

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PROVISUR TECHNOLOGIES, INC.,

Petitioner,

v.

WEBER FOOD TECHNOLOGY GMBH,

Patent Owner

Case IPR2024-00258
U.S. Patent No. 10,647,013

**PATENT OWNER'S RESPONSE
TO PETITION FOR *INTER PARTES* REVIEW**

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I. INTRODUCTION

Petitioner offers two separate obviousness grounds challenging the validity of the '013 Patent. Petitioner's Ground 1 asserts obviousness theory based on Müller that relies on Waffner for its vacuum loop measurement teachings. But the Petition is entirely unclear as to what either proposed combination *is*. Petitioner does not identify with particularity how the references would be combined, which components remain from Müller's native system, or which components are ported from Waffner. At most, Petitioner vaguely suggests that the combinations would involve modifying Müller's buffer 12 with the vacuum system of Waffner. Further, even if Petitioner had explained what the combination *is*, it failed to explain *how* a combination of these references satisfies the Challenged Claims. Because Petitioner has failed to articulate with particularity its proposed combination and how such a combination renders obvious the Challenged Claims, Ground 1 fails.

The lack of clarity in Petitioner's proposed combination is worsened by the fact that Müller is technically incompatible with Waffner's vacuum system. Müller's system, by design, relies on a small buffering loop on advance of its cutting region, storing no more material than is required for a single cut. This efficient small loop is made possible by a much larger buffer upstream that serves to decouple the high-speed cutting region from the relatively slower material store. Petitioner's theory ignores this two-buffer approach and generally argues that the single large loop

system of Waffner would supplant or supplement—which is not clear from the record—Müller's small buffering loop. Petitioner's approach fails for a number of technical reasons. First, the vacuum system taught by Waffner quite simply would not fit in Müller's small buffer area. Second, Müller's small buffer operates independently from and is incompatible with the pneumatics system which form the technical foundation of Waffner's vacuum system. Third, the generic "advantages of a vacuum" Petitioner relies on for its motivations to combine are either redundant of Müller's buffer system or simply don't benefit Müller's system due to the specific operation of Müller's system—details the Petition conveniently ignores.

In sum, not only is the proposed combination unclear, but it is technically infeasible. Petitioner has wholly failed to carry its burden, and the Board should reject Ground 1.

Ground 2 fares no better. There, Petitioner proffers an obviousness theory based on Jordan in combination with Fukuchi. As with Ground 1, Petitioner entirely fails to describe this combination with the requisite specificity. But Ground 2 fails for an unrelated reason—neither Jordan, Fukuchi, nor their combination satisfies the limiting preambles of the independent Challenged Claims. Consistent with the focus of the specification, every independent Challenged Claim requires a "cutting region" in which (1) food product is sliced and (2) sheet material is cut. The Petition relies exclusively on Jordan for these preambles. Not only does Jordan fail to teach a single

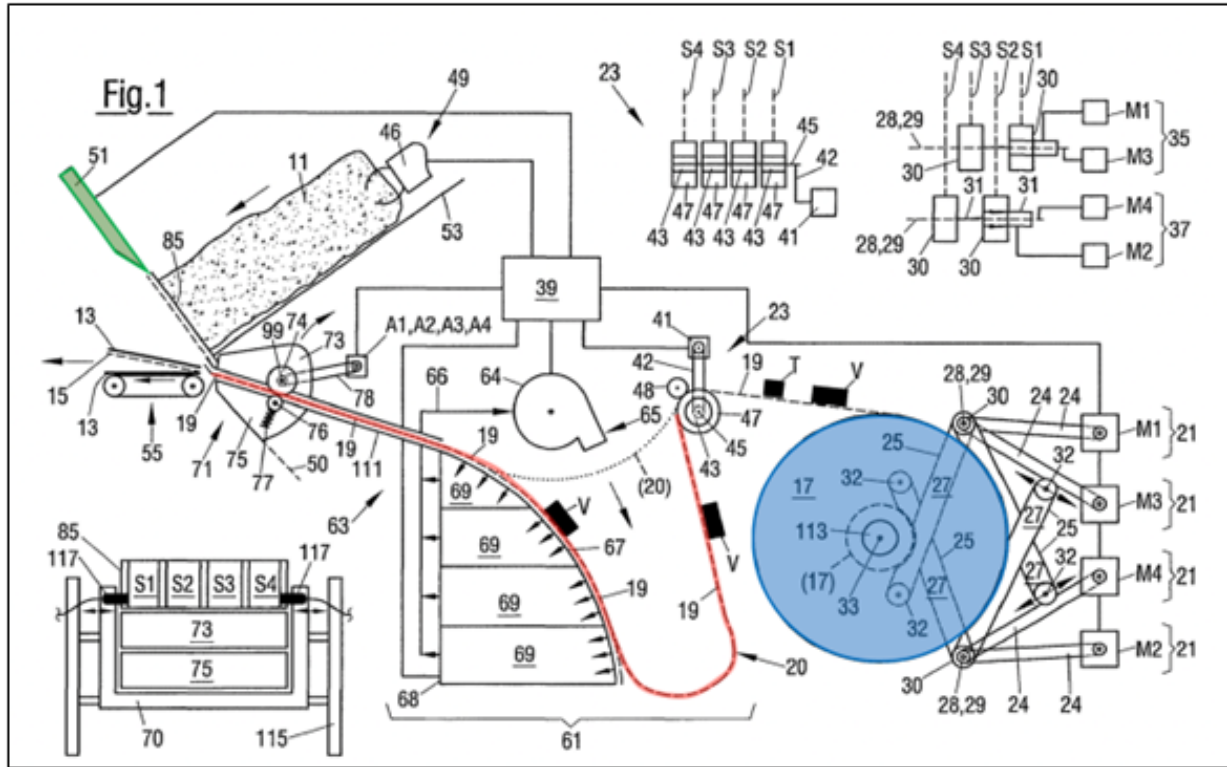
cutting region in which food product is sliced and sheet material is cut, Jordan's express purpose is to separate the food slicing from sheet cutting. Indeed, Jordan *receives* sliced food product from a separate (and undescribed by Jordan) cutting machine. Jordan's apparatus weighs those received food product slices and creates weight-based stacks in which the food product slices are separated by interleaved sheet material. As Petitioner's expert admits, Jordan's apparatus *does not slice food product*.

Facing what is in fact a fatal deficiency in Jordan's teachings, Petition deploys a unique approach. It asks the Board to overlook Jordan's actual teachings—submitted to the Office in the early 1970s—and supplant them with the state of the art in food processing technology as of the priority date of the Challenged Patent (2017)—more than 40 years later. Petitioner does not propose any specific modifications to Jordan. It does not suggest that Jordan would be combined with a specific food processing system that existed in 2017. Nor does it wrestle with how Jordan's system—specifically designed to *separate* food slicing from sheet cutting—could be updated to support a single “cutting area” required of the limiting preambles. Instead, Petition insists that a POSITA in 2017 would ignore Jordan's actual teachings and would pretend that it taught the state of the art more than 40 years after Jordan's actual teachings were submitted to the Office. Unsurprisingly,

Petitioner provides no legal support for this approach. Because Ground 2 is legally flawed and logically nonsensical, the Board should reject it.

II. SUMMARY OF THE '013 PATENT

The challenged independent claims of the '013 Patent describe an apparatus for provisioning web-like interleaved sheet material (e.g., paper) at a cutting region in which products (e.g., cheese or meat) are supplied on a track, cut into slices, and interleaved sheets are introduced between slices. Ex. 1001, claim 2; *see also id.*, claims 17 and 19 (reciting the same). As illustrated in annotated Fig. 1 below, the claimed apparatus comprises several components, including: a **material store** (e.g., a roll of paper), a **cutting region**, and a **loop store** between the material store and cutting region:



The loop serves as a buffer between the high speed and dynamic needs of the cutting area and the relatively sluggish material store. *Id.*, 2:24-40 (noting the invention ensures “ejection of the material web into the cutting region is [] reliably decoupled from the process of the removal of the material web from the material store at comparatively high cutting speeds”).

III. PETITIONER'S PROPOSED GROUNDS DO NOT RENDER OBVIOUS THE CHALLENGED CLAIMS

A. Ground 1: Petitioner's Proposed Combination of Müller and Waffner Fails for Several Reasons

1. Petitioner Fails to Explain with Particularity the Proposed Combination

“To satisfy its burden of proving obviousness, a petitioner cannot employ mere conclusory statements. The petitioner must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016) . Focusing on purported benefits without explaining how the combination would work in the first place cannot satisfy this burden. *The Walt Disney Co., et al. v. WAG Acquisition, L.L.C.*, IPR2022-01346, Paper 12 at 24-26 (PTAB Mar. 10, 2023) (denying institution where a petitioner did not “set forth sufficient details on what aspects from [secondary] would be combined with [primary] and how such aspects would work together”). In *Walt Disney Co.*, the Board faulted Petitioner for failing to state whether the secondary reference was “meant to supplant” functionality in the primary entirely or “whether the two systems are meant to coexist in some fashion.” *Id.*, 25. The Petition here shares these same faults.

Rather than providing a limitation-by-limitation analysis for its obviousness theory, Petitioner relies on an omnibus motivation to combine section separate and apart from any specific claim limitations. Pet., Section VIII.A.7. Petitioner's expert

similarly incorporates a motivation to combine section within his declaration, completely independent from any specific limitations in the Challenged Claims. Ex. 1003, Section XI.B. This abstraction appears to be by design. Indeed, neither Petitioner nor its expert ever describe a proposed combination of the references with particularity and provide nothing more than generic motivations that are copied and pasted across three different combinations¹ with little-to-no substantive changes. In other words, Petitioner's motivations to combine are completely agnostic to specific proposed modification of the references. In addition to providing only generic motivations, Petitioner fails to sufficiently articulate what proposed combination it is relying on for its obviousness theory. Instead, Petitioner relies on vague and conclusory statements that Waffner would be combined with Müller. *Comcast Cable Comms., LLC v Proptu Systems Corp.*, 838 Fed. Appx. 555, 557 (Fed. Cir. 2021)

¹ Petitioner has presented three separate Müller-based combinations—Ground 1 in this proceeding and both grounds in IPR2024-00269, which challenges related U.S. Patent No. 11,331,823 (“the ’823 Patent”). Each of these three grounds relies on a separate secondary reference in combination with Müller, presumably for different reasons. At the very least, Müller in Ground 1 here is being modified in an attempt to capture a vacuum-based loop length measurement it does not teach, and Müller in the grounds of the ’823 Patent proceeding is being modified to teach vacuum braking functionality it does not teach. Yet the omnibus motivations to combine are nearly identical across all three grounds.

(finding that petitioner “had not proven a motivation to combine because it merely. . . recited boiler plate legal conclusions untethered to any claim language.”).

For example, Petitioner relies on a combination of Müller and Waffner to meet element 2.4. Pet., 35. In doing so, Petitioner broadly states “it would have been obvious to combine Waffner’s technique with Müller’s apparatus” without explaining what the proposed combination actually is. *Id.* Nowhere does Petitioner state how or what would be combined from Waffner with Müller to meet “a contact surface having at least a portion thereof that is air permeable, the contact surface at least partially bounding the loop store and at least partially covered by the loop that contacts the contact surface.” *See id.*, 33-35. Müller’s purported contact surface is a non-air permeable, movable plane supporting buffer loop 12. Müller, [0031], [0048]; Pet., 33-34; Ex. 1003, ¶¶158-159. Waffner’s purported contact surface is “an endless belt” including a plurality of air-permeable apertures, driven at a constant speed by a motor and pulley. Waffner, 3:58-61; Pet., 34-35; Ex. 1003 ¶161. Aside from describing Müller’s strip guide 13 and Waffner’s endless belt 28, Petitioner provides zero analysis as to *how* element 2.4 is met. Indeed, it is entirely unclear which of “Waffner’s techniques” are required in combination with Müller to satisfy the claim limitation. It is also unclear, especially given the contrast in Müller’s movable, planar strip guide with Waffner’s constantly driven belt, how “Waffner’s techniques” would be combined with Müller’s apparatus to meet element 2.4.

Petitioner's obviousness theory for element 2.5 suffers the same flaws. Petitioner states, "Müller in combination with Waffner would meet element 2.5" but again fails to explain how or what the proposed combination is. Pet., 38. It is completely unclear how Waffner's teachings would be combined with Müller to meet element 2.5. Petitioner's only discussion of the proposed combination within the context of element 2.5 is that "Waffner's technique *could* be used in the device for determining a size of the loop taught by Müller." Pet., 38 (emphasis added). Not only does Petitioner fail to meet the proper standard for obviousness by failing to explain why a POSA *would* have made the particular combination of Mueller with Waffner, but Petitioner once again fails to articulate what the proposed combination is. *Truist Bank v. United Servs. Auto. Assoc.*, IPR2023-00143, Paper 15, 23 (PTAB May 16, 2023) (quoting *Belden Inc. v. Berk-Tec LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015)) ("obviousness concerns whether a skilled artisan not only could have made but would have been motivated to make" the combination); *Shopkick, Inc. v. Novitaz, Inc.*, IPR2015-00279, Paper 7 at 30 (PTAB May 29, 2015); *Comcast Cable Comms.* 838 Fed. Appx. at 557.

Petitioner's reliance on its omnibus motivation to combine sections from both the petition and expert declaration fail to remedy the holes in its obviousness theory. Indeed, broad statements about combining Müller with Waffner fail to clarify *how* the two references would be combined in such a way as to satisfy the challenged

claims. *Shopkick*, IPR2015-00279, Paper 7 at 30 (“[C]onclusory labels do not substitute for a fact-based analysis ... establishing ***what is being modified and why***, based on the differences between the prior art and the claimed invention, it would have been obvious to a person of ordinary skill to make the modification.”) (emphasis added); *Comcast Cable Comms*, 838 Fed. Appx. 555 at 557 (finding insufficient motivation to combine where the petition lacked “explanation as to ***how or why*** the reference would be combined to produce the claimed invention.”) (emphasis added).

Petitioner's vague combinations appear to be more than a simple oversight, as demonstrated by Mr. Jobin's (Petitioner's expert) repeated admissions on cross examination that the proposed combination was not based on any “specific embodiment.” Indeed, Mr. Jobin suggested it did not matter what specific components from Waffner would be included in the proposed combination:

Q: Does the combination you have analyzed incorporate Waffner's
[]contacting belt or not?

...

A: Well, it's – it's not – it's not clear to me that it matters either way. I think that the combination renders the claims obvious, as I've described elsewhere in this declaration, in either case.

Ex. 2009, 59:12-21. Further, when asked to clarify the proposed combination, Mr. Jobin maintained a vague answer stating that “‘converting the strip guide’ would ***imply some substitution*** of those types of components in that area of the

mechanism.” *Id.*, 58:1-3 (emphasis added). Similarly, when asked what components of Müller would be retained, Mr. Jobin stated “I haven’t [co]nstructed a [] specific embodiment. . . I’m really talking about adding ***some of the teachings*** of Waffner to that component” without ever clarifying which specific teachings would be added. *Id.*, 52:17-23 (emphasis added).

When reviewing Petitioner’s obviousness theory within the context of both the petition and Mr. Jobin’s testimony, a critical question remains: How is Müller’s buffer 12 being modified? Without answering this basic question, Petitioner leaves Patent Owner and the Board guessing as to what its combination is. Further, even if Petitioner had sufficiently articulated what its proposed combination is, it failed to explain how such combination meets particular claim elements. *See, e.g.*, Pet., 33-38 (covering elements 2.4 and 2.5 of the ’013 Patent).

Petitioner’s obviousness theory combining Müller and Waffner fails because it is devoid of any particularity that would explain what the proposed combination is and how the proposed combination would meet the challenged claims. *Personal Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017) (holding obviousness determination to be improper where the record lacked a “clear, evidence-supported account” of “how the combination” would work).

2. *Müller is Technically Incompatible with Waffner's Vacuum Chamber Teachings*

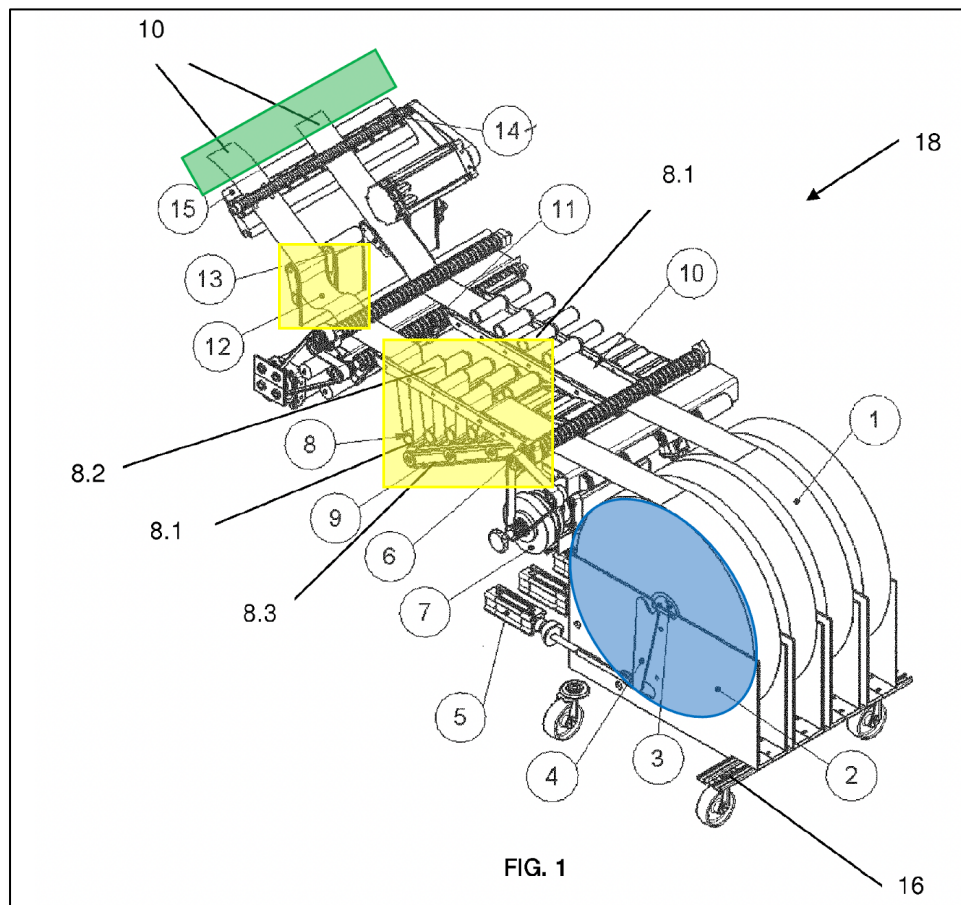
a) Müller's Buffering System Cannot Support a Vacuum Chamber

Petitioner's Ground 1 relies generally on combining Müller's and Waffner's teachings. Although Petitioner does not articulate its combination with sufficient particularity, Petitioner at least articulates that its proposed combination involves some modification of Müller's buffer 12 with Waffner's teachings related to its vacuum chamber. In doing so, Petitioner fails to account for the contrast in Müller's buffer 12 as an intentionally small loop with Waffner's loose loop vacuum chamber system. This oversight plagues Petitioner's obviousness theory because the small loop of buffer 12 is fundamentally incompatible with Waffner's multi-faceted vacuum chamber.

Müller describes an unreeling system for interleaver material that is ultimately inserted between slices of food. Müller, [0002]. Müller's unreeling device is able to unreel a "plurality of interleaver reels[]" so that multiple lanes of material can be provided to the cutting region at the same time. *Id.*, [0007]. As the material moves through the unreeling system, it passes through two separate buffers, buffer 8 and buffer 12, each with different storage capacities. *Id.*, [0026]. By passing through buffers 8 and 12, damage to the interleaver material, such as tearing, is prevented. *Id.* A POSITA would have understood that the different storage capacities of these

buffers allow each buffer to provide a distinct type of control to the interleaver system. *Dec.*, ¶¶31-37.

Annotated Fig. 1 below shows in yellow Müller's two buffers—large buffer 8 and the smaller tight loop buffer 12 arranged between the paper roll and cutting region:



Müller, Fig. 1 (annotated).

Müller's buffer 8 is the first buffer the interleaver material enters “after the interleaver strip has been unreeled from the reel.” *Id.*, [0048]. The components of buffer 8 operate to “compensate[] for a difference between unreeling speed and the

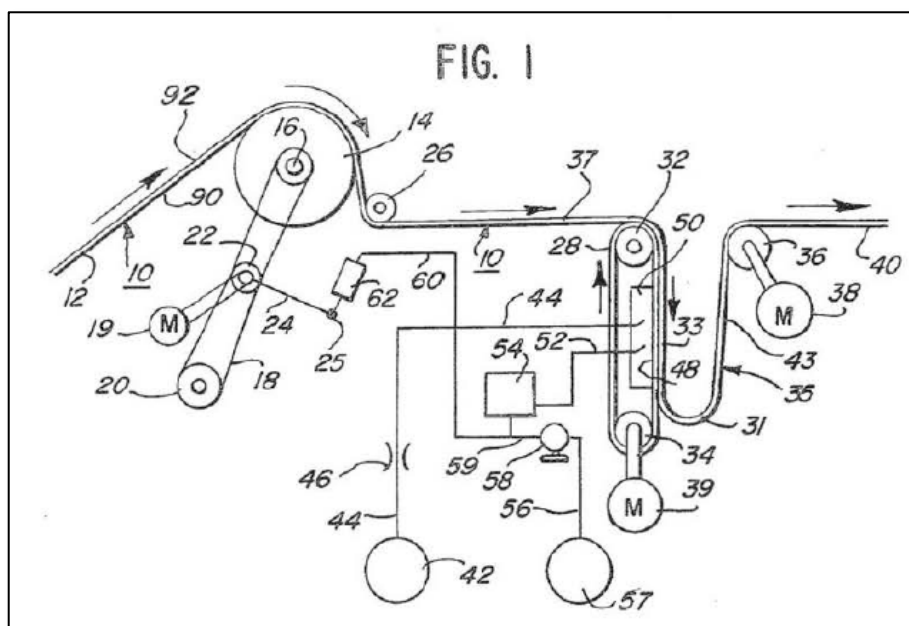
consumption of the interleaver strip[.]” *Id.*, [0035]. A POSITA would understand that Müller’s buffer 8 is the main decoupling mechanism for Müller’s system because its large capacity compensates for the difference in input speed from the output speed in order to prevent damage to the web by the storing material downstream from the input and upstream from the output. Ex. 2007 (Kurfess Declaration) (“*Dec.*”), ¶¶33-34.

After the material exits buffer 8, it enters Müller’s buffer 12 where a small loop is formed. *Müller*, [0048], Fig. 1. The length of the material loop formed in buffer 12 is monitored by a “contacting sensor” to ensure that “only as much interleaver as is needed for the ejection of an interleaver” is maintained. *Id.* Buffer 12 includes interleaver strip guide 13 which supports the loop and is pivotable between a “buffering position” and a “non-buffering position.” *Id.* A POSITA would have understood that the lower capacity of buffer 12 indicates that this portion of *Müller*’s interleaver system achieves more fine-tuned control to provide the interleaver material to the cutting region at the accurate frequency. *Dec.*, ¶¶35-37.

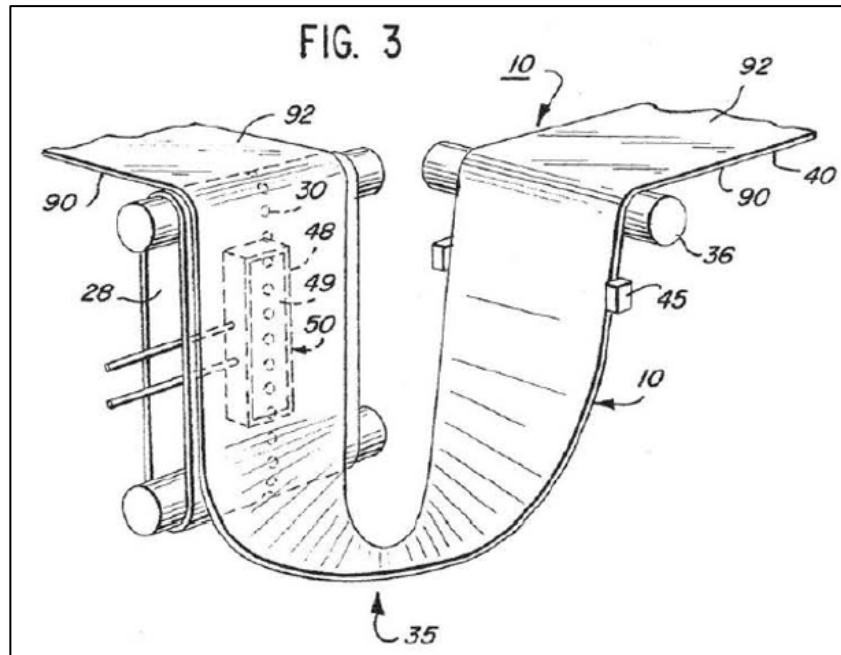
b) Müller’s Buffering System Cannot Support
Waffner’s Vacuum System

Petitioner generally argues that a POSITA would have been motivated to implement Waffner’s vacuum chamber teachings in Müller’s apparatus at buffer 12. Ex. 1003, ¶¶213, 217; Ex. 2009, 52:19-23 (“buffer 12 and the components in that area of Müller – I’m really talking about adding some of the teachings of Waffner

to that component.”); *see also* Pet., 33-34 (relying on Müller’s buffer 12 as the loop store and strip guide 13 as the contact surface). Waffner’s vacuum chamber includes numerous components that are required for the system to operate including vacuum chamber 50, longitudinal edges 48 and 49, vacuum line 44, restriction valve 46, vacuum line 44, and a vacuum source 42. Waffner, 4:10-26. These components are depicted in Waffner’s Figs. 1 and 3 below:



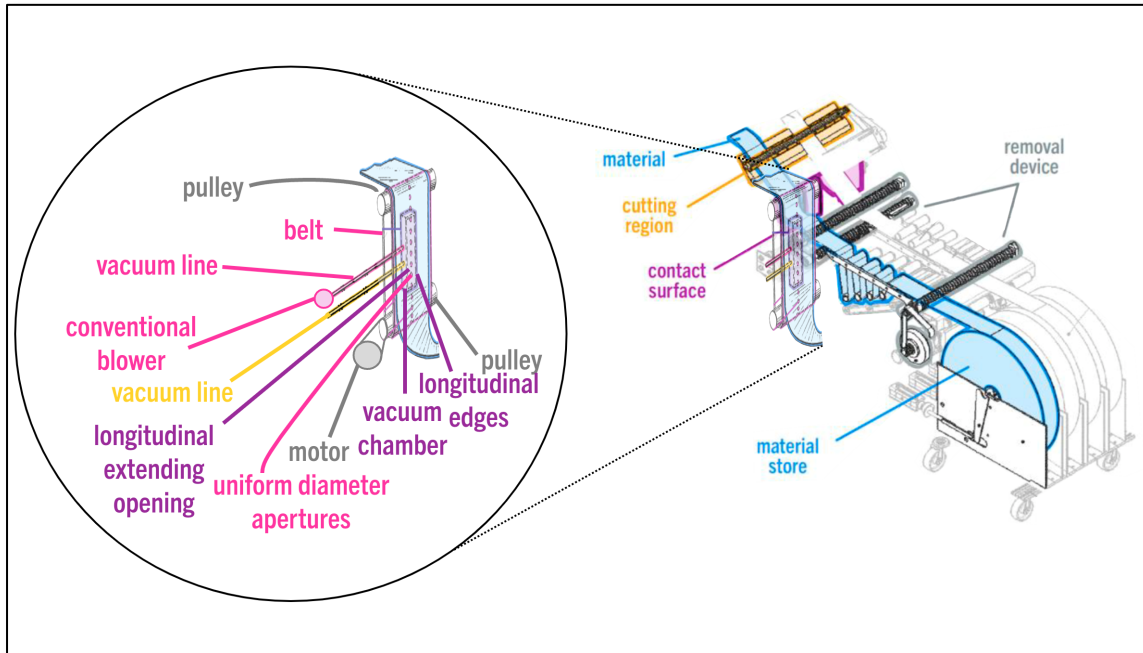
Id., Fig. 1.



Id., Fig. 3. Petitioner's expert, Mr. Jobin, testified that components such as "a little chamber that is sealing the area behind the apertures" and "some type of sensor in there to detect either flow rate or pressure changes would need to be added." Ex. 2009, 48:15-21. A POSITA would understand that in addition to these components, an air-permeable surface would be required for the pressure sensor to function. *Dec.*, ¶38.

A POSITA would understand that these required components associated with Waffner's vacuum chamber would not fit at Müller's buffer 12. *Id.*, ¶¶38-41. As seen in the image below, the potential modifications to Müller to incorporate Waffner's vacuum chamber teachings, including necessary components, introduce significant complexity of buffer 12 in such a way that does not comport with Müller's apparatus. Thus, a POSITA would not have been motivated to combine

Waffner's vacuum chamber teachings at least because it would be technically infeasible with the size and capacity of Müller's buffer 12. *Id.*



Müller, Fig. 1 (annotated); Waffner Fig. 1 (same).

As illustrated, Waffner's vacuum system imposes substantially more complexity to Müller's system and would occupy far more real estate. Further, the nature of Waffner's vacuum-based system requires a much longer loop than that used at Müller's buffer 12. Indeed, Waffner's vacuum-based system assumes a length of material travels over a series of apertures that provide air flow into vacuum box 50. The pressure within vacuum box 50 changes as the loop length changes and the material covers more or fewer of these apertures. As illustrated in Waffner, this approach works only with a long loop in which the length of material changes

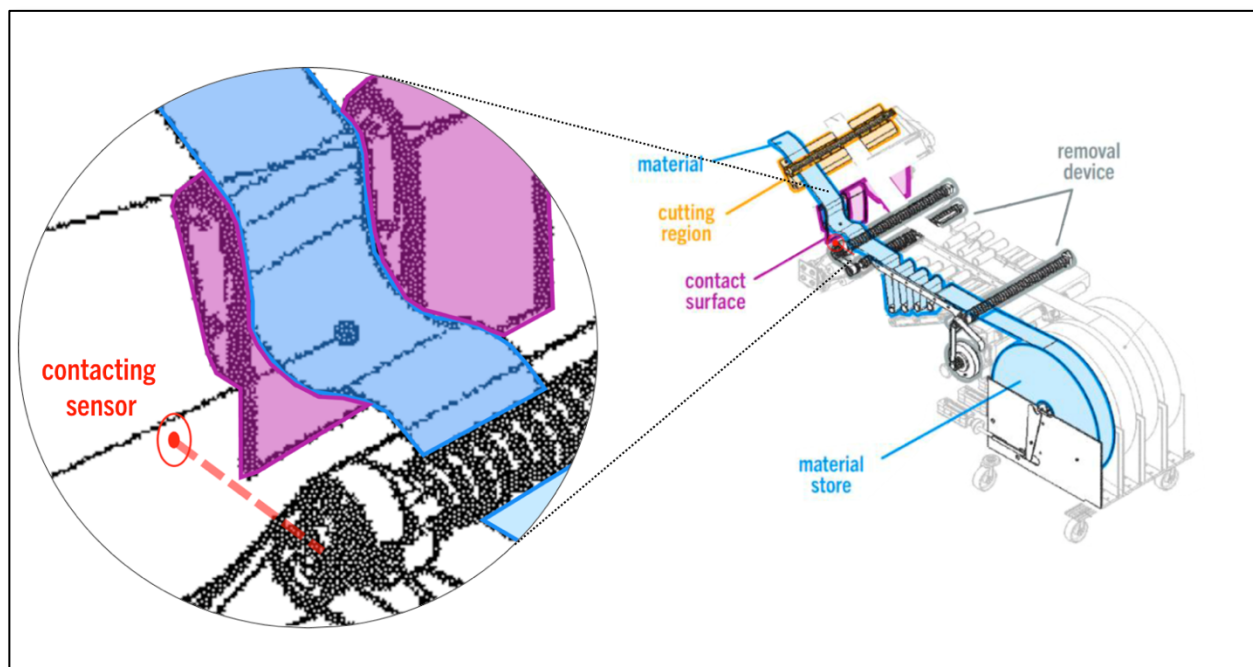
significantly such that the pressure detected within box 50 changes a detectable amount. *Dec.*, ¶40.

Further, not only is Waffner technically incompatible, but its addition would also increase the Müller system's cost as well as increasing the cost of maintaining and installing the system. For example, a POSITA would not expect to have a readily available vacuum source in clean environments such as those Müller's system targets. *Dec.*, ¶41. Accordingly, in addition to the complexity illustrated above via the addition of Waffner's vacuum-based system to Müller's apparatus, a POSITA would have understood that a system for generating the actual vacuum is also required. *Id.* Given the cost, complexity, and incompatibility, a POSITA would not have been motivated to add Waffner's vacuum system to Müller's system. *Id.*

c) Müller's "Contacting Sensor" Does Not Include a Pressure Sensor and Waffner Does Not Teach a Pressure Sensor

Müller teaches a "contacting sensor" used to monitor the length of the loop at buffer 12. Mueller, [0048]. A POSITA would understand Müller's contacting sensor detects whether the interleaver material is "contacting" the apparatus at a particular location (e.g., at the bottom of strip guide 13). *Dec.*, ¶42. A POSITA would further understand that Müller's "contacting sensor" would need to be small enough to fit within the space occupied by buffer 12. *Id.*

A POSITA would have understood there to be many types of available contacting sensors that would be compatible with Müller's buffer 12, including, for example, position sensors such as proximity sensors as well as photoelectric sensors (e.g., photocells). *Dec.*, ¶¶43-44 (citing Ex. 2008 (Sensor Technology Handbook), 322). A POSITA would understand a photoelectric sensor to be one type of technically compatible contacting sensor with Müller's buffer 12. *Id.* As seen in the image below, the implementation of a photoelectric sensor (red) would be compatible with the size and function of Müller's interleaver strip guide 13 and buffer 12.



Müller, Fig. 1 (annotated).

A POSITA would understand that using a photoelectric sensor as Müller's "contacting sensor" in buffer 12, would require simple installation that would allow

Müller's apparatus to operate exactly as designed. *Dec.*, ¶¶43-45. As demonstrated in the photo above, a photoelectric sensor (red) could easily be placed just below the end of strip guide 13 (purple) to ensure appropriate control when and if the loop becomes too large as a result of underproduction on the cutting edge. Placing the photoelectric sensor here would further allow the movable and pivoting functionality of strip guide 13 to be retained in accordance with Müller's teachings.

Petitioner argues that a POSITA would have been motivated to turn to Waffner's pressure sensor to improve Müller's contact sensing. However, there are two critical flaws to this argument: (1) Waffner does not teach a pressure sensor, or any contacting sensor for that matter; and (2) a pressure sensor is not a compatible "contacting sensor" based on Müller's teachings. A POSITA reading Waffner would understand that—contrary to Petitioner's assertions—it does not contain any disclosures of a pressure sensor, or manometer. *Id.*, ¶46. Instead, Waffner utilizes only mechanical and pneumatic controls to determine the size of its loop. *Id.*; *see also* Waffner, 5:61-13. A POSITA would not read Waffner "in view of the state-of-the-art as teaching a central machine control that received and sent electronic signals because this is not how Waffner worked. Indeed, Waffner specifically aims to provide loose loop feed control without any "complicated electronic means." Waffner, 3:1-4.

However, even if Waffner were read to include a pressure sensor, a POSITA would not have understood a pressure sensor, to be a compatible “contacting sensor” within the context of Müller. *Dec.*, ¶¶42-46. Indeed, a POSITA would understand that a pressure sensor would not be contemplated by Müller at all due to the fact that Müller discloses no pneumatic components. *Id.* Further, because an effective pressure sensor as relied on by Petitioner would require a vacuum system, utilizing a pressure sensor as Müller’s “contacting sensor” would be technically infeasible for all the reasons stated above. *See supra* Sections III.A.2(a)-(b).

3. Waffner is Redundant of Müller and Petitioner’s Proposed Combination Offers No Benefit to Müller

Beyond the fact that Müller’s buffer 12 is technically incompatible with Waffner’s teachings, a POSITA would not be motivated to combine Waffner’s teachings with Müller because the alleged benefits are either (1) present in Müller’s system alone, or (2) simply inapplicable to Müller’s system altogether. For the reasons discussed in Section IV.A.2, a POSITA would understand Müller’s buffer 12 to be a *small* loop used for fine loop control. *Supra*, Section IV.A.2; *Dec.*, ¶¶31-41. A POSITA would further understand that Müller teaches buffer 8 for coarse loop control. *Dec.*, ¶¶31-34. In contrast, a POSITA would understand that Waffner, titled “Loose Loop Feed Control Apparatus,” uses a single large loose loop method as a form of loop control. *Id.*, ¶¶48-49.

A POSITA would distinguish the buffering system disclosed in Müller from a large loose loop system. *Dec.*, ¶¶48-49. Loose loop systems, like Waffner, achieve decoupling between inlet and outlet speeds via the loop itself and often implement vacuum chambers in order to maintain the loose loop and counter associated problems that arise from the nature of the loose loop. *Id.* A POSITA would understand that the components and operation of Waffner's pneumatic-based control apparatus are designed to ensure that a loose loop is maintained consistent with the state of the art. *Id.*

Müller, on the other hand, achieves decoupling with coarse and fine control with buffers 8 and 12, respectively. Thus, the result of combining the teachings of Waffner with Müller's buffer 12 would be redundancy in Müller's overall system with no advantages. Indeed, the purported benefits Petitioner relies on for its motivation to combine are either already present in Müller alone or are merely solving the problems that exist solely because of the proposed combination. A POSITA would therefore not have been motivated to incorporate the teachings of Waffner in Müller's buffer 12. *Id.*, ¶¶47-50.

a) Müller Alone Teaches Ensuring Appropriate Loop Length and No Motivation Exists to Replace it with Waffner

Petitioner argues through its expert that a POSITA would be motivated to combine Waffner's techniques with Müller "to ensure that an appropriate length of

loop is stored in Müller's buffer." Ex. 1003, ¶207. However, Müller alone teaches ensuring an appropriate length of the loop in buffer 12. *Dec.*, ¶¶51-52. As Petitioner's own expert explains, "[a] POSITA would understand that Müller's 'control system' accepts an input signal from the sensor and sends control signals to the drives (i.e. drive 11) to determine the length of paper in the loop ***in order to maintain the loop at this size.***" Ex. 1003, ¶176 (emphasis added). Thus, it is unclear why a POSITA would have been motivated to incorporate Waffner's teachings for the benefit of a functionality—ensuring appropriate loop length—that was already present in Müller. In dealing with a similar circumstance in *South-Tek Systems*, the Federal Circuit noted that the redundant function of a secondary reference already disclosed in a primary reference would not motivate a POSITA to add said redundant function to the combination. *South-Tek Sys., LLC v. Engineered Corrosion Sols., LLC*, 748 F. App'x 1003, 1006-1007 (Fed. Cir. 2018) ("Given the redundant functions of Viking's drum drip and Wood's condensate drain, the Board found a person of ordinary skill would not have been motivated to add a condensate drain to Viking in addition to the system's drum drip drain."). A POSITA would not be motivated to supplant Müller's existing functionality for Waffner's, especially where there is no support that Waffner's functionality would improve Müller's. *Dec.*, ¶¶51-52.

Petitioner argues that Waffner's method for determining the size of a loop offers "improvements" to Müller. Pet., 40. However, beyond a couple conclusory statements, Petitioner has failed to articulate how or why Waffner's method for determining the size of a loop would improve Müller's method. *Id*; *In re Van Os*, 844 F.3d 1359, 1361-1362 (Fed. Cir. 2017) (finding conclusory assertions "with no explanation" are "inadequate" to support a motivation to combine). Petitioner's expert similarly fails to provide any support for the broad assertion that Waffner's method for determining the size of the loop is an improved version of Müller's. *See* Ex. 1003, ¶¶205-210. Petitioner appears to latch onto the characterization of Waffner as an "improved system" in Waffner's specification to suggest that Waffner would be an improvement to Müller. However, the phrasing of "improved" in Waffner's background, is completely isolated from Müller's system and simply couldn't have contemplated Müller in any way due to the fact that Waffner predated Müller by several decades. A POSITA would have understood Waffner's "improvements" to apply narrowly to loose loop systems and not to Müller. *Dec.*, ¶¶51-52. To the extent Petitioner argues that Waffner's method protects against web damage to a higher degree than Müller's method, it has provided zero support for such assertion, further undercutting its motivation to combine. *In re Van Os*, 844 F.3d at 1361-1362; *TQ Delta, LLC*, 942 F.3d at 1358 (finding insufficient support for proposed motivation where there was no factual basis for the proposed benefit).

b) Müller Would Not Benefit From “Additional Advantages of a Vacuum Chamber”

Beyond ensuring appropriate loop length—which Müller already does—the remainder of Petitioner's motivation to combine relies on a POSITA's alleged understanding that “Waffner's contacting sensor could add other valuable features of Müller's apparatus.” Pet., 40. The potential for “additional advantages” of vacuum chamber systems does not satisfy Petitioner's burden to prove a motivation to combine Waffner's teaching with Müller. Of these features, Petitioner highlights (1) improved threading; (2) tension control; and (3) loop stabilization. Pet., 40-41; Ex. 1003, ¶¶215-228. When looking at Müller as a whole, these touted benefits do not support a motivation to combine because such benefits are either already realized by Müller (and would not be further improved by Waffner's teachings) or are wholly inapplicable to Müller.

(1) Adding a Vacuum System Would Not Improve Threading in Müller

Both Petitioner and its expert admit that Müller already teaches reduced threading as a result of Müller's design. Ex. 1003, ¶216 (“Müller teaches a number of improvements to “threading” the new interleaver strip into the apparatus.”). Indeed, Müller specifically highlights the improvement to threading it adds as a result of strip guide 13 being movable. Müller, [0031]; Dec., ¶54. Petitioner fails to articulate how and why adding a vacuum chamber to Müller's buffer 12 would

improve threading any more than movable strip guide 13 already does. While Petitioner argues that the incorporation of a vacuum chamber would “eliminate the need for hand threading,” such assertion is unsupported. Ex. 1003, ¶217. Indeed, a POSITA would understand that hand threading would still be required at certain portions of the interleaver apparatus even with a vacuum chamber. *Dec.*, ¶¶54-55.

Further, because adding a vacuum chamber system to strip guide 13 in Müller would likely hinder the movement of strip guide 13, such combination may ultimately eliminate the benefit from Müller altogether rather than improve it. Lastly, given the small size of buffer 12, utilizing a vacuum chamber to hold the material in place as Petitioner suggests would not add the same benefit it otherwise would in a large loose loop system like Waffner's. *Dec.*, ¶¶54-55. Thus, a POSITA would understand that adding Waffner's vacuum chamber teachings would not improve Müller's threading process.

*(2) Müller's Apparatus Teaches Sufficient
Tension Control*

The value of utilizing a vacuum system for tension control does not exist within the context of a system like Müller's in which buffer 12 retains a small size with less interleaver material. For example, Mr. Jobin explains the need for loop control arises in a system in which there is “too much slackness” in a loose loop web handling system. Ex. 1003, ¶220. Mr. Jobin describes a situation in which the loose loop, if under too low of tension, will “tend to flop and flutter.” *Id.* Müller's small

loop, on the other hand, is not subject to these same issues. Further, contrary to Petitioner's arguments, a POSITA would understand that regardless of not teaching a loose loop structure Müller teaches sufficient tension control. *Dec.*, ¶¶56-58.

Müller ensures that the interleaver material is buffered “only as much interleaver material as is needed for the ejection of an interleaver.” *Müller*, [0048]. As previously discussed, a POSITA would understand Müller's buffer 12 to be a *small* loop. *See supra* Section III.A.2; *Dec.*, ¶¶31-41. Because the loop in buffer 12 is small, it is not prone to the same amount of disturbance that a larger loose loop would experience. A POSITA would understand that a smaller loop covering a shorter distance and containing less interleaver material, would inherently be subject to greater tension than a larger loop covering a longer distance and containing more interleaver material. Thus, a small loop, like Müller's, is not subject to the same “fluttering” or “flopping” described by Mr. Jobin when articulating the benefit of a vacuum system in tension control.

Petitioner further argues that a vacuum chamber would provide the benefit of braking the interleaver material to avoid an uncontrolled web that may travel out of a traditional loop store as the result of inertia caused by rapid deceleration at the cutting region. Ex. 1003, ¶¶221-22. Müller, however, is designed to prevent the very issue the vacuum brake is supposed to improve. Müller explains its interleaver reel is “braked automatically as soon as there is no need for the interleaver strip, for

example when a product change is taking place in the cutting device.” Mueller, [0010]. Indeed, Müller is specifically designed to avoid the incorporation of a brake. *Dec.*, ¶¶56-58. Thus, the issues of overrun inherent in a loose loop system that would otherwise be solved with a vacuum brake are specifically avoided in Müller. Not only are the benefits of braking not realized, but they are in contradiction to Müller’s teachings.

(3) Müller’s Loop Would Not be Made More Stable with a Vacuum Chamber

For the same reasons discussed in Section IV.A.3.b.(1), Müller’s buffer 12 would not realize the alleged improvements in stability of the web exiting the loop store due to its size and the design of Müller’s system. The small structure of Müller’s buffer 12 ensures “only as much interleaver as is needed for the ejection of an interleaver” is contained in the loop of buffer 12. A POSITA would understand that in doing so, Müller would sufficiently protect against potential vibrations or twists resulting from the acceleration at the cutting edge. *Dec.*, ¶59.

B. Ground 2: Jordan and Fukuchi

Ground 2 argues the Challenged Claims would have been obvious over Jordan in view of Fukuchi. As with Ground 1, Petitioner does not describe the proposed combination with particularity, failing to carry its burden. But Ground 2 has an unrelated and fatal flaw: Neither Jordan, Fukuchi, nor their combination satisfies the Preamble’s “cutting region.”

Summarized in the below chart, Jordan alone is relied upon for independent claim 2's preamble, requiring "*an apparatus for . . . provision[ing] web-like interleaved sheet material at a cutting region in which products . . . are cut into slices,*" and for the preambles in independent claims 17 and 19, requiring "*an apparatus for . . . slicing of food products . . . in which the products [] are cut into [] slices and interleaved sheets are . . . cut off . . . in the cutting region.*"

'013 Patent Claim Element	Exemplary Feature in Jordan (EX1005)	Exemplary Feature in Fukuchi (EX1007)
Apparatus for ... provision	"Paper feed arrangement"	
Apparatus for... slicing	"Cutting machine"	
Material store	"Magazine roll 23"	"Delivery bobbin"
Removal device		"Delivery roller 11" and "feed roller 31"
Loop store	"shaft 27," "loop"	"reserving chamber 40a," "amount of absorbing and feeding the chip paper"
Contact surface	Back wall of "shaft 27"	back wall of "reserving chamber 40a"
Vacuum chamber		"Pressure detecting chamber 40b"
Device for determining a size of the loop		"Pressure detector 60" and "control system"

Pet., 54; Ex. 1001, Claims 2, 17, 19. As this quoted language highlights, each independent Challenged Claim includes a preamble that requires a "cutting region" in which (1) food product is sliced *and* (2) sheet material is cut.

Fatal to Ground 2, Jordan does not include such a “cutting region.” Instead, Jordan teaches a system that conveys pre-sliced food products to a stacking region. The pre-sliced food products are dropped onto a stack and a portion of interleaved sheet material cut underneath the dropping food product slice, separating the dropped slices in the stack. Petitioner concedes, as it must, that Jordan does not teach or suggest cutting food product. Pet., 55-56 (relying on Ex. 1003, ¶424 where Petitioner's expert admits that Jordan “only cuts paper” and receives pre-cut food product from a “separate ‘cutting machine’”). In an apparent attempt to compensate for Jordan's deficiency, the Petition proposes a legally and logically flawed interpretation of Jordan's teachings. Namely, Petitioner suggests that if Jordan's machine had been described in 2017 (the Challenged Patent's priority date), rather than 1972 (Jordan's actual priority date), it would have sliced food product and cut interleaved sheet material in a single cutting region because such a cutting arrangement was well known by 2017:

Because a POSA would read Jordan's disclosures in view of the state-of-the-art at the time of the ['013 Patent], the POSA would understand that Jordan teaches the cutting region and tracks of the preamble as well. (Ex. 1003, ¶¶424-425.) The basic principle of an interleaver included tracks to drive product into a cutting region where product and interleaver material were cut together by a single rotating blade. (Ex. 1003, ¶75.)

Pet., 56. In other words, Ground 2 does not rely on Jordan's actual teachings, but instead on what Jordan might have described had it been submitted to the Patent Office more than 40 years later. Unsurprisingly, Petitioner cites no law supporting such a unique approach to obviousness.

1. The Preamble is Limiting—Each Challenged Claim Requires a “Cutting Region”

The Federal Circuit has stressed that there is no “litmus test” for determining whether a preamble is limiting. *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006). Rather, “[w]hether to treat a preamble as a claim limitation is determined on the facts of each case in light of the claim as a whole and the invention described in the patent.” *Storage Tech. Corp. v. Cisco Sys., Inc.*, 329 F.3d 823, 831 (Fed. Cir. 2003). The Federal Circuit has provided guiding principles, however, that inform the interpretation at issue here. For example, “[w]hen limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.” *Eaton Corp. v. Rockwell Int. 'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003); *Meta Platforms, Inc. v. Eight KHZ*, IPR2023-01004, Paper 9 at 20, Fn. 2 (PTAB Jan. 9, 2024) (citing *Eaton Corp.* and finding preamble limiting because it provides antecedent basis for terms in the body of the claim).

The preambles of the challenged independent claims and the respective limitations by which the preambles provide antecedent basis are identified in the chart below:

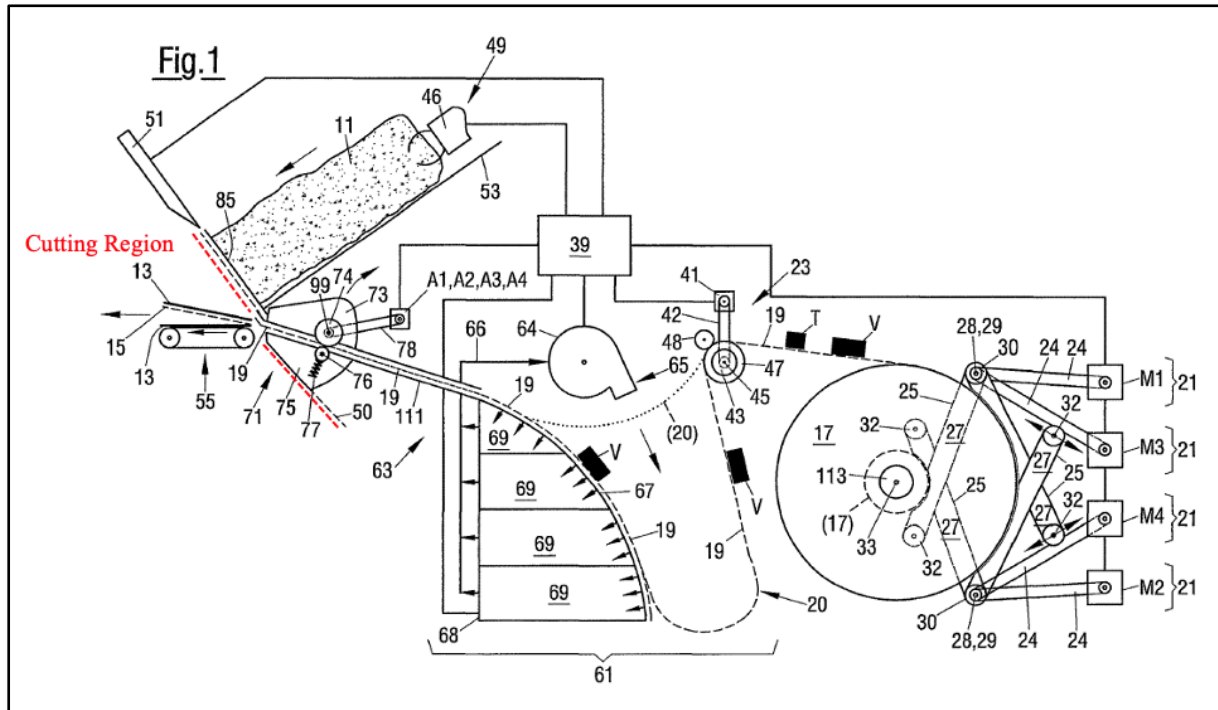
Claim 2	Claim 17	Claim 19
2[Pre]. An apparatus for a single-track or multitrack provision of web-like interleaved sheet material at a cutting region in which products supplied on one track or on multiple tracks are cut into slices and interleaved sheets are introduced which are cut off from the provided interleaved sheet material in the cutting region	17[Pre]. An apparatus for a single-track or multitrack slicing of food products having a product feed which supplies products to be sliced on one track or on multiple tracks to a cutting region in which a cutting blade moves in a rotating and/or revolving manner to cut the supplied products into slices, and having an apparatus for the provision of web-like interleaved sheet material at the cutting region in which the products supplied are cut into said slices and interleaved sheets are introduced which are cut off from the provided interleaved sheet material in the cutting region	19[Pre]. An apparatus for a single-track or multitrack slicing of food products having a product feed which supplies products to be sliced on one track or on multiple tracks to a cutting region in which a cutting blade moves in a rotating and/or revolving manner to cut the supplied products into slices, and having an apparatus for the provision of web-like interleaved sheet material at the cutting region in which the products supplied are cut into said slices and interleaved sheets are introduced which are cut off from the provided interleaved sheet material in the cutting region
2c. a loop store defining a space for the removed material web to form a loop, the loop store located between the	17c. a loop store defining a space for the removed material web to form a loop, the loop store located between the	19c. a loop store defining a space for the removed material web to form a loop, the loop store located between the

material store and the cutting region ;	material store and the cutting region ;	material store and the cutting region
--	--	--

As shown, all challenged claims recite a “cutting region” in the preamble. This “cutting region” is later recited in the body of the claim to provide bounding structure for the location of the claimed “loop store”—claiming a loop store “located between the material store and **the** cutting region.” The preamble therefore provides antecedent basis for the claimed “cutting region” which informs the structural location of other components and is thus a necessary component of the claims. *Eaton Corp*, 323 F.3d at 1339.

a) Scope of the limiting preamble—the claimed “cutting region” requires interleaved sheet material to be cut where the product (e.g., meat or cheese) is sliced

The claims and specification are clear that *both* food product and interleaver material are cut in the claimed “cutting region.” The ’013 Patent describes its invention as an “apparatus for a single-track or multitrack provision of web-like interleaved sheet material **at a cutting region** in which products supplied on one track or on multiple tracks are cut into slices and interleaved sheets are introduced which are cut off from the provided interleaved sheet material **in the cutting region**[.]” Ex. 1001, Abstract, 1:12-17, 5:47-53 (emphases added); *see also id.*, title (“Providing A Cutting Area With Web-Like Interleaver Material”). This cutting region is identified below in annotated Figure 1:



Id., Fig. 1 (annotated).

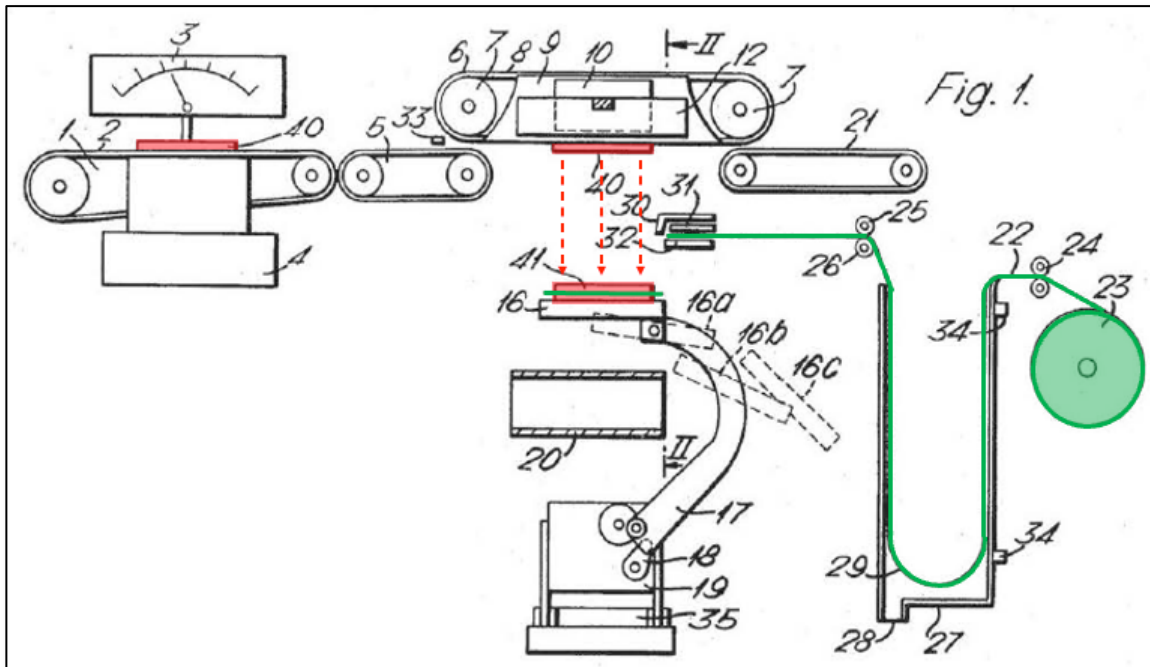
In Figure 1, food product 11 is sliced by cutting blade 51 at cutting plane 50. *Id.*, 7:22-31. Then, “endless material webs 19 are ejected in the region of the cutting plane 50 coming from below in accordance with the clocking predefined by the cutting movement of the cutting blade 51.” *Id.*, 8:16-22. Thus, “the front end of the respective material web 19” “together with the slice 13” is cut “by means of the cutting blade 51 and thus forms an interleaved sheet.” *Id.*, 8:22-27, 15:31-37; *see also id.*, 1:18-20 (“In the cutting region, slices cut off from the products can consequently be provided with the interleaved sheets introduced into the cutting region”), 1:60-64 (“The invention also relates to an apparatus for slicing food products, having a product feed which supplies products to be sliced to a cutting

region in which a cutting blade moves in a rotating and/or revolving manner to cut the supplied products into slices”), 2:35-38 (“It is the object of the invention to improve an apparatus for the provision of web-like interleaved sheet material to the extent that the process of the ejection of the material web into the cutting region...”).

In the '013 Patent's invention, and as recited in the claims, food product *and* the corresponding interleaver material are cut in the cutting region.

2. Petitioner's Proposed Combination Does Not Meet the Preamble

Petitioner's Ground 2 rejection relies principally on Jordan, a reference dedicated to “Sorting And Stacking Of Food Slices” downstream of already sliced food products. Ex. 1005 (“Fukuchi”), title, 1:5-8. Jordan explains its process with regard to Figure 1. As shown, food product slices 40 are conveyed from a separate product cutting apparatus—not illustrated or described—where they are first weighed and then dropped onto stack 41 where individual sheets of paper are cut while the food product slice drops, creating a stack of **food product slices** separated by **paper sheets**:



Id., Fig. 1 (annotated). Jordan explains that “slices 40 fall from a cutting apparatus (not illustrated) preferably first on to a weighing conveyor” 1; slices 40 are then conveyed with “conveyor belt 5” to conveying device 6, which carries the slices via vacuum until the vacuum releases, dropping the weighed slices to stack 41. *Id.*, 3:65-4:24. To feed paper 22 between the falling slices, Jordan provides:

The web 22 of paper is drawn by the take-up rollers 24 from a magazine roll 23 and conveyed to a paper cutter 30 which cuts off the **individual sheets**. The paper is fed in by feed rollers 25 and 26 at about the time the air permeable conveying device 6 grips a slice of the right weight. The **sheet of paper** fed in under the cutter 30 is cut off when the **falling slice 40** comes into contact with the paper.

Id., 5:30-38.

In other words, a POSITA would understand that Jordan's system receives slices of food product at an un-illustrated and undescribed cutting device, presumably located at the far left of Figure 1. *Dec.*, ¶¶62-64. Jordan then sends these slices through three separate conveyor units and then introduces paper from a paper feed apparatus at the far right of Figure 1 by dropping already-cut slices over a paper feed that contacts a separate cutter. *Id.* At no point does Jordan's system cut both food product and paper in the same "cutting region" as claimed. *Id.* And this makes sense because Jordan's system is directed to a sorting and packaging system downstream of a slicer that already cut slices of food product. *Id.*

The Petition acknowledges this defect and attempts to bridge this gap² with a logically and legally flawed theory. Namely, the Petitions argues that, because cutting regions existed in 2017 (the '013 Patent priority date), a POSITA reading Jordan in 2017 would impute such a cutting region to Jordan's apparatus:

Because a POSA would read Jordan's disclosures in view of the state-of-the-art at the time of the ['013 Patent], the POSA would understand that Jordan teaches the cutting region and tracks of the preamble as well. (Ex. 1003, ¶¶424-425.) The basic principle of an interleaver included tracks to drive product into a cutting region where product and

² Fukuchi does not remedy this deficiency (nor does Petitioner allege otherwise). Fukuchi does not relate to a slicer and instead pertains to feeding paper for a cigarette. Ex. 1007 (Fukuchi), 1:7-11.

interleaver material were cut together by a single rotating blade. (Ex. 1003, ¶75.)

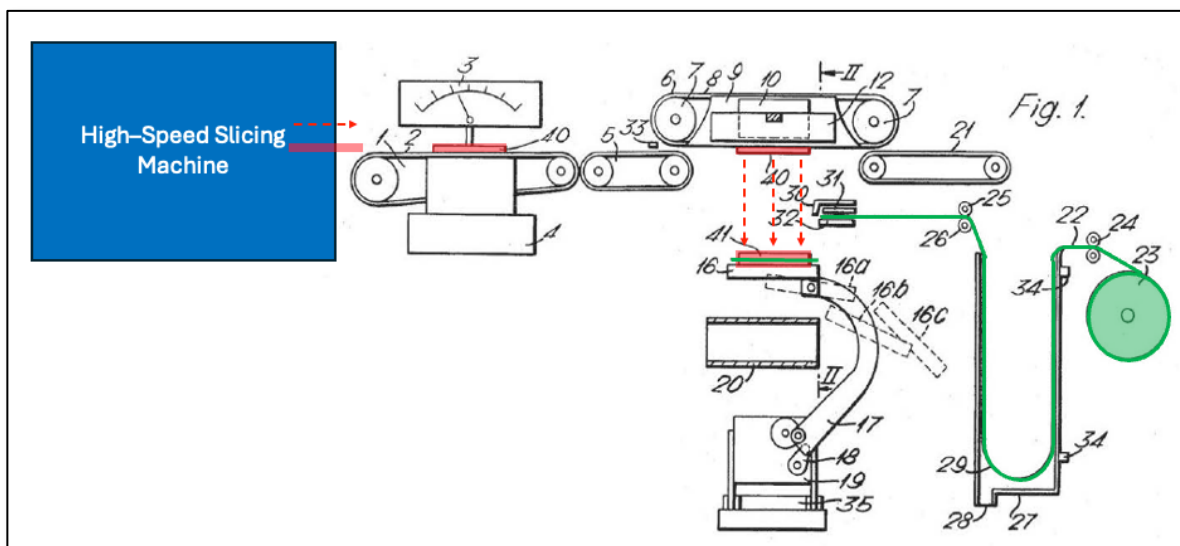
Pet., 56 (citing ¶¶'s 75 and 424-425 of its expert's report). Importantly, Petitioner is not proposing a modification to Jordan to cut food and paper in the same cutting region. Instead, Petitioner, through its expert, suggests that because it was known in 2017 that food product and interleaved material were cut at the same cutting surface, a POSITA reading Jordan in 2017—more than 40 years after Jordan's actual disclosure—would interpret Jordan to teach this arrangement:

A POSA would read Jordan in light of the state of the art at the time of the '013 patent (in 2017). For example, Jordan specifically describes “known high-speed slicing machines.” At the time of the '013 patent, the known high-speed slicing machines cut paper and product at the same cutting surface. Consequently, *although Jordan literally discloses a “cutter 30” that **only cuts paper** (because product is sliced at a separate “cutting machine”), a POSA reading Jordan at the time of the patent would understand Jordan to disclose a known high-speed slicing machine where the paper cutter and food slicer were a common blade at a common cutting region.*

Ex. 1003, ¶424 (emphases added). In other words, Petitioner asks the Board to ignore Jordan's actual teachings and pretend that it includes a slicer that cuts both product and paper. Petitioner cites no legal authority for this unique theory, and Petitioner's expert cites only a single reference to “high-speed slicing machines” in alleged

support of his theory that Jordan's actual system can be ignored and a modern 2017 system analyzed in its stead.

In fact, a POSITA would not interpret Jordan's reference to "high-speed slicing machines" as Mr. Jobin does. The full statement in Jordan states that "[t]he apparatus according to the invention can be combined with known high-speed slicing machines and automatic packaging machines." Jordan, 6:14-18. As discussed above, a POSITA would understand that Jordan's system receives slices of food product from an un-illustrated and undescribed cutting device, presumably located at the far left of Figure 1:

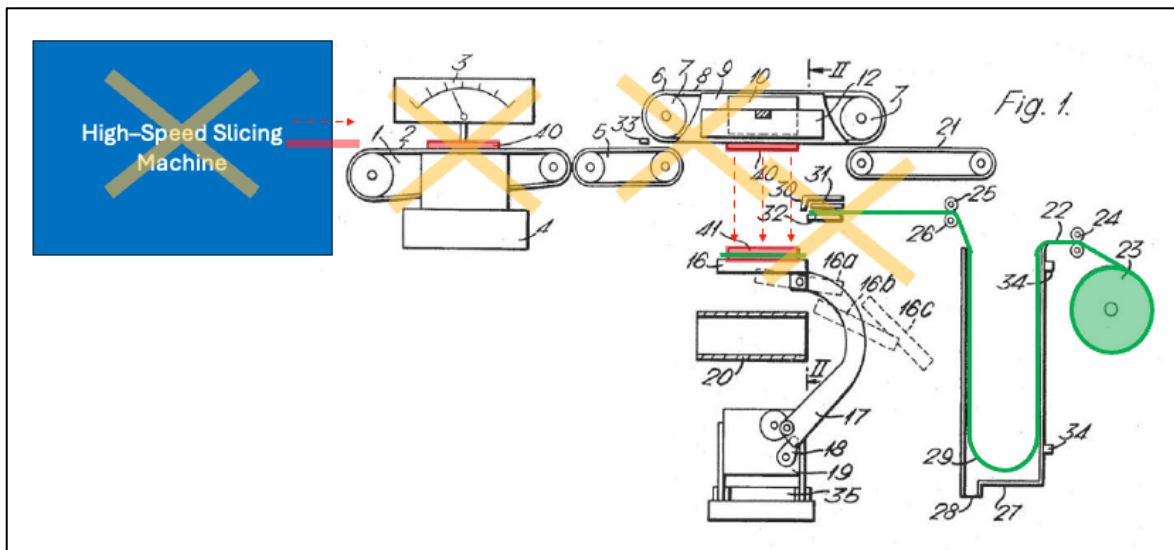


Dec., ¶64 (explaining that a high-speed slicing machine has been depicted in annotated Fig. 1 pursuant to Jordan's teachings). As illustrated, a POSITA would have understood that "combining" Jordan's system with known high-speed slicing machines" simply means that the slicing machine used to feed sliced food product

to weigh conveyer 1 may operate at high speeds. *Dec.*, ¶64. Indeed, Jordan expressly teaches that “[t]he principal features of the invention related to conveying the slices [and] forming the stacks . . . preferably at a high speed.” Jordan, 1:49-52. Accordingly, Jordan’s vague reference to high-speed slicing machines would not, as Mr. Jobin argues, suggest to a POSITA that Jordan intended its system to be completely replaced by whatever modern slicing systems may later exist. Instead, this reference is simply noting that Jordan’s stacking and interleaving system can operate at high speeds. *Dec.*, ¶¶62-64.

Critically, neither Petitioner nor its expert wrestles with the substantial undertaking that would have been required to convert Jordan’s actual system into a modern high-speed slicing and interleaving system with a single cutting region for slicing food and cutting interleaved material. A POSITA would have recognized that little of Jordan’s system is capable of supporting such a modern approach to slicing food product and cutting interleaved material together. As illustrated in Jordan’s Fig. 1, there is no infrastructure capable of delivering uncut food product to the region in which Jordan’s paper cutter operates, so an entirely new food conveyance apparatus would be required. *Dec.*, ¶¶64-65. This would also serve to render moot any role for the separate high-speed slicing device Jordan suggests would be positioned to the left of Fig. 1. Similarly, there is no cutting apparatus large enough to cut food product at the same time as Jordan’s paper, so Jordan’s native paper cutter would be replaced.

Id. Finally, Jordan's weigh conveyer 1 would serve no purpose upstream of the cutting region because it is designed to weigh food product slices, which would not exist upstream of the cutting region if Jordan were modified to slice food product and cut paper in the same region. *Id.* In sum, nearly the entire structure and function of Jordan's system would be disregarded were Jordan's system modified to slice food product and cut paper in the same cutting region:



Dec., ¶65 (explaining that the orange Xs indicate Jordan's components that would not be retained were Jordan modified with a cutting region consistent with the Challenged Claims' preambles).

It is fatal to Ground 2 that Petitioner failed to wrestle with the fact that nearly all of Jordan's system is incompatible with slicing product and cutting paper in a single cutting region. Whether other conventional slicers were known in 2017 to include a cutting region is irrelevant. Jordan did not, and nothing in the Petition or

Mr. Jobin's declaration comes close to explaining how or why Jordan's system would have been modified to satisfy the preambles' "cutting region" requirement.

3. Petitioner Does Not Adequately Describe the Contemplated Combination of Jordan and Fukuchi or Provide a Motivation to Combine Jordan with Fukuchi

Petitioner's Ground 2 mapping fundamentally fails to explain how Jordan and Fukuchi are to be combined and even fails to clearly identify which reference is relied upon for which limitation. The below chart allegedly summarizes Petitioner's Ground 2 proposal:

'013 Patent Claim Element	Exemplary Feature in Jordan (EX1005)	Exemplary Feature in Fukuchi (EX1007)
Apparatus for ... provision	"Paper feed arrangement"	
Apparatus for... slicing	"Cutting machine"	
Material store	"Magazine roll 23 "	"Delivery bobbin"
Removal device		"Delivery roller 11 " and "feed roller 31 "
Loop store	"shaft 27 ," "loop"	"reserving chamber 40a ," "amount of absorbing and feeding the chip paper"
Contact surface	Back wall of "shaft 27 "	back wall of "reserving chamber 40a "
Vacuum chamber		"Pressure detecting chamber 40b "
Device for determining a size of the loop		"Pressure detector 60 " and "control system"

Pet., 54. But this summary is repeatedly contradicted by Petitioner's proposed mapping of the references to the Challenged Claims. For example, the above chart suggests that both Jordan and Fukuchi are relied upon for the "material store" claim element. But the Petition discusses only Jordan with reference to the "material store" "element 2.1." *Id.*, 56-57. Then, for "element 2.2," requiring a "removal device for a removal of a material web from the material store," the Petition discusses only Fukuchi. *Id.*, 57-58. At no point does the Petition explain whether Jordan's "magazine roll 23" or Fukuchi's "delivery bobbin" satisfies the "material store" element in the proposed combination.

Petitioner similarly failed to provide any motivation to combine for certain changes that it suggests would be made to Jordan in the combination. For example, Petitioner appears to rely exclusively on Fukuchi's teachings for the claimed "removal device" in Element 2.2. Pet., 54 (table identifying Fukuchi's "delivery roller 11" and "feed roller 31"), 57-58. Notably absent from Petitioner's analysis in its Petition is any motivation to supplant or replace any components in its primary, Jordan, with those of Fukuchi. The only modification the Petition attempts to support with any analysis at all is Petitioner's proposal to implement Fukuchi's loop size determination techniques into Jordan. Pet., 63-67. There is no evidentiary basis articulated in the Petition to further modify Jordan to implement Fukuchi's purported deliver roller 11 and feed roller 31. There is no explanation at all if Jordan's "take

up rollers 24” are being replaced with Fukuchi’s rollers or if these rollers are intended to function concomitantly in some way. Without reasoned support articulating how and why this modification would work, Petitioner cannot carry its burden to show compelling merits.

To the extent Petitioner argues that high-level discussions in its expert declaration are sufficient to satisfy its burden, they should be rejected. It is Petitioner’s burden to identify, *in the Petition*, “in writing and with particularity each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3); *see also Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (“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).”). Here, the Petition falls far short, failing to provide any details describing what the proposed combination *is* or *how* it would work.

In the present case, Petitioner entirely failed to carry its burden to explain how and why Fukuchi’s purported deliver roller 11 and feed roller 31 should be implemented in Jordan’s system. Petitioner’s expert testimony is insufficient where the Petition fails to include a corresponding argument/discussion. *Department of Justice v. Discovery Patents, LLC*, IPR2016-01039, Paper 10 at 8 (PTAB Nov. 15,

2016) (denying institution and explaining “[t]o the extent an argument is raised solely in [the expert’s] Declaration and not also in the Petition, we have declined to consider it for purposes of this Decision”); *see also RPX Corp., et al. v. Parity Networks, LLC*, IPR2018-00097, Paper 7 (PTAB Apr. 24, 2018) (denying institution, “Patent Owner argues ‘[t]he only support for this argument is their expert Declaration, which should not be used to fill gaps in the prior art.’ We agree.”); *Fidelity National Information Services, Inc. v. DataTreasury Corp.*, IPR2014-00489, Paper 9 at 9-10 (PTAB Aug. 13, 2014) (“We, therefore, decline to consider information presented in a supporting declaration, but not discussed sufficiently in a petition; among other reasons, doing so would permit the use of declarations to circumvent the page [or word] limits that apply to petitions.”).

Regardless, even if the Board were to consider Petitioner’s expert’s analysis, Mr. Jobin simply notes the benefits associated with a “two-part removal device” in his report. Ex. 1003 at ¶¶411 (describing only general motivation to use a two-part removal device), 430-434. However, Mr. Jobin already contends that Petitioner’s primary reference, Jordan, itself discloses a two-part removal device.³ *Id.*, ¶431 (describing Jordan’s “take-up rollers 24” and vacuum to draw the loop into shaft 27 as a “removal device [that] has two parts”); *see also id.*, ¶345 (“In particular,

³ Petitioner does not advance this argument in its mapping in the Petition.

Jordan's removal device is two-part. First, take-up rollers 24 draw material from the material store. Second, vacuum inserts draw[] material into a loop"). Mr. Jobin fails to articulate any reasoning to support why Jordan's purported two-part removal device should be replaced with Fukuchi's redundant teachings further undercutting Petitioner's proposal. *Hewlett Packard Enterprise Co. v. K.Mizra LLC*, IPR2022-00843, Paper 14 at *21-22 (PTAB Oct. 31, 2022) (denying institution where petition failed under *In re Anova Hearing Labs, Inc.*, 809 F. App'x 840, 843 (Fed. Cir. 2020) to adequately explain why a POSA would substitute redundant functionality in its proposed combination).

In sum, it is fatal to Ground 2 that Petitioner failed to describe its proposed combination with specificity and also failed to support the combination with evidence that a POSITA would have been motivated to modify Jordan as (vaguely) proposed.

IV. CONCLUSION

For all the reasons stated herein, Petitioner has failed to establish that the challenged claims of the '013 Patent are unpatentable. Patent Owner respectfully requests the Board find the challenged claims patentable over the grounds in the petition.

Respectfully submitted,

/Adam P. Seitz/

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Patent Owner's Response
U.S. Patent No. 10,647,013

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APPENDIX OF EXHIBITS

Exhibit 2001	<i>Provisur Tech., Inc. v. Weber Inc. et al.</i> , Case No. 5:21-cv-06113, Dkt. 166, Transcript of Scheduling & Discovery Dispute Hearing, June 20, 2023
Exhibit 2002	<i>Provisur Tech., Inc. v. Weber Inc. et al.</i> , Case No. 5:21-cv-06113, Dkt. 216, Transcript of Scheduling Hearing, September 5, 2023
Exhibit 2003	<i>Provisur Tech., Inc. v. Weber Inc. et al.</i> , Case No. 5:21-cv-06113, Dkt. 214, Supplemental Scheduling Order, September 5, 2023
Exhibit 2004	<i>Provisur Tech., Inc. v. Weber Inc. et al.</i> , Case No. 5:21-cv-06113, Provisur Invalidity Contention Cover Pleading
Exhibit 2005	<i>Advanced Notice of Proposed Rulemaking 13</i> (“ <i>A Sand Revolution</i> ” stipulation, April 21, 2023
Exhibit 2006	Declaration of Christina Canino In Support of Motion for Pro Hac Vice Admission
Exhibit 2007	Declaration of Professor Thomas R. Kurfess, Ph.D, In Support of Patent Owner's Responses to Inter Partes Review of U.S. Patent Nos. 10,647,013 and 11,331,823
Exhibit 2008	Sensor Technology Handbook, Jon S. Wilson
Exhibit 2009	Deposition Transcript of Mr. Michael Jobin

CERTIFICATION OF WORD COUNT

The undersigned certifies pursuant to 37 C.F.R. § 42.24 that the foregoing Patent Owner's Preliminary Response to Petition for *Inter Partes* Review, excluding any table of contents, mandatory notices under 37 C.F.R. § 42.8, certificates of service or word count, or appendix of exhibits, contains 9,367 words according to the word-processing program used to prepare this document (Microsoft Word).

Dated: September 12, 2024

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing PATENT OWNER'S RESPONSE TO PETITION FOR INTER PARTES REVIEW was served on September 12, 2024, by email on the following counsel of record for Petitioner:

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