

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INLINE PACKAGING, LLC,
Petitioner,

v.

GRAPHIC PACKAGING INTERNATIONAL, INC.,
Patent Owner.

Case IPR2015-01609
Patent 8,872,078 B2

Before MICHAEL W. KIM, CARL M. DEFRANCO, and
JAMES J. MAYBERRY, *Administrative Patent Judges*.

KIM, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. *Background*

Inline Packaging, LLC (“Petitioner”) filed a Petition (“Pet.”) for *inter partes* review of claims 1–53 of U.S. Patent No. 8,872,078 B2 (“the ’078 Patent”) (Ex. 1001) pursuant to 35 U.S.C. §§ 311–319. Paper 4. Graphic Packaging International, Inc. (“Patent Owner”) filed a Patent Owner Preliminary Response. Paper 8; “Prelim. Resp.”

On January 12, 2016, we instituted an *inter partes* review of claims 1–53 on certain grounds of unpatentability set forth in the Petition. (Paper 11; “Dec.”). After institution of trial, Patent Owner filed a Patent Owner Response (Paper 22, “PO Resp.”)¹ and Petitioner filed a Reply (Paper 28, “Pet. Reply”). Petitioner filed a Motion to Exclude. Paper 37; “Mot.” Patent Owner filed an Opposition to Petitioner’s Motion to Exclude. (Paper 39; “Mot. Opp.”). Petitioner filed a Reply in Support of its Motion to Exclude. Paper 44; “Mot. Reply”.

An oral hearing was held on September 29, 2016. Paper 50 (“Tr.”). The Board has jurisdiction under 35 U.S.C. § 6. In this Final Written Decision, issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73, we determine that Petitioner has shown by a preponderance of the evidence that all claims for which trial is instituted, claims 1–53 of the ’078 patent, are unpatentable. Petitioner’s Motion to Exclude is *denied*.

¹ Patent Owner’s Motion to Seal (Paper 20) was granted in our Order of July 11, 2016 (Paper 31). Unless otherwise indicated, all references herein to the Patent Owner Response will be to the public version (Paper 22).

B. The '078 Patent

The '078 Patent relates to various blanks, constructs, and methods for heating, browning, and/or crisping a food item in a microwave oven. Ex. 1001, 1:16–20. Specifically, the '078 Patent discloses that it meets two needs: (1) a need for a package or other construct that facilitates transportation and consumption of a food item therein; and (2) a need for such a package or other construct that enhances browning and crisping of a food item in a microwave oven. Ex. 1001, 1:25–30. An exemplary blank 400 is shown below in Figure 4A.

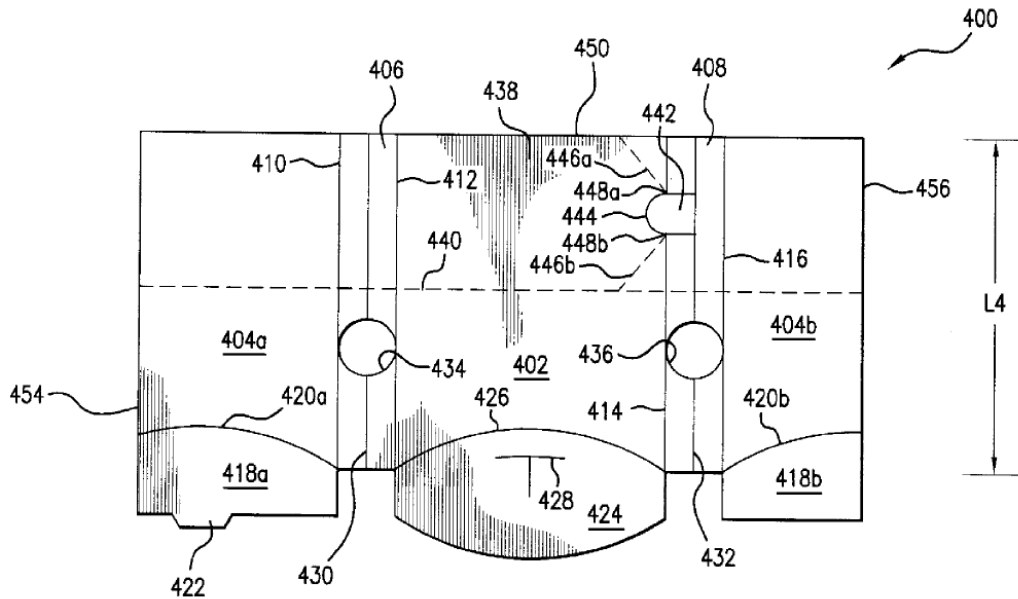


FIG. 4A

Figure 4A includes an illustration of exemplary blank 400. Blank 400 includes main panel 402, first major panel 404a, second major panel 404b, first minor panel 406, and second minor panel 408. Ex. 1001, 16:58–62. Blank 400 further includes, partial end panels 418a, 418b that are joined to first major panel 404a and second major panel 404b, respectively,

and partial end panel 418a may include locking feature 422. Ex. 1001, 17:1–4. Blank 400 also includes end panel 424 joined to main panel 402, which includes “somewhat T-shaped receiving slit 428” that is configured to receive locking feature 422. Ex. 1001, 17:4–11.

C. Related Matters

Petitioner and Patent Owner identify the following related district court proceedings between Petitioner and Patent Owner that involves the '078 Patent: *Graphic Packaging International, Inc. v. Inline Packaging, LLC*, Case No. 1:15-cv-01557-WSD (N.D. Ga.) (dismissed); *Graphic Packaging International, Inc. v. Inline Packaging, LLC*, Case No. 1:15-cv-00482-GMS/SLR (D. Del.). Pet. 59; Paper 5, 2.

D. Illustrative Claim

The '078 Patent includes claims 1–53, of which claims 1, 12, 20, 29, 34, 39, 42, and 47 are independent. Representative independent claim 1 is reproduced below:

1. A microwave heating construct, comprising:
 - a first main panel and a second main panel opposite one another;
 - a first minor panel and a second minor panel opposite one another;
 - wherein
 - the first minor panel and the second minor panel are joined to the first main panel and the second main panel so that the first main panel, second main panel, first minor panel, and second minor panel extend around and at least partially define an interior space of the construct,
 - the first main panel, second main panel, first minor panel, and second minor panel each include an end edge

that at least partially defines an opening at a first end of the construct, and
at least one of the first main panel, second main panel, first minor panel, and second minor panel comprise microwave energy interactive material;
a first end panel joined to the first main panel along a first arcuate fold line, the first arcuate fold line being opposite the end edge of the first main panel, wherein the first end panel includes a cut positioned proximate to the first arcuate fold line;
a second end panel joined to the second main panel along a second arcuate fold line, the second arcuate fold line being opposite the end edge of the second main panel; and
a tab extending from an end edge of the second end panel, the end edge of the second end panel being opposite the second arcuate fold line, wherein the tab is for extending through the first end panel and engaging the cut in the first end panel to close a second end of the construct opposite the first end of the construct.

E. Prior Art References Applied by Petitioner and Instituted Grounds of Unpatentability

Petitioner challenges the patentability of claims 1–53 as obvious under 35 U.S.C. § 103(a) based on the following grounds and items of prior art (Pet. 20–56):

JP 2002-347756 (“Kato”)	Dec. 4, 2002	Ex. 1004 ²
US 2004/0023000 (“Young”)	Feb. 5, 2004	Ex. 1006
US 2003/0206997 (“Winkelman”)	Nov. 6, 2003	Ex. 1007
US 4,948,932 (“Clough”)	Aug. 14, 1990	Ex. 1008
US 4,626,641 (“Brown”)	Dec. 2, 1986	Ex. 1009

² Exhibit 1004 is a Japanese language document. An English-language translation has been provided by Petitioner as Exhibit 1005. Unless noted otherwise, all references to Kato will be to Exhibit 1005.

US 2004/0101605 (“Sigel”) May 27, 2004 Ex. 1010
Petitioner also cites the Declaration of Dr. Claire Koelsch Sand (Ex. 1003; “Sand Decl.”) and the Reply Declaration of Dr. Claire Koelsch Sand (Ex. 1022; “Sand Reply Decl.”).³ Patent Owner cites the Declaration of Dr. John Floros (Ex. 2007; “Floros Decl.”), the Declaration of Mr. Jeffrey Voyzey (Ex. 2008, “Voyzey Decl.”) and the Supplemental Declaration of Mr. Jeffrey Voyzey (Ex. 2049, “Voyzey Supp. Decl.”).

Reference(s)	Basis	Challenged Claims
Kato and Clough	§ 103(a)	1–4, 6–24, 26–29, 31–33
Kato, Clough, and Brown	§ 103(a)	5, 25, 30
Kato and Young	§ 103(a)	34, 35, 37–42, 44–49, 51–53
Kato, Young, and Brown	§ 103(a)	36, 43, 50
Kato and Winkelman	§ 103(a)	34, 35, 37–42, 44–49, 51–53
Sigel and Kato	§ 103(a)	1, 12, 20, 29, 34, 39, 42, and 47

II. ANALYSIS

A. *Claim Construction*

In an *inter partes* review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent

³ Patent Owner filed an Amended Motion for Observations on cross of Dr. Claire Sand (Paper 41; “PO Obs.”). Petitioner filed a Response to Patent Owner’s Amended Observation (Paper 43; “Pet. Resp. Obs.”).

in which it appears. 37 C.F.R. § 42.100(b); *see also* *Cuozzo Speed Techs., LLC v. Lee*, 136 S.Ct. 2131, 2142 (2016) (Affirming that USPTO has statutory authority to construe claims according to 37 C.F.R. § 42.100(b)). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). For the purposes of this Decision we determine that only the following claim terms need express interpretation. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”).

*“wherein the cut in the first end panel is
substantially T-shaped”*

Dependent claims 4, 24, 36, and 49 each recite “wherein the cut [in] the first end panel is substantially T-shaped.” Dependent claims 30 and 43 recite substantially the same, with “slit” instead of “cut.” In the Patent Owner Preliminary Response, the Patent Owner asserted that the aforementioned claim limitation should be construed as “having a shape that closely resembles the capital letter ‘T’.” Prelim. Resp. 6–7 (citing Ex. 1001, 17:8–11). In the Decision on Institution, we agreed, although we clarified that we do not discern that the proposed construction provides any additional substantive clarity relative to the plain language. Dec. 7–8. After the Decision on Institution, while Patent Owner and Petitioner disagree with the application of the aforementioned claim construction, as set forth below, neither Patent Owner nor Petitioner has expressed disagreement with the

construction itself. After considering anew the basis for our previous construction, we see no need for modification.

B. Level of Ordinary Skill in the Art

“Section 103(a) forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 405 (2007).

Petitioner proffers that a hypothetical person of ordinary skill in the art, with respect to and at the time of the ’078 patent, would have been a packaging professional with at least an undergraduate degree in packaging science (or related field) or comparable training/experience and would have had at least three (3) years of professional experience in the design of packaging materials for consumer products that are made from paperboard. Pet. 5. Patent Owner did not offer a skill level in the Patent Owner Response.⁴

Based on our review of the overall record, including the ’078 patent, we concur with the Petitioners’ assessment of the level of ordinary skill in the art and apply it for purposes of this Decision.

⁴ In the Preliminary Response, the Patent Owner proffers that “[a] person of ordinary skill in the art of the ’078 patent at the time of the invention would have at least three (3) years of experience designing paperboard constructs for consumer products,” which we discern is essentially the same level of skill advocated for by Petitioner. Prelim. Resp. 9.

C. The Parties' Post-Institution Arguments

In our Decision on Institution, we concluded that the arguments and evidence advanced by Petitioner demonstrated a reasonable likelihood that various selections of claims 1–53 were unpatentable as obvious based on Kato and other secondary references. Dec. 32–33. We must now determine whether Petitioner has established by a preponderance of the evidence that the specified claims are unpatentable over the cited prior art. 35 U.S.C. § 316(e). In this connection, we previously instructed Patent Owner that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 12, 3; *see also* 37 C.F.R. § 42.23(a) (“Any material fact not specifically denied may be considered admitted.”). Additionally, the Board’s Trial Practice Guide states that the Patent Owner Response “should identify all the involved claims that are believed to be patentable and state the basis for that belief.” Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012).

In connection with the arguments and evidence advanced by Petitioner to support its positions that Patent Owner chose not to address in its Patent Owner Response, the record now contains unrebutted arguments and evidence presented by Petitioner regarding the manner in which the asserted prior art teaches all other elements of the claims against which that prior art is asserted. Based on the preponderance of the evidence before us, we conclude that the prior art identified by Petitioner describes all limitations of the reviewed claims, in view of our analysis of those that Patent Owner contested in the Patent Owner Response, which we address below.

*D. Claims 1–4, 6–24, 26–29, and 31–33 as
Unpatentable Over Kato and Clough*

Petitioner contends that claims 1–4, 6–24, 26–29, and 31–33 are unpatentable over a combination of Kato and Clough. Pet. 9–29, 50–57 (citing Exs. 1001, 1003, 1005, 1007, 1008, 1010, 1018). Patent Owner disagrees. PO Resp. 18–60 (citing Exs. 1001, 1003, 1007, 1008, 1010, 2001, 2007, 2021, 2028–2031). Petitioner replies. Pet. Reply 1–25 (citing Exs. 1001, 1003, 1007, 1008, 1016, 1022–1027, 2007, 2008, 2015, 2022, 2031, 2033). Claims 1, 12, 20, and 29 are independent.

1. Kato (Ex. 1005)

Kato relates to a personal meal container for bulky food for containing a single item of bulky food that is edible as is, such as hamburger or croquette. Ex. 1005 ¶ 1. Figure 3 of Kato is set forth below.

FIG. 3

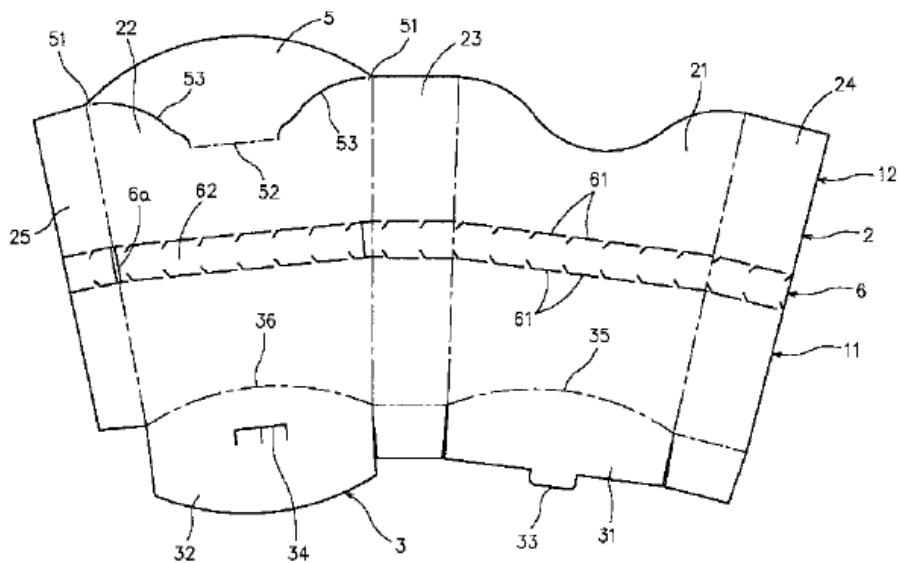


Figure 3 is a material expansion plan of a personal meal container. Kato includes box-shaped container body 1 including front wall 21, rear wall 22, left sidewall 23, and right sidewall 24. Ex. 1005 ¶ 12. Sticking wall 25

is to be adhered to right sidewall 24. Ex. 1005 ¶ 12. Box-shaped container body 1 further includes overlapping bottom pieces 31 and 32. Ex. 1005 ¶ 13.

2. *Clough (Ex. 1008)*

Clough relates to a disposable microwave reactive cooking, crisping, and browning package for foods that produces a thermal heating effect when exposed to microwave energy. Ex. 1008, 1:9–12.

3. *Petitioner's Positions*

Petitioner asserts that claims 1–3, 6–23, 26–29, and 31–33 are unpatentable over a combination of Kato and Clough. Pet. 6–57. For example, independent claim 1 recites a first main panel and a second main panel. Kato discloses front wall 21 and rear wall 22. Ex. 1005 ¶ 12. Independent claim 1 further recites a first minor panel and a second minor panel. Kato discloses left sidewall 23 and right sidewall 24. Ex. 1005 ¶ 12. Independent claim 1 recites also a first end panel and a second end panel, with a tab on the second end panel for engaging a cut in the first end panel. Kato discloses overlapping bottom pieces 31 and 32, with inserting piece 33 configured to be inserted into slit-state score 34. Ex. 1005 ¶ 13. Independent claim 1 recites additionally that “at least one of the first main panel, second main panel, first minor panel, and second minor panel comprise microwave energy interactive material.” Clough discloses that “sleeve 10 is provided with a layer of microwave interactive material 16 which, when subjected to microwave energy, will operate to convert the microwave energy to heat in an amount sufficient to brown or crisp food surfaces that are in contact with or in close proximity to the microwave

interactive layer.” Ex. 1008, 3:10–16. For the rationale for modifying Kato in view of Clough, Petitioner asserts the following:

To the extent that Kato does not alone disclose microwave energy interactive material, adding microwave interactive material to Kato would have been obvious to a [person having ordinary skill in the art (POSA)] in view of at least *Clough* which teaches extensive usage of microwave energy interactive material since at least the 1980’s. Ex. 1008, 1:48–68, 2:1–3, 18–31, 3:10–19, 63–68, 4:1–9, 28–37; *See also* Ex. 1003, Sand Decl., ¶¶ 116–120. *Clough* discloses the usage of a “microwave interactive materials” within a four paneled sleeve that converts microwave energy from a microwave oven to heat for browning and crisping a food product. Ex. 1008, 1:48–68, 2:1–3, 18–31, 3:10–19, 63–68, 4:1–9, 28–37. The sleeve panels of *Clough* are disposed in a manner substantially identical to those features as configured in embodiments in the ‘078 Patent. *Id.*, Figs. 1–3; Ex. 1003, Sand Decl., ¶ 89. *Clough* discloses that “[t]he inner peripheral surface of the sleeve 10 is provided with a layer of a microwave interactive material 16 which, when subjected to microwave energy, will operate to convert the microwave energy to heat in an amount sufficient to brown or crisp food surfaces that are in contact with or in close proximity to the microwave interactive layer.” Ex. 1008, 3:10–16.

There is ample motivation to combine these related prior art disclosures. Kato and Clough are in the same field of paperboard sleeves for heated food products. Ex. 1005, ¶ 0011; Ex. 1008, 3:16–19. Moreover, a POSA would have been motivated to combine the disclosures of these references at the priority date because of the well-known desirability of using microwave interactive material in paperboard sleeves for browning and crisping food – a desirability that was both known generally to those in the field at the time, and explicitly disclosed in *Clough*. Ex. 1008, 1:15–68; Ex. 1003, Sand Decl., ¶ 118. A POSA who wanted to use *Kato* to heat food in a microwave would be motivated to look at general knowledge in the art and

to the microwave interactive material of *Clough*. *Id.* at ¶¶ 116–120.

Pet. 14–16.

Petitioner sets forth similar analyses for claims 1–3, 6–23, 26–29, and 31–33. Pet. 9–29, 50–51, 53–56.

4. *Rationale to Modify Kato in view of Clough to Meet the Limitations of Independent Claims 1, 12, 20, and 29*

The '078 Patent discloses that it meets two needs: (1) a need for a package or other construct that facilitates transportation and consumption of a food item therein; and (2) a need for such a package or other construct that enhances browning and crisping of a food item in a microwave oven.

Ex. 1001, 1:25–30. Neither party disputes that need (2) is met by the limitation of “microwave energy interactive material” recited in each of independent claims 1, 12, 20, and 29, and neither party disputes that need (1) is met by the rest of the limitations of those same claims. *See generally* Pet. 9–29; PO Resp. 12–15, 18–22, 32–39. Neither party disputes further that Kato meets all of the claim limitations corresponding to need (1), except for those limitations of independent claims 20 and 29 identified below. *See generally* Pet. 9–29; PO Resp. 12–15, 18–22, 32–39.

Where the ultimate disagreement lies is Patent Owner’s assertion that one of ordinary skill would not have modified Kato, which meets need (1), to include the microwave energy interactive material of Clough, so as to also meet need (2), because Kato is only directed to a container for holding an already-prepared (i.e., ready-to-eat) food item, and does not mention anything about a microwave browning and crisping package. PO Resp. 35–36 (citing Exs. 1003, 2001, 2007). While Patent Owner’s assertions will be assessed in more detail below, fundamentally, Patent Owner’s assertions are

misplaced as Clough, and not Kato, is cited for being directed to a microwave browning and crisping package. Pet. 14–16 (citing Exs. 1003, 1008). We agree with Petitioner that one skilled in the art would have recognized that Kato’s paperboard sleeve would have been used to microwave food therein and, thus, that one skilled in the art would have had ample reason to modify and improve Kato’s paperboard sleeve to brown and crisp food using Clough’s known technique of adding microwave interactive material to a sleeve to realize the advantages set forth in Clough. Pet. 14–16 (citing Ex. 1003 ¶¶ 106–114, 116–120; Ex. 1008).

Primarily, Patent Owner’s assertions are flawed because they are almost uniformly directed to Kato alone. Essentially, Patent Owner is asserting that one of ordinary skill, when reading Kato, would discern that Kato is a perfect product for its stated purpose, that the stated purpose can never change or be added to, and, thus, that one of ordinary skill would never look outside the narrow confines of Kato for any modifications, no matter what improvements and advantages such modifications may bring. Such assertions are contrary to almost every doctrine of obviousness under *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). For example, *KSR* states “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR* at 421. Patent Owner’s inflexible approach to Kato is more akin to that of an automaton, than to one of ordinary creativity. Furthermore, *KSR* explains explicitly that the ordinary artisan recognizes “that familiar items may have obvious uses ***beyond their primary purposes***, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle.” *KSR* at 420 (emphasis added). No one disputes that Kato’s primary stated

purpose aligns with need (1), i.e., a container for holding an already-prepared (i.e., ready-to-eat) food item. We are unpersuaded, however, that this primary stated purpose of Kato should be held in such high esteem so as to exclude all other purposes known in the art, such as need (2), especially when *KSR* counsels that “uses beyond their primary purposes” must be considered.

To that end, the record is replete with evidence concerning the advantages of modifying a paperboard sleeve, including that of Kato, with the microwave energy interactive material of Clough in order to brown and crisp food, so as to meet need (2). *See, e.g.*, Ex. 1008, 1:48–68, 2:1–3, 18–31, 3:10–19, 63–68, 4:1–9, 28–37; Ex. 1003 ¶¶ 116–120. Patent Owner would have us believe that such a purpose is irreconcilably in conflict with Kato’s stated purpose. We disagree. As a matter of logic, Kato must be made of some type of material, and we are persuaded that Clough provides sufficient objective evidentiary support for the notion that one of ordinary skill would have had reason to include in the paperboard sleeve of Kato the microwave energy interactive material of Clough in order to brown and crisp food.

Relatedly, Patent Owner would have us believe that a modification not contemplated in a reference is a modification that cannot be made. We are unaware of any case in patent law that supports this proposition. If a reference expressly contemplates a modification, it is already an anticipatory reference, and no further reference is necessary. Taking Patent Owner’s doctrine to its logical conclusion, no modification not stated in a reference would ever be possible, effectively eviscerating obviousness.

As an example, assume the claimed invention is to a black coat, and also assume that reference A discloses a coat that is colored white in order to reflect heat, and that reference B discloses clothing can be colored black in order to absorb heat. Under Patent Owner's logic, one of ordinary skill would never modify the coat of reference A to be black so as to absorb heat, in view of reference B, because reference A does not disclose either the color or the need to absorb heat. Such a rubric is not credible.

Instead, we discern that one of ordinary skill, based on these disclosures in reference A and B, would know that a coat can be either black or white, depending on the desired purpose, and that the coat in reference A can readily be modified to be black if absorbing heat is desired, even if reference A does not mention anything about the color black or absorbing heat. Furthermore, if reference A were to instead read "but the coat can alternatively be black to absorb heat," reference A would not require any modification, but would instead anticipate, because although reference A may primarily disclose a white coat embodiment, it now also discloses expressly a black coat embodiment.

To be sure, we acknowledge readily that every modification has advantages and disadvantages, which must be weighed appropriately in an obviousness analysis. To that end, the one disadvantage identified by Patent Owner, with respect to modifying Kato to include need (2), is that a paperboard sleeve including microwave energy interactive material would be too hot to hold immediately after the package and food item therein has been microwaved. We agree that is a disadvantage. The question then becomes, however, whether that disadvantage so outweighs the browning and crisping advantages to counsel sufficiently against modifying Kato with

Clough in the manner asserted. We determine that it does not. As a practical matter, we discern that one of ordinary skill, and indeed even an average consumer, when faced with this disadvantage, would have counseled against holding the paperboard sleeve immediately after the food item therein has been microwaved.

Patent Owner recites further disadvantages for modifying Clough, Young, and Winkelman to meet need (1), such as unsanitary hands and spillage of sauces through apertures. PO Resp. 38 (citing Ex. 2001). Those arguments are misplaced, as the modification for this ground is with respect to Kato in view of Clough. Moreover, even if the modifications were to Clough, Young, and Winkelman, we are unpersuaded that those purported disadvantages would be of such a character that they would sufficiently outweigh modifying each of those references so as to meet need (1). Indeed, in the case of Winkelman, no modification would even be necessary, as Winkelman already discloses expressly that it meets needs (1) and (2) simultaneously.

More specifically, Winkelman, identified explicitly by Dr. Sands, teaches expressly and unequivocally the contemporaneous need, at the time of the invention, for heating food with a microwave interactive material and also holding the food during transportation and consumption using the same container. Ex. 1022 ¶ 13 (citing Ex. 1007 ¶¶ 2–9, 12, 14, 41). For instance, Winkelman discloses that its “invention is directed to a container for heating a food product and for optionally holding the food product during its consumption. . . . The interior of the envelope has a susceptor surface to facilitate optional heating.” Ex. 1007 ¶ 9.

At oral argument, Patent Owner asserted, essentially, that Winkelman does not meet need (1), because Winkelman later discloses that the food product is actually taken out of the sleeve for consumption. Tr. 58:19–60:2. Patent Owner’s assertions are inapposite, as while the referenced embodiment may have been meant to be used in that manner, Winkelman unequivocally uses the words “a container . . . for optionally holding the food product during consumption” (Ex. 1007 ¶ 9), which we cannot read as being anything other than identical to need (1). While certainly not dispositive with respect to this ground, in that Winkelman was not cited expressly for this ground of unpatentability, it nevertheless is objective evidence as to what one of ordinary skill knew at the time of the invention, and merely provides additional support for Petitioner’s rationale as to why one of ordinary skill would have modified the handheld sleeve of Kato to include Clough’s microwave energy interactive material. *See Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1365 (Fed. Cir. 2015) (citing *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362–63 (Fed. Cir. 2013)) (“Art can legitimately serve to document the knowledge that skilled artisans would bring to bear in reading the prior art identified as producing obviousness.”); *Randall Mfg. v. Rea*, 733 F.3d at 1356 (“[T]he Board failed to consider a wealth of well-documented knowledge that is highly material to evaluating the motivation to combine references.”). Accordingly, we find explicitly and unequivocally that it was widely and well-known, at the time of the claimed invention, to add microwave energy interactive material to a paperboard sleeve in order to brown and crisp food.

Patent Owner asserts further that “Petitioner’s analysis is based entirely on sweeping generalizations, conclusory statements, and the

impermissible use of hindsight, using the '078 Patent claims as a roadmap for reconstructing the claimed microwave heating constructs and blanks.” PO Resp. 19. We disagree, as Petitioner’s express claim mapping is set forth in their claim charts, and Petitioner’s rationale for modifying the handheld sleeve of Kato to include Clough’s microwave energy interactive material is supported expressly by the above citations to Clough. *See* Pet. 9–29.

Patent Owner asserts relatedly that in order to properly effect the microwave energy interactive material of Clough in the handheld sleeve of Kato, the apertures of Clough would also need to have been placed in Kato, and that the result of those apertures would have been the unsanitary hands and spillage of sauces disadvantages referenced above. As an initial matter, we are unpersuaded that modifying the handheld sleeve of Kato with the microwave energy interactive material of Clough also requires importing the apertures of Clough into Kato. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art.”). Moreover, even if such a modification were required, we are unpersuaded that one of ordinary skill would not have been able to account sufficiently for the apertures so as to meet both needs (1) and (2). For example, Dr. Sands asserts, and we agree, that apertures could be moved or sized to prevent sauces from dirtying hands, such as in Winkelman. Ex. 1022 ¶ 31.

Patent Owner makes additional assertions concerning the differences between Kato and Clough, such as the number of sides, whether there are

end panels, and the locations of disruption lines. PO Resp. 37–38 (citing Exs. 1003, 1007, 1008, 2001, 2007, 2031). They have been considered, but are inapposite, in that Petitioner is only advocating for modifying Kato to include one feature of Clough: the microwave energy interactive material.

Patent Owner asserts additionally that “Petitioner’s analysis is also critically deficient because the Petition vastly oversimplifies the ’078 Patent claims and impermissibly analyzes individual features of the claimed microwave heating constructs and blanks in isolation.” PO Resp. 21. We disagree. Aside from microwave energy interactive material and the claim limitations of independent claims 20 and 29 addressed below, Patent Owner does not identify any other specific claim limitation in any of the independent claims that is missing from Kato. If no limitation is missing, we are unpersuaded that an analysis of individual features largely from one reference, Kato, is an oversimplification of the independent claims as a whole.

Patent Owner cites to the Declaration of Dr. Floros to support many of its assertions set forth above, in particular, that Kato does not provide any indication that it would have been modified to include the microwave energy interactive material of Clough. *See* Ex. 2007, 28–38, 40–44. Dr. Floros’ testimony is unpersuasive for the same reasons as set forth above, and need not be repeated here.

5. *Independent Claims 20 and 29 –
Substantially Equal Side Edges of End Panels*

Independent claims 20 and 29 each recite “wherein the side edges of the first end panel and the side edges of the second end panel are substantially equal in length with respect to one another.” Petitioner argues

that Kato both (1) anticipates and (2) renders obvious the limitation at issue. Pet. 23 (citing Exs. 1003, 1005).

Patent Owner argues that that Kato does not anticipate, because the end panels of *Kato* do not have side edges that are substantially equal in length. PO Resp. 32–34 (citing Ex. 2001, FIG. 3 (annotated)); Ex. 2007 ¶ 57). Kato Figure 3, annotated by Patent Owner is shown below:

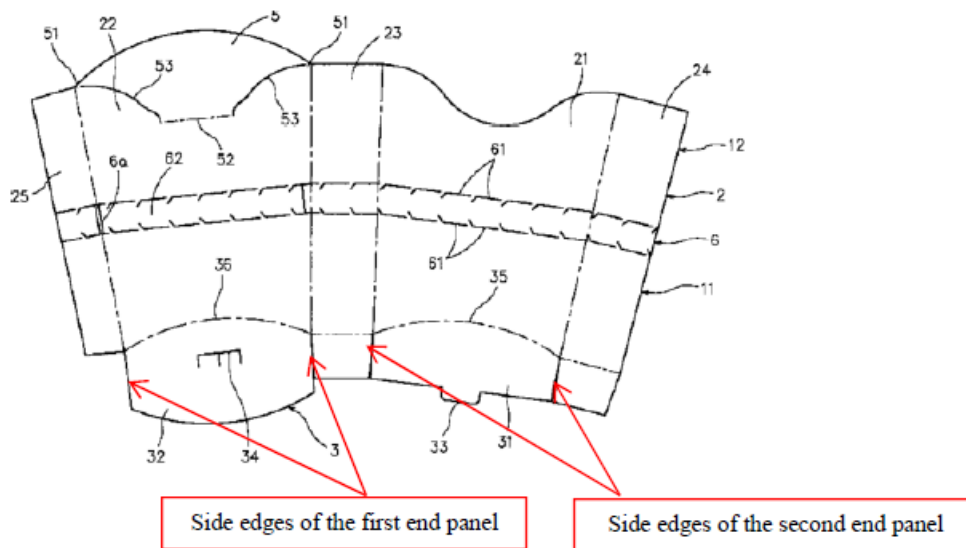


Figure 3 of Kato is a material expansion plan of a personal meal container, and has been annotated by Patent Owner.

PO Resp. 33 (citing Ex. 2001, Fig. 3).

Patent Owner’s assertions are flawed, for even if we were to agree that Kato does not disclose the aforementioned claim limitations, Patent Owner does not present any arguments against Petitioner’s obviousness assertions. *See* PO Resp. 32–34. To that end, we have considered, and are persuaded by, Petitioner’s assertion that:

Kato discloses that “dimensions of the container body 1 are designed by matching a croquette, which has common size as the bulky food F, and needless to say, the design can be changed according to the types and size of the bulky food F.” Ex. 1005,

¶ 0014; *See also Id.* at ¶¶ 0007, 0011. Based on these teachings, it would have obvious to a POSA to make the edges equal in length to increase the swelling of the opposing main panels to accommodate a thicker food product. Ex. 1003, Sand Decl., [¶¶] 137, 200, 236.

Pet. 23; *see also* Pet. Reply 12–14. After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we are persuaded that Petitioner has shown sufficiently that the aforementioned limitations of claims 20 and 29 are at least suggested by Kato.

6. *Dependent Claims 4 and 24 – “cut . . . is substantially T-shaped”*

Each of dependent claims 4 and 24 recite “wherein the cut [in] the first end panel is substantially T-shaped.” Petitioner identifies slit-state score 34 depicted in Kato’s Figure 3, reproduced below, as corresponding to the aforementioned claim limitation. Pet. 51.

FIG. 3

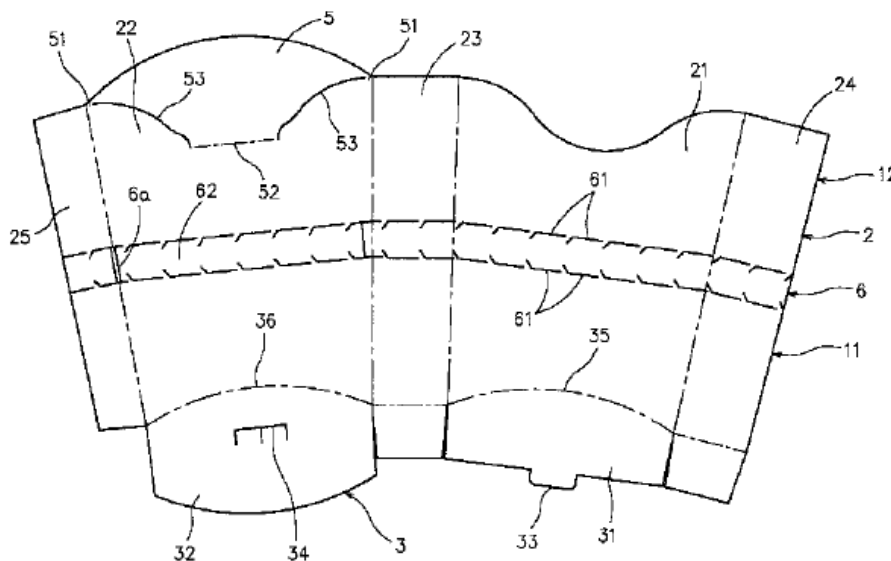


Figure 3 depicts a material expansion plan of a personal meal container. Patent Owner asserts the broadest reasonable interpretation of “substantially T-shaped” excludes Kato’s slit that “resembles a sideways capital letter ‘E’

(Ex. 2001, FIG. 3) and not a capital letter ‘T’.” PO Resp. 34. As set forth above, we construe the aforementioned claim limitation as “having a shape that closely resembles the capital letter ‘T’.”

In our Decision on Institution, we provided the following explanation:

We note, however, that the dependent claims 4 and 24 recite “wherein the cut in the first end panel is *substantially* T-shaped,” (emphasis added) and that independent claims from which each of dependent claims 4 and 34 depend ultimately recite the open-ended term “comprising.” To that end, we discern that there are several ways to get something substantially resembling a capital letter “T” from slit-score 34 of Kato. For example, if the outermost slits of the sideways capital letter “E” of slit-state score 34 of Kato are removed, we are left with something substantially resembling a capital letter “T.” In another example, extending the middle slit of slit-score 34 would result in something substantially resembling a capital letter “T.” In other words, Kato does disclose something substantially resembling a capital letter “T,” albeit within the confines of the sideways capital letter “E.”

Dec. 14. Patent Owner asserts that this application of the aforementioned claim construction is impermissibly broad, because “nearly any slit that incorporated cuts at right angles could be considered ‘substantially T-shaped,’ rendering this limitation meaningless.” PO Resp. 34. We disagree, and Patent Owner’s example actually perfectly illustrates why the claim limitation, as applied is not meaningless. Specifically, we do not discern that an “L” shaped slit, despite the fact that it has a right angle, would correspond properly to a “substantially T-shaped” cut.

Patent Owner asserts further the following:

The substantially T-shaped slit of the ’078 Patent is specifically designed to receive the trapezoidal tab that is also claimed in the ’078 Patent. Ex. 2007 ¶ 60. *Kato* has no such trapezoidal tab

and therefore need not have a slit that is “substantially T-shaped.” Instead, the tab of *Kato* is rectangular as is appropriate to be received by the E-shaped slit shown therein. *Id.*

PO Resp. 34; *see also* Ex. 2007 ¶ 23. Patent Owner’s assertions are misplaced, as we are unclear as to the relevance of tab shapes to our analysis set forth above. A slit has a particular shape, regardless of the shape of the corresponding tab, and we are unpersuaded that our analysis set forth above concerning the slit, and only the slit, is in error.

After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has shown that the limitations of claims 4 and 24 are taught or suggested by *Kato*.

7. *Secondary Considerations*

i. Law – Objective Indicia of Nonobviousness

Factual inquiries for an obviousness determination include secondary considerations based on objective evidence of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Notwithstanding what the teachings of the prior art would have suggested to one of ordinary skill in the art at the time of the invention, the totality of the evidence submitted, including objective evidence of non-obviousness, may lead to a conclusion that the challenged claims would not have been obvious to one of ordinary skill in the art. *In re Piasecki*, 745 F.2d 1468, 1471–72 (Fed.Cir.1984).

We note that it is not sufficient that a product or its use merely be within the scope of a claim in order for objective evidence of nonobviousness tied to that product to be given substantial weight. There must also be a causal relationship, termed a “nexus,” between the evidence and the claimed invention. *Merck & Co. v. Teva Pharm. USA, Inc.*, 395

F.3d 1364, 1376 (Fed. Cir. 2005). A nexus is required in order to establish that the evidence relied upon traces its basis to a novel element in the claim, not to something in the prior art. *Institut Pasteur & Universite Pierre Et Marie Curie v. Focarino*, 738 F.3d 1337, 1347 (Fed. Cir. 2013). Objective evidence that results from something that is not “both claimed and novel in the claim,” lacks a nexus to the merits of the invention. *In re Kao*, 639 F.3d 1057, 1068 (Fed. Cir. 2011).

All types of objective evidence of nonobviousness must be shown to have nexus. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995) (nexus generally); *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (commercial success); *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012) (copying); *Rambus Inc. v. Rea*, 731 F.3d 1248, 1256 (Fed. Cir. 2013) (long-felt need); *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1328 (Fed. Cir. 2008) (praise). The stronger the showing of nexus, the greater the weight accorded the objective evidence of nonobviousness. *See Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986). “Where the allegedly obvious patent claim is a combination of prior art elements, . . . the patent owner can show that it is the claimed combination as a whole that serves as a nexus for the objective evidence.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1330 (Fed. Cir. 2016) (citing *Rambus*, 731 F.3d at 1258). “[T]here is a presumption of nexus for objective considerations when the patentee shows that the asserted objective evidence is tied to a specific product and that product “is the invention disclosed and claimed in the patent.” *WBIP*, 829 F.3d at 1329. Secondary consideration evidence is accorded less weight for claims that are considerably broader than the

particular features in the merits of the claimed invention. *See ClassCo, Inc. v. Apple*, No. 2015-1853, slip op. at 12, --- F.3d ----, 2016 WL 5219886, at *5 (Fed. Circ. Sept. 22, 2016).

*ii. Patent Owner Assertions Concerning
Secondary Considerations*

Patent Owner asserts that even if all of the other factors weigh in favor of the obviousness of certain claims, that those factors are outweighed by Patent Owner's proffered evidence concerning objective indicia of non-obviousness, i.e., secondary considerations. PO Resp. 22–32 (citing Exs. 1001, 2007, 2008, 2026, 2028–30). Petitioner disagrees. Pet. Reply 18–25 (citing Exs. 1006, 1008, 1016, 1027, 2007, 2008, 2022, 2015).

iii. Nexus

Beginning with nexus, both Patent Owner and Petitioner effectively agree that in order to be considered to have a nexus with certain claims of the '078 patent, the evidence of secondary consideration must largely encompass three essential features: (1) a selectively closable end made of the end panels, (2) microwave interactive materials in the portable sleeve, and (3) the incorporation of an opening feature into the sleeve. PO Resp. 26 (citing Ex. 2008 ¶ 26). Regarding the third feature, Patent Owner asserts “the incorporation of an opening feature into the sleeve” is so that the sleeve can be easily opened for consumption by the user. PO Resp. 1, 24–27 (citing Ex. 2008 ¶¶ 15, 26, 28).

Petitioner asserts that all three features are set forth only in dependent claims 6, 14, 26, and 31. In particular, Petitioner asserts that the third feature, the opening feature, corresponds only to the “removable portion” recited in each of dependent claims 6, 14, 26, and 31. Pet. Reply 19;

Ex. 1001, Fig. 7A, 740. Patent Owner disagrees, asserting that “opening feature” is also set forth in certain language of independent claims 1, 12, 20, and 29, for example, the “opening” recited in independent claim 1.⁵

After evaluating both parties’ contentions, we discern that neither party credibly disputes that dependent claims 6, 14, 26, and 31 explicitly encompass all three sets of features. So, we determine that, at a minimum, Patent Owner’s assertions concerning secondary consideration have a nexus with, and, thus, are fully relevant to, at least dependent claims 6, 14, 26, and 31.

Furthermore, regardless of whether or not independent claims 1, 12, 20, and 29 encompass an “opening feature,” there can be no dispute that independent claims 1, 12, 20, and 29 are broader in scope than dependent claims 6, 14, 26, and 31. Accordingly, those independent claims have, at best, the same nexus as dependent claims 6, 14, 26, and 31. And as will be evident from our analysis below, it is unnecessary to determine further whether the nexus for those independent claims is commensurate with, or

⁵ Petitioner objected to Patent Owner’s characterizations as new arguments improperly introduced for the first time at oral argument. We acknowledge Petitioner’s objections, and in a vacuum may even be persuaded that they are correct, as the Patent Owner’s mapping on slide 70 is not set forth in any substantive paper. *See* PO Resp. 24–27, 31. Nevertheless, we determine the issue is moot, as we have found a nexus for dependent claim 6. Accordingly, even accepting Patent Owner’s position, independent claim 1, at best, would only have a nexus equivalent to dependent claim 6. Thus, as we evaluate the evidence of secondary considerations assuming there is nexus for at least one claim, it is irrelevant to our analysis whether it encompasses all claims.

lower than, the nexus for dependent claims 6, 14, 26, and 31. The same is true for the rest of dependent claims 2–4, 7–11, 13, 15–19, 21–24, 27, 28, and 32–33. *See ClassCo, Inc. v. Apple*, no. 2015-1853 slip op. at 12.

iv. Commercial Success

We next turn to evaluate the strength of Patent Owner’s evidence concerning commercial success. To that end, Patent Owner first asserts that Patent Owner, in 2005, designed an improved sleeve for “Hot Pocket” and “Lean Pocket” food items that corresponds substantially to Figure 7A, and by all accounts, appears to include all of the limitations set forth in dependent claim 6.⁶ PO Resp. 25–27 (citing Ex. 1001, Fig. 7A; Ex. 2007 ¶¶ 69–72; Ex. 2008 ¶¶ 26–33; Exs. 2026, 2029–2030). We are persuaded that Patent Owner’s assertion is correct.

We then discern that Patent Owner is supporting their contentions of commercial success with three separate factual assertions: (1) that Patent Owner provided these improved sleeves to Nestlé at an increased price; (2) that Patent Owner provided these improved sleeves to Nestlé under an exclusive supply agreement for an inordinately long period of time, i.e., seven years, as opposed to the typical 1–3 years; and (3) that upon introduction of these improved sleeves, the volume of sales of Patent Owner’s sleeves to Nestlé increased dramatically. We evaluate the weight to be accorded each of these factual assertions in turn.

Concerning (1) increased price, Patent Owner provides paragraphs 30–32 of Mr. Voyzey’s Declaration and Exhibits 2026, 2027, and 2028 in

⁶ Going forward, unless noted otherwise, we choose dependent claim 6 as representative of dependent claims 6, 14, 26, and 31.

support of this assertion. We agree with Patent Owner that there is some supporting evidence to support its assertion. In particular, paragraph 31 Mr. Voyzey's Declaration asserts that Nestle agreed to an approximately \$0.36 increase per one thousand units of the improved sleeve provided, an assertion supported by the notation at the bottom of Exhibit 2027 of "4/16/07, Added \$0.36/M to HP, LP CP, Bismark & Pot Pie for Roxanne Cost Recovery," where "HP" is an abbreviation for "Hot Pocket" and "LP" is an abbreviation for "Lean Pocket." Furthermore, Exhibit 2028 chronicles an increase in "Price (\$/k) on Jan 1st" for "Nestle sleeve shipment & pricing" from \$19.68 in 2006 to \$20.31 in 2007 and \$20.99 in 2008, providing general support for the notion that there were increased prices based on the introduction of the improved sleeve in 2007. *See also* Ex. 2008 ¶ 30 ("Even though GPI's new design that was developed from Project Roxanne resulted in packaging that cost more than the current Hot Pockets® design that GPI was then providing to Nestlé, Nestlé nevertheless agreed to purchase the new design from GPI at this increased price.").

We also note, however, that the weight to be afforded this assertion is discounted heavily by many factors. First, the proponent in Ex. 2008, Jeffrey D. Voyzey, has been a Director of Business Development of Patent Owner since 2003. Accordingly, as an employee of an interested party, his testimony is discounted somewhat. *See Finnigan Corp. v. Int'l Trade Comm'n*, 180 F.3d 1354, 1369 (Fed. Cir. 1999) ("[T]he level of interest of the testifying witness is an important consideration when such testimony is offered to corroborate another witness's testimony.").

Next, paragraph 31 of Mr. Voyzey's Declaration asserts "[t]his increased cost was considered by GPI, and I believe by Nestle, as fair, given

the increased costs of production for the new sleeve.” We acknowledge that the implication that Nestle was willing to bear *any* increased price for the features of the improved sleeve supports Patent Owner’s assertion. Nevertheless, if at least *some* of the increased price was due to increased production costs, that somewhat undercuts Patent Owner’s assertion that the increased price was due to the features of the improved sleeve.

Additionally, we discern that while the “HP” and “LP” abbreviations in Exhibit 2027 stand for “Hot Pockets” and “Lean Pockets,” respectively, the above notation reads “4/16/07, Added \$0.36/M to HP, LP CP, ***Bismark & Pot Pie*** for Roxanne Cost Recovery” (emphasis added), indicating that the increased price was for many products in addition to the improved sleeve for “Hot Pockets” and “Lean Pockets,” for example, “Bismark” and “Pot Pie.”⁷ Patent Owner does not provide any indication as to whether or not “Bismark” and “Pot Pie” are covered by dependent claim 6. Accordingly, if a price was uniformly increased for both products covered (“HP” and “LP”) and not covered (“Bismark” and “Pot Pie”) by dependent claim 6, that also undercuts somewhat Patent Owner’s assertion of that the increased price was due to the improved sleeve.

Finally, we note that there are many issues with regards to Exhibit 2028 that undercuts Patent Owner’s assertion. For example, since the improved sleeve was purportedly introduced sometime in 2007, the numbers for 2007 would presumably reflect some sales of both the former sleeve, as well as the improved sleeve covered by dependent claim 6. Yet, Patent

⁷ Patent Owner has not explained what “CP” stands for.

Owner has provided no explanation in that regard. Moreover, even if we assume that the entirety of the sleeves sold in 2007 were the improved sleeve, while the price increased \$0.63 between 2006 and 2007, the price increased \$0.68 between 2007 and 2008. Logically, if there was commercial success related to the improved sleeve, we would expect the increase between 2006 and 2007 to be higher than the increase between 2007 and 2008, absent some explanation, which was not provided by Patent Owner. Finally, Patent Owner has not explained whether the “Price (\$/k) on Jan 1st” is for the “Total Sleeves” or “Hot Pocket/Lean Pocket.” We discern that it is most likely that the figures are for the “Total Sleeves,” in which case the fact that the prices cover both the improved sleeve covered by dependent claim 6, as well as other sleeves, somewhat undercuts Patent Owner’s assertion concerning the increased price for the improved sleeve alone.

For these reasons, the weight to be accorded Patent Owner’s assertion’s concerning (1) increased price is discounted heavily.

Concerning (2) exclusive supply agreement for seven years, Patent Owner only provides, as supporting evidence, paragraph 33 of the Voyzey Declaration. As noted above, the testimony of Jeffrey D. Voyzey is discounted due to his relationship to Patent Owner. That, in conjunction with the lack of supporting documentary evidence for this assertion, for example, the supply agreement itself and other comparative supply agreements, undercuts heavily the weight to be accorded this assertion.

Concerning (3) increased sales, Patent Owner relies on paragraph 32 of the Voyzey Declaration and Exhibit 2028. Same as the above, the testimony of Jeffrey D. Voyzey is discounted due to his relationship to Patent Owner. Furthermore, for Exhibit 2028, we find that after hovering

around 700 million sleeves in sales, the introduction of the improved sleeve in 2007 resulted in a roughly 60 million unit increase in sales between 2006 and 2007, and a roughly 136 million unit increase in sales between 2007 and 2008. We agree that this supports Patent Owner's assertions that there were increased sales due to the improved sleeve.

Petitioner argues that Patent Owner's assertions concerning sales should be discounted, however, because Patent Owner did not control for the following other factors that could affect sales: expanding market; new supermarket retailers; product placement; changes to the food product; pricing; advertising; sales and promotion. Pet. Reply. 21. We agree that Patent Owner's assertions should be discounted somewhat for these reasons. In particular, information solely on numbers of units sold is generally insufficient to establish commercial success. *See In re Baxter Travenol Labs*, 952 F.2d 388, 392 (Fed. Cir. 1991); *see also In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 2012) (A patent owner must offer "proof that the sales [of the allegedly successful product] were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.").

Patent Owner and the relevant portions of Mr. Voyzey's Declaration also cite Exhibits 2018–2026. Mr. Voyzey indicates that Exhibits 2018–2020 support the assertion that Patent Owner continued to provide sleeve concepts to Nestle under Project Roxanne. Ex. 2008 ¶ 16. We agree; however, we are unclear as to the relevance of this assertion with respect to Patent Owner's assertions of commercial success. We discern the same concerning Exhibits 2021–2025, which appear to be documentation of information exchanged between Patent Owner and Nestle, with unclear links

to Patent Owner's assertions of commercial success. *See* Ex. 2008 ¶¶ 19–23 (citing Exs. 2021–2025).⁸

Accordingly, when we consider the above factors in the aggregate, namely, that the improved sleeve is embodied by dependent claim 6, the heavily discounted assertion that the improved sleeve resulted in an increased price, the heavily discounted assertion that the improved sleeve resulted in an inordinately long exclusivity agreement, and the moderately discounted assertion that the improved sleeve increased sales, we find that Patent Owner has provided moderately weak evidence of commercial success for dependent claim 6 of the '078 patent.

v. Failure of Others

Patent Owner asserts Nestlé's rejection of three design concepts by Nestlé's outside consultant Mr. Robert Schiffman illustrates the failure of others. PO Resp. 30–31 (citing Ex. 2008 ¶¶ 20–23, 25–31). Petitioner responds that one person's alleged failure is insufficient to support the finding of the failure of *others*. Pet. Reply 24 (citing *Panduit Corp v. Dennison Mfg. Co.*, 774 F.2d 1082, 1099 (Fed. Cir. 1985) (*rev'd on other grounds, Dennison Mfg. Co. v. Panduit, Corp.*, 475 U.S. 809 (1986))).

We are persuaded by Petitioner's assertions. An allegation of failure of others is not sufficient evidence of nonobviousness, unless it is shown that *widespread* efforts of skilled workers having knowledge of the prior art had failed to find a solution to the problem. *In re Allen*, 324 F.2d 993, 997

⁸ At best, Exhibits 2018–2025 articulate a multi-year business relationship between Patent Owner and Nestlé, which is already reflected in, and does not add appreciably to, the fact that there were many years of sales from Patent Owner to Nestle.

(CCPA 1963). Here, because Patent Owner has only shown the failure of *one* person's design concepts, and not the failure of "widespread efforts of skilled workers," we find that there is not even evidence to find *any* failure of others, discounted or otherwise.

vi. Long-Felt Need

Establishing long-felt need requires objective evidence that an art-recognized problem existed in the art for a long period of time without solution. In particular, the evidence must show that the need was a persistent one that was recognized by those of ordinary skill in the art. *See In re Gershon*, 372 F.2d 535, 539 (CCPA 1967)) ("[I]t goes without saying that there could not possibly be any evidence of either a long-felt need . . . for a solution to a problem of dubious existence or failure of others skilled in the art who unsuccessfully attempted to solve a problem of which they were not aware."). This factor is similar to that set forth above for "failure of others."

To that end, Patent Owner asserts that Nestlé had been searching for a sleeve with the following attributes since June of 2001: "an improved Hot Pockets® package that would have cost advantages over the Hot Pockets® packaging then in use, would be portable (that is, could be carried by the user), would include an opening feature to allow easy food consumption from the package, and would contain grease and other fluids from the food product." PO Resp. 31 (citing Ex. 2008 ¶¶ 13–15, 18, 26, 31; Ex. 2021); Ex. 2008 ¶ 15. Patent Owner asserts further that the need was met "once Graphic developed the sleeves that embody the claims of the '078 Patent." PO Resp. 31–32 (citing Ex. 2007 ¶ 72; Ex. 2008 ¶¶ 25–33; Ex. 2026).

As an initial matter, Petitioner asserts that Patent Owner only identifies Nestlé’s own needs, which were then communicated to Patent Owner, and that such needs identified by only Patent Owner are insufficient to support a finding of long-felt need. Pet. Reply 25. We agree. Generally, a need recognized by “others” is necessary to support a finding of long-felt need. *See In re Gershon*, 372 F.2d at 539 (“Since the alleged problem in this case was first recognized by appellants, and others apparently have not yet become aware of its existence, it goes without saying that there could not possibly be any evidence of . . . a long-felt need”)

Additionally, Petitioner asserts that even if there was a recognition of need, that it was not “long-felt” because any alleged need was short-lived, in that a solution was found relatively quickly. Pet. Reply 25. We agree. Viewing the evidence in a light most charitable to Patent Owner, any alleged need was identified no earlier than May of 2001 (Exhibit 1015), which was only a little over four years prior to the latest alleged solution set forth in Provisional Patent Application No. 60/748,638, filed Dec. 8, 2005, from which the ’078 Patent claims priority. Ex. 1001, 1:7–12. We are persuaded that four years is not “long-felt,” especially where microwave packaging has been in existence for decades. *See, e.g.*, Ex. 1015 (U.S. Patent No. 4,190,757, entitled “Microwave Heating Package and Method,” filed Jan. 19, 1978); Ex. 1019 (U.S. Patent No. 4,267,420, entitled “Packaged Food Item and Method for Achieving Microwave Browning Thereof,” filed Oct. 12, 1978).

Moreover, we are unpersuaded that the evidence indicates long-felt need, because the evidence is unclear as to when any actual needs were identified, and even when those needs were identified, their solutions

followed very close in time. More specifically, Patent Owner asserts that paragraph 15 of the Voyzey Declaration supports the assertion that Patent Owner identified the following needs by June of 2001: “an improved Hot Pockets® package that would have cost advantages over the Hot Pockets® packaging then in use, would be portable (that is, could be carried by the user), would include an opening feature to allow easy food consumption from the package, and would contain grease and other fluids from the food product.” Ex. 2008 ¶ 15 (citing Ex. 2016⁹). As set forth above, we discount somewhat the weight of Mr. Voyzey’s testimony because he is an interested party. Furthermore, Mr. Voyzey’s testimony is inadequate, because it does not provide a sufficient analysis of how Exhibit 2016 supports the assertion that Patent Owner identified the aforementioned needs by June of 2001.

More specifically, Exhibit 2016 is an “Interoffice Memo” containing a text under various headings. Presumably the content of some of these texts are meant to support Patent Owner’s assertions. All Patent Owner has provided, however, are blanket citations to Exhibit 2016 with no further explanation. *See, e.g.*, Ex. 2008 ¶ 15 (“The specific goals of Project Quantum set by Chef America (as explained in the memo dated June 12, 2001 from Corey Brower of Chef America to GPC, including to me, Ex. 201[6]) included an improved Hot Pockets® package that would have cost advantages over the Hot Pockets® packaging then in use, would be portable (that is, could be carried by the user), would include an opening feature to

⁹ Paragraph 15 actually cites Exhibit 2017, however, it also indicates that the exhibit is a “memo dated June 12, 2001 from Corey Brower of Chef America to GPC.” Ex. 2008 ¶ 15. The only exhibit meeting that description is Exhibit 2016, and not Exhibit 2017.

allow easy food consumption from the package, and would contain grease and other fluids from the food product.”). It is not the Board’s burden to go foraging through Patent Owner’s Exhibits, without any guidance, in an attempt to cobble together bits and pieces from those Exhibits that may perhaps support Patent Owner’s conclusory assertion.

Moreover, even when we do delve somewhat into Exhibit 2016, the first problem we discern is that by use of language such as “[b]elow are concepts discussed during 6/11 meeting,” it appears to be directed to results rather than needs. This is problematic for Patent Owner, as a result usually represents the end of a need, and by itself does not indicate the duration of a particular need, i.e., whether it was “long-felt.” To that end, we do acknowledge that Exhibit 2016 does appear to disclose some needs. For example, Exhibit 2016 discloses “[i]ncorporate tear strip into pillow pack package to enable consumer ease of access to entire sandwich.” Ex. 2016, 1. To be sure, an identified “need” appears to be “enable consumer ease of access to entire sandwich,” however, that “need” also comes with a result of “[i]ncorporate tear strip into pillow pack package.” Accordingly, Exhibit 2016, by itself, does not provide us with any indication as to whether the identified need pre-dated or was contemporaneous with the identified result, the former of which is the minimum necessary to show that the need was “long felt,” and Patent Owner has not provided any further analysis otherwise.

Indeed, we find that the evidence as a whole does not actually support a finding that any alleged needs were identified without solutions until the document entitled “Evaluation of Alternative Sleeve Designs for Hot Pockets: Project Roxanne” (Ex. 2026) was prepared on December 22, 2005,

which is two weeks *after* the filing of the provisional patent application. We are unpersuaded that a finding of “long-felt need” can be made when the identified need, without solutions, was not identified until after the effective filing date of the invention.

To that end, Patent Owner may be asserting that there was a long-felt need for the improved sleeve embodied by dependent claim 6, even if the specifics of that need could not be articulated until after the product was developed. Restated, Patent Owner appears to be asserting that “you didn’t know you needed it until you had it, and now can’t live without it” is sufficient to support a finding of long-felt need. We are unpersuaded that such circular logic is credible, and are unable to ascertain any basis for this position in any of the case law presented in this proceeding. Indeed, the case law cited by Patent Owner actually stands for the opposite proposition. PO Resp. 30–31 (*citing Perfect Web Techs., Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1332–33 (Fed. Cir. 2009) (finding that a long-felt but unmet need arises when there is “an *articulated identified problem* and evidence of efforts to solve that problem”) (internal quotations omitted; emphasis added).) Here, the vast majority of evidence indicates that any efforts to solve the identified problem or need were contemporaneous with the articulation of the problem or need itself.

In any case, when we consider the contents of Exhibit 2026, the document has many of the same deficiencies as set forth above with regards to Exhibit 2016. Specifically, Exhibit 2026 is not analyzed adequately by Patent Owner. For example, concerning “cost advantages,” Patent Owner has not identified, and we are unable to discern independently, any language in Exhibit 2026 concerning “cost advantages.” *See e.g.*, Ex. 2026, 9 (the

page is entitled “[b]enefit language,” but the benefits identified do not refer to anything having to do with costs).

Furthermore, Exhibit 2026 largely appears to identify results, and does not explain how they indicate any needs met by those results were “long felt.” Indeed, the only two “needs” that Mr. Voyzey testifies are actually identified in Exhibit 2026 are “(1) ease of access based on difficulty tearing the tab and (2) difficulty keeping the bottom closed.” Ex. 2008 ¶ 29. Yet, even for those needs, “GPI determined that a simple adjustment to the perforations resolved issue #1, and the tab feature added to the end flaps of the Sleeve K design resolved issue #2,” indicating at best that the need was short-lived, and not “long felt.” Ex. 2008 ¶ 29.

Additionally, Exhibit 2026, at best, discloses a plethora of unprioritized “needs” allegedly met by an improved sleeve covered by dependent claim 6. Patent Owner has not explained sufficiently, however, and we are unable to ascertain independently, the significance of the subset of alleged “needs” identified above by Mr. Voyzey, as compared to the plethora of “needs” identified in Exhibit 2026.¹⁰ Exhibits 2017 and 2021 suffer from many of the same deficiencies as set forth above with respect to Exhibits 2016 and 2026. We discern that, of all of these exhibits, Exhibit 2015, dated May 24, 2001, comes the closest to identifying “needs” prior to results. It too, however, suffers from a lack of analysis by Patent Owner, and does not adequately address “long felt,” especially in view of the fact

¹⁰ Paragraph 27 of Dr. Floros’ Declaration briefly analyzes Exhibit 2026, however, we do not discern that such analysis affects materially any of our determinations concerning Exhibit 2026 set forth herein.

that at least some of these needs would appear to have been met less than a month later on June 12, 2001 (Exhibit 2016).

In further support of its positions concerning long-felt need, Patent Owner cites paragraphs 13–15, 18, and 25–33 of Mr. Voyzey’s Declaration. We have considered those paragraphs, however, they largely mirror Patent Owner’s assertions set forth above and contain the same flaws. Furthermore, paragraph 26 of Mr. Voyzey’s Declaration asserts that the design ultimately commercialized by Nestlé are shown in Exhibits 2029 and 2030. We agree that those Exhibits adequately support Mr. Voyzey’s assertion. Yet, they are inapposite in that we are unable to discern how they support Patent Owner’s positions concerning long-felt need.

For these reasons, we determine that there is insufficient evidence to support any finding that there was a long-felt need for the invention embodied in dependent claim 6.

vii. Copying

Patent Owner asserts that Petitioner copied Patent Owner’s product by copying Patent Owner’s drawings of the product sleeve. Specifically, Patent Owner asserts that Nestlé sent product specifications, including Patent Owner’s drawings of the improved sleeve, to Petitioner when searching for a secondary supplier. Patent Owner asserts that Petitioner then used Patent Owner’s drawings, which allegedly embodies the claims of the ’078 patent, to manufacture Petitioner’s sleeves. PO Resp. 27–30 (citing Ex. 2007 ¶¶ 69–70; Ex. 2008 ¶ 34; Exs. 2042–2046).

Petitioner does not dispute that Petitioner copied Patent Owner’s improved sleeve design that corresponds to dependent claim 6. Instead, Petitioner asserts that in order to be considered copying for the purposes of

secondary considerations, a party must copy the novel features from a patent and be aware of the patent to copy the novel features of the claimed invention. Pet. Reply 22–24 (citing *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc* 699 F.3d 1340, 1352 (Fed. Cir. 2012)). To that end, Petitioner asserts that it was not aware of the '078 Patent at the time it copied the improved sleeve design, but merely filled an order according to Nestlé's specifications, and that once it became aware of the '078 patent, successfully designed around the improved sleeve design. Pet. Reply 22–24.

We are unpersuaded by Petitioner's assertion. We have reviewed *Transocean*, and are unpersuaded that it requires a party to have knowledge of the patent, in order to be considered copying for the purposes of secondary considerations. Instead,

copying requires the replication of a specific product. This may be demonstrated through internal documents, by direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica; or access to, and substantial similarity of the competing product to, the patented product (as opposed to the patent).

Iron Grip Barbell Co. v. USA Sports Inc., 392 F.3d 1317, 1325 (Fed. Cir. 2004) (internal citations omitted). Here, as Petitioner undeniably copied Patent Owner's improved sleeve design, provided to Petitioner by Nestlé, that corresponds to dependent claim 6, we find that Petitioner copied the claimed invention, at least with respect to dependent claim 6 and independent claim 1 from which dependent claim 6 depends.

Having said that, we acknowledge that copying is given less weight when the manufacturer had not expended great effort to develop its own

solution. *See Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 318 (Fed. Cir. 1985). No argument has been made, nor evidence presented, that Petitioner expended great effort to develop its own solution. We, thus, discount moderately the weight accorded to Petitioner's copying in our analysis of secondary considerations.

For these reasons, we find that Patent Owner has provided some evidence of copying for dependent claim 6 of the '078 patent.

viii. Overall Weighing of Relevant Factors Concerning Obviousness, Including Secondary Considerations

We now weigh Patent Owner's evidence of secondary consideration in conjunction with the other factors relevant to obviousness for dependent claim 6.¹¹ In summary, we find, for the reasons set forth above, that the paperboard sleeve of Kato discloses all of the limitations of dependent claim 6, with the exception of microwave energy interactive material. For that, we find that it would have been well within the abilities and knowledge of one of ordinary skill in the art, at the time of the claimed invention, to modify the paperboard sleeve of Kato to include the microwave energy interactive material of Clough in order to brown and crisp food. We find further that Petitioner has identified overwhelming evidence, both in Clough and other prior art, such as Winkelman, that the modification itself, as well as the rationale for the modification, were widely and well-known to one of ordinary skill in the art, at the time of the invention. Against the above

¹¹ For the purposes of expediency, we will focus our analysis only on dependent claim 6, with the understanding that all of claims 1–4, 7–24, 26–29, and 31–33 have a nexus with the evidence of secondary considerations equal to or less than that of dependent claim 6.

findings concerning Kato and Clough, we weigh the Patent Owner's evidence of secondary considerations, each of which we have analyzed above, and summarize as follows: (1) moderately weak evidence of commercial success; (2) no persuasive evidence of failure of others; (3) no persuasive evidence of long-felt need; and (4) some evidence of copying.

Overall, upon weighing the factors, we determine that the moderately weak evidence of commercial success and some evidence of copying is insufficient to outweigh our very strong finding that Kato, as modified by the on-point disclosures and rationales of Clough, accounts for every limitation of dependent claim 6. Furthermore, as dependent claim 6 represents the closest nexus between the evidence of secondary considerations and the claimed invention, we determine that a similar weighing for each of claims 1–4, 7–24, 26–29, and 31–33 results in the same conclusion.

For example, independent claims 20 and 29 each require the same additional modification to Kato that is different from those set forth above for dependent claim 6, and we acknowledge that the evidence supporting the additional modification is not as strong as that set forth above with respect to microwave energy interactive material. Patent Owner has not shown, however, and we are unable to ascertain independently, how the additional modifications set forth in independent claims 20 and 29 have any nexus to the evidence of secondary considerations closer than dependent claim 6. Accordingly, we determine that the lesser evidence in support of the additional modification is offset by a lesser nexus to the evidence of secondary considerations, resulting in the same conclusion that independent claims 20 and 29 are obvious over Kato and Clough for the reasons set forth

above, even when considered in conjunction with the evidence of secondary considerations.

Accordingly, for these reasons, we determine that claims 1–4, 6–24, 26–29, and 31–33 would have been obvious in view of the Kato and Clough, as discussed above.

8. *Conclusion*

For the foregoing reasons, on this record, we are persuaded that Petitioner has shown, by a preponderance of the evidence, that claims 1–4, 6–24, 26–29, and 31–33 would have been obvious in view of Kato and Clough. In addition to findings we make above in connection with our analysis of claims 1–4, 6–24, 26–29, and 31–33 as obvious in view Kato and Clough, we also adopt as our findings, unless indicated otherwise, Petitioner’s positions as to how Kato and Clough discloses each of the limitations of claims 1–4, 6–24, 26–29, and 31–33. We further adopt as our own Petitioner’s rationales for modifying Kato in view of Clough, as referenced above.

E. Claims 5, 25, and 30 as Unpatentable Over Kato, Clough, and Brown

Petitioner contends that claims 5, 25, and 30 are unpatentable over a combination of Kato, Clough, and Brown. Pet. 51–52 (citing Exs. 1003, 1005, Ex. 1009). Patent Owner disagrees. PO Resp. 39–41 (citing Exs. 1009, Ex. 2007). Petitioner replies. Pet. Reply 11–12 (citing Exs. 1003, 1009, 1022, 2007).

1. *Brown (Ex. 1009)*

Brown relates to a container in which foods having crusts, such as fruit and meat pies, may be shipped, displayed, stored, cooked, and served. Ex. 1009, 1:7–11. Figure 2 of Brown is set forth below.

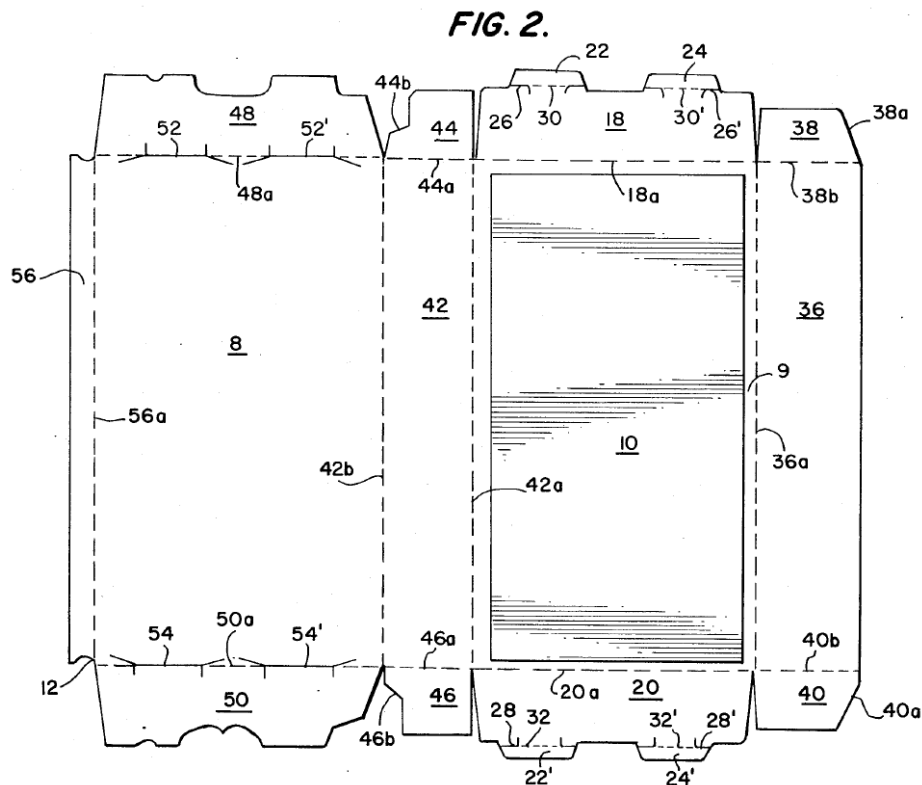


Figure 2 is a plan view of a paperboard blank.

2. *Dependent Claims 5 and 25 – Trapezoid Tab*

Dependent claim 5 recites “wherein the tab is substantially trapezoidal in shape.” Dependent claim 25 recites a similar limitation. Petitioner proposes modifying inserting piece 33 of Kato to be the shape of tabs 22, 24 of Brown “to facilitate easy insertion of the tab into the slit.” Pet. 52 (citing Ex. 1003 ¶¶ 226–229).

Patent Owner asserts that one of ordinary skill would not have modified Kato with features of the “more complex, multi-component system

for providing simultaneous one-sided browning and bulk heating” of Brown, because Kato is only directed to a hand held container for holding a prepared (i.e., ready-to-eat) food item. PO Resp. 40. Patent Owner’s assertions are unpersuasive for the same reasons as set forth above concerning similar assertions made with regards to the combination of Kato and Clough, and need not be repeated here.

Patent Owner asserts further that Petitioner has failed to provide a rationale underpinning for making the proffered modification, because the Petitioner does not indicate that inserting piece 33 of Kato is somehow deficient and in need of improvement. We disagree. As an initial matter, an obviousness analysis does not require an express realization in the reference to be modified that some disclosure therein is deficient in order to justify the modification. Again, as addressed above, such a framework would effectively eviscerate obviousness. Instead, all that is required is some articulated reasoning with adequate rationale underpinnings, within the reference to-be-modified itself or some other source, to make the proffered modification. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006); *see also KSR*, 550 U.S. at 418 (quoting Federal Circuit *Kahn* statement with approval).

To that end, Petitioner cites paragraphs 226–229 of Dr. Sands’ Declaration. Pet. 51–52. Specifically, Dr. Sands’ opines that “[a] tapered tab would allow the consumer to more easily push the tab into the slit. The tapered tab-slit feature has been an industry standard closure feature for folding cartons and other consumer paperboard packaging for decades and was commonly seen for consumer use on cereal box, cracker, chewing gum folding cartons that demand closing features,” and then cites Brown as support for these assertions. Ex. 1003 ¶¶ 227–229. We see no reason why

these statements can be characterized as anything other than “some articulated reasoning with adequate rationale underpinnings.”

Patent Owner then asserts that “the Petitioner fails to explain why substituting the tab of *Brown* [] would ‘facilitate easy insertion of the tab into the slit’ any more than the rectangular design of *Kato*.” PO Resp. 40. Petitioner responds that “according to Dr. Sand, ‘trapezoidal tab is ideal since it guides the tab into the slit when a consumer in the process of closing two end flaps may not have aligned the tab and slit exactly.’” Pet. Reply 12 (Ex. 1022 ¶ 39). We are persuaded that Petitioner’s reasoning and factual underpinnings are logical, accurate, and adequate.

Patent Owner asserts further that Petitioner does not account adequately for the interplay between the E-shaped slit of *Kato*, the rectangular-shaped tab of *Kato*, and the trapezoidal tab of *Brown*. PO Resp. 40-41 (citing Ex. 2007 ¶¶ 46, 60). We are unpersuaded because the test for obviousness is not bodily incorporation, but what “the combined teachings of those references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d at 425. To that end, we note that neither claims 5 and 25, nor the independent claims from which they respectively depend, recite an E-shaped slit.

3. *Dependent Claim 30*

In addition to “the tab is substantially trapezoidal in shape,” which was addressed above with respect to dependent claim 5, dependent claim 30 recites also “wherein the slit in the first end panel is substantially T-shaped.” Petitioner cites slit-state score 34 of *Kato* as corresponding to the aforementioned claim limitation. Patent Owner’s assertions, and our

analysis, are the same as set forth above for the same limitations recited in dependent claims 4 and 24, and, thus, need not be repeated here.

4. *Secondary Considerations*

Analogous to the reasoning set forth above with respect to secondary considerations and independent claims 20 and 29, even after weighing this ground of unpatentability with the evidence of secondary considerations, we conclude that Petitioner has shown sufficiently that dependent claims 5, 25, and 30 would have been obvious over a combination of Kato, Clough, and Brown.

4. *Conclusion*

After considering Petitioner's and Patent Owner's positions, as well as supporting evidence, including evidence of secondary considerations, we determine that, by a preponderance of the evidence, Petitioner has met its burden for showing that claims 5, 25 and 30 of the '078 Patent are unpatentable over the combination of Kato, Clough, and Brown. In addition to findings we make above in connection with our analysis of claims 5, 25 and 30 as obvious in view Kato, Clough, and Brown, we also adopt as our findings, unless indicated otherwise, Petitioner's positions as to how Kato, Clough, and Brown discloses each of the limitations of claims 5, 25 and 30. We further adopt as our own Petitioner's rationales for modifying Kato in view of Clough and Brown, as referenced above.

F. *Claims 34, 35, 37–42, 44–49, and 51–53 as Unpatentable Over Kato and Young*

Petitioner contends that claims 34, 35, 37–42, 44–49, and 51–53 are unpatentable over a combination of Kato and Young. Pet. 29–52, 56–58 (citing Exs. 1003, 1005, 1006, 1011, 1020). Patent Owner disagrees.

PO Resp. 41–47 (citing Exs. 1003, 1006, 2001, 2007, 2031). Claims 34, 39, 42, and 47 are independent. Petitioner replies. Pet. Reply 3–11 (citing Exs. 1002, 1022, 2007, 2022, 2031, 2033).

1. *Young (Ex. 1006)*

Young relates to microwave active susceptors suitable for use in packaging and preparation of microwave food products. Ex. 1006 ¶ 2. Figure 10J of Young is set forth below.

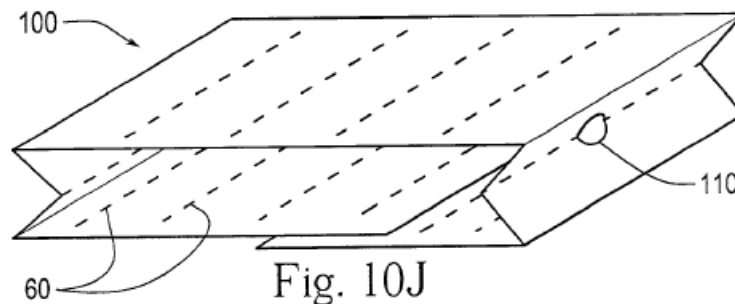


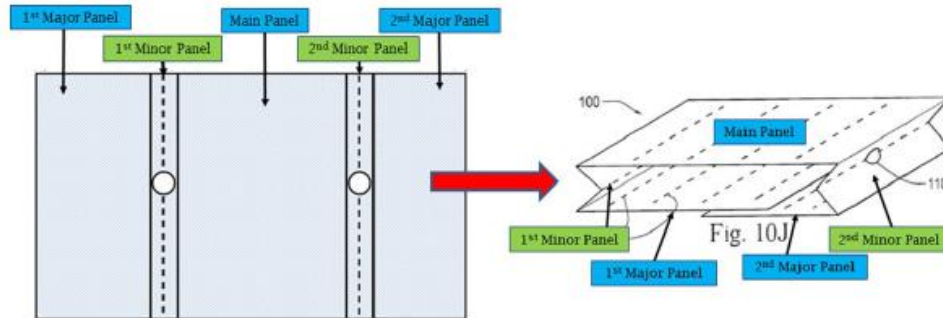
Figure 10J shows a package element formed from a susceptor material.

2. *Petitioner's Positions*

Petitioner asserts that the combination of Kato and Young teach or suggest each and every limitation of claims 34, 35, 37–42, 44–49, and 51–53. Using independent claim 34 as an example, Petitioner essentially performs the same mapping of panels from Kato as was performed for independent claim 1, replaces Clough with Young for the microwave energy interactive material, and further cites Young for disclosing that it was known to split the second main panel of Kato into a first major panel and a second major panel. For the rationale for splitting the main panel of Kato in view of Young, Petitioner asserts the following:

Regardless, and to the extent that *Kato* does not alone disclose a blank having two major panels that connect together

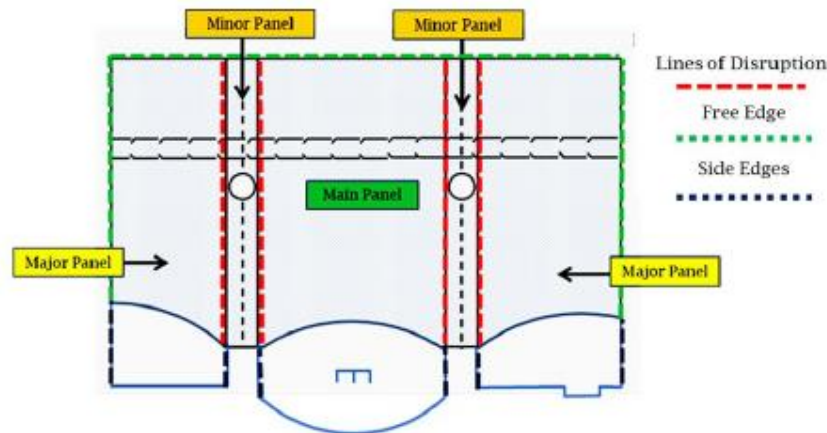
to form the main panel, modifying the Kato blank to have such a configuration would have been obvious to a POSA in view of *Young*. *Young* discloses the well-known usage in the art of combining partial panels to form a main panel. Ex. 1006, Fig. 10J, ¶ 0097. Below is a marked-up Figure 10J from *Young* showing the pair of major panels connected together to form the floor of the susceptor sleeve. Ex. 1006, Fig. 10J. The sleeve configuration of Figure 10J is nearly identical to that of Figure 4B of the '078 Patent. Ex. 1006, Fig. 10J. A layperson and particularly a POSA would easily see that the blank used to form the 3D sleeve in Figure 10J of *Young* would be the following (Ex. 1003, Sand Decl., ¶ 166):



Petitioner's annotated illustration of a blank used
to form the 3D sleeve in Figure 10J of *Young*

Pet. 33–34.

Hence, to the extent that *Kato* does not alone disclose a first major panel and a second major panel configured to form a main panel, such express disclosure is taught by *Young*. Ex. 1006. Moreover, *Young* teaches that the sleeve can include a lid and be a folding carton that a POSA would understand is readily adapted to have a common closing feature such as a tabslit on the base of the carton. Ex. 1006 at ¶ 0057, claim 27; Ex. 1003, Sand Decl., ¶¶ 164-165. A POSA would have found it obvious to combine the teachings of *Kato* and *Young* to form a blank as shown in Illustration 3 below, which is basically identical to the blank in Figure 4A of the '078 Patent (Ex. 1003, Sand Decl., ¶¶ 166-169).



Petitioner's annotated illustration of a combined blank in view of Kato and Young.

Pet. 35. Petitioner sets forth similar analyses for claims 35, 37–42, 44–49, and 51–53. Pet. 44–52, 56–58.

3. *Rationale to Modify Kato in view of Young to Meet the Limitations of Claims 34, 35, 37–42, 44–49, and 51–53*

Patent Owner asserts that Dr. Floros makes clear that modifying “the blank of Kato in view of Young to render certain claims of the ‘078 Patent obvious” would require seven (7) separate modifications, and that “[t]his level of modification – completely redesigning, reconstructing, and changing the purpose of Kato’s container or blank – cannot reasonably said to be ‘obvious.’” PO Resp. 44–47. As an initial matter, we are unpersuaded that modifying the “purpose” of Kato has any relevance for the same reasons as set forth above. In essence, any “process, machine, manufacture, or composition of matter”¹² can have many purposes, but so long as those purposes, and their attendant advantages and disadvantages, were known to one of ordinary skill, we are unpersuaded that they affect appreciably an

¹² 35 U.S.C. § 101.

obviousness analysis that is otherwise supported by “some articulated reasoning with some rational underpinning.” *KSR*, 550 U.S. at 418.

Furthermore, we are unclear as to why Petitioner was required to provide a rationale to “deconstruct the package [of Kato] to form a blank.” Indeed, we find that Figure 3 of Kato, cited explicitly by Petitioner, expressly discloses a blank. Pet. 30 (citing Ex. 1005).

Moreover, reliance on a large number of references (and, accordingly, a large number of modifications) in a ground of unpatentability does not, without more, weigh against the obviousness of the claimed invention. *In re Gorman*, 933 F.2d 982, 986 (Fed. Cir. 1991) (affirming a rejection of a detailed claim to a candy sucker shaped like a thumb on a stick based on *thirteen* prior art references). Instead, as noted above, the proper analysis is as to whether there is adequate articulated reasoning with adequate rational underpinning to support each modification. To that end, we address below Patent Owner’s alleged deficiencies with Petitioner’s proffered modifications. Furthermore, we note that unlike *In re Gorman*, the instant ground of unpatentability includes only two references, not seven or thirteen.

Patent Owner asserts that Young only vaguely mentions “adding end flaps” at paragraph 79. As an initial matter, we are unclear as to how something can be vaguely disclosed. Instead, Young expressly and unequivocally discloses “the sleeve has open ends or flaps to partially close the ends,” and Patent Owner has not explained sufficiently why one of ordinary skill would have considered that disclosure to be anything other than “end flaps.” And in any case, Patent Owner’s assertions are inapposite, as Kato, not Young, is cited for disclosing end flaps, so no “modification” is necessary. Pet. 40–41 (citing Ex. 1005).

Patent Owner asserts next that there is insufficient support for the modification to Kato of “cut the end flaps to form partial end flaps as recited in the ’078 Patent; and then, in view of ‘modified Young.’” As an initial matter, we note that Patent Owner does not provide any further analysis concerning this assertion, but, in any case, we disagree. Petitioner discusses extensively the rationale for modifying Kato to include partial panels to form a main panel. Pet. 31–36 (citing Ex. 1003, 1005, 1006). While we acknowledge that most of Petitioner’s discussion here is to the main panel, and not an “end flap,” Petitioner does expressly disclose partial end flaps in “Illustration 3” (Pet. 35), and so we are persuaded that Petitioner has articulated adequately an intent to have the rationale concerning partial main panels to also be applied to end flaps. To that end, we also determine that Petitioner has shown sufficiently that modifying Kato to include partial end flaps would have been known to and within the abilities of one of ordinary skill. Our analysis here is also applicable to Patent Owner’s similarly conclusory assertion concerning insufficient support for the modification to Kato of “reconfigure the panels of Kato to form first and second major panels and first and second partial end flaps.”

Patent Owner asserts additionally that there is insufficient support for the modification to Kato of “change the shape of each panel of the Kato blank to provide perpendicular edge configurations.” Patent Owner, however, does not provide any further analysis. We disagree with Patent Owner for the same reasons as set forth above with respect to our analysis of the “substantially equal side edges of end panels” required by independent claims 20 and 29, and we need not repeat that analysis here.

Patent Owner asserts further that there is insufficient support for the modification to Kato of “add apertures.”¹³ Patent Owner, however, does not provide any further analysis as to why Petitioner’s analysis on pages 50–51 of the Petition, which has express citations to underlying Exhibits 1003 and 1006, is deficient. We are persuaded that Petitioner provides adequate articulated reasoning with adequate rational underpinnings for the proffered modification.

Patent Owner asserts additionally that there is no rationale to modify Kato to include a microwave energy interactive material, as taught by Young, for essentially the same reasons set forth above for the same modification of Kato in view of Clough. Patent Owner’s assertions are unpersuasive for the same reasons as set forth above for the modification of Kato in view of Clough, and need not be repeated here.

Patent Owner asserts also that “Young is focused entirely on an absorbing layer that would be necessary to prevent alteration of the package or sogginess of the food caused by any liquids in the food (Ex. 1006 ¶ [0027]) and thus fails to provide any motivation to make such modifications. Ex. 2007 ¶¶ 47–48.” PO Resp. 47. Patent Owner’s assertions are misplaced, as we are unclear of the relevance of absorbing layers to any of the proffered modifications of Kato in view of Young.

4. *Independent Claims 34, 39, 42, and 47 –
Substantially Perpendicular Panels*

Independent claims 34, 39, 42, and 47 each recite a blank including panels “having a first dimension extending in a first direction and second

¹³ Of the claims addressed in this ground of unpatentability, only dependent claims 38, 41, 46, and 53 expressly recite “aperture.”

dimension extending in a second direction substantially perpendicular to first direction.”

Patent Owner asserts that Kato does not teach the limitation because “[t]he figures of *Kato* make clear, however, that the first and second dimension taught in *Kato* are not perpendicular. Ex. 2001, FIG. 3.” PO Resp. 42. In particular, Patent Owner asserts that the container of Kato “flares out” to allow easier inserting and access to the food item, and that such “flare outs” indicate the presence of dimensions that are not perpendicular. PO Resp. 41–42 (citing Ex. 2007 ¶ 61). As an initial matter, we note that the aforementioned claims recite “*substantially* perpendicular.” Patent Owner has not addressed why Kato’s “flared out” configuration could not be considered “*substantially* perpendicular.”

Moreover, Patent Owner’s assertions are flawed, as even if we were to agree that Kato does not disclose the aforementioned claim limitations, Patent Owner does not present any arguments against Petitioner’s obviousness assertions. *See* PO Resp. 41–43. To that end, we have considered, and are persuaded by, Petitioner’s assertion that

[t]o the extent that *Kato* does not illustrate panels extending in exactly perpendicular first and second directions, *Kato* nonetheless expressly discloses forming a “box-shaped container body 1” wherein “[t]he side peripheral wall 2 of the container body 1 is formed to be a rectangular cylinder in planar view.” Ex. 1005, ¶¶ 0011–0012, Figs. 1- 5. *Kato* further discloses that “dimensions of the container body 1 are designed by matching a croquette, which has common size as the bulky food F, and needless to say, the design can be changed according to the types and size of the bulky food F.” Ex. 1005 at ¶ 0014; *See also Id.* at ¶ 0007, ¶ 0011.

Pet. 30; *see also* Pet. Reply 16–17. After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we are persuaded that Petitioner has shown sufficiently that the aforementioned limitations of independent claims 34, 39, 42, and 47 are at least suggested by Kato.

5. *Independent Claims 39, 42, and 47 – Free Edge*

Independent claims 39, 42, and 47 each recite “the free edge of the first partial end panel is at least partially straight and extends substantially in the second direction.” Patent Owner asserts “Petitioner again improperly relies upon an end panel of *Kato* – not a *partial* end panel – in support of its analysis. Paper 4, pp. 40-42.” PO Resp. 43. Patent Owner asserts further that Young does not remedy this deficiency of Kato, because Young does not disclose end panels. PO Resp. 43–44 (citing Ex. 2007 ¶ 67). Our analysis is the same as set forth above with respect to Patent Owner’s assertion that there is insufficient support for the modification to Kato of “cut the end flaps to form partial end flaps as recited in the ’078 Patent; and then, in view of ‘modified Young,’” and need not be repeated here.

6. *Dependent Claim 49 – “T-shaped slit”*

Dependent claim 49 recites “substantially T-shaped slit.” Patent Owner asserts that Kato does not meet this claim limitation, and that Young does not remedy this deficiency. PO Resp. 44. Our analysis is the same as set forth above with respect to dependent claims 4 and 24, and need not be repeated here.

7. *Secondary Considerations*

Patent Owner has not identified, and we are unable to ascertain independently, any limitations of claims 35, 37–42, 44–49, and 51–53 that are remotely comparable to the “removable portion” recited in dependent

claim 6. Indeed, Patent Owner has not identified, and we are unable to ascertain independently, any limitations of claims 35, 37–42, 44–49, and 51–53 that are comparable to even the broader “opening” limitation recited in independent claim 1. As set forth above, both Patent Owner and Petitioner effectively agree that in order to be considered to have a nexus with certain claims of the ’078 patent, the evidence of secondary consideration must largely encompass three essential features: (1) a selectively closable end made of the end panels, (2) microwave interactive materials in the portable sleeve, and (3) the incorporation of an opening feature into the sleeve. By failing to show that any of claims 35, 37–42, 44–49, and 51–53 include the third feature, however, Patent Owner has not met their burden of showing sufficiently that there is a nexus between the evidence of secondary considerations and claims 35, 37–42, 44–49, and 51–53.

Even if we were to determine, however, that, despite the absence of the third feature, there is a discounted nexus between claims 35, 37–42, 44–49, and 51–53 and the evidence of secondary considerations, we are unpersuaded that such evidence would outweigh our determination that Petitioner’s proffered combination of Kato and Young accounts adequately for every limitation of claims 35, 37–42, 44–49, and 51–53. Put simply, given that we determined above that the evidence of secondary considerations did not outweigh Petitioner’s assertions and evidence against a claim with a clear nexus to all three essential features, we are unpersuaded that claims 35, 37–42, 44–48, and 51–53, each of which have a much more tenuous nexus due to the absence of the third feature, outweighs Petitioner’s proffered combination of Kato and Young with respect to claims 35, 37–42, 44–48, and 51–53. While we acknowledge that Petitioner’s proffered

combination of Kato and Young involves more modifications than Kato and Clough, given the reduced nexus, our ultimate determination of obviousness is unchanged.

Accordingly, for these reasons, we determine that claims 35, 37–42, 44–48, and 51–53 are obvious in view of Kato and Young, as discussed above.

8. *Conclusion*

After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has shown that claims 34, 35, 37–42, 44–49, and 51–53 are unpatentable under 35 U.S.C. § 103(a) as obvious over Kato and Young. In addition to findings we make above in connection with our analysis of claims 34, 35, 37–42, 44–49, and 51–53 as obvious in view Kato and Young, we also adopt as our findings, unless indicated otherwise, Petitioner’s positions as to how Kato and Young discloses each of the limitations of claims 34, 35, 37–42, 44–49, and 51–53. We further adopt as our own Petitioner’s rationales for modifying Kato in view of Young, as referenced above.

G. Dependent Claims 36, 43, and 50 as Unpatentable over Kato, Young, and Brown

Dependent claims 36, 43, and 50 each recite a tab, projection, or locking feature that is “substantially trapezoidal in shape.” Petitioner contends that these claims are unpatentable over a combination of Kato, Young, and Brown. Pet. 51–52 (citing Exs. 1003, 1005, 1009). Patent Owner disagrees. PO Resp. 47–48 (citing Exs. 1003, 1009, 2007). Petitioner replies. Pet. Reply 11–12 (citing Exs. 1003, 1009, 1022, 2007).

Patent Owner makes the same assertions as set forth above for dependent claims 5 and 25. Patent Owner assertions are equally unpersuasive for the same reasons discussed above, and need not be repeated here.

After considering Petitioner's and Patent Owner's positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has shown that claims 36, 43, and 50 are unpatentable under 35 U.S.C. § 103(a) as obvious over Kato, Young, and Brown. In addition to findings we make above in connection with our analysis of claims 36, 43, and 50 as obvious in view Kato, Young, and Brown, we also adopt as our findings, unless indicated otherwise, Petitioner's positions as to how Kato, Young and Brown discloses each of the limitations of claims 36, 43, and 50. We further adopt as our own Petitioner's rationales for modifying Kato in view of Young and Brown, as referenced above.

H. Claims 34, 35, 37–42, 44–49, and 51–53 as Unpatentable over Kato and Winkelman

Petitioner contends that claims 34, 35, 37–42, 44–49, and 51–53 are unpatentable over a combination of Kato and Winkelman. Pet. 29–33, 36–52, 56–58 (citing Exs. 1003, 1005, 1007). Patent Owner disagrees. PO Resp.44–60 (citing Exs. 1003, 1007, 2048).

1. Winkelman (Ex. 1007)

Winkelman relates to containers suitable for heating food items in a microwave oven, particularly food items that require surface browning and crisping, and containers that allow the food to be baked and/or reheated in the microwave for convenient consumption. Ex. 1007 ¶ 1. Figure 6 of Winkelman is set forth below.

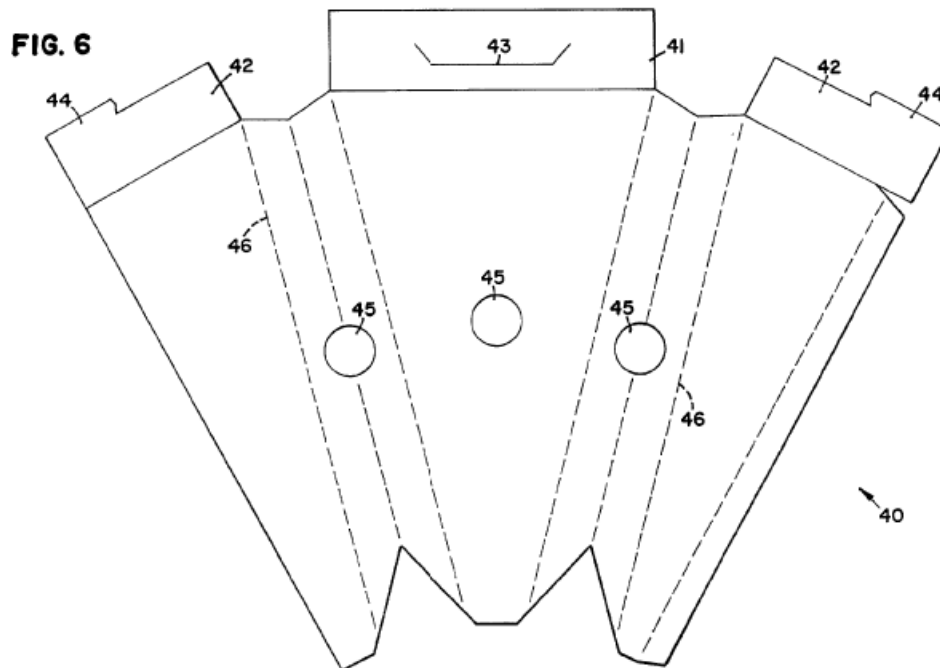


Figure 6 is a top plan view of a flat, unfolded container.

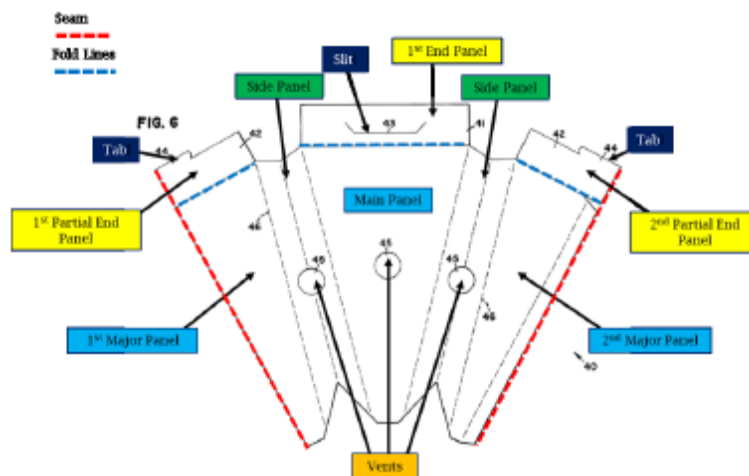
2. *Petitioner's Positions*

Petitioner asserts that the combination of Kato and Winkelman teach or suggest each and every limitation of claims 34, 35, 37–42, 44–49, and 51–53. Using independent claim 34 as an example, Petitioner essentially performs the same mapping of panels from Kato as was performed for independent claim 1, replaces Clough with Winkelman for the microwave energy interactive material, and further cites Winkelman for disclosing that it was known to split the second main panel of Kato into a first major panel and a second major panel. For the rationale for splitting the main panel of Kato in view of Winkelman, Petitioner asserts the following:

To the extent that Kato and Young do not disclose a blank having a first major panel and a second major panel configured to form a main panel, such express disclosure is taught by Winkelman. Ex. 1007, Fig. 6; Ex. 1003, Sand Decl., ¶¶ 170-171.

Winkelman expressly shows a blank having a first major panel (94b) and a second major panel (94a) to form a floor for a susceptor sleeve. Ex. 1007, ¶ 0040, 0043, Figs. 1, 6, 7, 8; Ex. 1003, Sand Decl., ¶¶ 170-171. While the blank and sleeve are shown in a triangular configuration, Winkelman contemplates that “[t]he envelope can be a rectangular-shaped envelope that can enclose a rectangular food product.” Ex. 1007, ¶ 0034. A POSA who wanted to use Kato to heat food in a microwave would be motivated to look at using the pair of major panels of Winkelman to form the floor of the susceptor sleeve to increase the heating of the food item. Ex. 1003, Sand Decl., ¶¶ 170-171. Below is a marked-up Figure 6 from Winkelman identifying the first and second major panels along with other similar claimed features in the ’078 Patent:

Pet. 36.



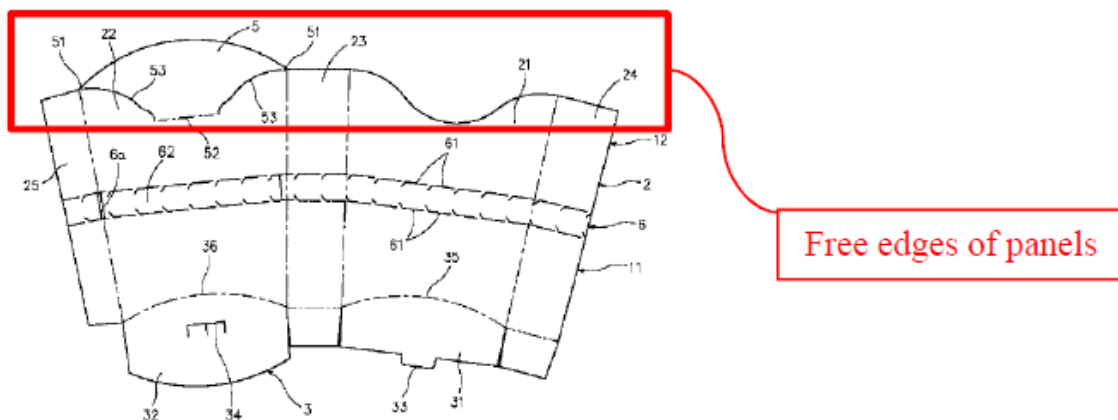
Petitioner’s annotated illustration of Figure 6 of Winkleman, which is a top plan view of a flat unfolded container.

Pet. 37. Petitioner sets forth similar analyses for claims 35, 37–42, 44–49, and 51–53. Pet. 44–52, 56–58.

2. *Independent Claims 34, 39, 42, and 47 –
Free Edge of Blank in Second Direction*

Independent claims 34, 39, 42, and 47 recite “the free edge of each the main panel, first minor panel, second minor panel, first major panel, and

second major panel collectively define a free edge of the blank extending in the second direction.” Patent Owner asserts Kato’s Figure 3 does not disclose the recited “free edge of the blank *extending in the second direction*,” because Kato instead teaches a free edge of the blank *extends in multiple directions*. PO Resp. 49–50. Patent Owner provides an annotated drawing of Kato’s Figure 3 to illustrate its assertion, as shown below:



Patent Owner annotated drawing of Kato’s Figure 3, which is a material expansion plan of a personal meal container.

PO Resp. 50 (citing Ex. 2001, Fig. 3; Ex. 2007 ¶ 65). Patent Owner asserts also that Winkelman does not remedy the aforementioned deficiency of Kato, because Winkelman’s Figure 6 also shows a free edge with angled edges extending in multiple directions, and in any case, that Petitioner did not rely on Winkelman in this manner. PO Resp. 51–52. Petitioner replied. Pet. Reply 17–18. We agree with Patent Owner, and their expert Dr. Floros, that neither Kato nor Winkelman expressly disclose the aforementioned claim limitation.

Nevertheless, Patent Owner’s assertion is inapposite because Petitioner also presents an obviousness position with respect to the

aforementioned claim limitation. More specifically, the Petitioner asserts the following concerning the aforementioned claim limitation:

Claim 34 further requires “a free edge” of the panels to define a free edge of the blank extending in the second direction. Ex. 1001, 26:47-53. Kato, Sigel and Young all disclose where the panels each have a free edge extending in a second direction, i.e., laterally, that collectively define a free edge of the blank extending in the second direction. Ex. 1005, Fig. 3; Ex. 1010, Fig. 7; Ex. 1006, Fig. 10J; Ex. 1003, Sand Decl., ¶¶ 187–188; *See also* Illustration 3 on page 35 of the Petition.

Pet. 39–40. Here, the Petition refers to paragraph 188 of Dr. Sands’ Declaration, which reads as follows:

Using a free edge of a blank extending in the second direction is well-known and obvious to a POSA to form an opening having a straight end. Kato also discloses a free edge extending in the second direction to form the opening though the opening is not exactly a straight opening. Ex. 1005, Fig. 3. ***It would have been obvious to a POSA to modify Kato to have a free edge extending solely in a second direction to form an opening with a straight end which would be easier and cheaper to design and manufacture.***

Ex. 1003 ¶ 188 (emphasis added). Patent Owner does not address this modification. We have considered Petitioner’s assertions, and are persuaded that they are adequately articulated and supported by sufficient rational underpinnings.¹⁴

¹⁴ We note that other portions of the Petition and cited evidence appear to support Petitioner’s assertion that modifying a free edge to extend solely in a second direction would have been obvious. *See* Pet. 30, 36-37 (citing Ex. 1005 ¶¶ 7, 11–12, 14, 34, Figs. 1–5); Ex. 1022 ¶ 66 (citing Ex. 2007 ¶ 51).

3. *Independent Claims 34, 39, 42, and 47 –
Substantially Perpendicular Panels*

Independent claims 34, 39, 42, and 47 each recite a blank including panels “having a first dimension extending in a first direction and second dimension extending in a second direction substantially perpendicular to first direction.” Patent Owner asserts this limitation is not taught for essentially the same reasons discussed above regarding the same limitation and the combination of Kato and Young. PO Resp. 52–53 (citing PO Resp. 41–43). Our analysis is the same as that set forth above for the ground of unpatentability based on Kato and Young, and need not be repeated here.

4. *Independent Claims 42 and 47 –
Substantially Equal Side Edges of End Panels*

Independent claims 42 and 47 each recite that “the side edges of the end panel, the side edges of the first partial end panel, and the side edges of the second partial end panel have a substantially equal second dimension.” Patent Owner asserts this limitation is not taught for essentially the same reasons discussed above regarding the same limitation recited in independent claims 20 and 29, and the combination of Kato and Clough. PO Resp. 53–54 (citing PO Resp. 32–34). Our analysis is the same as that set forth above for the ground of unpatentability based on Kato and Clough, and need not be repeated here.

5. *Rationale to Modify Kato in view of Winkelman to Meet the
Limitations of Claims 34, 35, 37–42, 44–49, and 51–53*

Patent Owner asserts that Petitioner has not provided a sufficient rationale to modify Kato to include microwave energy interactive materials for heating, as taught by Winkelman, for essentially the same reasons as set forth above with respect to the proposed modification of Kato in view of

Clough. PO Resp. 54–55 (citing PO Resp. 35–39). Our analysis is the same as that set forth above for the ground of unpatentability based on Kato and Clough, and need not be repeated here.

6. *Secondary Considerations*

The parties assertions concerning, our analysis of, the evidence of secondary considerations is the same as that set forth above for the ground of unpatentability based on Kato and Young, and need not be repeated here.

7. *Conclusion*

After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we determine that, by a preponderance of the evidence, Petitioner has shown that claims 34, 35, 37–42, 44–49, and 51–53 are unpatentable under 35 U.S.C. § 103(a) as obvious over Kato and Winkelman. In addition to findings we make above in connection with our analysis of claims 34, 35, 37–42, 44–49, and 51–53 as obvious in view Kato and Winkelman, we also adopt as our findings, unless indicated otherwise, Petitioner’s positions as to how Kato and Winkelman discloses each of the limitations of claims 34, 35, 37–42, 44–49, and 51–53. We further adopt as our own Petitioner’s rationales for modifying Kato in view of Winkelman, as referenced above.

I. *Independent Claims 1, 12, 20, 29, 34, 39, 42, and 47 as Unpatentable over Sigel and Kato*

Petitioner contends that Independent claims 1, 12, 20, 29, 34, 39, 42, and 47 are unpatentable over a combination over Sigel and Kato. Pet. 9–49 (citing Exs. 1001, 1003, 1005, 1010, 1018). Patent Owner disagrees. PO Resp. 55–60 (citing Exs. 1010, 2007, 2031). Petitioner replies. Pet. Reply. 2, 7–9 (citing Exs. 1003, 1010, 1022).

1. *Sigel (Ex. 1010)*

Sigel relates to a food container that can accommodate a desire to be able to heat food items in a microwave without having to remove the food item from its individual packaging container. Ex. 1010 ¶¶ 2, 5. Figure 7 of Sigel is set forth below.

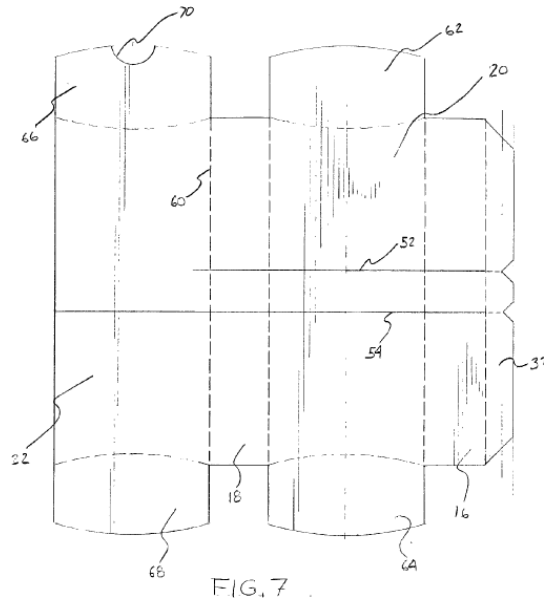


Figure 7 is a plan view of a handheld sandwich package.

Sigel discloses packaging structure 10 including sides 16, 18, 20, 22, and end flaps 62, 64, 66, 68. Ex. 1010 ¶¶ 20, 26. Packaging structure 10 may be heated in a microwave. Ex. 1010 ¶ 29.

3. *“Microwave Energy Interactive Material”*

Independent claims 1, 12, 20, 29, 34, 39, 42, and 47 each recite “microwave energy interactive material.” Petitioner acknowledges that neither Kato nor Sigel expressly discloses “microwave energy interactive materials,” and instead asserts that one of ordinary skill would have modified Sigel to include microwave energy interactive material for facilitating browning and crisping. For evidentiary support concerning this

ground of unpatentability, Petitioner solely relies on the testimony of Dr. Sands. Pet. 13–16 (citing Ex 1003 ¶¶ 20–29, 106–114, 126–128). More specifically, Petitioner asserts the following:

Similar to *Kato*, *Sigel* does not expressly disclose the usage of microwave interactive material on at least one of the panels. However, *Sigel* discusses using a microwave to heat the food product and the requirement that the paperboard material be “capable of withstanding exposure to microwave radiation, heat, steam, and hot water during microwave cooking of the food product.” Ex. 1010, ¶¶ 0005, 0025, 0029. *Sigel*, similar to *Kato*, would have been known by a POSA to be useful for heating a food product in a microwave and a *POSA would have known the benefits of including microwave interactive material on at least one panel of the sleeve for facilitating browning and crisping of the food product within as discussed above with respect to Kato*. Ex. 1003, Sand Decl., ¶¶ 126–128. It would have been common knowledge and therefore obvious to a POSA to add microwave interactive material to the interior surface of *Sigel*. *Id.* at ¶ 126–129.

Pet. 16 (emphasis added). Of the various paragraphs of Dr. Sands’ Declaration cited for evidentiary support by Petitioner, we determine that the following is most pertinent:

The exemplified food product in *Sigel* is a “wrap sandwich” which may or may not be desirable to brown and crisp the exterior surface. Ex. 1010, ¶¶ 0002, 0004, 0020, 0033. However, *Sigel* specifically discloses that “[i]t is not necessary that the food item be a wrap sandwich or even have a shape similar to the wrap sandwich . . . it is contemplated that other food items can be used with the present invention.” Ex. 1010, ¶ 0033. *A POSA would contemplate using Sigel to heat a food product in a microwave where it was desirable to brown and crisp the food product, e.g., a croquette as disclosed in Kato*. Hence, a POSA would find it obvious in view of general knowledge to add microwave interactive material to the interior surface of the package in *Sigel*.

Ex 1003 ¶ 127 (emphasis added). Dr. Sands’ testimony further reads: “Sigel expressly discloses the usage of the packaging in a microwave which would have led a POSA to modify Sigel to use microwave interactive material.”

Ex 1003 ¶ 128.

Patent Owner asserts that Dr. Sands’ testimony is deficient, because Dr. Sands does not provide a proper evidentiary basis for “microwave energy interactive material.” We agree. The only evidentiary basis for the aforementioned claim limitation, for this ground of unpatentability, identified by Dr. Sands’ as being expressly disclosed in either Sigel or Kato, is the disclosure of microwaving a food item in Sigel (Ex. 1010 ¶¶ 5–7, 25, 29), and a croquette disposed in the container body of Kato. Ex. 1005 ¶¶ 4, 14. From just that general desire to microwave a food item and a separate disclosure of a croquette, Dr. Sands extrapolates that one of ordinary skill would want to brown and crisp the croquette in the microwave, and from that extrapolation, Dr. Sands concludes that one of ordinary skill would have modified Sigel to include “microwave energy interactive material” to effect that browning and crisping. We agree with Patent Owner that such a chain of extrapolations from the mere disclosures of microwaving a food item and a separate disclosure of a croquette is impermissible hindsight, and, thus, not credible. In particular, we agree with Patent Owner that Petitioner has not explained adequately how such disclosures would have indicated to one of ordinary skill in the art the addition of “microwave energy interactive material” to the packaging of Sigel.

3. *Conclusion*

After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we determine that Petitioner has not met its

burden of showing, by a preponderance of the evidence, that claims 1, 12, 20, 29, 34, 39, 42, and 47 are unpatentable under 35 U.S.C. § 103(a) as obvious over Kato and Sigel.

J. Petitioner's Motion to Exclude

Petitioner urges the Board to exclude certain portions of Mr. Voyzey's Declaration (Ex. 2008 ¶¶ 14-24, 27-30, 31-33) and Dr. Floros Declaration (Ex. 2007 ¶ 72) and certain accompanying Exhibits references in those Declarations (Exs. 2015-2018, 2021-2024, 2026-2028) under Fed. R. Evid. 602, 701, 801, 802, and 901. Mot. 2-15. Patent Owner disagrees. Mot. Opp. 2-15. Petitioner replies. Mot. Reply 1-5.

At oral argument, Petitioner indicated that they were not challenging any of the aforementioned Exhibits based on authentication (Tr. 77:17-80), and upon considering Petitioner's assertions, they appear to go more to weight. To that end, we expressly note that the panel has taken into account Petitioner's assertions in determining the weight to be accorded each of the aforementioned Exhibits. Furthermore, the aforementioned testimony and Exhibits are almost exclusively directed to Patent Owner's assertions concerning secondary considerations. To that end, we note that even when all of the challenged testimony and evidence is considered, for the reasons set forth above, we determine that Petitioner prevails on the grounds for which the evidence of secondary considerations are relevant. Accordingly, on these facts, Petitioner's Motion to Exclude is *denied*.

III. CONCLUSION

Petitioner has demonstrated, by a preponderance of the evidence, that claims 1–53 of the '078 Patent are unpatentable. Petitioner's Motion to Exclude is *denied*.

This Final Written Decision discusses or cites information that is the subject of motions to seal. Accordingly, we have entered this Decision in the Board's E2E system as "Board and Parties Only." If either Party believes that any portion of this Decision should be maintained under seal, the Party must file, within fifteen (15) business days from the entry of the Decision, a motion to seal portions of the Decision. The motion must include a proposed redacted version of the Decision, accompanied by an explanation as to why good cause exists to maintain under seal *each redacted portion*. In the absence of a motion to seal by the specified deadline, the full version of this Decision will become public. Any opposition to a motion must be filed within ten (10) business days from the date of entry of the motion to seal; no reply to an opposition is authorized. For the sealed Exhibits, the Parties should follow the guidance related to 37 C.F.R. § 42.56. *See* Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (Aug. 14, 2012).

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–53 of the '078 Patent are held unpatentable;

FURTHER ORDERED that Petitioner's Motion to Exclude is *denied*;

and

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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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