

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STRUCTURAL WRAP, LLC,
Petitioner,

v.

SYSTEM STORMSEAL PTY LTD,
STORMSEAL USA, LLC,
Patent Owner.

IPR2024-00084
Patent 11,168,484B2

Before DONNA M. PRAISS, KRISTINA M. KALAN, and
JULIA HEANEY, *Administrative Patent Judges*.

PRAISS, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Structural Wrap, LLC (“Petitioner”) filed a Petition requesting inter partes review of claims 1–3 of U.S. Patent No. 11,168,484 B2 (Ex. 1001, “the ’484 patent”). Paper 2 (“Pet.”). System Stormseal Pty Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

To institute *inter partes* review, we must determine that the information presented in the Petition shows “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons discussed below, after considering the parties’ submissions and the evidence of record, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing with respect to at least one claim of the ’484 patent, and we institute *inter partes* review of all claims and all grounds asserted in the Petition.¹

A. Related Proceedings

The parties identify the following related court proceedings:

System Stormseal Pty Ltd. v. American Builders & Contractors Supply Co. d/b/a ABC Supply Co., Case No. 1:22-cv-23523 (S.D. Fla.) (*see* Dkt. 6, 9 (dismissed before service));

Stormseal USA, LLC and System Stormseal Pty Ltd v. ABC Supply Co., Mule-Hide Products Co., and Structural Wrap, LLC, Case No. 9:22-cv-81726-AHS (S.D. Fla.) (“the Florida Litigation”); and

¹ *Guidance on the Impact of SAS on AIA Trial Proceedings* (Apr. 26, 2018), <https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial>; *see also SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018).

Stormseal USA, LLC and System Stormseal Pty Ltd. v. SRS Distribution Inc., Case No. 2:23-cv-00391-JRG (E.D. Tex.) (“the Texas Litigation”).

Pet. 18–19; Paper 4, 1 (Patent Owner’s Mandatory Notices).

B. Real Parties-in-Interest

Petitioner identifies Structural Wrap, LLC as the real party in interest. Pet. 18. Patent Owner identifies System Stormseal Pty Ltd. as the real party in interest and separately identifies Stormseal USA, LLC as “the exclusive licensee” of the ’484 patent. Paper 4, 1.

C. The ’484 Patent

The ’484 patent is titled “Roof and Wall Cover System” and issued on Nov. 9, 2021. Ex. 1001, code (45), (54). The ’484 patent “relates to protective covering of roofs and walls of a building and, more particularly, to the covering of damaged or under construction roofs, as well as the covering of walls of buildings.” *Id.* at 1:15–18. The ’484 patent discloses a “roof cover system” that provides emergency temporary repair by applying a film over a portion of a roof which has sustained damage. *Id.* at 6:16–19. The ’484 patent depicts a heat-shrinkable film 18 applied to a damaged tiled roof 10 in Figure 2, which is reproduced below.

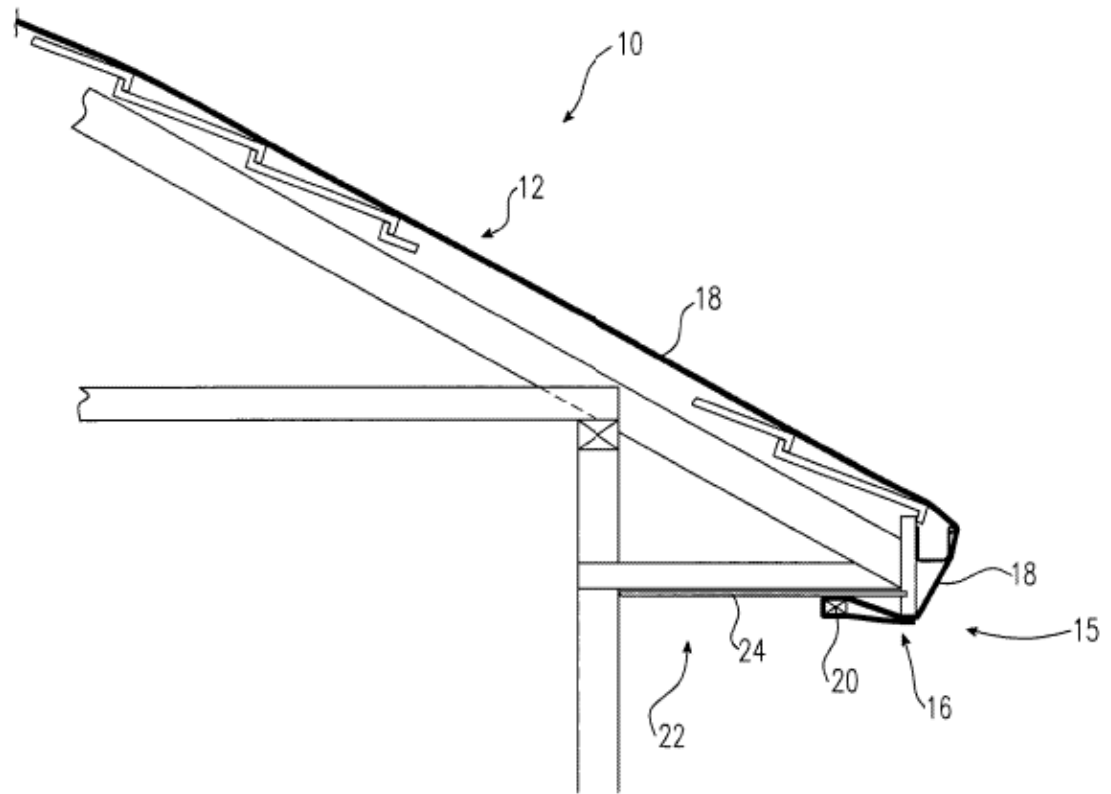


Fig. 2

Figure 2 above shows a side section of roof 10 having tiles 12, some of which are missing, and heat-shrinkable film 18 applied to cover the roof and mechanically attached to an edge of the roof. *Id.* at 5:41–43, 6:11–14.

The '484 patent describes film 18 cut to one or more lengths sufficient to extend from one edge of the roof to an opposite edge. *Id.* at 6:27–28. A trailing edge of a length of film is disclosed as mechanically attached at first edge 16 of roof 10. *Id.* at 6:28–30. Specifically, the '484 patent describes batten 20 mechanically fixed to underside 22 of eaves 24 at first edge 16 of roof 10; trailing edge 15 of film 18 is wrapped once around a length of the batten. *Id.* at 6:30–35. The leading edge of the film is passed over the roof to the opposite edge of the roof (not shown) and the leading edge secured to the

opposite side eaves in similar manner. *Id.* at 6:36–38. Next, the '484 patent describes applying heat to the film at the underside of eaves 24 with a heat gun (not shown) to cause film 18 to shrink securely around the batten and the undersides of the eaves. *Id.* at 6:43–46. The '484 patent further describes using an extension arm to apply heat to the entire length of film 18 stretched over the roof surface to tightly conform to the surface. *Id.* at 6:46–49.

D. Illustrative Claims

Petitioner challenges claims 1–3 of the '484 patent, which constitute all of the claims in the '484 patent. Each of the claims is independent.

Claim 1 is illustrative and reproduced below

[1.pre] A method of providing covers over at least a portion of a roof of a storm damaged built structure comprising the steps of:

[1.a] applying a sheet of heat shrinkable film over the portion of the roof, the sheet having a leading edge and a trailing edge and being a film of low density polyethylene including shrinking resins;

[1.b] wrapping portions of the leading edge around a first batten and attaching the first batten to an underside of a first eave or to a fascia of the built structure;

[1.c] wrapping portions of the trailing edge around a second batten and attaching the second batten to an underside of a second eave or to the fascia of the built structure at a location different than the first batten; and

[1.d] heating the sheet of heat shrinkable film to bring the film into conformity with the portion of the roof, wherein said heating step shrinks the sheet of film tight against the built structure to cover over the portion of the roof.

Ex. 1001, 10:10–28 (numbering added as broken down in the Petition).

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability.

Ground	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	1	103	Crook, ² Kelly, ³ Inzeo, ⁴ Best ⁵
2	1	103	Crook, Kelly, Inzeo, Best, Vanderzee ⁶
3	1	103	Crook, Kelly, Inzeo, Americover ⁷
4	1	103	Crook, Kelly, Inzeo, Americover, Vanderzee
5	1	103	Crook, Lowe's, ⁸ Americover
6	1	103	Crook, Lowe's, Americover, Vanderzee
7	2, 3	103	Crook, Kelly, Inzeo
8	2, 3	103	Crook, Kelly, Inzeo, Vanderzee
9	2, 3	103	Crook, Lowe's
10	2, 3	103	Crook, Lowe's, Vanderzee

In support of its unpatentability arguments, Petitioner relies on the declarations of Douglas R. Stieve (Ex. 1003) and Dr. Yash P. Khanna (Ex. 1030).

II. ANALYSIS

A. Claim Construction

We apply the claim construction standard articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). 37 C.F.R. § 42.100(b) (2023). Under *Phillips*, claim terms are afforded “their ordinary

² U.S. Publication No. 2005/0217202 A1, published Oct. 6, 2005 (Ex. 1004).

³ U.S. Patent No. 8,407,958 B2, issued Apr. 2, 2013 (Ex. 1005).

⁴ U.S. Patent No. 6,851,229 B2, issued Feb. 8, 2005 (Ex. 1006).

⁵ U.S. Patent No. 7,951,873 B2, issued May 31, 2011 (Ex. 1007).

⁶ U.S. Patent No. 4,715,915, issued Dec. 29, 1987 (Ex. 1035).

⁷ Americover Heat Shrink Wrap Webpage (Ex. 1021).

⁸ Video Screen Recording of <https://www.youtube.com/watch?v=2PKUMDmVRMY> (Ex. 1016).

and customary meaning.” *Phillips*, 415 F.3d at 1312. The “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

Petitioner proposes a construction for the claim term “sheet” as meaning “assembly of at least two lengths of film.” Pet. 21. According to Petitioner, the ’484 patent’s “specification ‘repeatedly and consistently’ uses ‘sheet’ as being formed only by joining/assembling at least two lengths.” *Id.* (quoting *David Netzer Consulting Eng’r LLC v. Shell Oil Co.*, 824 F.3d 989, 993 (Fed. Cir. 2016) and citing Ex. 1001, Abstract; 2:51-55, 3:20-21, 3:52-54, 7:26-30, 5:50-52, Fig. 5). Petitioner argues that Patent Owner “incorrectly interprets ‘sheet’ more broadly in litigation to include a single length of film.” *Id.* at 22 (citing Ex. 1036 ¶¶ 39–44). Petitioner contends that the claims are unpatentable under either interpretation. *Id.*

Patent Owner “applies the plain meaning of any claim terms in view of the ’484 Patent’s specification” and “reserves the right to further address claims that may require construction if this proceeding is instituted.” Prelim. Resp. 14–15.

We determine we need not explicitly construe any claim term at this stage of the proceeding. *See Realtime Data*, 912 F.3d at 1375. We encourage

the parties to further discuss an express construction for “sheet” during trial if they choose.

B. Level of Ordinary Skill in the Art

Petitioner contends that the ’484 patent involves two relevant fields. Petitioner asserts that a first relevant field “is the protective covering of buildings, and in particular roofs.” Pet. 22. In that field, Petitioner asserts that one of ordinary skill in the art “would at minimum have five years’ professional experience in protecting (including waterproofing) roofs” or “[a]lternatively, a bachelor’s (or higher) [degree] in architecture, civil or structural engineering, or a related subject, with one or more years of practical experience protecting (including waterproofing) roofs, could substitute for the years’ professional experience described above.” *Id.* 22 (citing Ex. 1003 ¶¶ 13, 14).

Petitioner also contends that “[b]ecause claim 1 includes the composition of the heat-shrinkable film, the field of art relevant to at least claim 1 additionally includes materials science related to heat-shrinkable films.” *Id.* (citing Ex. 1003, ¶¶ 20–23) (emphasis omitted). According to Petitioner, one of ordinary skill in the art of material science “would have at least a bachelor’s degree in chemistry, materials science or engineering, polymer science or engineering, or a related subject, and at least one or two years of practical experience involving the composition and processing of heat-shrinkable plastic films.” *Id.* at 22–23 (citing Ex. 1003 ¶¶ 21, 22). Petitioner further asserts that “[m]ore advanced educational training focused on polymer science or engineering related to heat-shrinkable plastic films could substitute for the practical experience; and significant practical experience with the composition and processing of heat-shrinkable plastic

films could substitute for formal educational training.” *Id.* at 23. Petitioner further contends that one of ordinary skill in the art “could be a composite or team of individuals with these skill levels.” *Id.* (citing *Abiomed, Inc. v. White Swell Medical Ltd.*, IPR2021-01478, Paper 37, 31 n.10 (Apr. 4, 2023); *Apotex Inc. v. Novartis AG*, IPR2017-00854, Paper 109, 10–11 (July 11, 2018)).

At this stage of the proceeding, “Patent Owner does not challenge the Petitioner’s definition of a POSITA [person of ordinary skill in the art]” but “reserves the right to further address the level of ordinary skill in the art if this proceeding is instituted.” Prelim. Resp. 14.

On this record, we adopt Petitioner’s assessment of the level of ordinary skill in the art as it is consistent with the ’484 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

C. Judicial Estoppel

Patent Owner requests that the Board apply a form of judicial estoppel against Petitioner in this proceeding. In particular, Patent Owner argues that “Petitioner is estopped from arguing that it would be obvious to attach a wrapped batten to a [fascia] for shrink wrapping because Petitioner obtained its own ’827 Patent by persuading the USPTO of the exact opposite position.” Prelim. Resp. 44. Citing pages 25–26 and 40–41 of Exhibit 2008 (prosecution history for application serial number 16/294,554, issued as US 10,472,827 B1), Patent Owner argues that “Petitioner previously argued to the USPTO that attaching a wrapped batten to a fascia for shrink wrapping was not obvious and was unknown to those skilled in the field.” *Id.* at 45.

Patent Owner's argument is not persuasive because the cited discussion in the prosecution history does not relate to the challenged claims in this proceeding. Pages 25–26 of Exhibit 2008 correspond to the Declaration of Christopher Mouriz (“Mouriz Declaration”). The Mouriz Declaration relates to claim language that “recites attaching the construction material to a specific component of a roof, namely, the vertical, outward facing [fascias] of the eaves of the roof.” Ex. 2008, 25 ¶ 7. The Mouriz Declaration explains that “the roof component to which a waterproofing membrane is attached is not recognized as a particular parameter that can be experimented with, in order to increase or optimize the waterproofing process in a structural waterproofing system.” *Id.* at 26 ¶ 8. Thus, the claim language discussed in the Mouriz Declaration relates to attaching construction material specifically to “vertical, outward facing fascias of the eaves of the roof.” *Id.* at 25 ¶ 7. There is no discussion of wrapping battens.

Pages 40–41 of Exhibit 2008 correspond to a Response to Office Action wherein the applicant distinguishes the '554 application claims over prior art references cited by the Examiner, namely, Lennox and Wiki. Ex. 2008, 40–41. The applicant argues that “neither Lennox nor Wiki discloses attaching the construction material that was rolled in the end of the strip to the vertical, outward-facing fascia of the eaves of the roof, as claimed by Applicant.” Ex. 2008, 41 (emphasis original). Again, the claim limitation at issue, which Patent Owner directs us to, relates to the *location* for attaching construction material, namely, vertical outward-facing fascia. We see no similar limitation in the challenged claims. We also note that Petitioner does not rely on Lennox and Wiki in this proceeding. Accordingly, we are not persuaded that Petitioner should be estopped from

arguing that the challenged claims of the '484 patent are obvious based on arguments presented to the Office concerning claims and references that are not involved in this proceeding.

D. Discretion under 35 U.S.C. § 314(a)

Patent Owner argues the Board should exercise its discretion under 35 U.S.C. § 314(a) and deny institution in light of the Florida Litigation involving the '484 patent. Prelim. Resp. 46–54.

Institution of *inter partes* review is at the Director's discretion, which has been delegated to the Board under her guidance. *See* 35 U.S.C. § 314(a); *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he [USPTO] is permitted, but never compelled, to institute an IPR proceeding.”); 37 C.F.R. § 42.4(a) (“The Board institutes the trial on behalf of the Director.”).

In assessing whether to exercise such discretion, the Board weighs six non-exclusive factors, known as the *Fintiv* factors. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 6 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). Recognizing that “there is some overlap among these factors” and that “[s]ome facts may be relevant to more than one factor,” the Board “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.” *Id.* On June 21, 2022, the Director of the USPTO issued several clarifications concerning the application of the *Fintiv* factors. *See Interim Procedure For Discretionary Denials In AIA Post-Grant Proceedings With Parallel District Court Litigation*, issued June 21, 2022 (“Guidance Memo”).⁹ The Guidance Memo

⁹ Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf.

clarifies “the PTAB’s current application of *Fintiv* to discretionary institution where there is parallel litigation.” *Id.* at 2.

The Director’s Guidance Memo explains that, “[c]onsistent with *Sotera Wireless, Inc.*, the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB.” Guidance Memo 3 (footnote omitted) (citing *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 (PTAB Dec. 1, 2020) (precedential as to § II.A)). The Guidance Memo explains that such a *Sotera* stipulation “mitigates concerns of potentially conflicting decisions and duplicative efforts between the district court and the PTAB. . . . and allows the PTAB to review grounds that the parallel district court litigation will not resolve.” *Id.* at 7–8.

Here, in an email to Patent Owner, Petitioner “stipulates that if the PTAB institutes IPR, Structural Wrap will not pursue in [the Florida Litigation] the same grounds asserted in the petition, or any grounds that could have reasonably been raised in the petition.” Ex. 1022, 1.

Patent Owner argues that “Petitioner’s purported *Sotera* stipulation is insufficient to overcome concerns of duplicative efforts and conflicting outcomes based on the Board’s own current guidance on the *Fintiv* factors.” Prelim. Resp. 48. Patent Owner argues that there are three problems with Petitioner’s stipulation. *Id.* at 52–53.

First, according to Patent Owner, “Petitioner has *already* pursued the same grounds in the Florida Litigation in its invalidity contentions and corresponding third party discovery.” Prelim. Resp. 52 (citing Ex. 2005 and 2004). Thus, Patent Owner contends that “[t]he effort already expended in

the district court will not be avoided by the stipulation.” *Id.* According to Patent Owner, “the admissibility and reliability of references such as the Lowe’s video can be better handled in district court litigation through its robust discovery procedures.” *Id.*

Second, Patent Owner contends that “even if Petitioner drops its invalidity case in the Florida Litigation, with trial just months away, the Florida court will still be forced to address issues that are raised in the Petition concerning scope and content of the references due to the unique nature of the Florida Litigation.” Prelim. Resp 52. Patent Owner states that the Florida Litigation involves “counterclaims of both infringement and invalidity concerning Petitioner’s own patent (U.S. Patent No. 11,041,312)” and “[t]he ‘484 Patent and, also, other references cited in the Petition are prior art to Petitioner’s patent.” *Id.*

Third, Patent Owner contends that “the stipulation does not include the Texas Litigation (which was pending before the IPR was filed).” Prelim. Resp. 53. According to Patent Owner, “Petitioner’s counsel has been identified as ‘lead counsel’ in the Texas Litigation (Ex. 2006) where a counterclaim of invalidity has been asserted on behalf of an indemnitee. (Ex. 2007),” and “[t]he counterclaim identifies the same Crook, Kelly, Inzeo, and Lowe’s references at issue in this IPR (Ex. 2007, Counterclaim ¶¶ 16–24 at pages 11–13).”¹⁰ *Id.*

We do not agree that we can effectively ignore the Director Memo under these circumstances. The Director Memo is “binding agency

¹⁰ Patent Owner’s Exhibit 2007 includes page numbers for pages 2–14 of the exhibit, but are otherwise blank. Therefore, Exhibit 2007 does not support Petitioner’s assertion regarding counterclaims in the Texas Litigation and any overlap with references identified in this proceeding.

guidance.” Director Memo at 3. Consistent with *Sotera Wireless*, Petitioner has stipulated that it “will not pursue the same grounds asserted in the petition, “or any grounds that could have reasonably been raised in the petition” in the Florida Litigation. Ex. 2022. Thus, because “petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB,” we will not discretionarily deny institution in view of parallel district court litigation. Guidance Memo 3 (footnote omitted)

As to Patent Owner’s argument that the admissibility of evidence can be “better handled in district court,” we do not agree. The PTAB regularly decides issues of both admissibility and weight to be afforded to evidence. *See Corning Inc. v. DSM IP Assets B.V.*, Case IPR2013-00053, slip op. at 19 (PTAB May 1, 2014) (Paper 66) (“[s]imilar to a district court in a bench trial, the Board, sitting as a non-jury tribunal with administrative expertise, is well-positioned to determine and assign appropriate weight to evidence presented.” (citing *Donnelly Garment Co. v. NLRB*, 123 F.2d 215, 224 (8th Cir. 1941)); *VirnetX Inc. v. Apple Inc.*, 665 F. App’x 880, 884–85 (Fed. Cir. 2016) (“PTAB’s ‘expertise appropriately plays a role in interpreting record evidence.’” (citing *Brand v. Miller*, 487 F.3d 862, 869 (Fed. Cir. 2007))).

Patent Owner’s arguments concerning Petitioner’s counterclaims in the Florida Litigation for infringement of Petitioner’s patent are not relevant to this proceeding, which is solely concerned with the patentability of Patent Owner’s ’484 patent.

Patent Owner’s reliance on the Texas Litigation is also unavailing. Patent Owner argues that the defendant in the Texas Litigation, SRS Distribution, Inc., is an “indemnatee” of Petitioner, but Patent Owner does

not contend that SRS Distribution, Inc. is a real-party-in-interest. Nor has Patent Owner addressed the *Fintiv* factors as they relate to the Texas litigation. As for Patent Owner’s argument that “Petitioner’s counsel has been identified as ‘lead counsel’ in the Texas Litigation (Ex. 2006),” we note that J. Steven Baughman and Megan Raymond have been removed as counsel in this proceeding on Petitioner’s motion without opposition by Patent Owner. Paper 12. Even if the counterclaim in the Texas Litigation relies on the same Crook, Kelly, Inzeo, and Lowe’s references involved in this proceeding, Petitioner is not a party to that proceeding, nor is Petitioner’s counsel of record in that proceeding.

For the forgoing reasons, we are not persuaded by Patent Owner’s arguments for discretionary denial. We therefore decline to discretionarily deny institution in view of the Florida Litigation.

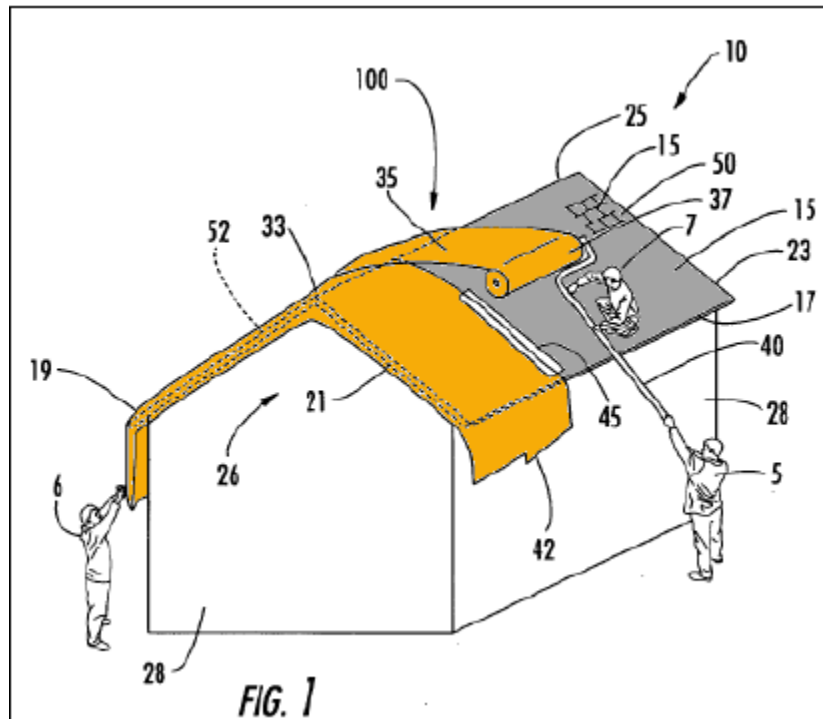
E. Ground 1: Crook, Kelly, Inzeo, and Best

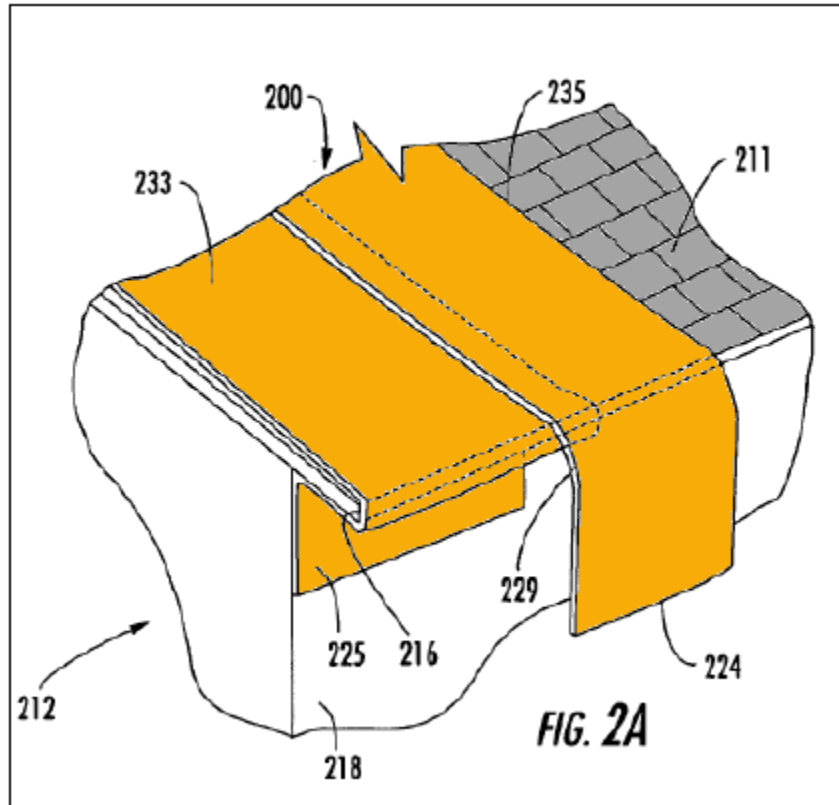
Petitioner argues that the combination of Crook, Kelly, Inzeo, and Best renders obvious claim 1. Pet. 32–67. Patent Owner disagrees. Prelim. Resp. 17–39.

1. Overview of Crook (Ex. 1004)

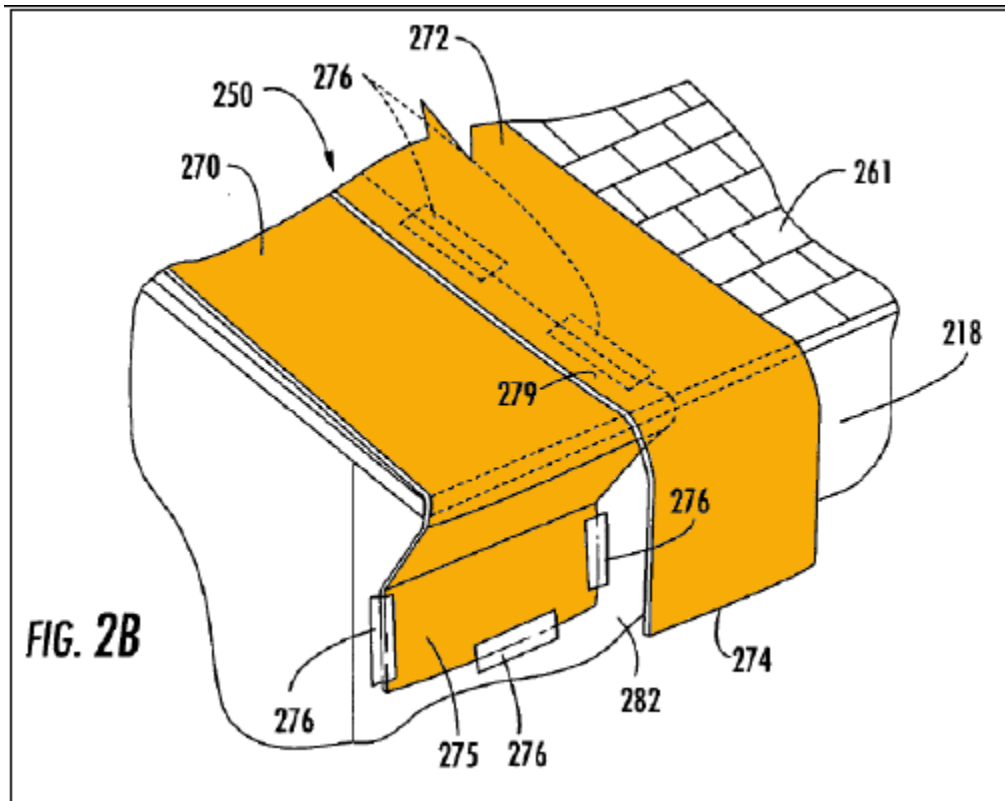
Crook is a U.S. patent application titled “Roof Protection Systems for High Wind Zones.” Ex. 1004, code (54). Crook discloses a “protective roof cover” that “comprises a membrane that is adapted to cover at least a portion of the roof of a building structure, such as a house.” *Id.* ¶ 2. The membrane is adapted to extend from a first edge of the roof to a second edge of the roof. *Id.* Crook discloses that the roof cover may comprise shrink wrap material or stretch wrap material. *Id.*

Petitioner's annotated versions of Crook Figures 1, 2A, and 2B are reproduced below. Pet. 45–47 (citing Ex. 1004, Figs. 1 (annotated), 2A (annotated), 2B (annotated)).





Annotated Figure 2A of Crook



Annotated Figure 2B of Crook

Figure 1 “is a perspective view depicting the installation of a roof cover” (Ex. 1004 ¶ 15), Figure 2A “is a perspective view of a front edge of a roof, and a roof cover according to one embodiment of the invention that is positioned to overlap the front edge of the roof,” (*id.* ¶ 16) and Figure 2B is “is a perspective view of a front edge of a roof, and a roof cover according to another embodiment of the invention that is positioned to overlap the front edge of the roof” (*id.* ¶ 17).

2. Overview of Kelly (Ex. 1005)

Kelly is a U.S. patent titled “Wind and Water Resistant Back Wrap Roof Edge Termination.” Ex. 1005, code (54). Kelly discloses “an assembly that relates to a roof assembly comprising, at least one first waterproof membrane for covering a building roof.” *Id.* 1:41–44. The assembly also comprises “a stiff member sealed within at least one second waterproof

membrane, the stiff member being substantially aligned with a perimeter of the building roof, and the first waterproof membrane being sealedly attached to the second waterproof membrane.” *Id.* at 1:44–47.

3. *Overview of Inzeo (Ex. 1006)*

Inzeo is a U.S. patent titled “Anchor Bar Splice.” Ex. 1006, code (54). Inzeo “relates to fascia assemblies, and more particularly to fascia assemblies that include anchor bar splices.” *Id.* at 1:6–8. Inzeo discloses “a fascia assembly that includes an anchor bar splice that improves the seal between adjacent ends of consecutive anchor bars by providing a spacer that includes a water-resistant resilient shell and a resilient compressible foam within the shell.” *Id.* at 1:38–42.

4. *Overview of Best (Ex. 1007)*

Best is a U.S. patent titled “Linear Low Density Polymer Blends and Articles Made Therefrom.” Ex. 1007, code (54). Best “relates to metallocene-catalyzed linear low density polyethylene copolymers, copolymer blends, and articles made therefrom.” *Id.* at 1:13–15. Best discloses “polymer blend[s] . . . composed of a blend of a first linear low density polyethylene (LLDPE) copolymer and a second polyethylene polymer or copolymer.” *Id.* at 1:61–63. Best discloses “Exemplary end uses are monolayer or multilayer films, film-based products, diaper backsheets, housewrap, wire and cable coating compositions, articles formed by molding techniques, e.g., injection or blow molding, extrusion coating, foaming, casting, and combinations thereof.” *Id.* at 2:15–19.

5. *Petitioner’s Arguments*

Rather than providing headings and paragraphs explaining how the asserted prior art discloses each claim limitation for each of the Petition’s

ten (10) grounds, Petitioner provides a single table for the asserted six grounds challenging claim 1, which table lists claim terms in one column and presumably the prior art reference citations mapped to the claim element in an adjacent column. Pet. 32–67.

For Ground 1, Petitioner relies on Crook’s disclosure of covering at least a portion of a roof with a plurality of a membrane strips, which may be a sheet of heat shrinkable film. *Id.* at 32–49 (citing Ex. 1004, Abstr., ¶¶ 1, 2, 6–8, 60, 65, 73). Petitioner relies on Best’s disclosure of a heat shrinkable film of low density polyethylene (LDPE) including shrinking resins, and asserts that Crook’s disclosure of an unspecified shrink wrap material would have motivated a POSITA to implement Best’s shrink wrap for the advantages taught by Best, namely, to reduce problems of hole formation during shrinkage. *Id.* at 49–53 (citing Ex. 1007, 2:10–19, 15:8–19, 21:4–15). Petitioner relies on Kelly’s disclosure of wrapping a roof covering’s edge around a batten (Kelly’s stiff member 40) and attaching it to a built structure. *Id.* at 58–59 (citing Ex. 1005 Figs. 2A–2B, 12, 2:62–3:26, 3:31–41).

Petitioner asserts that it would have been obvious to a POSITA to use Kelly’s wrapping an edge of material around a batten to implement Crook’s disclosure of securing a leading edge, because Kelly teaches that wrapping the film around a batten uniformly distributes the load of the film over a larger area, thereby reducing stress and the risk of tearing the film. *Id.* at 60–61. Petitioner asserts that it would have been obvious and beneficial to attach the batten to the fascia or underside of the eaves instead of the vertical surface of a house as taught by Inzeo, to avoid unsightly holes after removal

of the material, and when damage to the room and walls makes attachment to those locations more difficult. *Id.* at 61–62 (citing Ex. 1003 ¶ 200).

Regarding claim 1’s requirement that portions of the trailing edge are wrapped around a second batten and attached to the underside of a second eave or the fascia of the built structure, Petitioner relies on Kelly and Inzeo “for the same reasons discussed above regarding securing the leading edge of the first end of the roof.” *Id.* at 64–65 (emphasis and citations omitted). Regarding claim 1’s requirement that the heat shrinkable film is heated, Petitioner directs us to Crook’s disclosure to heat the roof cover so that it shrinks and thereby attaches to the roof. *Id.* at 66 (citing Ex. 1004 ¶ 8).

6. *Analysis of Claim 1*

- a) *Limitation 1.pre: A method of providing covers over at least a portion of a roof of a storm damaged built structure comprising the steps of:*

All grounds in the Petition rely on Crook for disclosing covering a portion of a roof, including a roof that is damaged by a storm. The record sufficiently supports for purposes of institution that the prior art satisfies the recitation in the preamble, should the preamble be limiting (which we need not resolve at this stage). Ex. 1004, Abstr., ¶¶ 1, 2, 73. Patent Owner does not make any arguments directed to this limitation.

- b) *Limitation 1.a: applying a sheet of heat shrinkable film over the portion of the roof, the sheet having a leading edge and a trailing edge and being a film of low density polyethylene including shrinking resins;*

The record sufficiently supports for purposes of institution the Petition’s assertion that Crook teaches covering a roof surface with shrink wrap material and, that a POSITA would have been motivated to identify a specific heat shrinkable wrap such as Best’s low density polyethylene film in

particular for this use that reduces hole formation during shrinkage. Pet. 49–50; Ex. 1004, Abstr., ¶¶ 1, 2, 6–8, 65; Ex. 1007, 2:10–19, 15:8–19, 21:4–15. Patent Owner does not make any arguments directed to this limitation.

c) Limitation 1.b: wrapping portions of the leading edge around a first batten and attaching the first batten to an underside of a first eave or to a fascia of the built structure;

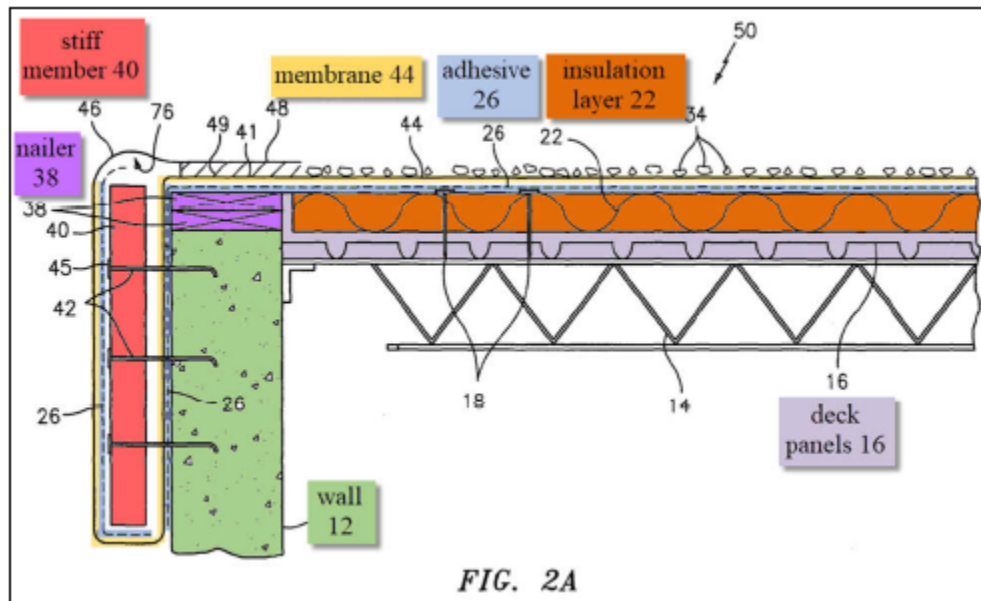
The Petition relies on Kelly for implementing the fastening taught by Crook. Pet. 60 (citing Ex. 1004 ¶ 49). Specifically, the Petition relies on Kelly’s disclosure of using a batten to uniformly distribute the load of the film over a larger area “and attaching it to a built structure” and “better seal the film’s edge and the surface to which the batten is attached.” Pet. 58 (citing Ex. 1005 Figs. 2A–2B, 12, 2:62–3:26, 3:31–41), 60–61 (citing Ex. 1003 ¶ 199; Ex. 1005, 3:31–47, 3:52–58). Kelly discloses that “waterproof field membrane 44 is installed onto roof insulation layer [and the] membrane 44 extends beyond the wall 12 far enough to have a wrap portion 46 of the membrane 44 back wrap around a stiff member 40 and allow an interior edge 48 to lay back upon a membrane portion 41 of the membrane 44.” *Id.* at 3:3–8. Kelly further discloses that “fasteners . . . attach the encapsulated stiff member 40, which lies flush with a surface of the wall 12, to the building structure of the wall 12.” Ex. 1005, 3:22–24. Petitioner asserts that it would have been obvious to a POSITA to use Kelly’s wrapping an edge of material around a batten to implement Crook’s disclosure of securing a leading edge because Kelly teaches that wrapping the film around a batten uniformly distributes the load of the film over a larger area thereby reducing stress and the risk of tearing the film. Pet. 60–61.

The Petition relies on Inzeo for disclosing attaching a roof covering to the fascia of a roof instead of Kelly’s building structure wall. Pet. 59 (citing

Ex. 1006, 2:38–43, 2:52–54, 4:7–20, Figs. 1, 3). The Petition asserts that it would have been obvious to use Inzeo’s teaching of the fascia as an attachment point, because a “POSITA would have understood that the fascia material is frequently an easier surface to secure something to by nailing, as compared to the vertical surface of a house” which may be made of brick , and may be an obvious choice where the roof is damaged. *Id.* at 61–62 (citing Ex. 1003 ¶ 200). The Petition also asserts that attaching the membrane on the fascia as taught by Inzeo would advantageously have required less membrane material than attaching on the vertical wall as taught by Crook. *Id.* at 61 (citing Ex. 1003 ¶ 200).

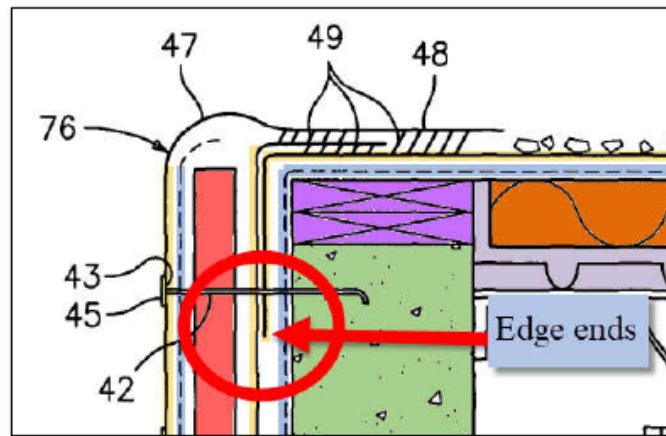
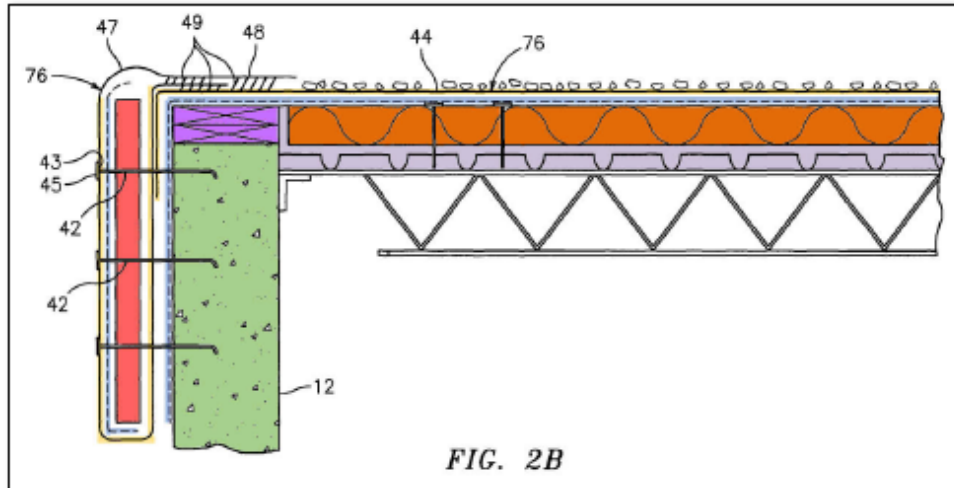
Patent Owner asserts that Kelly’s Figures 2A and 2B do not disclose “wrapping a roof covering’s edge around a batten . . . and attaching it to a built structure” as claim 1 recites. Prelim. Resp. 17–18. According to Patent Owner, Kelly discloses a permanent roof that uses adhesive to secure a membrane (with gravel placed over it) and is not concerned with wrapping the trailing and leading edges for attachment as claimed. *Id.* at 21. Patent Owner asserts that Kelly discloses that membranes are only waterproofed on one side, and that the waterproof side of Kelly’s membrane is not facing outward towards the elements over the roof portion. *Id.* at 21 (citing Ex. 1005, 5:24–32).

With reference to annotated Figure 2A, below, Patent Owner asserts that Kelly’s membrane 44 is sandwiched to the wall using stiff member 40 with additional portions of membrane 44 wrapped over stiff member 40 (using adhesive 26) and ultimately back over itself on top of the roof to encapsulate stiff member 40. *Id.* at 20 (citing Ex. 1005, 3:8–11, 3:31–33).



Annotated Figure 2A, above, shows vertical building wall 12 on the left supporting one end of perpendicularly oriented structural roof beam 14 to which roof deck panels 16 are fastened. Prelim. Resp. 20; Ex. 1005, 2:64–67. Membrane 44 is installed onto roof insulation layer 22 with adhesive 26 and extends beyond wall 12 to wrap portion 46 around stiff member 40 and allow an interior edge 48 to lay back upon a membrane portion 41 of membrane 44. *Id.* at 3:3–8. Patent Owner asserts that Kelly does not show wrapping the edge around a batten and then securing as claimed, but, rather, Kelly’s stiff member 40 is secured to the wall in order to sandwich membrane 44 “before any encapsulation has occurred.” Prelim. Resp. 22–23.

With reference to annotated Figure 2B, below, Patent Owner asserts that the edge of Kelly’s membrane ends partially down the wall and is wrapped around nothing. *Id.* at 21–22, 29.



Annotated Figure 2B above includes an enlarged view of the corner where membrane 44 extends beyond wall 12 and extends down between wall 12 and stiff member 40.

Regarding the Petition’s reasoning for modifying Crook with Kelly, Patent Owner asserts that Kelly does not suggest that “wrapping” uniformly distributes the load, but, rather, that Kelly’s “sandwiching” the membrane against the wall distributes the load. *Id.* at 30. Patent Owner also argues that avoiding nails in walls is not a sufficient motivation to modify Crook with Kelly, because Crook discloses “one configuration that uses no fasteners and another that uses tape to attach to walls” and Kelly is not concerned with holes. *Id.* at 34. Patent Owner also asserts that Kelly and Inzeo are

incompatible with Crook because (1) Kelly is directed to a permanent roof while Inzeo is directed to a temporary roof support structure that is intended to be removed and (2) Inzeo's Figure 1 shows a "jagged edge" to secure a membrane that "is at odds with" the tension that Crook places on the roof because the combination "would result in the heat shrinkable material tearing as the jagged edge of Inzeo's clamps prevent movement." *Id.* at 34–36. Patent Owner further notes that Kelly uses adhesive to secure the membrane on the roof, but the Petition's combination does not include Kelly's adhesive. *Id.* at 37–38.

Patent Owner also asserts that Inzeo teaches attaching a roof covering to a fascia rather than a batten, or attaching battens to fascia. Prelim. Resp. 25–27. Patent Owner directs us to Inzeo's Figures 1 and 3 to show that Inzeo's anchor bars 18 can clamp rubber membrane 12 to the upper and front surface of wooden nailer 16 that sits on roof 14. *Id.* at 25–26. Patent Owner asserts that Kelly teaches away from attaching a stiff member to a nailer. *Id.* at 27–28, 32. Patent Owner also asserts that reducing the amount of membrane material would not motivate a POSITA to incorporate Kelly's teachings because Kelly uses more membrane material to extend over the roof edge and down the wall. *Id.* at 33.

Based on the parties' arguments and evidence at this stage of the proceeding, we find the Petition sufficiently shows the combination of cited prior art references teach or suggest this claim limitation. The Petition provides multiple rationales for modifying Crook with Kelly, including that Kelly discloses uniformly retaining the membrane to prevent local stress risers that may tear the membrane, which the record supports. Pet. 58–59; Ex. 1005, 3:31–39. The Petition sufficiently shows that Kelly's Figure 2A

discloses wrapping portions of the leading edge of a membrane around a first batten and attaching the first batten to a built structure as required by claim 1.

Patent Owner's position that claim 1's recitation "wrapping . . . around a first batten" requires a different wrapping from that taught by Kelly is not supported by the current record. The membrane shown in Kelly's Figure 2A completely surrounds Kelly's stiff member. Ex. 1005, Fig. 2A. As such, the Petition's rationale for modifying Crook with Kelly's teaching to wrap a membrane around a batten is sufficiently supported by the current record on institution for the benefit that Kelly provides, namely to reduce stress and the risk of tearing the membrane by sandwiching the membrane between the batten and a structure. Similarly, Patent Owner's position that claim 1 requires that "wrapping of the edge around a batten and then securing" (Prelim. Resp. 23) is not supported by the current record. Claim 1 does not require a particular sequence of "wrapping" and "attaching," but, rather, conjoins the two with the conjunction "and," which does not suggest a particular order of steps.

Patent Owner's argument that the proposed combination of prior art teachings does not include Kelly's adhesives or Inzeo's edges does not negate the Petition's rationale for incorporating other teachings from these references into the combination. In a determination of obviousness, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. *Merck & Co. v. Biocraft Labs.*, 874 F.2d 804, 807 (Fed. Cir. 1989); *see also In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) ("[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review."); *In*

re Nievelt, 482 F.2d 965, 968 (CCPA 1973) (“Combining the *teachings* of references does not involve an ability to combine their specific structures.”). Rather, “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

We also find the Petition sufficiently supports the fascia, such as Inzeo’s fascia assembly, as a preferred or obvious alternative location over the building structure for attaching Kelly’s wrapped stiff member. Because Petitioner’s combination proposes that Kelly’s wrapped stiff member is attached to Inzeo’s fascia assembly as an alternative to the building structure, and not to the nailer that Patent Owner asserts Kelly teaches away from, we find the Petition sufficiently supports obviousness of this claim limitation.

d) Limitation 1.c: wrapping portions of the trailing edge around a second batten and attaching the second batten to an underside of a second eave or to the fascia of the built structure at a location different than the first batten; and

The Petition relies on Crook’s teaching to attach portions of the trailing edge of the roof cover to the built structure for this limitation in combination with Kelly’s teaching of wrapping a roof covering’s edge around a batten and attaching it to a structure, and Inzeo’s further disclosure of attaching a roof covering to a fascia of a roof for the same reasons provided for attaching the leading edge to the first end of the roof. Pet. 64–65 (citing Ex. 1003 ¶¶ 207, 208, 212, 216). Because we determine that the Petition sufficiently shows support for the combination of Crook, Kelly,

Inzeo, and Best teaching or suggesting wrapping a first edge of the roof cover around a batten and attaching a fascia, we likewise determine that this limitation is sufficiently shown for purposes of institution.

- e) *Limitation 1.d: heating the sheet of heat shrinkable film to bring the film into conformity with the portion of the roof, wherein said heating step shrinks the sheet of film tight against the built structure to cover over the portion of the roof*

The Petition relies on Crook's disclosure of heating a heat shrinkable film to bring the film adjacent to the roof for this limitation, together with the Stieve Declaration, which supports Crook's heating step shrinks the film tight against the roof. Pet. 66–67 (citing Ex. 1004 ¶¶ 8, 65; Ex. 1003 ¶ 220). For purposes of institution, the Petition sufficiently shows this limitation is met by the combination of Crook, Kelly, Inzeo, and Best. Patent Owner does not make any arguments directed to this limitation.

f) *Summary*

After review of the parties' arguments and supporting evidence in the current record, we determine that Petitioner sufficiently identifies where Crook, Kelly, Inzeo, and Best disclose or suggest every limitation of claim 1, and supports that a POSITA would have been motivated to combine the teachings of the references with a reasonable expectation of success. As such, Petitioner demonstrates a reasonable likelihood that claim 1 would have been obvious over the cited prior art references.

F. *Ground 2: Crook, Kelly, Inzeo, Best, and Vanderzee*

Petitioner argues that the combination of Crook, Kelly, Inzeo, and Best in further view of Vanderzee renders obvious claim 1. Pet. 32–67. Patent Owner disagrees for the same reasons discussed above in connection with Ground 1. Prelim. Resp. 17–39.

1. Overview of Vanderzee (Ex. 1035)

Vanderzee is a U.S. patent titled “Longitudinal Seam and Method of Forming.” Ex. 1035, code (54). Vanderzee describes a seam wherein two sheets of material are bonded together to form one unified sheet. *Id.* at code (57). Edges of each sheet are stepped so that one side of an edge has a stepped portion and the opposite has a planar or flat surface. *Id.* By way of background, Vanderzee explains that “[e]lastomeric and plastic sheet material is formed by various methods including calendering, extrusion, drawing and the like.” *Id.* at 1:6–8. Vanderzee explains that a problem with prior art methods of splicing sheet material is that they result in a seam that is twice the thickness of the normal sheet material, which creates a bulge when the sheet is rolled up. *Id.* at 1:53–56. To address this problem, Vanderzee discloses “longitudinal seam of reduced thickness which does not cause a significant bulge in the center of a roll of longitudinally spliced material.” *Id.* at 2:32–35. Vanderzee’s seam is formed by bonding two sheets together along common edges wherein each edge has a stepped cross-sectional configuration, with one side flat or planar and the opposite side stepped. *Id.* at 2:35–39. Vanderzee states that the reduction in seam thickness reduces bulging when formed sheets are rolled up, making storage and transportation practical. *Id.* at 2:61–64.

2. Analysis of Claim 1

Petitioner further combines Vanderzee’s teaching to assemble parallel strips of plastic for a roof in the event that the term “covers” in the preamble of claim 1 and “sheet” in limitation 1.a is not sufficiently supported by Crook’s disclosure. Pet. 36, 40–44. Specifically, Petitioner asserts that it would have been obvious for Crook’s “plurality of membrane strips” to be

assembled into a sheet from strips, off the roof surface, before placing on the roof, based on Vanderzee’s teaching for the convenience and practicality of assembling off the roof. *Id.* at 40–42 (citing Ex. 1035, 2:31–64; Ex. 1003 ¶ 163).

Having determined that Petitioner demonstrates a reasonable likelihood that claim 1 would have been obvious in view of Crook, Kelly, Inzeo, and Best without the additional teachings of Vanderzee, we do not address Petitioner’s additional obviousness arguments with respect to Crook, Kelly, Inzeo, and Best in view of Vanderzee. *SAS Inst.*, 138 S.Ct. at 1359–60; *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (interpreting the statute to require “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”).

G. Ground 3: Crook, Kelly, Inzeo, and Americover

Petitioner argues that the combination of Crook, Kelly, Inzeo, and Americover renders obvious claim 1. Pet. 32–67. Patent Owner disagrees for the same reasons discussed above in connection with Ground 1. Prelim. Resp. 17–39.

1. Overview of Americover (Ex. 1021)

Americover is a printout of the Americover.com web page describing “Heat Shrink Wrap.” Ex. 1021, 1. Petitioner provides an Internet Archive record and affidavit purporting to show that the Americover web page was publicly available as a printed publication by at least October 16, 2006. Pet. 28 (citing Ex. 1025 at 1–2, 7–9) (showing the page was archived by the Internet Archive on October 16, 2006 at the URL: <<https://web.archive.org/web/20061016091902/http://www.americover.com//Products/HeatShrink/>>).

On this record, Petitioner's evidence and affidavit appear to demonstrate public availability as of October 16, 2006.

2. Analysis of Claim 1

The Petition states that Americover is relied upon for its teaching of protecting storm damaged roofs. Pet. 35. Later, the Petition asserts that it would have been obvious to a POSITA to implement Americover's teaching to use low density polyethylene in a heat shrinkable film for the reasons discussed above for Best. *Id.* at 55–56 (citing Ex. 1021, 1; Ex. 1030 ¶¶ 36, 56). Having determined that Petitioner demonstrates a reasonable likelihood that claim 1 would have been obvious in view of Crook, Kelly, Inzeo, and Best, for similar reasons, we also find Petitioner's substitution of Americover for Best demonstrates a reasonable likelihood that claim 1 would have been obvious. *SAS Inst.*, 138 S.Ct. at 1359–60.

H. Ground 4: Crook, Kelly, Inzeo, Americover, and Vanderzee

Petitioner argues that the combination of Crook, Kelly, Inzeo, Americover, and Vanderzee renders obvious claim 1. Pet. 32–67. Patent Owner disagrees for the same reasons discussed above in connection with Ground 1. Prelim. Resp. 17–39.

Petitioner further combines Vanderzee's teaching to assemble parallel strips of plastic for a roof in the event that the terms "covers" in the preamble of claim 1 and "sheet" in limitation 1.a are not sufficiently supported by Crook's disclosure. Pet. 36, 40–44. Specifically, Petitioner asserts that it would have been obvious for Crook's "plurality of membrane strips" to be assembled into a sheet from strips, off the roof surface, before placing on the roof, based on Vanderzee's teaching of the convenience and

practicality of assembling off the roof. *Id.* at 40–42 (citing Ex. 1035, 2:31–64; Ex. 1003 ¶ 163).

Having determined that Petitioner demonstrates a reasonable likelihood that claim 1 would have been obvious in view of Crook, Kelly, Inzeo, and Americover without the additional teachings of Vanderzee, we do not address Petitioner’s additional obviousness arguments with respect to Crook, Kelly, Inzeo, and Americover in view of Vanderzee. *SAS Inst.*, 138 S.Ct. at 1359–60.

I. Ground 5: Crook, Lowe’s, and Americover

Petitioner argues that the combination of Crook, Lowe’s and Americover renders obvious claim 1. Pet. 32–67. Patent Owner disagrees. Prelim. Resp. 39–43.

1. Overview of Lowe’s (Exs. 1016, 1037)

a) Description of Lowe’s Video

Lowe’s is a series of six video segments bearing the trademark of Lowe’s Companies, Inc., and demonstrating attaching a tarpaulin to a damaged roof of a residential building. Ex. 1016. A transcript of the Lowe’s video includes the instructions “run a tarp from the opposite side of the roof over the peak and down to the e[a]ve of the damaged side holding the tarp in place with two-by-four wood strips.” Ex. 1037, 3:30–4:1. The transcript states: “Use a two-by-four that is two feet longer than the width of the tarp. Wrap one end of the tarp around it.” *Id.* at 4:5–7. The transcript continues: “Stretch the rest of the tarp . . . down the damaged side of the roof. Now, roll that end of the tarp around another two-by-four and nail under the eve.” *Id.* at 4:11–14.

b) Prior Art Status of Lowe's Video

Patent Owner challenges the Lowe's video status as prior art. Prelim. Resp. 7.

The touchstone in determining whether a reference constitutes a printed publication is whether it was publicly accessible at the critical time. *SRI Int'l v. Internet Security Systems, Inc.*, 511 F.3d 1186, 1194 (Fed. Cir. 2008). Public accessibility exists where the reference document “has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.” *Id.* (quoting *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374, 1378 (Fed. Cir. 2006)).

Petitioner appears to contend that the Lowe's video was publicly accessible, prior to the critical date, in two distinct locations on the Internet: (i) Lowes.com, as evidenced by Exhibit 1029, and (ii) YouTube.com, as evidenced by Exhibits 1049 and 1050. *See* Pet. 27 (citing Ex. 1016, Ex. 1049, Ex. 1050, and Ex. 1029); Ex. 1003 ¶¶ 28, 110, 111.

(1) Public Accessibility via Lowes.com

According to Petitioner, Exhibit 1029 depicts the “Lowe's website archived August 2006 with video link to ‘Tarping Your Roof.’” Pet. 27. Patent Owner argues that Exhibit 1029 “presents nothing more than a page indicating there are videos available” and “[t]here is no evidentiary connection to Ex 1016.” Prelim. Resp 7. At this stage of the proceeding, we tend to agree with Patent Owner. Exhibit 1029 is an affidavit by Nathaniel E. Frank-White, Records Request Processor at the Internet Archive. Ex. 1029, 1 ¶ 1. In the affidavit, Mr. Frank-White avers that Exhibit A attached to the affidavit contains “true and accurate copies of screenshots of the Internet

Archive's records of the archived files for the URLs and the dates specified in the attached coversheet of each printout.” *Id.* ¶ 6. Exhibit A contains one screenshot taken on August 10, 2006 from the URL “http://www.lowes.com/lowes/lkn?action=pg&p=Promos/Hurricane/hurricane06_index.html.” The screenshot depicts, *inter alia*, a catalog of “Hurricane How-To Videos” “[s]traight from the experts” on topics such as “Installing Storm Shutters” and “Tarping Your Roof.” A green button labeled “View Videos” is accompanied by the message that “[y]ou must be a registered Lowes.com user to view these videos.” Exhibit A does not contain any depiction of video content that might be available (to a registered user) by clicking on “View Videos.” The only connection to Exhibit 1016 is that Exhibit A indicates that a video related to “Tarping Your Roof” existed and may have been available to registered users of Lowes.com on August 10, 2006. On this record, there is no indication that the specific videos uploaded by Petitioner as Exhibit 1016 were publicly accessible (even to registered users) via the web page shown in Exhibit A on August 10, 2006 (or at any other time).

(2) Public Accessibility via YouTube.com

Petitioner provides Exhibits 1049 and 1050 as evidence of the public accessibility of the Lowe's video on YouTube since September 28, 2006. Pet. 27.

Exhibit 1049 is a letter accompanied by a “Certificate of Authenticity” signed by Ra Bacchus, Custodian of Records for Google LLC (“Google”). Ex. 1049, 3 ¶ 1. The Certificate of Authenticity indicates that “[t]he accompanying 2 files contain true and correct copies of records pertaining to the YouTube External ID, 2PKUMDMVRMY (“Document”).” *Id.* at 3 ¶ 2. It is not clear whether the “2 files” referenced in paragraph 2 have been

entered into the record, although we note that Patent Owner takes the position that “Ex 1050 is purportedly the content of one of the files.” Prelim. Resp. 7 n.1.¹¹ Paragraph 4 of the Certificate of Authenticity indicates that “The YouTube video at the URL, <https://www.youtube.com/watch?v=2PKUMDmVRMY>, was published and available to anyone for viewing by September 28, 2006.” Ex. 1049, 3 ¶ 4.

Patent Owner argues that “none of the evidence Petitioner supplies indicates the video was ‘searchable’ or its general availability over time.” Prelim. Resp. 7. According to Patent Owner “there is no indication as to whether the video was ‘listed’ or whether the video was public or private (and when).” *Id.*

On this record, and for the purposes of institution only, we are persuaded that Petitioner has demonstrated sufficiently that the Lowe’s video was publicly accessible via YouTube.com as of September 28, 2006, and as such, is a prior art printed publication. *See, e.g., In re Klopfenstein*, 380 F.3d 1345, 1348 (Fed. Cir. 2004) (“[A] public billboard targeted to those of ordinary skill in the art that describes all of the limitations of an invention and that is on display for the public for months may be neither ‘distributed’ nor ‘indexed’—but it most surely is ‘sufficiently accessible to

¹¹ Patent Owner also indicates that its “representatives have been unable to play the video from the PDF files submitted to the PTAB” and have received error messages. Exhibit 1016, as stored in the P-TACTS system, comprises six video files in .mov format (not PDF). Patent Owner is invited to contact PTAB Trials Support for assistance with downloading the files. Patent Owner may contact the Patent Trial and Appeal Board via email to PTABP-TACTSAdmin@uspto.gov or Trials@uspto.gov or via telephone at 571-272-9797.

the public interested in the art’ and therefore, under controlling precedent, a ‘printed publication.’”)

Patent Owner’s arguments seem to overlook paragraph 4 of the Certificate of Authenticity in Exhibit 1049, which states that the video was “available to anyone.” As for Patent Owner’s argument that Petitioner has not shown that the Lowe’s video was “searchable,” we understand Patent Owner’s argument to mean that the Lowe’s video may not have been indexed by YouTube/Google and therefore not searchable (e.g., by keyword search). The Federal Circuit has explained that “[w]hile cataloging and indexing have played a significant role in our cases involving library references,” “neither cataloging nor indexing is a necessary condition for a reference to be publicly accessible.” *In re Lister*, 583 F.3d 1307, 1312 (Fed. Cir. 2009) (citing *In re Klopfenstein*, 380 F.3d 1348, 1345 (Fed. Cir. 2004)). At this preliminary stage, we take the Certificate of Authenticity at face value as evidence that the Lowe’s video was “available to anyone for viewing by September 28, 2006” and thus, most likely publicly accessible as of that date based on the current record and in the absence of evidence that the Lowe’s video was not available to anyone via YouTube, or that the Lowe’s video was not searchable via YouTube’s search feature.

Exhibit 1050 is a one-page document that indicates a “Time Created” of “2006-09-28 14:57:38 Z” and a “Time Published” of “2006-09-28 15:00:07 Z.” Fields for “Time Deleted” and “Upload IP” are blank. Petitioner’s Exhibit List describes Exhibit 1050 as “YouTube Video Metadata.” There is no explanatory text and no corroborating affidavit. There is no explanation in the Petition as to how this metadata was obtained or when. We note that Patent Owner interprets Exhibit 1050 as one of two

files mentioned in the “Certificate of Authenticity” of Exhibit 1049, but we see no indication of that in the record. Accordingly, Exhibit 1050 is entitled to little evidentiary weight.

We note our determination regarding the sufficiency of Petitioner’s evidence is for purposes of this Decision only, and does not signify that Petitioner’s evidence would be adequate under the preponderance standard applicable at the Final Written Decision stage with a full record. *See* 35 U.S.C. § 316(e); *see also TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (“[T]he Board is not bound by any findings made in its Institution Decision. At that point, the Board is considering the matter preliminarily without the benefit of a full record. The Board is free to change its view of the merits after further development of the record, and *should do so* if convinced its initial inclinations were wrong.”). The parties may further develop the evidentiary record during the course of trial on the issue of whether and when the Lowe’s video became publicly accessible. *See Genzyme Therapeutic Prods. Ltd. P’ship v. Biomarin Pharma. Inc.*, 825 F.3d 1360, 1367 (Fed. Cir. 2016) (“The purpose of the trial in an *inter partes* review proceeding is to give the parties an opportunity to build a record by introducing evidence – not simply to weigh evidence of which the Board is already aware.”). For example, Petitioner is invited to explain how it obtained Exhibit 1050.

2. *Petitioner’s Arguments*

The Petition relies on Crook’s method of covering a roof in combination with Americover’s teaching to cover hurricane and storm damaged structures for a disclosure of claim 1’s preamble. Pet. 35–36 (citing Ex. 1003 ¶¶ 144–149; Ex. 1021, 1). As in Ground 1, the Petition relies on

Crook's disclosure of positioning a shrink wrap roof cover over a roof. *Id.* at 37–49 (citing Ex. 1004 ¶¶ 7–8, 60, 65, 67). As in Ground 4, the Petition relies on Americover's teachings to use low density polyethylene processed into a heat shrinkable film. Pet. 55–56 (citing Ex. 1021, 1; Ex. 1030 ¶¶ 25, 36, 54–57). Regarding claim 1's requirement that a leading edge is wrapped around a first batten and attached to the underside of a first eave or to a fascia of a built structure, the Petition relies on Lowe's disclosure to wrap a tarp around a batten (2x4) and nailing under an eave. Pet. 62–64 (citing Ex. 1016-5, 0:28; Ex. 1037, 4:12–4:14; Ex. 1003 ¶¶ 201–206). Below is a screenshot from the Lowe's video included in the Petition.



The Petition describes the above screenshot of a person hammering a piece of lumber wrapped in a blue tarp to the side of a building above a window as “showing attachment of wrapped batten to the [fascia].” Pet. 63.

Regarding claim 1's requirement that a trailing edge is wrapped around a second batten and attached to a second eave or to the fascia of a built structure, the Petition relies on Lowe's disclosure of wrapping a tarp

around a batten and attaching it to an underside of an eave or fascia as described above, and asserts that it would have been “obvious, straightforward, and advantageous to implement Crook using Lowe’s teachings of batten-wrapping . . . to secure the trailing edge of the sheet.” Pet. 65–66 (citing Ex. 1003 ¶¶ 213–216). The Petition further relies on Crook for teaching applying heat to the roof cover as required by claim 1 as in the previous grounds. *Id.* at 66–67 (citing Ex. 1004 ¶ 8; Ex. 1003 ¶¶ 217–221).

3. *Analysis of Claim 1*

Patent Owner asserts that Crook does not disclose the use of a batten, and that Lowe’s does not disclose attaching battens with respective leading and trailing edges to the fascia or eaves, because “Lowe’s unambiguously teaches that one will ‘sandwich the rolled tarp and 2x4 with a second 2x4 and nail those together . . . to the roof.’” Prelim. Resp. 39 (quoting Ex. 1037, 4:8–10). Patent Owner asserts that the Petition overlooks Lowe’s explicit teaching of different techniques for the leading and trailing edges and selectively adopts Lowe’s guidance for mounting to one side of the roof without justification for employing the method twice. *Id.* at 41–42. Patent Owner highlights the Petition’s cryptic references to earlier portions of the Petition that concern the combination of Crook and Kelly and notes that (1) the Stieve Declaration (Ex. 1003) merely parrots the Petition’s conclusory language, (2) Lowe’s teaches away from extending a membrane all the way to the edge on both sides for attachment to the eaves, and (3) if the reasoning for the combination is fewer nails, then Crook’s disclosure of tape uses fewer nails. *Id.* at 42–43.

We have concerns about the adequacy of the Petition’s reasoning for modifying Crook’s roof covering with Lowe’s attachment method of wrapping a batten and attaching the wrapped batten under an eave to a fascia of a built structure. Nevertheless, for purposes of institution, we determine that the Petition sufficiently shows that Crook discloses substantially covering a roof with a shrink wrap covering. Pet. 37–49 (citing Ex. 1004 ¶¶ 7–8, 60, 65, 67). The Petition identifies Crook’s disclosure to use an “appropriate fastening device” to attach the leading and trailing edges of a shrink wrap covering. Pet. 60 (citing Ex. 1004 ¶ 49). The Petition’s assertion that Lowe’s discloses wrapping a tarp around a batten (2x4) and nailing it under an eave is supported by the current record. Pet. 62–64 (citing Ex. 1016-5, 0:28 (depicted above); Ex. 1037, 4:12–4:14 (“nail under the e[a]ve”); Ex. 1003 ¶¶ 201–206). That Lowe’s additionally discloses other techniques for attaching a tarp to a roof with a batten, as Patent Owner argues, does not negate the teachings relied upon by the Petition. Prelim. Resp. 39 (quoting Ex. 1037, 4:8–10). In a determination of obviousness, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. *Merck & Co. v. Biocraft Labs.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (“That the [prior art] patent discloses a multitude of effective combinations does not render any particular formulation less obvious.”).

Regarding the rationale for modifying Crook with Lowe’s teachings, the Petition refers to the same reasons for using Lowe’s method of using a batten for attachment as discussed for using Kelly’s method, namely, (1) to uniformly distribute the load of film, (2) reduce the risk of tearing the film, (3) providing a better seal, and (4) being a routine implementation choice.

Id. at 60–64 (citing Ex. 1003 ¶¶ 199, 204–205). Thus, the cited portion of the Petition provides some reasoning for selecting Lowe’s attachment method for implementing Crook’s shrink wrap covering over substantially all of the roof which, we determine is sufficient for purposes of institution. Pet. 60–61; Ex. 1003 ¶ 199.

J. Ground 6: Crook, Lowe’s, Americover, and Vanderzee

Petitioner argues that the combination of Crook, Lowe’s, Americover, and Vanderzee renders obvious claim 1. Pet. 32–67. Patent Owner disagrees for the same reasons discussed above regarding the combination of Crook and Lowe’s. Prelim. Resp. 39–43.

The Petition relies on Vanderzee’s teaching to join plastic sheeting off of the roof to implement Crook’s teachings to position a plurality of membrane strips taped together. Pet. 40–42 (citing Ex. 1035, 2:31–64; Ex. 1003 ¶ 163).

Having determined that Petitioner demonstrates a reasonable likelihood that claim 1 would have been obvious in view of Crook, Lowe’s, and Americover, we do not address Petitioner’s additional obviousness arguments with respect to Crook, Lowe’s, and Americover in further view of Vanderzee.

K. Ground 7: Crook, Kelly, and Inzeo

Petitioner argues that the combination of Crook, Kelly, and Inzeo renders obvious claims 2 and 3 for essentially the same reasons provided for claim 1. Pet. 67–82. Patent Owner disagrees for the same reasons discussed above in connection with Ground 1. Prelim. Resp. 17–39. Our analysis of each limitation of claims 2 and 3 follows, using the Petition’s claim paragraph designations (e.g. 2.pre, 2.a, 2.b, 2.c, 2.d, 2.e).

1. *Analysis of Claim 2*

- a) *Limitation 2.pre: A method of covering at least a portion of a roof of a built structure comprising the steps of:*

Similar to claim 1, the Petition relies on Crook for disclosing covering a portion of a roof. Pet. 67–68. For the same reasons provided above for claim 1, we determine for purposes of institution that the record sufficiently supports that the prior art satisfies the recitation in the preamble, should the preamble be limiting. Ex. 1004, Abstr., ¶¶ 1, 2, 73.

- b) *Limitation 2.a: cutting a sheet of film from a roll of heat shrinkable film;*

The Petition relies on Crook’s disclosure of a sheet of heat shrinkable film and the use of a consumer roof wrap kit that includes a knife and roof membrane supply roll for this limitation. *Id.* at 68–72. The record sufficiently supports the Petition’s assertion. Ex. 1004 ¶ 70, Fig. 5.

- c) *Limitation 2.b: after said cutting step, applying the sheet of film over the portion of the roof to extend from a first edge to a second edge of the built structure, wherein the film includes a leading edge and a trailing edge;*

The Petition asserts that it would have been obvious to a POSITA to cut a sheet of film from a roll of heat shrinkable film from Crook’s disclosure of cutting a sheet of film from a roll and to do this before implementing Crook’s disclosure to cover a portion of a roof. Pet. 74–75 (citing Ex. 1003 ¶ 247). The Petition additionally relies on Vanderzee’s disclosure of assembling parallel strips of plastic for a roof, off the roof surface, and rolling them up before applying it, as evidence that cutting a sheet from a roll would have been obvious for a POSITA. *Id.* at 76 (citing Ex. 1003 ¶ 250). The record sufficiently supports the Petition’s assertion that

roof films are rolled and cut from rolls. Ex. 1003 ¶¶ 247, 250; Ex. 1004 ¶ 70, Fig. 5.

- d) Limitation 2.c: wrapping portions of the leading edge around a first batten and attaching the first batten to an underside of a first eave or to a fascia of the built structure;*

The Petition relies on Crook in view of Kelly and Inzeo as applied to claim 1 (limitation 1.b or 1.c) for rendering this limitation obvious. Pet. 78. We determine at this stage of the proceeding that this limitation is sufficiently supported by the record for the same reasons discussed above in connection with claim 1.

- e) Limitation 2.d: wrapping portions of the trailing edge around a second batten and attaching the second batten to an underside of a second eave or to the fascia of the built structure at a location different than the first batten; and*

The Petition relies on Crook in view of Kelly and Inzeo as applied to claim 1 (limitation 1.b or 1.c) for rendering this limitation obvious. Pet. 78. We determine at this stage of the proceeding that this limitation is sufficiently supported by the record for the same reasons discussed above in connection with claim 1.

- f) Limitation 2.e: heating the film to cause the film to conform to the portion of the roof.*

The Petition relies on Crook in view of Kelly and Inzeo as applied to claim 1 (limitation 1.d) for rendering this limitation obvious. Pet. 78. We determine at this stage of the proceeding that this limitation is sufficiently supported by the record for the same reasons discussed above in connection with claim 1.

2. *Analysis of Claim 3*

- a) *Limitation 3.pre: A method of covering at least a portion of a roof of a built structure comprising the steps of:*

The Petition relies on Crook for disclosing covering a portion of a roof for the same reasons provided above for claim 2. Pet. 78. For the same reasons discussed above for claim 1, we determine the record sufficiently supports that the prior art satisfies the recitation in the preamble, should the preamble be limiting. Ex. 1004, Abstr., ¶¶ 1, 2, 73.

- b) *Limitation 3.a: applying a pre-cut sheet of heat shrinkable film over the portion of the roof to extend from a first edge to a second edge of the built structure, wherein the film includes a leading edge and a trailing edge;*

The Petition relies on the same analysis of claim 1.a for Crook's disclosure of pre-cutting strips to extend from a first edge to a second edge prior to assembling them into a sheet. *Id.* at 79 (citing Ex. 1003 ¶ 287). The Petition also asserts that a POSITA would have understood to cut strips from a roll prior to assembling into a pre-cut sheet based on Crook's disclosure, and that this would have been an obvious, routine implementation choice. *Id.* at 79.

We determine at this stage of the proceeding that this limitation is sufficiently supported by the record for the same reasons discussed above in connection with claim 2. Ex. 1003 ¶ 287; Ex. 1004 ¶ 70, Fig. 5.

- c) *Limitation 3.c: wrapping portions of the trailing edge around a second batten and attaching the second batten to an underside of a second eave or to the fascia of the built structure at a location different than the first batten; and*

The Petition relies on Crook in view of Kelly and Inzeo as applied to claim 1 (limitation 1.b or 1.c) for rendering this limitation obvious. Pet. 82. We determine at this stage of the proceeding that this limitation is

sufficiently supported by the record for the same reasons discussed above in connection with claim 1.

d) Limitation 3.d: heating the film to cause the film to conform to the portion of the roof.

The Petition relies on Crook in view of Kelly and Inzeo as applied to claim 2 (2.d above, which, in turn, relies on the reasoning applied to claim 1, limitation 1.d) for rendering this limitation obvious. Pet. 82. We determine at this stage of the proceeding that this limitation is sufficiently supported by the record for the same reasons discussed above in connection with claim 1.

L. Ground 8: Crook, Kelly, Inzeo, and Vanderzee

Petitioner argues that the combination of Crook, Kelly, and Inzeo renders obvious claims 2 and 3. Pet. 67–82. Patent Owner disagrees for the same reasons discussed above in connection with Ground 1. Prelim. Resp. 17–39.

Having determined that Petitioner demonstrates a reasonable likelihood that claims 2 and 3 would have been obvious in view of Crook, Kelly, and Inzeo without the additional teachings of Vanderzee, we do not address Petitioner’s additional obviousness arguments with respect to Crook, Kelly, and Inzeo in view of Vanderzee.

M. Ground 9: Crook and Lowe’s

Petitioner argues that the combination of Crook and Lowe’s renders obvious claims 2 and 3. Pet. 67–82. Patent Owner disagrees for the same reasons discussed above regarding the combination of Crook and Lowe’s. Prelim. Resp. 39–43.

Claims 2 and 3 differ from claim 1 in that they do not require that the recited “heat shrinkable film” be claim 1’s recited “a film of low density

polyethylene.” Ex. 1001, 10:15–16 (claim 1), 10:30 (claim 2’s “heat shrinkable film”), 10:47 (claim 3’s “heat shrinkable film”). In addition, claims 2 and 3 require that the sheet of film be cut. *Id.* at 10:30 (claim 2 recites “cutting a sheet of film from a roll of heat shrinkable film”); 10:46 (claim 3 recites “applying a pre-cut sheet of heat shrinkable film”). The Petition relies on Crook’s disclosure of a kit that includes a roof membrane supply roll and a knife or cutting blade to show that Crook’s film is cut as required by claims 2 and 3. Pet. 69–70 (citing Ex. 1004 ¶¶ 70–72, Fig. 5; Ex. 1003 ¶ 233).

Having determined that Petitioner demonstrates a reasonable likelihood that claim 1 would have been obvious in view of Crook, Lowe, and Americover, we do not address Petitioner’s obviousness arguments over Crook and Lowe alone for claims 2 and 3 because neither claim 2 nor claim 3 require claim 1’s recited “a film of low density polyethylene” for which the Petition relies on Americover.

N. Ground 10: Crook, Lowe’s, and Vanderzee

Petitioner argues that the combination of Crook, Lowe’s, and Vanderzee renders obvious claims 2 and 3. Pet. 67–82. Patent Owner disagrees for the same reasons discussed above regarding the combination of Crook and Lowe’s. Prelim. Resp. 39–43.

As noted above, the Petition relies on Crook’s disclosure of a kit that includes a roof membrane supply roll and a knife or cutting blade to show that Crook’s film is cut as required by claims 2 and 3. Pet. 69–70 (citing Ex. 1004 ¶¶ 70–72, Fig. 5; Ex. 1003 ¶ 233). The Petition relies on Vanderzee for assembling sheets from strips off the roof surface and then

rolling the sheet and cutting it as taught by Crook. *Id.* at 72–74 (citing Ex. 1003 ¶¶ 234–241; Ex. 1035, Abstr., 2:31–39, 2:61–64; Ex. 1004 ¶ 70).

Having determined that Petitioner demonstrates a reasonable likelihood that claims 2 and 3 would have been obvious in view of Crook and Lowe’s, we do not address Petitioner’s additional obviousness arguments with respect to Crook and Lowe’s in further view of Vanderzee.

III. CONCLUSION

For the reasons set forth above, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing with respect to at least one challenged claim of the ’484 patent, and we institute *inter partes* review on all challenged claims and on all grounds presented.

At this preliminary stage of the proceeding, we have not made a final determination as to the patentability of any challenged claim or any factual or legal issue underlying the patentability inquiry. Any final determination will be based on the record developed during trial. We place Patent Owner on express notice that any argument not asserted in a timely-filed Response to the Petition, or in another manner permitted during trial, shall be deemed waived, even if that argument was presented in the Preliminary Response.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that *inter partes* review is instituted on each of the grounds asserted in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which shall commence on the entry date of this decision.

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