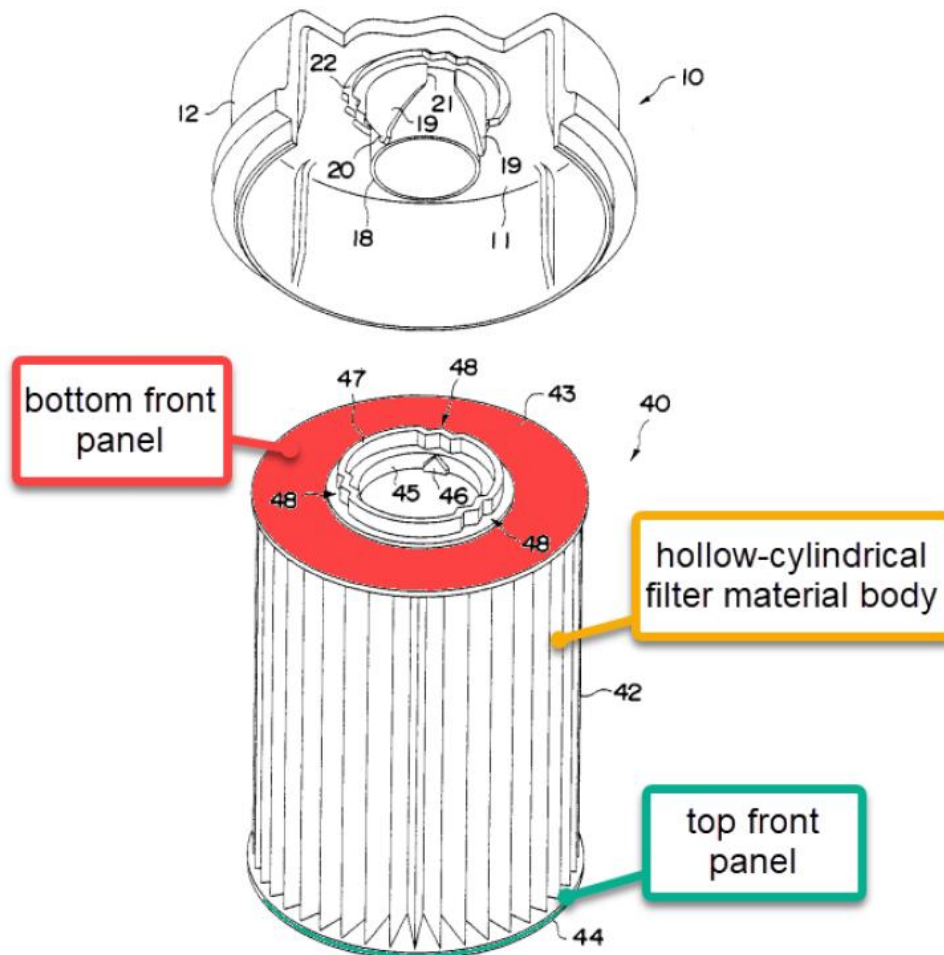
[FIG. 3]



Yokoyama’s Figure 3, reproduced above, depicts filter device 1 having filter element 40. Ex. 1008 ¶¶ 13, 18. Filter element 40, depicted in Figures 1, 3, and 4, has disc-shaped upper plate 43 attached to its upper and a disc-shaped lower plate 44 attached to its lower end. *Id.* ¶ 18. Also shown in Figures 1 and 4 is “ring-shaped sealing member 47 [which] is provided on the upper side surface of the upper plate 43” of filter element 40. Ex. 1008 ¶ 20.

Petitioner maps the claimed “eccentric blocking element” to Yokoyama’s sealing member 47, and the claimed “*bottom front panel*” (upon which the eccentric blocking element is arranged) to Yokoyama’s “disc-shaped *upper plate 43 . . . attached to its upper end.*” Pet. 31

(emphases added). Petitioner provides the following annotated and colorized Figure 1 of Yokoyama to illustrate this mapping as reproduced below:



Pet. 32. Petitioner’s annotated Yokoyama Figure 1 depicts “bottom front panel” (i.e., disc-shaped upper plate 43) in red and “top front panel” (i.e., disc-shaped lower plate 44) in green. *Id.*; Ex. 1008 ¶ 18.

Petitioner asserts that

[a]lthough Yokoyama depicts the **top front panel** on the bottom of the filter medium and the **bottom front panel** on the top of the filter medium, a POSITA would understand that this merely

reflects the orientation of the filter medium as depicted, and the orientation of the insertable filter medium *could be* upside down. Moreover, a POSITA would understand that the entire filter device would operate in an identical manner if upside-down.

Pet. 31 (citing Ex. 1003 ¶ 91) (emphasis added in non-bolded italics).

After considering the entirety of the record developed during trial regarding Yokoyama's orientation, we determine that Petitioner has failed to establish sufficiently that a person of ordinary skill in the art would have been motivated to invert Yokoyama's filter device 1 180° such that the purported eccentric blocking element (sealing member 47) would be "arranged on the bottom front panel" as required by each of the challenged claims.

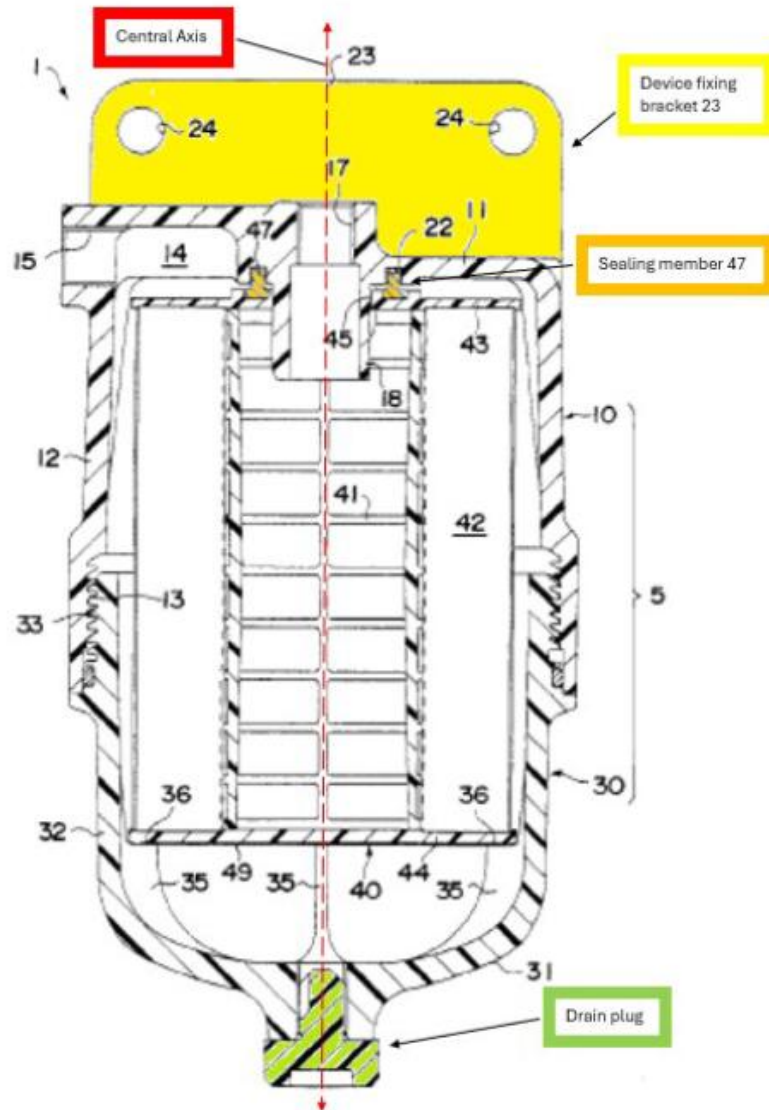
At the outset, we find that Petitioner's position amounts to an assertion of merely what a person of ordinary skill could have done, not what that skilled artisan would have been motivated to do. *See Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) ("[O]bviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of the prior art to arrive at the claimed invention." (emphasis in original)). Petitioner provides insufficient detail as to precisely why a person of ordinary skill in the art would have been motivated to invert Yokoyama's filter device 1 by 180°. For this reason alone, Petitioner's proffered obviousness reasoning is fatally flawed.

Even if we overlooked this deficiency, we also find that Petitioner does not provide sufficient support for its position that a skilled artisan would have understood that Yokoyama's filter device 1 could be inverted 180° and still "operate in an identical manner" as alleged. Pet. 31. For

example, Petitioner points to no disclosure within Yokoyama that teaches that filter device 1, which includes filter element 40, upper case half 10 and lower case half 30, can function properly—much less identically—if inverted 180° from the orientation shown in Yokoyama’s Figure 1. Rather, Yokoyama teaches that filter device 1 requires filter element 40 to be installed in an *upward* direction into *upper* case half 10. See Ex. 1008 ¶ 21 (“To assemble the filter element 40 into the filter case 5, first, the filter element 40 is pushed *upward* so that the pipe portion 18 . . . of the upper case half 10 passes through the opening 45 of the upper plate 43 in the filter element 40 *from above*,” and disclosing that Figure 6 depicts how “locking protrusion 46 advances in the direction shown by the arrow” pointing in the upwards direction (emphases added)). On this point, we recognize that it is undisputed on this record that filter elements such as those disclosed by Yokoyama operate under pressure and may be capable of filtering fluid regardless of orientation. Ex. 1003 ¶ 91; Ex. 1016 ¶ 15; Ex. 1017, 48:21–50:19. Fluid filtration is not the only consideration here, however, because Yokoyama’s filter element is undisputedly a replaceable item. See Pet. 32, Ex. 1003 ¶ 132 (acknowledging as much); Ex. 1008 ¶ 26 (disclosing that “the filter element 40 is a consumable item” that needs to be “replace[d]”). As such, Yokoyama’s filter device’s “operation” also includes *replacing* the dirty filter element periodically and potentially *draining* dirty fluid from the filter housing while doing so. Ex. 1003 ¶ 130 (Mr. Nranian testifying that draining mechanisms yielded the well-known benefits of minimizing oil splashing, loss, and flow to the outer walls during filter element replacement (quoting Ex. 1005 ¶¶ 2–3)).

On this record, Petitioner has not demonstrated sufficiently that Yokoyama’s filter device 1—which includes both the filter housing and the filter ring insert—“would operate in an identical manner if upside-down” (Pet. 31) particularly when replacing the dirty filter ring insert. Moreover, Patent Owner provides several technical reasons supported by persuasive evidence why a person of ordinary skill in the art would not have completely inverted Yokoyama’s filter device 1 as proposed in the Petition. PO Resp. 28–34. Specifically, Patent Owner provides persuasive evidence that a person of ordinary skill in the art would have understood Yokoyama’s Figures 1 and 3 as depicting a centrally-located drain plug even though the Yokoyama translation does not expressly contain the phrase “drain plug.” *Id.* at 28–32; Ex. 2017 ¶ 47 (Dr. Basirat persuasively testifying that “[a]lthough [Yokoyama] does not explicitly mention this, the drain and drain plug are designed at the lowest point of the filter system” because such “placement aligns with standard practices in liquid systems, where a drain at the lowest point is essential for effectively removing debris and dirt”); Ex. 2019, Fig. 3 (illustrating a filter housing with “drain plug 5” centrally-located at the bottom of the housing “to allow for draining of the bowl if necessary”), *id.* ¶ 2; Ex. 2020, Fig. 3; 4:45–48 (depicting and describing filter bowl 30 having centrally-located “end plug 70 that aids in the draining of liquid from the bowl when servicing the bowl-cartridge”); Ex. 2021, Fig. 1, ¶¶ 94, 97 (depicting and describing centrally-located drain bolt 20 which has plug portion 22 at the bottom of oil filter housing 4). In view of this evidence, Patent Owner persuasively argues that a person of ordinary skill in the art “would immediately recognize that gravity could no longer

Yokoyama's Figure 3, annotated and colorized by Patent Owner, is reproduced below:



Yokoyama's Figure 3, as annotated and colorized by Patent Owner and reproduced above, depicts filter device 1 with a centrally located and inverted "T"-shaped element in bottom surface portion 31 of lower case half 30 highlighted in green. PO Resp. 29.

For its part, Petitioner asserts (in a separate Ground) that Yokoyama does not disclose a draining mechanism. Pet. 53. While Petitioner is correct

that Yokoyama does not expressly discuss a draining mechanism or drain plug in its text, we emphasize that the apparent lack of specific *discussion* regarding how liquid is drained from the filter housing during filter replacement does not negate Yokoyama’s *description* of a drain plug depicted in Figures 2 and 3. *Accord Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1565 (Fed. Cir. 1991) (“[U]nder proper circumstances, drawings alone may provide a ‘written description’ of an invention as required by § 112.”).

This deficiency is sufficient to determine that Petitioner has failed to establish that any of the challenged claims are unpatentable over Yokoyama alone. Pet. 25–52. We, however, discuss a further deficiency in Petitioner’s obviousness analysis below.

2. *The “eccentric blocking element” and “eccentric opening”*

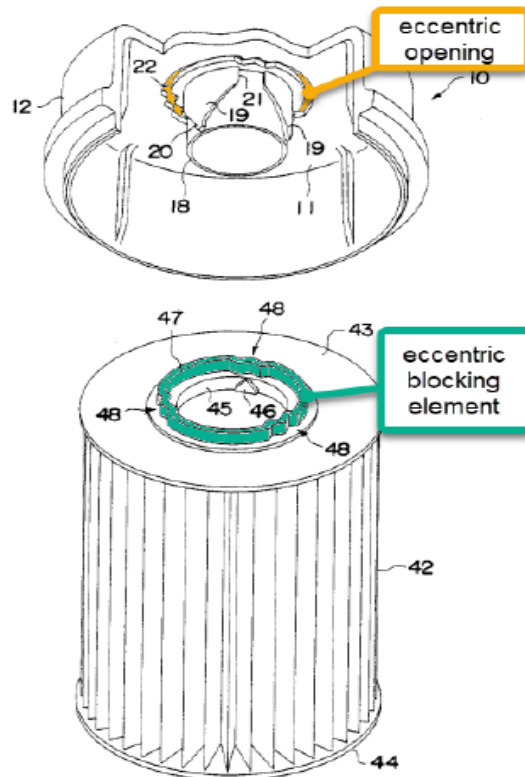
We are also not persuaded that Petitioner has met its burden of establishing by a preponderance of the evidence that Yokoyama discloses an eccentric blocking element and an eccentric opening as required by claim 15. Our reasoning follows.

The ordinary and customary meaning of the term “eccentric” is “located elsewhere than at the geometric center; also: having the axis or support so located.”⁶ Indeed, this meaning of “eccentric” is consistent with how Petitioner presents its arguments regarding the limitations containing this term. See Pet. 35 (arguing that “[a] POSITA would understand that the blocking element and opening are ***eccentric*** because they are not located at the center of the filter insert or housing” (citing Ex. 1003 ¶ 96) (bold

⁶ Merriam-webster.com/dictionary/eccentric, last accessed June 30, 2025. PO Resp. 18–19.

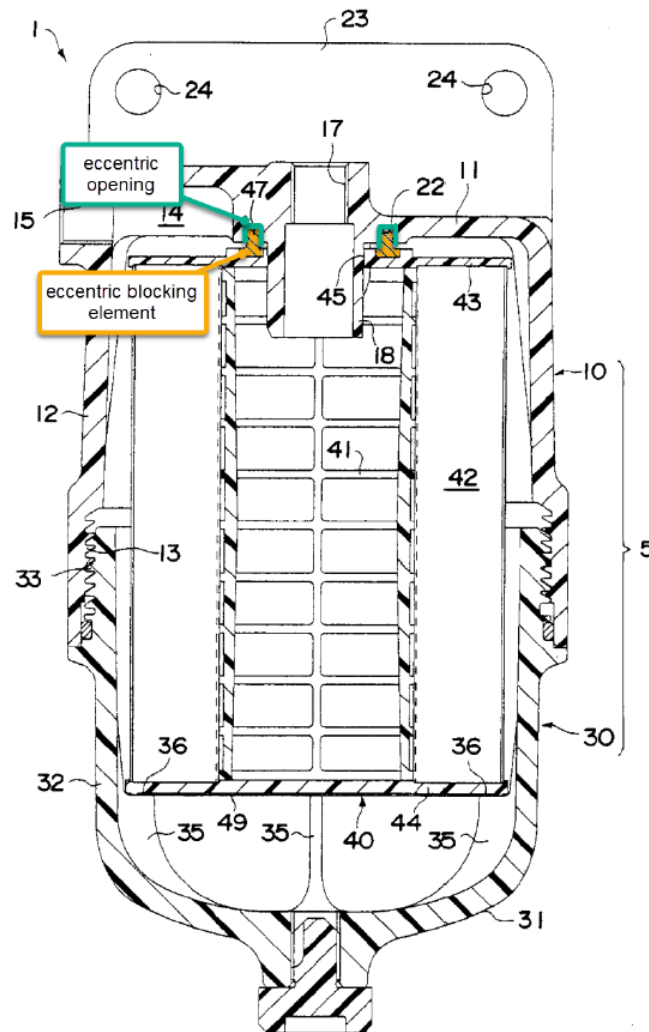
emphasis in original));⁷ Pet. Reply 9 (arguing that specific elements are eccentric because they “do not have an axis located at the geometric center”); *id.* at 10 (arguing the eccentricity of an element that has “an off-center axis”).

In its challenge of independent claim 15, Petitioner relies on Yokoyama’s “ring-shaped sealing member 47” and “grooves 22” to evince the claimed “eccentric blocking element” and “eccentric opening,” respectively. Pet. 33–35. Yokoyama’s Figure 1, as annotated by Petitioner is informative and is reproduced below:



⁷ Petitioner maps the claimed “filter insert” to Yokoyama’s “filter element 40” and the claimed “filter housing” as “case halves 10 and 30.” Pet. 28, 32. We, therefore, determine whether Yokoyama’s “blocking element” is eccentric with respect to Yokoyama’s elements 10, 30, and 40.

Petitioner's annotated Figure 1 of Yokoyama illustrates ring-shaped sealing member 47 concentrically located around the center of upper plate 43 of filter element 40. Yokoyama's Figure 3, as annotated by Petitioner, is reproduced below:



Petitioner's annotated Figure 3 of Yokoyama, reproduced above, is a cross-sectional view of filter device 1, and identifies two purported eccentric blocking elements 47, each located on opposing sides of centrally positioned cylindrical pipe portion 18. Pet. 34; Ex. 1008 ¶¶ 13, 15.

Petitioner has not established by a preponderance of evidence that Yokoyama's ring-shaped sealing member 47 is an "eccentric blocking element" as required by claim 15. Specifically, Petitioner's mapping of the claimed "eccentric blocking element" to Yokoyama's ring structure 47 is unpersuasive because ring structure 47 is *concentrically* positioned about the geometric center axis of upper plate 43 of filter element 40. See Ex. 1008, 11 (Figure 1 illustrating the concentric nature of ring 47 vis-à-vis upper plate 43 and filter element 40).⁸ "[C]ircular opening 45 is provided in the center of the upper plate 43, and when the filter element 40 is attached to the upper case half 10 . . . the pipe portion 18 of the upper case half 10 is inserted through the opening 45." *Id.* ¶ 18. And "cylindrical pipe portion 18 is formed in the center of the ceiling portion 11 of the upper case 10." *Id.* ¶ 15.

Petitioner's reliance on annotated Figure 3 of Yokoyama (Pet. 34), reproduced above, to establish the eccentricity of sealing member 47 is unpersuasive because Yokoyama's Figure 3 "is a *cross-sectional* view of the filter device 1" and thus does not depict the entirety of Yokoyama's ring-shaped sealing member 47. Ex. 1008 ¶ 13 (emphasis added). Thus, while the two portions of ring-shaped sealing member 47 depicted in the cross-sectional drawing each appear to be "located elsewhere than at the geometric center" of the filter device, this does not establish that the entire ring-shaped sealing member 47 as mapped by Petitioner to the "blocking element" (Pet. 33–36) is eccentrically located vis-à-vis the filter element or the filter housing.

⁸ The term "concentric" is defined as "having a common center." Merriam-webster.com/dictionary/concentric, last accessed August 15, 2025. Ex. 3002.

Nor do we agree with Petitioner's attempt to change its proffered mapping of the eccentric blocking element from Yokoyama's ring-shaped sealing member 47 (Pet. 33–36) to the W-shaped portions 48 embedded within sealing member 47 (Pet. Reply 9–10). The Petition refers repeatedly to Yokoyama's sealing member 47 as the eccentric blocking element, and merely provides a hypothetical that “*if the blocking element only consisted of the ‘W-shaped portions 48’ and the opening only consisted of the corresponding W-shaped portions, then each W-shaped portion would undeniably be eccentric.*” Pet. 35 (emphases added).

Petitioner's belated attempt to change the mapping from Yokoyama's element 47 to one of three elements 48 in this hypothetical fails for multiple reasons. First, Petitioner's hypothetical is not true. As originally mapped, Yokoyama's blocking element is “ring-shaped sealing member 47,” which is made of an elastic material such as rubber “and its outer shape has three W-shaped portions 48 formed in a ‘W’ shape at 120 degree intervals with respect to the center of the sealing member 47 as a reference.” Yokoyama ¶ 20. Petitioner points to no embodiment or teaching in Yokoyama supporting the premise that Yokoyama's “W-shaped portions 48” are or could be effectively divorced from the ring-shaped sealing member 47 of which they are a component part.

Furthermore, even if W-shaped portions 48 somehow could be separated from ring-shaped sealing member 47 as suggested in Petitioner's hypothetical, Petitioner has failed to explain how the W-shaped portions alone, i.e., without the remainder of the ring-shaped sealing member 47, could then serve as a “blocking element” at all. Yokoyama discloses that it is the entirety of ring-shaped sealing member 47 that “firmly seals between

the upper case half 10 and the filter element 40.” Yokoyama ¶ 24.

Petitioner has not explained sufficiently how the W-shaped portions alone could establish a firm seal between the filter element 40 and the upper case half 10.

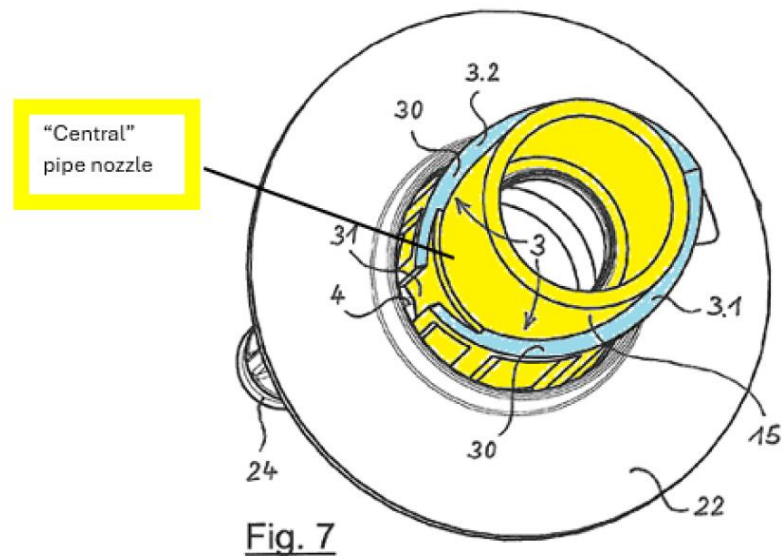
Further, even if we allowed Petitioner’s belated attempt to remap the claimed “eccentric blocking element” from Yokoyama’s ring-shaped sealing member 47 to the three W-shaped portions 48, this would appear to result in a concentric arrangement of these three elements. *Compare* Pet. Reply 6 (reproducing Petitioner’s modified Figure 8 of the ’203 patent having three concentrically arranged blocking elements), *with id.* at 7 (illustrating and colorizing three W-shaped portions 48 on ring-shaped sealing member 47 and acknowledging it is the “very same configuration” as the “concentrically arranged” elements depicted in Petitioner’s modified Figure 8).⁹ Thus, to arrive at an “eccentric blocking element,” Petitioner not only needs to change the mapping to Yokoyama’s element 48, but also eliminate at least one of these elements so that the remaining W-shaped portion(s) will be eccentric. Petitioner has failed to do so on the complete trial record.

Furthermore, we emphasize our disagreement with Mr. Nranian’s opinion testimony that “Patent Owner’s construction of ‘eccentric’ is too narrow and not consistent with the term’s plain meaning,” as well as Mr. Nranian’s attempt to confine the plain and ordinary meaning of “eccentric” to “not located at the center.” Ex. 1016 ¶ 2; *see also id.* at ¶ 3

⁹ We therefore disagree with Petitioner and Mr. Nranian that “all of the ‘W-shaped’ elements in Yokoyama are eccentric blocking elements” to the extent Petitioner and Mr. Nranian are referring to all three of the W-shaped portions collectively. Pet. Reply 9; Ex. 1003 ¶ 96.

(opining that “Patent Owner’s construction of ‘having an axis not located in a geometric center’ is too narrow”). Mr. Nranian’s Declaration testimony in this respect is not persuasive for several reasons. First, it is internally inconsistent. *Compare* Ex. 1016 ¶ 3 (criticizing the “axis” language in Patent Owner’s definition), *with id.* ¶¶ 9, 11 (relying on that very language to support an argument). Also, Mr. Nranian’s proposed definition of “eccentric” to merely mean “not located at the center” begs the question of what, precisely, is “the center”? Mr. Nranian does not persuasively explain how far a person of ordinary skill in the art would understand she could travel from the exact center point of an object and still be in “the center” of that object. *See* Tr. 10:13–19 (Judge McGee asking whether the center is “a miniscule point in the middle of [the] disc”); *see also id.* at 10:25–12:26 (Judge Weatherly highlighting the significant ambiguity in referring to something as in “the center”).

Also, Mr. Nranian’s opinion is inconsistent with how the ’203 patent compares something that is “central,” i.e., “at the center,” and something that is “eccentrically” located. Ex. 1001, 7:13–14 (describing pipe nozzle 15 as “central”); *id.* at 8:53–56 (describing a “through hole” as “located in the center of the front panel 22” depicted in Figures 7 and 8); *id.* at 10:23–31 (describing return 12 as “in the center” and outlet 13 as “eccentrically thereto” in Figure 17). Patent Owner’s colorized and annotated Figure 7 is reproduced below:



Patent Owner's colorized and annotated version of Figure 7 of the '203 patent illustrates "central pipe nozzle 15" in yellow passing through the "through hole" located in "the center" of front panel 22. PO Resp. 20. Significantly, pipe nozzle 15 and the through hole in panel 22 are both described as "central" and in "the center" but must have different diameters; otherwise, "central pipe nozzle 15" would not be capable of traveling through "through hole 22." Ex. 1001, Fig. 7. Thus, the '203 patent intrinsically bases whether an element is "central" or "in the center" on whether its *axis* is located at the geometric center. This is also illustrated in Figure 17 of the '203 patent, reproduced below:

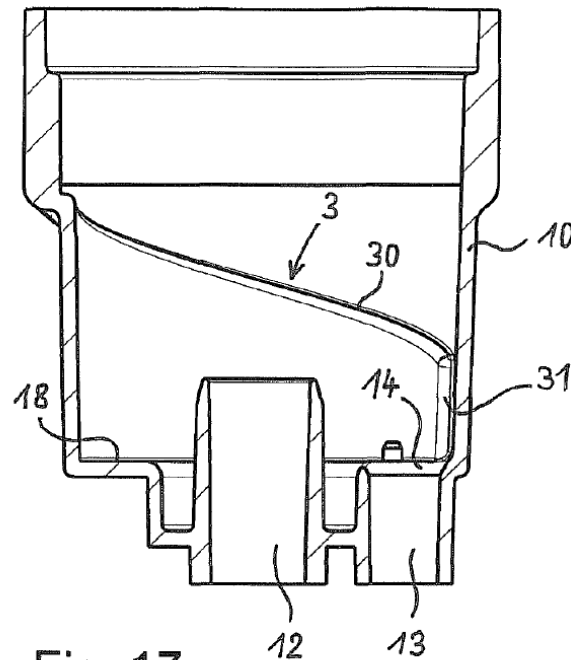


Fig. 17

Figure 17 of the '203 patent illustrates filter housing 10 with return 12 “in the center . . . and, eccentrically thereto, the outlet 13 with the seat 14 for the blocking element 24.” Ex. 1001, 10:23–30.

Finally, Mr. Nranian’s narrow interpretation of “eccentric”—which excludes the “having the axis or support so located” in the geometric center language—is at odds with the arguments it was proffered to support. *Cf.* Pet. Reply 9 (arguing that certain elements are eccentric because they “do not have an axis located at the geometric center”); *id.* at 10 (arguing the eccentricity of an element that does “not have an axis in the center” which has “an off-center axis”).

For these reasons, we reject Mr. Nranian’s opinion testimony which attempts to exclude “having the axis or support so located [at the geometric center]” from the definition of “eccentric.”

In sum, Petitioner has not shown by a preponderance of evidence that Yokoyama discloses an eccentric blocking element.

For similar reasons, Petitioner’s proffered mapping of the “eccentric opening” to Yokoyama’s grooves 22 fails. Yokoyama discloses that “grooves 22 hav[e] a shape that is an inversion of the top surface shape of the sealing member 47” and that “the sealing member 47 provided on the upper plate 43 of the filter element 40 is pressed upward within the grooves 22 formed in the upper case half 10.” Ex. 1008 ¶¶ 20, 24. Thus, grooves 22 must have the same general shape and orientation as sealing member 47, i.e. a shape and orientation that is not eccentric.

3. Conclusion regarding Ground 1

Petitioner has not established by a preponderance of the evidence that claim 15 is unpatentable over Yokoyama alone. Because claim 15 is the sole independent claim in this challenge, these deficiencies infect Petitioner’s challenge to dependent claims 16, 17, 19, 23, 25, and 30 based on Yokoyama. Pet. 45–52.

D. Ground 2 — Asserted Obviousness over Yokoyama & Cline

Petitioner’s next challenge provides different mappings for the eccentric blocking element and eccentric opening from its challenge over Yokoyama alone. *Compare* Pet. 33–36 (relying on Yokoyama’s ring-shaped sealing member 47 as the “eccentric blocking element” and grooves 22 as the “eccentric opening”), *with id.* at 60–61 (relying on Cline’s flow blocker 66 as the “eccentric blocking element” and quick-drain outlet 36 as the “eccentric opening”).

Petitioner provides reasons why it believes a person of ordinary skill in the art would have been motivated to combine Yokoyama’s filter with Cline’s eccentric drain valve. Pet. 52–59. Specifically, Petitioner asserts that, because Yokoyama does not disclose a draining mechanism, a skilled

artisan “would have been motivated to use Cline’s eccentric draining mechanism because of its well-known benefits,” including its “relatively simple design for draining” and purported environmental and reliability benefits. *Id.* at 53–56.

Petitioner asserts that Yokoyama does not describe a drain valve, but that a person of ordinary skill in the art “would have known that Cline’s valve design could be placed in such a way as to be sealed and engaged when Yokoyama’s filter insert is properly oriented, such as on the ‘upper plate 43’ next to the ‘sealing member 47.’” Pet. 57–58. According to Petitioner, “Yokoyama’s filter could be re-oriented so that removal of the filter insert opens the valve and allows liquid to flow out for safe disposal via the pull of gravity.” *Id.* at 58.

We are not persuaded by Petitioner’s arguments that a person of ordinary skill in the art would have been motivated to incorporate Cline’s flow blocker 66 into Yokoyama’s filter device so as to arrive at the subject matter encompassed by claim 15. Our reasoning follows.

1. Yokoyama’s 180° inversion

In order to make the proffered modification, Yokoyama’s filter element and housing would first have to be vertically inverted 180°. Pet. 57–58. Petitioner’s apparent position is that it would have been obvious to vertically flip Yokoyama’s filter element 180 degrees, and *then* install Cline’s eccentric blocking element 24 “on the ‘upper plate 43’ next to the ‘sealing member 47’”, where each would then be on the *bottom* of the filter element 40. Pet. 57–58; *compare id.* at 60 (identifying the bottom front panel of Cline as the panel including the eccentric blocking element), *with id.* at 30 (identifying upper plate 43 of Yokoyama as the “bottom front

panel”).¹⁰ Petitioner does not explain persuasively, however, why a person of ordinary skill in the art would have found it obvious to rotate filter element 40 vertically 180 degrees to be upside-down so that upper plate 43 and ring-shaped sealing member 47 would be on the bottom *prior to* modifying the filter element to include Cline’s eccentric blocking element. On this point, Petitioner asserts without explication that such reorientation “would prevent the draining of fluid until the filter needs to be replaced.” Pet. 58. But Petitioner has failed to explain persuasively why Yokoyama’s filter device must be reoriented upside down to allow the proposed modification of Yokoyama and Cline to function properly.

Thus, for the reasons we explained with respect to Ground 1, *supra*, Petitioner’s has failed to establish adequate reasoning to support such a modification. Namely, Petitioner’s position amounts to an assertion of what a person of ordinary skill could have done, not what that skilled artisan would have been motivated to do, which is facially deficient to establish obviousness. *Belden Inc. v. Berk-Tek LLC*, 805 F.3d at 1073.

Furthermore, as set forth in our discussion of Ground 1, we also disagree with Petitioner’s assertion that Yokoyama does not disclose a “draining mechanism.” Pet. 53. Indeed, contrary to Petitioner’s argument that Yokoyama does not disclose a “draining mechanism,” one of Petitioner’s proffered motivational statements set forth in this challenge suggests that Petitioner believes Yokoyama does in fact disclose a drain plug. *See id.* at 58 (arguing that using Cline’s eccentric blocking element would be the “*substitution* of one know[n] element for another” (emphasis

¹⁰ Petitioner relies on this mapping as set forth in Ground 1 in its Ground 2 challenge. Pet. 60.

added)). In other words, Petitioner asserts that a person of ordinary skill in the art would have found it obvious to substitute or replace Yokoyama's drain plug or blocking element¹¹ with the eccentric blocking element disclosed in Cline. *Id.* In the absence of any discussion of Yokoyama's apparent drain plug disclosed in Figures 2 and 3, we are not persuaded on this record that the skilled artisan would have been motivated to replace Yokoyama's drain plug or blocking element with the eccentric blocking element disclosed in Cline. Pet. 58.

Additionally, Petitioner's challenge does not satisfy the preponderance of evidence standard even if Yokoyama's Figures 2 and 3 do not disclose a drain plug. Here, we find it significant that Petitioner does not address sufficiently the natural result of removing Yokoyama's lower case half 30 during a filter change, or upper case half 10 in the event Yokoyama was flipped as proposed. Ex. 1008 ¶ 26. During a filter change using Yokoyama's filter as shown in its figures, lower case half 30 is unscrewed from upper case half 10. *Id.* ¶¶ 25, 26; Figs. 2, 3; Pet. 54. Petitioner has not addressed sufficiently whether a person of ordinary skill in the art would have been motivated to add a drain plug to Yokoyama's case so that fluid could be drained without removing one of the case halves to avoid an oil overflow when removing one of the case halves. Therefore, to the extent that Yokoyama's Figures 2 and 3 do not in fact disclose a drain plug useful for draining residual fluid from the filter case during a filter change, it is unclear on this record whether there would have been any motivation to

¹¹ Petitioner refers to a "drain plug" and a "blocking element" interchangeably. Pet. 58, 59.

modify Yokoyama to include Cline's eccentrically located drain and blocking element.

2. Limitation 15[e]

Limitation 15[e] requires that “the inclined plane and the nose [are] arranged to be moved in relation to each other in such a way that they slide along each other and bring the blocking element into engagement with the eccentric opening.” Pet. 62; Ex. 1001, 17:53–57. For this limitation, Petitioner relies on Yokoyama for the nose and inclined plane arrangement and Cline for the eccentric blocking element and opening. Pet. 60–63.

To meet this limitation, Petitioner must first demonstrate that it would have been obvious to flip Yokoyama's filter element vertically 180 degrees so that Cline's eccentric blocking element would be on Yokoyama's upper plate 43.¹² Without such a re-orientation of Yokoyama's filter element 40 to be upside-down, the proffered combination of Yokoyama and Cline does not meet the claimed requirement that “the inclined plane and the nose [are] arranged to be moved in relation to each other in such a way that they slide along each other and bring the blocking element into engagement with the eccentric opening.” Ex. 1001, 17:53–56 (identified by Petitioner as limitation 15[e]. Pet. 62–63). Specifically, Petitioner relies on the mapping set forth in Ground 1 for this limitation, i.e., Yokoyama's locking protrusion 46 as the claimed “nose” and Yokoyama's pleated portions 19 as the claimed “inclined plane.” See Pet. 60 (referring back to Ground 1's mapping). Petitioner asserts that “when Yokoyama's protrusion [46] slides

¹² As set forth above in Sections III.C.1. and III.D.1, Petitioner has failed to make that case.

along the inclined plane and enters depression 21, Cline’s flow blocker ‘engages a valve seat 60 . . . to block a flow of fluid from the interior region 22 through the quick-drain outlet 36,’ thereby ***bringing the blocking element into engagement with the eccentric opening.***” Pet. 62–63 (emphasis in original).

In other words, for Petitioner’s combination to satisfy the claim, Yokoyama’s protrusion 46 must slide in a *downward* direction to engage depression 21, not upward as expressly described in Yokoyama. Ex. 1008 ¶¶ 21–23; Fig. 6. Otherwise, Cline’s eccentric blocking element 66—mated to Yokoyama’s lower plate 44—would travel upward (with protrusion 46 into depression 21) and would fail to engage surface 60 of the valve seat of the quick-drain outlet 36. Ex. 1009 ¶ 29; Fig. 6. As we explained in Section III.D.1., Petitioner has failed to establish that a person of ordinary skill in the art would have been motivated to flip Yokoyama in the manner proposed.

But even if Petitioner would have persuasively established that such a re-orientation of Yokoyama’s filter element would have been obvious, there is a further problem with Petitioner’s challenge. Yokoyama’s filter element 40 has three sets of locking protrusions 46 (or “noses”) and three sets of pleated portions 19 (or “inclined planes”). Ex. 1008 ¶ 19; Figs. 1, 4–6. On the other hand, Petitioner’s proposed Yokoyama-Cline combination has one eccentric blocking element for engaging the eccentric opening. Pet. 60–61. It is unclear on the complete record how limitation 15[e] would always be satisfied in Petitioner’s proffered arrangement because the eccentric blocking element and eccentric opening would only be aligned to engage with each other when a *specific* locking protrusion 46 aligns with a *specific* depression 21 after sliding along a *specific* set of pleated portions 19. In

other words, statistically speaking, the eccentric blocking element would engage with the eccentric opening only one-third of the time in Petitioner's combination. PO Resp. 43 ("In the arrangement taught by Yokoyama, there would be no means to consistently bring the drain valve mechanism 56 of Cline into the correct angular orientation such that it aligned with an eccentric opening.").

For this additional reason, Petitioner has not established that the Yokoyama-Cline combination satisfies limitation 15[e].

3. Conclusion regarding Ground 2

For these reasons, Petitioner has not established by a preponderance of the evidence that claim 15 is unpatentable over the combined disclosures of Yokoyama and Cline. Because claim 15 is the sole independent claim in this challenge, it follows that Petitioner's challenge of dependent claims 16, 17, 19, 23–25, 28, and 30 fails for the same reasons.

E. Ground 3 — Asserted Obviousness over Honermann & Cline

Petitioner asserts that claims 1, 3, 5, 8–11, 15, 17, 19, 23–25, and 28–30 are unpatentable over the combined teachings of Honermann and Cline. Pet. 69–111. Of these claims, 1 and 15 are independent, and each requires an eccentric blocking element. Ex. 1001, 15:64–65 (i.e., "limitation 1[h]" (Pet. 91)), 17:41–43 (i.e., "limitation 15[b]" (Pet. 110)). Each independent claim also requires that the nose and inclined plane are arranged such that they slide along each other and bring the blocking element into engagement with the eccentric opening "by rotating the ring filter insert relative to the filter housing." Ex. 1001, 16:7–11 (i.e., "limitation 1[l]" (Pet. 97)), 17:53–57 (i.e., "limitation 15[e]" (Pet. 110)).

The Petition relies on the teachings of Honermann to evince every limitation of claims 1 and 15 except for the “eccentric blocking element” and the “eccentric opening” limitations set forth in limitations 1[f], 1[h], and 15[b]. Pet. 78–101, 110. To address these differences between Honermann and the independent claims, Petitioner relies on Cline’s disclosure of an eccentrically located blocking element and opening and asserts that a person of ordinary skill in the art would have been motivated to combine Honermann’s filter with Cline’s eccentric drain valve. Pet. 71–78.

We are not persuaded by Petitioner’s arguments that a person of ordinary skill in the art would have been motivated to incorporate Cline’s flow blocker 66 into Honermann’s filter device so as to arrive at the subject matter encompassed by claims 1 and 15. Our reasoning follows.

1. Filter insert rotation

Both limitations 1[l] and 15[e] require structural elements (i.e., an inclined plane and nose) to be arranged in such a way that, when they slide along each other, this action “bring[s] the blocking element into engagement with the eccentric opening[] by rotating the ring filter insert relative to the filter housing.” The Petition, however, does not address how the ring filter insert itself rotates. Rather, it argues repeatedly how a portion of the filter housing—i.e., basket 304—rotates. Pet. 97–99, 102.¹³

¹³ The Petition, with respect to limitation 1[k], contains a bare assertion, devoid of evidentiary support, that “in the Honermann-Cline combination, the blocking element enters the eccentric opening when the filter cartridge insert has been properly rotated and inserted into the filter bowl.” Pet. 97. We are not persuaded by this unsupported assertion, nor Petitioner’s citation to Mr. Nranian’s Declaration, which simply parrots this assertion without evidence. Ex. 1003 ¶ 213.

Although the claims require rotating the ring filter insert *relative to* the filter housing, the plain language of the claims requires rotation of the ring filter insert, not the filter housing. Ex. 1001, 16:10–11, 17:56–57. That understanding of the claims comports with the ’203 patent’s repeated description of the ring filter insert’s rotation. Ex. 1001, 3:4–10, 3:21–25, 3:42–48, 7:17–22, 8:36–42, 9:52–54 (each discussing rotating the ring filter insert). Petitioner provides no explanation how the ’203 patent would support a construction where this limitation would be satisfied by rotating the filter housing and not the ring filter insert, and we are aware of none.

We likewise reject Petitioner’s new theory regarding ring filter insert rotation, introduced for the first time in its Reply. Pet. Reply 27–29 (citing Ex. 1006 ¶ 143). First, Petitioner’s new theory fails procedurally. As our reviewing court has explained,

It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify “with particularity” the “evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3).

...

Unlike district court litigation—where parties have greater freedom to revise and develop their arguments over time and in response to newly discovered material—the expedited nature of IPRs bring with it an obligation for petitioners to make their case in their petition to institute. While the Board’s requirements are strict ones, they are requirements of which petitioners are aware when they seek to institute an IPR.

Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd., 821 F.3d 1359, 1369 (Fed. Cir. 2016) (holding that petitioner’s reply brief and accompanying declaration exceeded the scope of the reply under 37 C.F.R. § 42.23(b)). In a subsequent case, the Federal Circuit held that a petitioner’s

reply arguments “amount to an entirely new theory of *prima facie* obviousness absent from the petition” and that “[s]hifting arguments in this fashion is foreclosed by statute, our precedent, and Board guidelines.” *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1286 (Fed. Cir. 2017) (holding that the Board did not err in declining to consider petitioner’s reply argument).

Even if we were to consider Petitioner’s new theory, however, it would also fail for substantive reasons because the cited evidence says nothing of rotating the filter insert as Petitioner asserts, but instead repeatedly refers to rotation of the filter basket 304. Ex. 1006 ¶ 143.

Finally, Petitioner’s assertion that, in our Institution Decision, we “agreed that the Petition established how Honermann’s guidance mechanism” met this limitation is not well-taken. Petitioner’s assertion mischaracterizes our statements summarizing how the Petition satisfied the “reasonable likelihood” institution standard at a time when Patent Owner did not challenge the Petition’s merits. *Compare* Pet. Reply 29, with DI 22.

In sum, the Petition fails to establish by a preponderance of evidence that the relied-upon prior art evinces limitations 1[l] and 15[e]. For this reason alone, Petitioner’s challenge based on Honermann and Cline fails. Pet. 69–111. We, however, discuss a further deficiency in Petitioner’s obviousness analysis below.

2. Modifying Honermann’s Blocking Element to be Eccentric

Petitioner asserts that a person of ordinary skill in the art would have been motivated to combine Honermann’s filter with Cline’s eccentric drain valve and provides a variety of reasons to support this assertion. Pet. 71–78. We have considered each of Petitioner’s assertions and, on the complete

record, are unpersuaded that the skilled artisan would have been motivated to make the proffered modification. Our reasoning follows.

Petitioner first contrasts Honermann’s “complicated design” with “Cline’s simpler design” and asserts that there are “known benefits” to Cline’s using such a simpler design such as removability, replaceability, increased reliability, easier repair, and being less prone to damage. Pet. 71–74. Petitioner, however, provides insufficient evidence to establish these purported benefits were indeed “known” because Petitioner merely provides Mr. Nranian’s Declaration which parrots Petitioner’s assertions with no substantive analysis, explanation, or evidentiary support. Moreover, even if there was some merit to establish the removability, replaceability, and repairability of Cline’s flow blocker *component* on Honermann’s filter device, Petitioner does not explain why those attributes would have been desired on Honermann’s filter cartridge 38—which Petitioner acknowledges is *itself* removable and replaceable—or why the skilled artisan would have wanted to repair such a replaceable item at all. Pet. 80.

Moreover, Petitioner has also not explained, and we do not discern, why a person of ordinary skill would have pursued Cline’s “eccentric” design if she were motivated to simplify Honermann’s drain assembly. In other words, Petitioner has not established that simplicity requires eccentricity. Thus, Petitioner has not established sufficiently that a person of ordinary skill would have been motivated to simplify Honermann’s filter device at all, much less in the proffered manner by incorporating Cline’s eccentrically located drain assembly.

Petitioner also asserts that it would have been obvious to modify Honermann’s filter device with Cline’s valve design “because Cline’s flow

blocker has the same function as Honermann's plug" and because "eccentric drain valves were very common and well-known in the art." Pet. 74–75. This is unpersuasive because functional similarity and commonality does not necessarily equate to the obviousness of such a drastic redesign. Furthermore, Petitioner's assertions rely on Mr. Nranian's parroted opinion testimony. *Id.* (citing Ex. 1003 ¶¶ 168, 169).

Next, Petitioner states the proffered modification would have been "obvious because it is the simple substitution of one known element for another to obtain predictable results" and a matter of design choice. Pet. 76–77. We are not persuaded by this line of argument. Not only is Petitioner's position unsupported (citing again to Mr. Nranian's parroted testimony (Ex. 1003 ¶¶ 172–173), but it is also insufficiently explained. Namely, on one hand, Petitioner touts the complicated nature of Honermann's valve design (Pet. 72–74), but on the other hand, asserts the proffered substitution of valve designs would have been "simple" (*id.* at 76–77). Petitioner cannot have it both ways. The Petition is thin on detail regarding how, precisely, the proffered modification would be carried out, e.g., which of the many pieces of Honermann's filter housing assembly would have been obvious to eliminate or keep and why. For example, the Petition relies on retaining Honermann's basket assembly 304 but eliminating Honermann's plug 244. Pet. 91–99, 110. Basket 304, however, contains column 320 which receives post 322 of core piece 222. Ex. 1006, Figs. 3, 24, ¶ 144. On the opposing end of core piece 222, head 302 engages with receiver 298 of plug 244. *Id.* ¶ 135; Fig. 12. Plug 244 also requires valve spring 288 to be moved into a sealed position. *Id.* ¶¶ 133, 188; Fig. 12. Spring 288 is a component part of valve assembly 236 that

Petitioner proffers to eliminate. *Id.* ¶ 133; Fig. 13. Thus, Honermann's basket 304 and plug 244 are interconnected. Petitioner does not explain with sufficient specificity why a person of ordinary skill in the art would have been motivated to retain Honermann's basket 304 but eliminate plug 244 or how the proffered modification would even have been carried out.

3. Conclusion regarding Ground 3

For these reasons, Petitioner has not established by a preponderance of the evidence that independent claims 1 and 15 are unpatentable over the combined disclosures of Honermann and Cline. It follows that Petitioner's challenge of dependent claims 3, 5, 8–11, 17, 19, 23–25, and 28–30 fails for the same reasons.

IV. CONCLUSION

Petitioner has not shown by a preponderance of the evidence that the challenged claims are unpatentable as summarized below:

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
15–17, 19, 23, 25, 30	103	Yokoyama		15–17, 19, 23, 25, 30
15–17, 19, 23–25, 28, 30	103	Yokoyama, Cline		15–17, 19, 23–25, 28, 30
1, 3, 5, 8–11, 15, 17, 19, 23–25, 28–30	103	Honermann, Cline		1, 3, 5, 8–11, 15, 17, 19, 23–25, 28–30
Overall Outcome				1, 3, 5, 8–11, 15–17, 19, 23–25, 28–30

V. ORDER

In consideration of the foregoing, it is

ORDERED that Petitioner has not shown that claims 1, 3, 5, 8–11, 15–17, 19, 23–25, 28–30 of the '203 patent are unpatentable;

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

IPR2024-00603
Patent 9,023,203 B2

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