

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CHANEL, INC.,
Petitioner,

v.

MOLO DESIGN, LTD.,
Patent Owner.

IPR2022-00546
Patent 9,797,134 B2

Before KEN B. BARRETT, CARL M. DEFranco, and
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

DEFranco, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

Molo Design, Ltd. (“Molo”) is the owner of U.S. Patent No. 9,797,134 B2 (Ex. 1001, “the ’134 patent”). Chanel, Inc. (“Chanel”) filed a Petition requesting *inter partes* review of claims 1 and 4–6 of the ’134 patent. Paper 1 (“Pet.”). We instituted *inter partes* review of all the claims as challenged in the Petition. Paper 9 (“Inst. Dec.”). Molo filed a response

(Paper 19, “PO Resp.”), Chanel filed a reply (Paper 30, “Pet. Reply”), and Molo followed with a sur-reply (Paper 32, “PO Sur-Reply”). We also permitted Chanel to file a Sur-Sur-Reply (Paper 40) to address new evidence that Molo introduced with its sur-reply. *See* Paper 36 (authorizing Chanel to file rebuttal argument and evidence while denying its motion to strike Molo’s new evidence).

We have jurisdiction under 35 U.S.C. § 6. We held an oral hearing on June 8, 2023, a transcript of which is in the record. Paper 45 (“Hrg. Tr.”). This Final Written Decision is entered pursuant to 35 U.S.C. § 318(a). For the reasons below, we determine that Chanel demonstrates that challenged claim 1 is unpatentable as anticipated under 35 U.S.C. § 102(b) and challenged claims 4–6 are unpatentable as obvious under 35 U.S.C. § 103.

I. BACKGROUND

A. *Related Matters*

Chanel filed concurrent petitions for *inter partes* review of three related patents—U.S. Patent Nos. 7,866,366 B2 (IPR2022-00543), 8,561,666 B2 (IPR2022-00544), and 9,689,161 B2 (IPR2022-00545). Those patents, along with the ’134 patent at issue here, are also the subject of an infringement action filed February 22, 2021 and captioned *Molo Design Ltd. v. Chanel, Inc.*, No. 1:21-cv-01578 (S.D.N.Y). *See* Paper 6 at 2. That action was stayed on May 2, 2022, pending the outcome of our review of Chanel’s Petition in this proceeding and the related proceedings. *See* Ex. 3001 (Stay Order).

B. *The ’134 Patent*

The ’134 patent relates to an “article of flexible furniture” having “a core formed from a plurality of laminar panels of a flexible flaccid material.”

Ex. 1001, Abstract, 2:4–6, Fig. 1. Each of the laminar panels “has a pair of oppositely-directed major faces with faces of adjacent panels being interconnected to provide a cellular structure upon movement of the faces away from each other.” *Id.* at 2:6–9, Figs. 2, 3. Multiple “voids” are formed within the core upon expansion of the laminar panels. *Id.* at 3:35–37, Figs. 3, 5. Figure 3 of the ’134 patent, reproduced below, is a partial cross-sectional view of the expanded core.

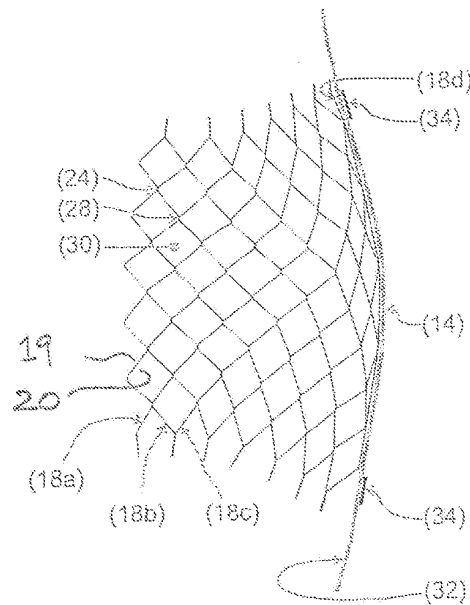


FIG 3

As shown in Figure 3, the core includes interconnecting panels 18a, 18b, 18c to form voids 30 within the core, and end panels 18d at opposite ends of the core. *Id.* at 3:23–43. Supports 14 and 16 “are adhered to respective ones of the end panels 18d” and “extend laterally beyond the core as indicated at 32.” *Id.* at 3:51–53. The supports 14 and 16 “are made from a self-supporting material, typically a non woven felt material, which has a degree of flexibility but also has sufficient rigidity to resist collapse of the core.” *Id.* at 3:43–47.

The core may include a series of longitudinal passages extending therethrough. *Id.* at 7:39–40. Figure 18, reproduced below, illustrates one embodiment of the claimed invention—a partition—that includes longitudinal passages 460. *Id.* at 2:52–53.

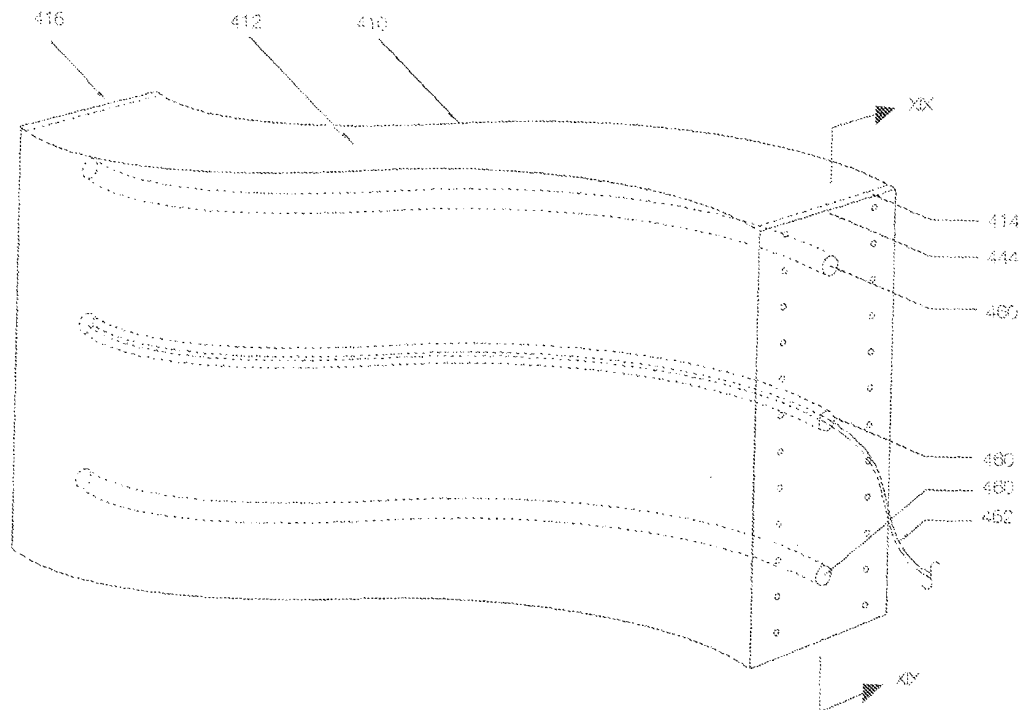


FIG 18

As shown in Figure 18, “[e]ach of the passages 460 is circular in cross section and is located on the center line of the core 412.” *Id.* at 7:40–42.

“An LED light ribbon 462 is inserted into one or more of the passages 460 so as to extend through the core 412 to the end support 416.” *Id.* at 7:50–52.

“When energized, the light from the LED is diffused through the core 412 giving a glowing appearance to the core 412.” *Id.* at 8:37–39.

C. The Asserted Challenges

Claims Challenged	35 U.S.C. §	Basis
1	102	Okuno ¹
1, 4-6	103	Okuno, SoftHousing I, ² SoftHousing II, ³ Kennedy, ⁴ <i>and/or</i> Dorsey ⁵
1	102	SoftHousing I
1, 4–6	103	SoftHousing I–II, Okuno, Kennedy, <i>and/or</i> Dorsey
1, 4-6	103	MacAllen, ⁶ SoftHousing I, SoftHousing II, Okuno, Kennedy, <i>and/or</i> Dorsey

In further support of these challenges, Chanel submits the declaration of Lance Rake. *See* Ex. 1003. Molo, in turn, submits the declaration of Alan Ball. *See* Ex. 2010.

D. The Challenged Claims

Claim 1, the sole independent claim challenged by Chanel, recites:

1. A flexible article having

[a] a core formed from a plurality of laminar panels of a flaccid material that are inter-connected to provide an expandable structure upon movement of the panels away from each other,

¹ JP S49-87173 A, published Aug. 21, 1974 (Ex. 1011, “Okuno”).

² DBEW International Design Competition 2004, *Golden Prize*, HANSSEM Co., LTD., May 9, 2004 (Ex. 1005, “SoftHousing I”).

³ *Design Beyond East & West—Collection of Winning Works of DBEW International Design Contest* (Interior Architecture of China Magazine ed.) TIANJIN UNIVERSITY PRESS, March 2004 (Ex. 1006, “SoftHousing II”).

⁴ US 2007/0017172 A1, published Jan. 25, 2007 (Ex. 1035, “Kennedy”).

⁵ US 2006/0082987 A1, published Apr. 20, 2006 (Ex. 1034, “Dorsey”).

⁶ US 2008/0023156 A1, published Jan. 31, 2008 (Ex. 1037, “MacAllen”).

[b] opposite ends of the core terminating in a pair of end panels whereby the end panels may be moved apart to expand the expandable structure,

[c] *a passage extending in a direction between the end panels and intersecting the panels*, and

[d] a light source located within the passage and operable to illuminate the core from the interior thereof.

Ex. 1001, 9:19–28 (bracketed text added) (emphasis added).

II. ANALYSIS

A. *Burden of Proof*

To prevail in its challenges, Chanel must prove unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e) (2018); 37 C.F.R. § 42.1(d) (2018); *see also Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (“In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.”). This burden of persuasion never shifts to Molo as the patent owner.⁷ *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burdens of proof in an *inter partes* review).

B. *Level of Ordinary Skill in the Art*

Chanel argues, with support from its declarant, Mr. Rake, that one skilled in the art during the relevant time frame “would have a bachelor’s degree and at least two years of relevant experience working as an industrial designer, interior designer, furniture designer, architect, or other similar

⁷ Although occasionally we may focus on Molo’s arguments, we do not shift the ultimate burden from Chanel. We focus on Molo’s arguments simply to identify issues in dispute, many of which we find unpersuasive in view of the record as a whole.

professional” and “would be knowledgeable regarding furniture design and/or the design of exhibit and display systems, and would have a general understanding of related manufacturing processes.” Pet. 21–22 (citing Ex. 1003 ¶¶ 41–43). Molo does not contest Chanel’s definition, and Mr. Rake agrees that it accurately reflects the level of skill in the art. *See* Pet. Reply 1 (“The parties agree on the POSITA and level of ordinary skill in the art.”); Ex. 2010 ¶ 33 (“I believe this is an accurate definition of a POSITA and have used this for my analysis.”). Because Chanel’s definition of the level of skill in the art appears reasonable and consistent with the ’134 patent and the prior art, we adopt it for purposes of our analysis.

C. Claim Construction

Pursuant to 37 C.F.R. § 42.100(b), we construe the claims under the standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). That is, the words of a claim are generally given their plain and ordinary meaning as would have been understood by one skilled in the art at the time of the invention and in the context of the entire patent disclosure. *Id.* at 1312–13. Only terms in controversy need be construed, and only to the extent necessary to resolve the controversy. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

1. Chanel’s claim construction positions in the district court

Chanel argues that we “need not construe any terms in order to resolve the underlying controversy” because “[a]ny reasonable interpretation of those terms—as understood by a POSITA at the time of the invention—reads on the prior art.” Pet. 22. Molo responds that Chanel’s refusal to expressly construe any claim terms in this proceeding “directly conflicts” with Chanel’s position in the parallel district court action, where Chanel

proposed an express construction for the claim terms “end panels” and “operable,” and argued that the term “flaccid” is indefinite. PO Resp. 15–16. According to Molo, by advancing “contradictory” claim construction positions before us and the district court and “[b]y failing to reconcile these positions, [Chanel] has not met its burden to demonstrate how the [claim] terms should be construed as required by the Board’s regulations.” *Id.* at 16–17; *see also id.* at 15 (citing 37 C.F.R. § 42.104(b)(3)).

We disagree that Chanel advances contradictory positions before us and the district court. Although Chanel may elaborate on its construction of certain claim terms in the parallel district court action more so than it does here, that is because the district court action involves issues of infringement and indefiniteness that are not at issue in this proceeding. Indeed, when Molo raised this identical argument before the district court—“that Chanel has engaged in gamesmanship by advancing conflicting arguments before the PTAB and this Court”—the district court explained that “it is neither uncommon nor impermissible for a party to advance different arguments before a District Court and the PTAB” where the parallel action “concerns issues outside the scope of *inter partes* review.” Ex. 3001 at 9 n.1.

That is the case here—the issues of infringement and indefiniteness before the district court may require a more developed claim construction than is needed to resolve the issue of patentability here. Thus, like the district court, we see nothing improper about Chanel advancing a more detailed meaning of claim terms to the district court, while simply saying here that the meaning of those terms is readily apparent from the prior art or that no express construction is needed because the prior art discloses the disputed limitations under any construction. We see no reason to incentivize

Chanel to create claim construction issues that have no bearing on the challenges in the Petition. And because we can resolve the issue of whether Chanel meets its burden of proving unpatentability without expressly construing the claim terms “end panels,” “operable” and “flaccid,” we reject the notion that Chanel somehow violated our rules by not developing a more explicit construction of those terms. However, as discussed below, we do see a need to address certain language in the “passage” limitation of claim 1.

2. *“a passage extending in a direction between the end panels and intersecting the panels”*

As mentioned above, Chanel contends that we need not construe any claim terms because any reasonable interpretation of those terms “reads on the prior art.” Pet. 22. Molo disagrees. PO Resp. 17. According to Molo, we should construe the claim limitation “a passage extending in a direction between the end panels and intersecting the panels” to mean “a ‘longitudinal passage’ that *extends through the end panels* and the core, so that each panel is intersected by the same longitudinal passage.” *Id.* (citing Ex. 1001, 7:40–46, Fig. 18) (emphasis added). In support, Molo points to an embodiment disclosed in the ’134 patent in which “[a] series of longitudinal passages 460 extend through the end panels 414, 416 and the core 412.” *Id.* (citing Ex. 1001, 7:40–46, Fig. 18).

Chanel responds that Molo’s proposed construction “is flawed and should be rejected” for two reasons. Pet. Reply 2. *First*, Chanel argues that Molo fails to support its argument that “‘extending in a direction between’ two objects has a plain and ordinary meaning of ‘extend[ing] through’ those two objects.” *Id.* Chanel casts Molo’s argument as an improper attempt to rewrite broad claim language. According to Chanel, “Molo provides no basis to read a limitation from [a preferred] embodiment into the claim.” *Id.*

at 3. *Second*, Chanel argues that, to the extent Molo attempts to construe the claim language “intersecting the panels” as referring to *the end panels*, the claim language itself does not support such a construction—

The claim language “intersecting the panels” refers to intersecting the laminar panels of the core. Claim 1 first introduces “the panels” to refer to the laminar panels of the core (“a core formed from *a plurality of laminar panels* . . . to provide an expandable structure upon movement of *the panels* away from each other”). Claim 1 later introduces a new term, “end panels,” to describe a pair of panels at opposite ends of the core, and subsequently refers to those as “the end panels.”

Id. at 2 n.1.

Molo disagrees and argues that “[t]he recited ‘passage’ of claim 1 must extend ‘between the end panels’ and also intersect these ‘laminar panels’” such that “a plain and ordinary meaning of this term by a POSITA is that the ‘passage’ extends ‘through’ the panels,” PO Sur-Reply 9 (citing Ex. 2010 ¶ 106). “If the ‘passage’ does not extend through the panels,” Molo explains, “it is not ‘intersecting the panels’ as required by claim 1.”

Id. Molo also argues that the specification supports its construction because “every figure in the ’134 patent that illustrates the recited passage shows said passage extends through the end panels,” and that Chanel misplaces reliance on a related patent depicting an embodiment where the passage does not intersect both end panels. *Id.* at 10–11 (citing Ex. 1001, Figs. 18–27; U.S. Patent 8,561,666).

We begin our analysis with the relevant claim language. Claim 1 recites “a core” formed from (1) “a plurality of laminar panels,” and (2) “a pair of end panels.” Ex. 1001, 9:19–24. As described, the plurality of laminar panels are “inter-connected to provide an expandable structure upon

movement of *the panels* away from each other,” and the pair of end panels are located at “opposite ends” of the structure where the core “terminat[es]” and whereby “*the end panels* may be moved apart to expand the expandable structure.” *Id.* (emphasis added)

Only after describing what the core is formed from does claim 1 recite “a passage extending in a direction between *the end panels* and intersecting *the panels*.” *Id.* at 9:24–26 (emphases added). In our view, that claim language does not, on its face, state that the passage must intersect the *end panels*, as Molo argues. Instead, we agree with Chanel that the more sensible reading of that language is that the phrase “passage . . . intersecting the panels” refers to intersecting the “laminar panels” forming the interconnected portions of the core, and *not* “the end panels” forming the terminal portions of the core. *See* Pet. Reply 2 n.1. Indeed, Molo expressly acknowledges as much—

The recited “passage” of claim 1 must extend “between the end panels” and also *intersect these “laminar panels.”* A plain and ordinary meaning of this term by a POSITA is that the “passage” extends “through” the panels. *See e.g.*, Ex. 2010, ¶ 106. That is, in order for the passage to extend “between the end panels” and also *intersect “the panels”*—*the “plurality of laminar panels”* between the “end panels”—it must *necessarily* extend through the panels.

PO Sur-Reply 9 (emphasis added).

That acknowledgement by Molo makes sense given the antecedent basis in claim 1 for the terms “the end panels” and “the panels.” For instance, claim 1 first introduces the term “the panels” to refer to the laminar panels forming the core—“a core formed from *a plurality of laminar panels* . . . to provide an expandable structure upon movement of *the panels* away

from each other.” Only later does claim 1 introduce the new term “end panels” to describe a different set of panels—“opposite ends of the core terminating in *a pair of end panels*, whereby *the end panels* may be moved apart to expand the expandable structure.” That distinction clearly indicates that claim 1’s use of the term “the panels” equates to the laminar panels that form the cellular core, not “the end panels” at the ends of the core.

Molo certainly could have written claim 1 to recite a passage “extending through the end panels” or “intersecting the end panels,” but it chose different and broader language. While indisputably the ’134 patent discloses an embodiment in which a passage intersects both the laminar panels and the end panels (*see* Ex. 1001, Fig. 18), the language of claim 1 is not so narrow, and Molo provides no persuasive evidence for limiting claim 1 to that particular embodiment. *See Comaper Corp. v. Antec, Inc.*, 596 F.3d 1343, 1348 (Fed. Cir. 2010) (“[T]his court has repeatedly cautioned against limiting claims to a preferred embodiment.”).

Also, to the extent Molo argues that the phrase “intersecting the panels” requires that the passage extend through or intersect *all* the laminar panels, not a *portion* of them, we disagree. PO Sur-Reply 9. On its face, the claim language merely requires that the passage intersect the panels without ever reciting the magnitude or extent of that intersection, and Molo does not adequately support such a reading of the claim. *See id.* Indeed, rather than support its own “ordinary meaning” with any intrinsic evidence, Molo instead cites to a paragraph in the declaration of Mr. Ball that addresses neither the construction nor the meaning of this claim limitation. *See id.* (citing Ex. 2010 ¶ 106); Ex. 2010 ¶ 106 (addressing merely whether Okuno

meets the “passage” limitation). Thus, we find the intrinsic evidence—i.e., the claim language—more compelling than Molo’s extrinsic evidence.

The Specification provides additional support for construing the claim term “the panels” to mean only to the laminar panels of the core. For instance, the Specification assigns separate numbers to distinguish between the laminar panels within the core and the end panels at opposite ends of the core. *See* Ex. 1001, 3:25–53, Figs. 2, 3 (describing “the panels” 18*a*, 18*b*, 18*c* as being inter-connected to form “voids 30” within the core, and “the end panels 18*d*” at opposite ends of the core to which supports 14 and 16 “are adhered to”); *see also id.* at 5:24–36 (describing “the end panels 118*d*” as being connected to supports 114, 116); 6:36–37 (using the term “the opposite end faces 218*d* of the core” to describe what supports 114 and 116 are secured to). That the Specification always uses the term “the panels” when referring to laminar panels 18*a*, 18*b*, 18*c* within the core, while using the term “the end panels” to refer to panels 18*d* at opposite ends of the core, in our view, supports our construction of “the panels” in claim 1 to mean “the laminar panels within the core.”

In sum, the intrinsic evidence supports our construction of the claim term “the panels” to mean the laminar panels, and we adopt it to resolve any dispute over the scope of claim 1. Also, to the extent Molo proposes a construction that reads the claimed “passage” as extending through the end panels, we decline to adopt it as contrary to the intrinsic evidence.

D. Anticipation of Claim 1 by Okuno

Chanel argues that Okuno anticipates claim 1. *See* Pet. 23–28. We first provide an overview of Okuno, and then address the arguments and evidence.

1. Overview of Okuno

Okuno generally discloses a collapsible shade that encloses a light source, with the shade's surface "made into a honeycomb shape." *See* Ex. 1011, 1:20–22. We reproduce Okuno's Figures 1 and 2 below, which show the collapsible shade.

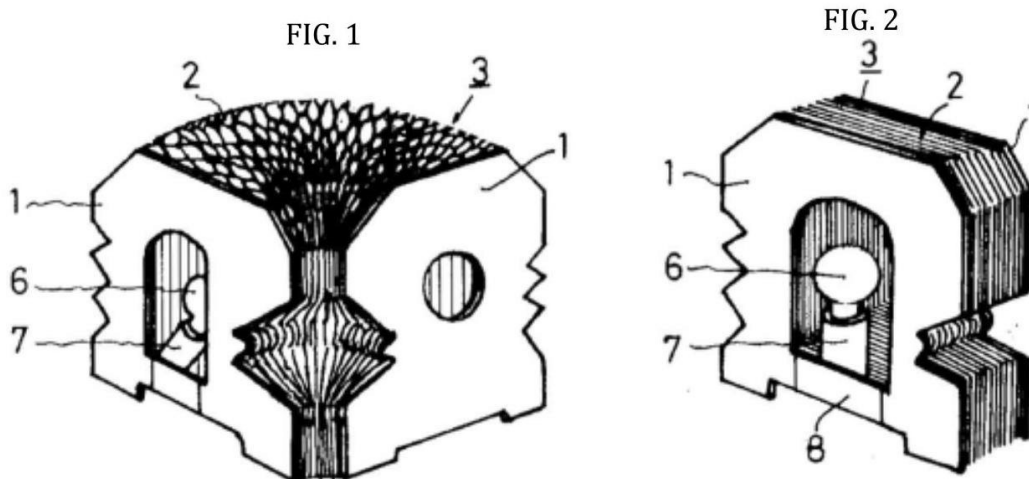


Figure 1 shows a perspective view of Okuno's shade in "a halfway-opened state," and Figure 2 shows the lampshade in "a folded state." Ex. 1011, 5:8–9. Figures 1 and 2 show main body 3, "expandable layer 2 that can be deployed in a honeycomb shape," and ends made of substrates 1 cut from a plate body such as cardboard, hard synthetic resin, an aluminum plate, or plywood. *Id.* at 1:11–13, 2:11–15. Figures 1 and 2 also show illuminator 6 at the distal end of arm 7 within main body 3. *Id.* at 1:10–11. Use of arm 7 prevents direct contact between illuminator 6 and main body 3. *Id.* at 3:17–19.

2. Discussion

In its anticipation challenge, Chanel provides a detailed mapping of how Okuno meets each element of claim 1. *See* Pet. 23–28 (citing Ex. 1011, Figs. 1–5). Chanel also provides supporting testimony from its declarant.

See Ex. 1003 ¶¶ 81–91. More particularly, Chanel contends that Okuno discloses each of claim 1’s elements as follows:

Preamble: “A flexible article having” (Pet. 23 (relying on Ex. 1011, 1:20–22, Figs. 1–5));

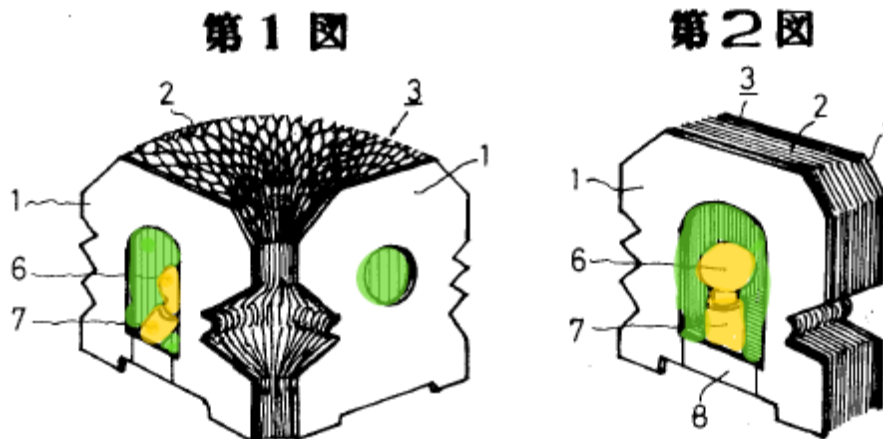
Element [a]: “a core formed from a plurality of laminar panels of a flaccid material that are interconnected to provide an expandable structure upon movement of the panels away from each other,” (Pet. 24–25 (relying on Ex. 1011, 1:8, 2:6–11, 2:16–3:11, Fig. 1 (annotated); Ex. 1003 ¶¶ 85–86));

Element [b]: “opposite ends of the core terminating in a pair of end panels whereby the end panels may be moved apart to expand the expandable structure,” (Pet. 25–26 (relying on Ex. 1011, 2:6–3:4; Figs. 1–2 (annotated))));

Element [c]: “a passage extending in a direction between the end panels and intersecting the panels,” (Pet. 27 (relying on Ex. 1011, 1:22–26, 4:19–23, Figs. 1–2 (annotated)))); and

Element [d]: “a light source located within the passage and operable to illuminate the core from the interior thereof.” (Pet. 27–28 (relying on Ex. 1011, 1:20–2:2; Figs. 1–2 (annotated))).

Molo does not dispute Chanel’s showing as to the preamble or claim elements [a] and [b], but argues that Okuno fails to disclose claim elements [c] and [d], each of which references a “passage.” *See* PO Resp. 18–22. As to elements [c] and [d], Chanel relies on annotated versions of Okuno’s Figures 1 and 2, reproduced below, to show that Okuno discloses a passage extending between panels 1, 1. *See* Pet. 27.



Chanel’s annotated versions of Okuno’s Figure 1 (above left) and Figure 2 (above right) show the alleged passage highlighted in green and Okuno’s illuminator 6 and arm 7 highlighted in yellow. *Id.* Chanel argues that the figures show “the passage (highlighted green) extending between the end panels (1, 1) and intersecting the panels” and “the light source (6) (highlighted yellow) located within the passage.” *Id.* at 27–28.

Molo responds that the above figures in Okuno fail to disclose the claimed “passage” of elements [c] and [d] because “the[] cutouts do not disclose a single ‘passage’ that extends ‘in a direction between the end panels and’ is ‘intersecting the panels,’” as required by claim 1, and “[i]nstead, each substrate of Okuno forms a different passage, as indicated by differently shaped cutouts.” PO Resp. 19. Molo premises its argument on its proposed claim construction requiring a passage that extends through and intersects both end panels. *See id.* at 20 (arguing that “[Okuno’s] passage does not ‘extend between end panels’ or intersect the other end

panel”); *see also* Pet. Reply 17 (interpreting Molo’s argument as contingent on its proposed claim construction proposal).⁸

As discussed above in our claim construction analysis, we decline to adopt Molo’s proposed construction that would require a passage that intersects both end panels. Accordingly, we do not accept the premise of Molo’s argument that Okuno fails to disclose the claimed “passage” as recited in claim elements [c] and [d].

Further, even if Molo did not premise its argument on its flawed proposed claim construction, we find Chanel’s arguments and evidence as to claim elements [c] and [d] persuasive. *See* Pet. 27–28 (citing Ex. 1011, 1–2, 4, Figs. 1–2 (annotated), 3–4); Pet. Reply 17–21 (citing Ex. 1001, 11:23–27; Ex. 1011, cols. 1–3, Figs. 1–5; Ex. 1048, 66:7–17; Ex. 2011, 166:12–167:3); *see also* Ex. 1003 ¶¶ 89–91. Even if we accept Molo’s interpretation of Okuno as failing to “disclose a single ‘passage,’” we cannot ignore Molo’s admission that Okuno at least teaches two distinct passages—“each substrate of Okuno forms a different passage, as indicated by differently shaped cutouts.” PO Resp. 19. To that end, Chanel’s annotations of Okuno’s Figures 1 and 2 highlight these passages in green, and, as shown above, both passages “extend[] between the end panels (1, 1) and intersect[] the panels,”

⁸ Molo contends that “[u]nder either Chanel’s or Molo’s proposed construction, Chanel has failed to establish by a preponderance of the evidence that Okuno expressly or inherently describes ‘a passage extending in a direction between the end panels and intersecting the panels.’” PO Sur-Reply 12. But, in its sur-reply, Molo appears to rely again on its proposed construction without ever addressing Chanel’s construction of the “passage” limitation. *See id.* at 14 (“None of the images of Okuno depict ‘a passage’ extending through the panels.”).

as Chanel argues. *See* Pet. 27. Thus, we agree with Chanel that Okuno discloses claim element 1[c].

In addition, those same figures show illuminator 6 (a light bulb) highlighted in yellow and within the passage formed by the generally rectangular cutout with an arched top on the left-hand side of annotated Figures 1 and 2. *See* Pet. 28. As Chanel points out, Okuno describes its illuminator as “a lightbulb or a lamp” operable to illuminate the core of Okuno’s shade. *Id.* (citing Ex. 1011, 1–2). These disclosures support Chanel’s contention that Okuno discloses element 1[d], requiring “a light source located within the passage and operable to illuminate the core from the interior thereof.” *See id.* Based on our review of the record, we find that Chanel establishes by a preponderance of the evidence that Okuno discloses both claim elements [c] and [d].

As for the other claim elements, i.e., the preamble and elements [a] and [b], Molo does not dispute Chanel’s showing, which includes an element-by-element analysis with supporting citations to Okuno and the declaration of Mr. Rake. *See* Pet. 23–26 (relying on Ex. 1011, 1:8, 1:20–22, 2:6–3:11, 4:57–65, Figs. 1–2 (annotated), Figs. 3–5; Ex. 1003 ¶¶ 85–86). We have reviewed Chanel’s arguments and evidence regarding the preamble⁹ and undisputed claim elements [a] and [b], and we agree with Chanel that preponderant evidence shows that Okuno discloses these undisputed elements in the manner claimed.

⁹ Because we determine that Chanel has sufficiently established that Okuno discloses the preamble, we need not determine whether the preamble is limiting.

In sum, we find persuasive Chanel’s arguments and evidence as to how Okuno discloses all the elements of claim 1. As such, we conclude that Chanel proves by a preponderance of the evidence that claim 1 is unpatentable as anticipated by Okuno.

E. Obviousness of Claims 4–6 Based on Okuno Alone or Combined With SoftHousing I, SoftHousing II, Kennedy, and/or Dorsey

Chanel argues that claims 4–6 would have been obvious over Okuno standing alone in view of the knowledge of one skilled in the art, and, additionally, in view of SoftHousing I, SoftHousing II, Kennedy, “and/or” Dorsey.¹⁰ Pet. 6, 28–29. We do not address whether Okuno standing alone renders claim 1 obvious given our finding that Chanel proves that Okuno anticipates claim 1. Instead, we limit our analysis of this obviousness challenge to claims 4–6, which depend from claim 1. Claim 4 recites “wherein the panels are a fire-resistant material,” claim 5 recites “wherein the light source includes LEDs,” and claim 6 recites “wherein the LEDs are positioned on a LED ribbon.” Ex. 1001, 9:33–38.

We do not consider whether Okuno alone renders dependent claims 4–6 obvious because, for the reasons set forth below, we find that Okuno in

¹⁰ Because Chanel uses the phrase “and/or” in this challenge and alleges that all the secondary references teach LED lighting per the additional limitations of claims 5 and 6, Chanel’s challenge encompasses a combination of Okuno with any single piece of prior art, and a combination of all of them together. See Pet. 29–38; see also *id.* at 38 (“Positioning LEDs inside a flexible partition, had already been disclosed in *SoftHousing I* and *II*, *Kennedy*, and *Dorsey*.”). Because this distinction does not impact the outcome here (i.e., we would find the claims unpatentable based on Okuno in combination with any single reference or all the references), we treat the challenge as based on a combination of all the references, i.e., Okuno, SoftHousing I and II, Kennedy, and Dorsey.

combination with the other prior art references renders the claims obvious. We therefore focus on the obviousness of claims 4–6 based on Okuno and the other prior art references. We first provide a brief overview of those additional references, followed by a discussion of the arguments and evidence.

1. Overview of the SoftHousing I and II, Kennedy, and Dorsey

We provided an overview of Okuno above and provide an overview of the remaining prior art here. SoftHousing I is a submission to an international design competition that discloses “soft, flexible honeycomb structures, each made from 500 layers of a light, strong, white []paper like material” and “[f]lexible partition walls made from the same material.” Ex. 1005, 1. SoftHousing I also states that its partition walls provide “an opportunity for LED or fluorescent lighting to be located within the thickness of the walls.” *Id.* SoftHousing II generally discloses and describes the same structure as SoftHousing I. *See* Ex. 1006, 10 (“There is also an opportunity for LED or fluorescent lighting to be located within the thickness of the walls.”).

Kennedy discloses flexible partitions having ribbons of LED lights located in passages or “voids” inside the partitions. Ex. 1035 ¶ 37 (“The subset of partitions may include space dividers having a plurality of internal linear voids. Linear LED lighting strips may be inserted through the voids.”). As an example, Kennedy discloses LED lights 116 arranged horizontally embedded within main body 114 or space divider 102. *Id.* ¶ 116. Kennedy also shows its linear LED lighting strips arranged within its voids in various figures. *See id.*, Figs. 15–16. Kennedy describes this arrangement:

FIG. 15 is an elevational view of space dividers 230. More specifically, the space dividers 230 include a series of internal linear voids 232 through which linear LED lighting strips may be inserted. Referring to both FIGS. 15 and 16, such an LED lighting strip is illustrated in FIG. 16 as LED strip 234. LED strip 234 will have a sequential series of LED lights 236 extending along the lighting strip 234. The lighting strip 234 will be positioned within the linear void 232.

Id. ¶ 133.

Dorsey discloses articles of furniture, including partitions, that have strings of electrically connected LEDs located within passages or “channels.” Ex. 1034 ¶ 72. More specifically, Dorsey describes using “strings of electrically connected LEDs 20 [that] are fed into the channels, thereby creating lines of electrically connected LEDs 20 within the lighting device 10.” *Id.* Figure 1 of Dorsey shows the strings of LEDs (20) positioned within the channels (50). *Id.*, Fig. 1. Dorsey states that its “hanging illumination sheet 80 can be hung” as a “wall hanging,” “a partition between two rooms,” or “a curtain.” *Id.* ¶ 74.

2. Discussion

a. Disclosure of Claim 4 and Motivation to Combine

In challenging claim 4, Chanel notes that Okuno discloses “using ‘synthetic-resin sheets or paper whereon a nonwoven fabric is affixed’ to make the main body of the expandable shade” and contends that one skilled in the art would have understood that those materials disclosed in Okuno are fire-resistant. Pet. 29 (citing Ex. 1011, 2–3; Ex. 1003 ¶ 94). In addition, Chanel argues that “multiple prior art references disclose flexible furniture articles having panels made of a fire-resistant material,” pointing to express teachings in SoftHousing I, SoftHousing II, and Kennedy. *Id.* (citing Ex. 1003 ¶ 95; Ex. 1005, 1–2; Ex. 1006, 10; Ex. 1035 ¶ 156). Relying on Okuno

and the other prior art references, Chanel argues it would have been obvious to make Okuno’s lampshade of fire-resistant material because Okuno describes concerns with “overheating” from a lightbulb and one skilled in the art would have recognized that the use of a fire-resistant material would alleviate that concern. *Id.* at 29–30 (citing Ex. 1003 ¶¶ 95–96; Ex. 1011, 3).

Apart from the “passage” limitation of claim 1, Molo does not contest Chanel’s arguments and evidence regarding Okuno’s lampshade being made of fire-resistant material. *See* PO Resp. 22–23. Based on the record evidence, we find Chanel’s argument and evidence on this point persuasive. Chanel establishes that multiple prior art references teach the use of fire-resistant materials for flexible furniture in a way that would have been amenable for use in Okuno’s shade. *See* Pet. 30–35; Ex. 1003 ¶¶ 98–104. With that in mind, Chanel sets forth a rational reason for why one skilled in the art would have been motivated to make Okuno’s shade of fire-resistant material—to prevent fire caused by overheating. *See* Pet. 29–30; Ex. 1003 ¶¶ 95–96. That reasoning, supported by declarant testimony, persuades us that one skilled in the art would have been motivated to modify Okuno’s expandable shade to use a fire-resistant material and that such a modification meets the limitation of dependent claim 4.

b. Disclosure of Claims 5 and 6 and Motivation to Combine

In challenging claims 5 and 6, Chanel argues that “LED lights, and ribbons, strips, and strings of LED lights, were well-known and widely-available to ordinarily skilled artisans in 2008” and that “multiple prior art references disclose positioning LED lights within passages inside furniture, including flexible partitions.” Pet. 31 (citing Ex. 1003 ¶¶ 97–105). Chanel then relies on aspects of the prior art references discussed in the overview

above to argue that it would have been obvious to modify Okuno's shade by including "a ribbon of LED lights along the passage instead of a single lightbulb at one end of the passage, and a POSITA in 2008 would have been motivated to do so." *Id.* at 31–36 (citing Ex. 1003 ¶¶ 96–108). Chanel argues that one skilled in the art would have been motivated to make such a modification for a number of reasons, including: (1) Okuno expresses a concern with overheating of its lightbulb and the use of LED lights would alleviate that concern; (2) the Examiner noted during prosecution that LED lights "are conventional" and "give off little heat and are long lasting and efficient"; (3) LED lights provide better aesthetics due to more even distribution of light throughout Okuno's honeycomb shade; and (4) the modification would have merely involved a predictable use of the prior art LED elements according to their established functions. *Id.* at 36–37 (citing Ex. 1001, 8:52–53; Ex. 1002 at 103; Ex. 1003 ¶¶ 96–108; Ex. 1011 at 3; Ex. 1034 ¶ 3; Ex. 1044, 103). Apart from its proposed claim construction in connection with the "passage" limitation of claim 1, Molo does not contest Chanel's arguments and evidence on these points. *See* PO Resp. 22–23.¹¹

¹¹ After raising its argument as to the "passage" limitation in claim 1, Molo argues that Okuno's design would suffer from hot spots, and that "Dorsey would similarly suffer from multiple hotspots, as it discloses LEDs between fabric sheets." PO Resp. 23 (citing Ex. 1034 ¶ 23). Molo argues that the claimed "passage" and "expandable structure" of claim 1 would allow the lights recited in dependent claim 6 to follow the passage without creating hot spots. *Id.* We view these arguments as pertaining to the "passage" limitation of claim 1, which we found Okuno anticipates for the reasons provided above, rather than an argument directed to claim 6 in the event that we found claim 1 anticipated by Okuno. To the extent that Molo intended to raise an argument as to claim 6 in this context, the argument lacks adequate development and support.

We find Chanel’s argument and evidence on these points persuasive. First, Chanel establishes that multiple prior art references teach the use of various types of LED lights within flexible furniture with the goal of illuminating the furniture in a way that would have been amenable for use in Okuno’s passage. *See* Pet. 30–35; Ex. 1003 ¶¶ 98–104. For example, Kennedy discloses LED lighting strips placed within voids or passages in a flexible partition. *See* Ex. 1035 ¶¶ 37, 116, Fig. 15. Second, Chanel sets forth a number of persuasive reasons why one skilled in the art would have been motivated to replace Okuno’s light bulb with LED lights within its passage, including the generation of less heat within the structure and better aesthetics. *See* Pet. 36–37; Ex. 1003 ¶¶ 105–108. Accordingly, we are persuaded that one skilled in the art would have been motivated to modify Okuno to include a ribbon of LED lights in its passage, and that such a modification would result in an article that meets all the limitations of dependent claims 5 and 6.

c. Objective Indicia

Molo argues that certain objective indicia support a finding of nonobviousness here, including industry praise, commercial success, copying, and long-felt need. *See* PO Resp. 29–43. Chanel disagrees. *See* Pet. Reply 3–17. We focus on the nexus issue because it is dispositive.

Molo bears the burden of establishing a nexus between the objective indicia and the claimed invention. *See Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019). Molo asserts that its softwall products¹²

¹² Molo sells products referred to as “softwall” and “softblock,” and, unless otherwise noted, we will refer to these products collectively as “softwall products.” PO Resp. 30.

(which include an LED) practice the challenged claims. PO Resp. 31. In support, Molo provides a claim chart mapping claim 1 to two photos of the softwall product. *Id.* at 31–32.

Chanel responds that Molo fails to establish a presumption of a nexus, or any nexus, between the challenged claims and Molo’s softwall products. Pet. Reply 4–8. As to the presumption, Chanel contends that Molo “fails to address the coextensiveness requirement” in the relevant case law and “fails to address unclaimed features of softwall or to provide any analysis demonstrating that softwall is coextensive” with the challenged claims. *Id.* at 4. According to Chanel, the softwall products are not coextensive with the challenged claims because they include “key features that Molo claimed in other patents and omitted from the [c]hallenged [c]laims” at issue here, such as a pair of end supports with specific properties, magnetic fasteners, and vertical supports within voids of the core. *Id.* at 5. Chanel also argues that Molo improperly relies on the same objective indicia in related *inter partes* reviews involving patents where these additional features are the subject of the challenged claims. *Id.* at 5–6. Importantly, Chanel notes that Molo’s objective indicia addresses only claim 1, and not challenged claims 4–6. *See id.* at 4 (“Nor does Molo compare softwall to any Challenged Claim besides claim 1.”).

Molo, in turn, replies that it does not argue for a presumption of nexus merely because the claims cover its product, but rather because “the claims at issue are the product itself.” PO Sur-Reply 25. According to Molo, “[c]laim 1 of the ’134 patent is directed to ‘a flexible article,’ i.e., the softwall + softblock product,” and claim 1 “is coextensive with the softwall

+ softblock products manufactured from 2008 forward.” *Id.* (citing Ex. 1049, 75:7–21).

Our analysis here ends with the limited scope of Molo’s arguments. As noted above, we find that Chanel proves by a preponderance of the evidence that Okuno *anticipates* independent claim 1, and that we need not reach whether Okuno renders claim 1 obvious. Molo’s objective indicia, however, only relates to obviousness, not anticipation, and Molo limits its objective indicia only to claim 1. *See, e.g.*, PO Resp. 31–32 (limiting nexus arguments to claim 1), 33 (referring to “softwall product embodied in the features of independent claim 1”); PO Sur-Reply 25 (referring only to claim 1 and failing to argue nexus with respect to claims 4–6 after Chanel pointed out the omission), 26–27 (referring only to claim 1 in arguing commercial success), 30 (referring only to claim 1 in arguing copying), 31 (concluding that Molo’s objective evidence “demonstrates the patentability of claim 1”). Accordingly, because Molo does not adequately allege, much less establish, a nexus of the alleged objective indicia to claims 4–6, the only claims subject to our obviousness analysis, we find that Molo fails to establish any objective indicia of nonobviousness with respect to claims 4–6.

d. Conclusion as to Obviousness of Dependent Claims 4–6

“Once all relevant facts are found, the ultimate legal determination [of obviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1361 (Fed. Cir. 2017). Above we provide our factual findings regarding: (1) the level of ordinary skill in the art; (2) the scope and content of the prior art;

- (3) any differences between the claimed subject matter and the prior art; and
- (4) objective indicia of nonobviousness.

We find as to the first three factual inquiries that Chanel's proposed combination of Okuno with SoftHousing I, SoftHousing II, Kennedy, and Dorsey discloses all the limitations of claims 4–6 and that one skilled in the art would have been motivated to modify Okuno in the manner Chanel proposes. As to the objective indicia, we find that, absent a showing of nexus to claims 4–6, Molo fails to establish that any objective indicia of nonobviousness applies to claims 4–6. Weighing these underlying factual findings, we are persuaded that Chanel proves by a preponderance of the evidence that dependent claims 4–6 of the '134 patent are unpatentable as obvious over the combined teachings of Okuno, SoftHousing I, SoftHousing II, Kennedy, and Dorsey.

F. Chanel's Other Challenges

Chanel also asserts various other challenges against claim 1, as well as dependent claims 4–6, based on anticipation and obviousness. *See* Pet. 38–62. Because we already determined that Chanel proved all challenged claims are unpatentable on the Okuno-based grounds, we do not reach whether those same claims are unpatentable pursuant to Chanel's alternative challenges. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding that petitioner “is entitled to a final written decision addressing all of *the claims* it has challenged”) (emphasis added); *Bos. Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App'x 984, 990 (Fed. Cir. 2020) (non-precedential) (recognizing that the “Board need not address issues that are not necessary to the resolution of the proceeding” and, thus, has “discretion to decline to

decide additional instituted grounds once the petitioner has prevailed on all its challenged claims”).

III. CONCLUSION

Claims	35 U.S.C. §	Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1	102	Okuno	1	
1, 4–6	103	Okuno, SoftHousing I, SoftHousing II, Kennedy, Dorsey	4–6 ¹³	
1	102	SoftHousing I		
1, 4–6	103	SoftHousing I, SoftHousing II, Okuno, Kennedy, Dorsey		
1, 4–6	103	MacAllen, SoftHousing I, SoftHousing II, Okuno, Kennedy, Dorsey		
Overall Outcome			1, 4–6	

IV. ORDER¹⁴

Accordingly, it is hereby:

ORDERED that claims 1 and 4–6 of the ’134 patent are determined to be unpatentable; and

¹³ As noted above, because we find claim 1 unpatentable as anticipated, we do not reach whether claim 1 also would have been unpatentable as obvious under Chanel’s alternative theories.

¹⁴ Should Molo wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Molo’s attention to the April 2019 Notice Regarding

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

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Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding, 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Molo chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Molo of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. *See* 37 C.F.R. §§ 42.8(a)(3), (b)(2).