PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Washington, D.C.

In the Matter of **CERTAIN GLOW FISH TAPE SYSTEMS, SAFETY HELMET SYSTEMS, AND COMPONENTS THEREOF**	**Inv. No. 337-TA-1442**

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDATION ON REMEDY AND BOND

Chief Administrative Law Judge Clark S. Cheney

(June 5, 2026)

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Table of Abbreviations

CDX	Complainant's demonstrative exhibit
CIB	Complainant's post-hearing initial brief
COCCB	Complainant's opening claim construction brief
CPB	Complainant's pre-hearing brief
CPX	Complainant's physical exhibit
CRB	Complainant's post-hearing responsive brief
CRCCB	Complainant's responsive claim construction brief
CRRB	Complainant's post-hearing reply brief
CX	Complainant's exhibit
Decl.	Declaration
Dep.	Deposition
Tr.	Evidentiary hearing transcript
JDX	Joint demonstrative exhibit
JPX	Joint physical exhibit
JX	Joint exhibit
PTO	U.S. Patent and Trademark Office
R&D	Research and development
RDX	Respondent's demonstrative exhibit
RFA	Request for admission
RFP	Request for production
RIB	Respondent's post-hearing brief
ROCCB	Respondent's opening claim construction brief
RPB	Respondent's pre-hearing brief
RPX	Respondent's physical exhibit
RRB	Respondent's post-hearing responsive brief
RRCCB	Respondent's responsive claim construction brief
RRRB	Respondent's post-hearing reply brief
RX	Respondent's exhibit
Stip.	Stipulation

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Washington, D.C.

In the Matter of **CERTAIN GLOW FISH TAPE SYSTEMS, SAFETY HELMET SYSTEMS, AND COMPONENTS THEREOF**	**Inv. No. 337-TA-1442**

INITIAL DETERMINATION ON VIOLATION OF SECTION 337 AND RECOMMENDATION ON REMEDY AND BOND

Chief Administrative Law Judge Clark S. Cheney

(June 5, 2026)

Pursuant to the Notice of Investigation, 90 Fed. Reg. 12790 (Mar. 19, 2025), and 19 C.F.R. §§ 210.10(b), 210.42(a)(1)(i), this is the final initial determination in the matter of *Certain Glow Fish Tape Systems, Safety Helmet Systems, and Components Thereof*, Investigation No. 337-TA-1442.

For the reasons stated herein, I have determined that a violation of section 337 of the Tariff Act of 1930, as amended, has occurred in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain safety helmet systems and components thereof based on infringement of U.S. Patent No. 12,268,265.

I. INTRODUCTION

A. Procedural History

On February 11, 2025, complainant Klein Tools, Inc. ("Klein") filed a complaint alleging violations of section 337 based on the importation into the United States, the sale for importation, and the sale within the United States after importation of certain glow fish tape systems, safety helmet systems, and components thereof. 90 Fed. Reg. 9729 (Feb. 18, 2025); *see* EDIS Doc. IDs 843136, 843137, 843139, 843140 (public filings, confidential filings, and appendices). Klein filed a supplement to the complaint on March 3, 2025. EDIS Doc. IDs 844783, 844785.

On March 19, 2025, the Commission instituted Investigation No. 337-TA-1442 to determine:

> [W]hether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain products identified in paragraph (2) by reason of infringement of one or more of claims 1, 3-8, 10, 11, and 13-17 of the '327 patent [U.S. Patent No. 11,452,327]; 6, 8, 9, 11, and 14-17 of the '209 patent [U.S. Patent No. 11,713,209]; and 1, 2, 4, 6-8, 10, and 14-17 of the '573 patent [U.S. Patent No. 12,187,573], and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

90 Fed. Reg. 12790 (Mar. 19, 2025) ("Notice of Investigation").

The plain language description of the accused products in the complaint defines the scope of the investigation. 19 C.F.R. § 210.10(b)(1). The products are described as "glow fish tape systems, safety helmet systems—the latter of which include safety helmets and hard hats with an outer shell including a brim and front and rear receptacles, and accessory devices that are releasably mountable onto at least a portion of each of the front and rear receptacles—and components thereof." Notice of Investigation.

The Notice of Investigation named Milwaukee Electric Tool Corporation ("Milwaukee") of Brookfield, Wisconsin, as the sole respondent. *Id.* The Office of Unfair Import Investigations is not a party to this investigation. *Id.*

I set a 15-month target date of June 18, 2026, for this investigation, thereby making the final initial determination on violation of section 337 due no later than February 18, 2026. Order No. 4 (Apr. 8, 2025).

On May 1, 2025, I issued an initial determination granting Klein leave to amend the complaint and notice of investigation to add allegations of infringement of claims 1-4 of U.S. Patent No. 12,268,265 ("the '265 patent"). Order No. 6 (May 1, 2025), *unreviewed by* Comm'n Notice (May 30, 2025); *see also* 90 Fed. Reg. 23952 (June 5, 2025).

On June 25, 2025, the parties submitted a chart identifying proposed competing constructions for terms recited in asserted claims of U.S. Patent Nos. 11,713,209 ("the '209 patent"), 12,187,573 (the '573 patent), 11,452,327 ("the '327 patent"), and 12,268,265 ("the '265 patent"). EDIS Doc. ID 854978. The parties subsequently briefed their positions regarding the terms in accordance with the procedural schedule. On July 23, 2025, I conducted a hearing regarding the disputed claim terms.[1] This initial determination resolves the remaining claim construction disputes raised by the parties.

On July 16, 2025, the parties stipulated to certain facts regarding representative products. This stipulation has been entered into the evidentiary record as JX-0016C.

On July 29, 2025, the parties stipulated to certain facts regarding importation and inventory. EDIS Doc. ID 858067. This stipulation has been entered into the evidentiary record as JX-0017C.

[1] The transcript of the hearing is available at EDIS Doc. ID 857674 and will be referred to as "Markman Tr."

On September 19, 2025, Milwaukee moved for findings on summary determination that it does not infringe asserted claims 6, 8-9, 11, and 14-17 of the '209 patent or asserted claims 1-2, 4, 6-8, 10, and 14-17 of the '573 patent. Motion Docket No. 1442-006. In view of my findings on infringement of the '209 and '573 patents set forth in section IX below, Motion No. 1442-006 is denied as moot.[2]

On November 20, 2025, I issued an initial determination terminating this investigation in part based on the withdrawal of the complaint as to allegations of infringement of asserted claims 1, 3-7, 11, and 16 of the '327 patent, claims 11 and 14-17 of the '209 patent, and claims 1-2, 4, 10, and 14-17 of the '573 patent. Order No. 14 (Nov. 20, 2025), *unreviewed by* Comm'n Notice (Dec. 12, 2025).

On November 20, 2025, I issued an initial determination extending the target date for this investigation to September 21, 2026, thereby making the final initial determination on violation due no later than May 21, 2026. Order No. 15 (Nov. 20, 2025), *unreviewed by* Comm'n Notice (Dec. 12, 2025).

On December 19, 2025, I issued an initial determination making findings on summary determination that the domestic industry requirement has been satisfied with respect to the '209 and '573 patents. Order No. 17 (Dec. 19, 2025), *unreviewed by* Comm'n Notice (Jan. 20, 2026).

On January 5, 2026, I issued an initial determination terminating this investigation in part based on the withdrawal of the complaint as to allegations of infringement of asserted claims 13-15 of the '327 patent, claims 8 and 9 of the '209 patent, and claims 7 and 8 of the '573 patent. Order No. 19 (Jan. 5, 2026), *unreviewed by* Comm'n Notice (Jan. 29, 2026).

[2] All other motions that remain pending in this investigation are also denied as moot in view of the findings in this initial determination.

I held a prehearing conference on January 5, 2026, and convened an evidentiary hearing immediately thereafter. The evidentiary hearing ended on January 8, 2026. *See* Tr. at 1-1142.[3]

On May 21, 2026, I issued an initial determination extending the target date for this investigation to October 5, 2026, which makes this final initial determination on violation due no later than June 5, 2026. Order No. 23 (May 21, 2026).

B. The Parties

1. Complainant Klein Tools, Inc.

Klein is a corporation organized and existing under the laws of the State of Delaware with its headquarters and principal place of business at 450 Bond Street, Lincolnshire, Illinois 60069. Am. Compl. ¶ 7. Klein manufactures and sells a wide range of tools and personal protective equipment. *Id.* ¶ 8; Tr. (O'Flaherty) at 64:25-66:2.

2. Respondent Milwaukee Electric Tool Corporation

Milwaukee is a corporation organized and existing under the laws of the State of Delaware with a principal place of business at 13135 West Lisbon Road, Brookfield, Wisconsin, 53005. Resp. to Am. Compl. ¶ 10. Milwaukee manufacturers and sells electric power tools, accessories, hand tools, personal protective equipment, and storage products. *Id.* ¶ 12.

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[3] The transcript of the evidentiary hearing is available on EDIS. The following table identifies the EDIS Doc. ID for the confidential and public transcripts for each day of the hearing:

Hearing Day	Public Tr.	Conf. Tr.
1/5/2026	868465	868466
1/6/2026	868535	868537
1/7/2026	868540	868541
1/8/2026	868618	868619

These documents are hereinafter collectively referred to as "Tr."

C. The Asserted Patents

The Asserted Patents in this investigation are divided into two groups: the '327 and '265 patents are collectively referred to as the "Safety Helmet Patents," and the '209 and '573 patents are collectively referred to as the "Glow Fish Tape Patents."

1. Safety Helmet Patents

The '327 patent issued on September 27, 2022, from an application filed on January 14, 2019, and the '265 patent issued on April 8, 2025, from an application filed on July 1, 2022. JX-0001 at cover page (the '327 patent); JX-0004 at cover page (the '265 patent). The '265 patent is a continuation of the '327 patent, both share a common specification, and both are titled "Safety Helmet" and name Shantanu Deshpande and Kingston Wong as inventors. '327 patent at cover page; '265 patent at cover page. The '327 patent expires on July 20, 2039, and the '265 patent expires on May 3, 2039. Am. Compl. ¶¶ 50, 59.

Klein owns the '327 and '265 patents by assignment. JX-0011; JX-0014. Milwaukee does not contest that Klein has standing to bring suit for infringement of the Safety Helmet Patents. *See* RRB at 5.

a) '327 Patent Asserted Claims

Klein asserts claims 8, 10, and 17 of the '327 patent against Milwaukee. CIB at 34-63. To prove satisfaction of the technical prong of the domestic industry requirement, Klein relies on claims 8, 10, and 17 of the '327 patent. *See* CIB at 16-34. Claims 8 and 17 are independent claims; claim 10 depends from claim 8.

The '327 patent claims currently at issue in this investigation are provided below. The parties have agreed to refer to each individual claim limitation using a common numbering system.

This numbering system is indicated with brackets. In addition, disputed claim terms that were briefed by the parties for construction are identified with ***bolded italic*** typeface:

8[pre] A safety helmet, comprising:

8[a][i] an outer shell adapted to be worn by a user, the outer shell being molded from a common material and having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris,

8[a][ii] ***wherein the outer shell is reversible*** such that one of the front side or the rear side is oriented above a face of the user when the outer shell is worn by the user, and

8[a][iii] wherein the brim is configured to be disposed above the face of the user when the outer shell is worn by the user with the front side being oriented above the face of the user;

8[b][i] a front receptacle being integrally molded with the outer shell and having an ***external slot*** extending upwardly along the front side on the exterior surface of the outer shell above the brim and

8[b][ii] a ***protruding nub***, wherein the ***protruding nub*** is integrally molded with the outer shell from the common material and is ***disposed centrally relative to the external slot*** and directly onto the exterior surface of the outer shell;

8[c] a rear receptacle having an additional ***external slot*** disposed on the rear side on the exterior of the outer shell;

8[d] a first accessory device having a first mating receptacle formed thereon, at least a portion of the first accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; and

8[e] a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell.

10. The safety helmet of claim 8, wherein the common material is a molded plastic material.

17[pre] A safety helmet, comprising:

> 17[a] an outer shell adapted to be worn by a user, an exterior of the outer shell having a front side, a rear side, and a brim extending outwardly from the front side and configured to shield the user's eyes from sunlight or falling debris;
>
> 17[b][i] a front receptacle having an ***external slot*** extending upwardly on the front side and
>
> 17[b][ii] a ***protruding nub disposed centrally relative to the external slot***, the ***protruding nub*** being integrally molded with the outer shell on the exterior from a common material;
>
> 17[c] a rear receptacle having an additional ***external slot*** disposed on the rear side on the exterior of the outer shell, the rear receptacle having an additional ***protruding nub disposed centrally relative to the additional external slot***, the additional ***protruding nub*** being integrally molded with the outer shell on the exterior from the common material;
>
> 17[d] a first accessory device having a first mating receptacle formed thereon, at least a portion of the first accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; and
>
> 17[e] a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell;
>
> 17[f] wherein the brim, the front receptacle, and the rear receptacle are a unitary feature of the outer shell.

'327 patent at claims 8, 10, 17.

b) '265 Patent Asserted Claims

Klein asserts claims 1-4 of the '265 patent against Milwaukee. CIB at 75-88. To prove satisfaction of the technical prong of the domestic industry requirement, Klein relies on claims 1-4 of the '265 patent. *See* CIB at 64-75. Claim 1 is an independent claim; claims 2-4 depend from claim 1.

The '265 patent claims currently at issue in this investigation are provided below. The parties have agreed to refer to each individual claim limitation using a common numbering system.

This numbering system is indicated with brackets. In addition, disputed claim terms that were briefed by the parties for construction are identified with ***bolded italic*** typeface:

1[pre] A safety helmet system, comprising:

1[a] a safety helmet comprising:

1[b] a molded outer shell adapted to be worn by a user, the outer shell having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side;

1[c] a front receptacle having a first pair of ***external slots*** and ***a stop***, wherein each of the first pair of ***external slots*** extends upwardly along the front side of the outer shell and the stop is disposed between the first pair of ***external slots***, and wherein the stop is integrally molded with the exterior surface of the outer shell; and

1[d] a rear receptacle disposed on the rear side on the exterior surface of the outer shell, the rear receptacle having a second pair of ***external slots***; and

1[e] an accessory device having a mating receptacle formed thereon, at least a portion of the mating receptacle being selectively engageable with the front receptacle or the rear receptacle such that the accessory device is releasably mountable onto each of the front receptacle and the rear receptacle;

1[f] wherein each of the first pair of ***external slots*** of the front receptacle is a receiver slot flanked by raised walls, and the stop comprises a protruding member, wherein the accessory device includes a clip, and wherein the receiver slot aligns the accessory device therein, the raised walls retain the accessory device therebetween, and the protruding member engages the clip to releasably mount the accessory device in the front receptacle.

2. The safety helmet system of claim 1, wherein the outer shell, the front receptacle, and the rear receptacle are formed from a common material.

3. The safety helmet system of claim 2, wherein the common material is plastic.

4. The safety helmet system of claim 1, further including a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell.

'573 patent at claims 1-4.

2. Glow Fish Tape Patents

The '209 patent issued on August 1, 2023, from an application filed on November 26, 2019, and the '573 patent issued on January 7, 2025, from an application filed on July 9, 2023. JX-0002 at cover page (the '209 patent); JX-0003 at cover page (the '573 patent). The '573 patent is a continuation of the '209 patent, both share a common specification, and both are titled "Glow Fish Tape System" and name Daniel R. Pearson as the inventor. '209 patent at cover page; '573 patent at cover page. The '209 patent expires on September 28, 2041, and the '573 patent expires on November 26, 2039. Am. Compl. ¶¶ 33, 41. The priority date for both Glow Fish Tape Patents is November 26, 2019. '209 patent at cover page; '573 patent at cover page.

Klein owns the '209 and '573 patents by assignment. JX-0012; JX-0013. Milwaukee does not contest that Klein has standing to bring suit for infringement of the Glow Fish Tape Patents. *See* RRB at 5.

a) '209 Patent Asserted Claims

Klein asserts claim 6 of the '209 patent against Milwaukee. CIB at 91-118. To prove satisfaction of the technical prong of the domestic industry requirement, Klein relies on claims 1, 5, and 6 of the '209 patent. *See* CIB at 89. Claims 1 and 6 are independent claims; claim 5 depends from claim 1.

The '209 patent claims currently at issue in this investigation are provided below. The parties have agreed to refer to each individual claim limitation using a common numbering system. This numbering system is indicated with brackets. In addition, disputed claim terms that were briefed by the parties for construction are identified with ***bolded italic*** typeface:

1[pre] A fish tape system comprising:

1[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;

1[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, the outermost wall having an annular opening extending around a circumference of the outer wall, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and

1[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference of the outer wall to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;

1[d] wherein at least one of the sidewalls of the case is ***transparent*** to allow the luminescent material to be energized by ***light passing through the at least one of the sidewalls***.

5. The fish tape system of claim 1 wherein the fish tape further comprises a threaded opening in at least one of the first and second ends.

6[pre] A fish tape system comprising:

6[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;

6[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, an annular opening extending around a circumference of one of the inner and outer walls, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and

6[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;

6[d] wherein at least a portion of the case is ***transparent*** to allow the luminescent material to be energized by ***light passing through the portion***.

'209 patent at claims 1, 5, 6.

b) '573 Patent Asserted Claims

Klein asserts claim 6 of the '573 patent against Milwaukee. CIB at 119-23. To prove satisfaction of the technical prong of the domestic industry requirement, Klein relies on claims 1, 5, and 6 of the '573 patent. *See* CIB at 118. Claims 1 and 6 are independent claims; claim 5 depends from claim 6.

The '573 patent claims currently at issue in this investigation are provided below. The parties have agreed to refer to each individual claim limitation using a common numbering system. This numbering system is indicated with brackets. In addition, disputed claim terms that were briefed by the parties for construction are identified with ***bolded italic*** typeface:

> 1[pre] A fish tape system comprising:
>
> > 1[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;
> >
> > 1[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, the outermost wall having an annular opening extending around a circumference of the outer wall, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and
> >
> > 1[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference of the outer wall to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;
> >
> > 1[d] wherein at least one of the sidewalls of the case is configured to allow the luminescent material to be energized by ***light passing through the at least one of the sidewalls***.
>
> 5. The fish tape system of claim 1 wherein the fish tape further comprises a threaded opening in at least one of the first and second ends.
>
> 6[pre] A fish tape system comprising:

> 6[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;
>
> 6[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, an annular opening extending around a circumference of one of the inner and outer walls, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and
>
> 6[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;
>
> 6[d] wherein at least a portion of the case is configured to allow the luminescent material to be energized by ***light passing through the portion***.

'573 patent at claims 1, 5, 6.

D. Products at Issue

The products at issue in this investigation relating to the Safety Helmet Patents include hard hats, safety helmets, and accessory devices. One difference between a hard hat and a safety helmet is the orientation in which it can be worn. A hard hat typically does not include a chin strap and is usually designed to be worn forwards (in a regular configuration) or backwards (in what in the industry calls a reverse-donned configuration). Tr. (O'Flaherty) at 67:12-22. A safety helmet typically is designed with a chin strap already integrated and can only be worn in the forward-biased configuration. Tr. (O'Flaherty) at 67:23-68:5.

The products at issue in this investigation relating to the Glow Fish Tape Patents include glow-in-the-dark fish tapes used to guide wires through enclosed spaces such as walls or conduits in low-light conditions. Am. Compl. ¶¶ 18-19.

1. Accused Headwear Products

Appendix I to Klein's initial post-hearing brief lists the Milwaukee hard hats, safety helmets, and accessory devices that Klein accuses of infringing the Safety Helmet Patents. The parties have stipulated that the Milwaukee BOLT White Front Brim Vented Hard Hat (48-73-1200) (JPX-0008) is representative of the "Accused Hard Hats" listed in Appendix I and that the Milwaukee BOLT White Front Brim Safety Helmet (48-73-1320) (JPX-0007) is representative of certain "Accused Safety Helmets" listed in Appendix I. JX-0016C ¶¶4-5. *See* CIB at 10-11.

Klein accuses 32 additional Milwaukee safety helmet SKUs of infringement that are not included in the parties' stipulation on representative products. Milwaukee contends that these additional 32 products have no brim and thus differ materially from the other safety helmets subject to the stipulation. *See* RRB at 28-30. These "Non-stipulated Accused Safety Helmets" are listed as follows:

Description	SKUs
BOLT Safety Helmet (USA), Class C	48-73-1300, 48-73-1302, 48-73-1304, 48-73-1306, 48-73-1308, 48-73-1310, 48-73-1312, 48-73-1334
BOLT Safety Helmet (USA), Class E	48-73-1301, 48-73-1303, 48-73-1305, 48-73-1307, 48-73-1309, 48-73-1311, 48-73-1313, 48-73-1335
BOLT Safety Helmet with IMPACT ARMOR Liner, Class C	48-73-1350, 48-73-1352, 48-73-1354, 48-73-1356, 48-73-1358, 48-73-1360, 48-73-1362, 48-73-1378
BOLT Safety Helmet with IMPACT ARMOR Liner, Class E	48-73-1351, 48-73-1353, 48-73-1355, 48-73-1357, 48-73-1359, 48-73-1361, 48-73-1363, 48-73-1379

RDX-0001.45; CIB at AI-5; RRB at 27-28. Certain issues unique to these products will be addressed separately in the discussion of infringement in section VIII below.

The "Accused Accessory Devices" listed in Appendix I are designed to be releasably mounted to the front and/or rear receptacles of the Accused Hard Hats and Accused Safety Helmets. CX-1535; JX-0115; JX-0168-JX-0175.

The Accused Hard Hats, Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets), and Accused Accessory Devices will collectively be referred to as the "Accused Headwear Products" or "Headwear Accused Products."[4] The following demonstrative slide prepared by Klein's technical expert Nicholas Shewchenko illustrates examples of the Accused Headwear Products:



CDX-0013C.0060.

[4] Klein uses the term "Accused Safety Helmet Products" to refer collectively to the Accused Hard Hats, Accused Safety Helmets, and Accused Accessory Devices in its post-hearing briefs. *See, e.g.*, CIB at 10. This initial determination will use the alternate nomenclature "Accused Headwear Products" to prevent confusion between one of the subcategories (Safety Helmets) and the collective category (Safety Helmet Products).

2. Domestic Industry Headwear Products

To prove satisfaction of the domestic industry requirement for the Safety Helmet Patents, Klein relies on the Klein hard hats, safety helmets, and accessory devices listed in Appendix II of its initial post-hearing brief. *See* CIB at 8-9. These products will be collectively referred to as the "Domestic Industry Headwear Products" or "Headwear Domestic Industry Products."[5] The parties have stipulated that the Klein Tools Hard Hat, Vented, Full-Brim Style, White (60401BHH) (JPX-0006) is representative of the "D[omestic] I[ndustry] Hard Hats" listed in Appendix II and that the Klein Tools Safety Helmet, Vented-Class C, White (60149) (JPX-0005) is representative of the "D[omestic] I[ndustry] Safety Helmets" listed in Appendix II. JX-0016C ¶¶ 6-7. The "D[omestic] I[ndustry] Accessory Devices" listed in Appendix II are designed to be releasably mounted to the front and/or rear receptacles of the Domestic Industry Hard Hats and Domestic Industry Safety Helmets. CX-0011; CX-0012; CX-0073; CX-0100; CX-0262; CX-0311; CX-0560; CX-0564; CX-0566; CX-0569; CX-0571; CX-0575; CX-0582.

The following demonstrative slide prepared by Klein's technical expert Nicholas Shewchenko illustrates examples of the Domestic Industry Headwear Products:

[5] Klein uses the term "D[omestic] I[ndustry] Safety Helmet Products" to refer collectively to the Domestic Industry Hard Hats, Domestic Industry Safety Helmets, and Domestic Industry Accessory Devices in its post-hearing briefs. *See, e.g.*, CIB at 8. This initial determination will use the alternate nomenclature "Domestic Industry Headwear Products" to prevent confusion between one of the subcategories (Safety Helmets) and the collective category (Safety Helmet Products).



CDX-0013C.0010.

3. Accused Glow Fish Tape Products

The Milwaukee products that Klein accuses of infringing the Glow Fish Tape Patents are the 20' GFT (48-22-4182) (JPX-0003) and 40' GFT (48-22-4184) (JPX-0004). *See* CIB at 11. These two products will collectively be referred to as the "Glow Fish Tape Accused Products" or "Accused Glow Fish Tape Products." The parties have stipulated that the Milwaukee 20' GFT product is representative of the Milwaukee 40' GFT product. JX-0016C ¶ 2. Photographs of the representative Milwaukee 20' GFT are shown below:



CX-0192.0005-0007.

4. Domestic Industry Glow Fish Tape Products

To prove satisfaction of the domestic industry requirement for the Glow Fish Tape Patents, Klein relies on the Klein glow fish tapes listed in the table below:

Name of Product	Model No.
Glow in the Dark Fish Tape, 20-Foot	50550
Glow in the Dark Fish Tape, 20-Foot (Lowe's Only Model)	50551
Glow in the Dark Fish Tape, 40-Foot	50660
Glow in the Dark Fish Tape Kit/Set	80050

CIB at 9. These products will collectively be referred to as the "Domestic Industry Glow Fish Tape Products" or "Glow Fish Tape Domestic Industry Products." The parties have stipulated that Klein's Glow in the Dark Fish Tape, 20-Foot (50550) (JPX-0001) is representative of the Domestic Industry Glow Fish Tape Products. JX-0016C ¶ 3. Photographs of the representative Klein 20' Glow Fish Tape are shown below:



JX-0031.0003-0005.

II. STATUTORY AUTHORITY

The Commission has statutory authority to investigate an alleged violation of section 337(a)(1)(B) based on the importation into the United States, sale for importation, or sale after importation of articles that infringe a valid and enforceable United States patent. 19 U.S.C. § 1337(a)(1)(B)(i). Here, Klein's complaint states that Milwaukee violated section 337 through the importation into the United States, the sale for importation, or the sale within the United States after importation of certain articles that infringe the '327, '265, '209, and '573 patents. *See* Notice of Investigation; 90 Fed. Reg. 23952 (June 5, 2025). The Commission thus has statutory authority to conduct this investigation.

III. IMPORTATION

The parties have stipulated that all accused Milwaukee glow fish tape products and certain accused Milwaukee hard hat accessories have been imported into the United States. JX-0017C ¶ 3. These imported accused products are listed in Exhibit A to the joint stipulation, which has been entered into evidence as JX-0017C.

Milwaukee disputes, however, Klein's allegation that Milwaukee hard hats, Milwaukee safety helmets, and at least one Milwaukee hat accessory product have been imported into the United States in violation of section 337. RRB at 4-5. Specifically, Milwaukee argues that "[a]ny exclusion order issued would not reach the Accused Hard Hats and Safety Helmets because they are not imported." RRB at 5 (citing Tr. (Richman) at 538:13-19; RDX-0005C.0002-4). Milwaukee also argues that the accused headlamp mount (SKU 48-73-1090) is manufactured domestically and thus is not imported into the United States. *Id.* at 4-5 (citing Tr. (Richman) at 538:13-539:15; RDX-0005C.0002-5).

I find that Milwaukee manufactured Accused Hard Hats and Accused Safety Helmets in the United States and then exported those products to customers overseas in Canada, Australia, Latin America, and Europe. Tr. (Richman) at 542:14-543:19; *see also* Tr. (Richman) at 543:20-544:5; RDX-0005C.6, 8; JPX-0102C. Some of those exported Milwaukee Accused Hard Hats and Milwaukee Accused Safety Helmets were subsequently re-imported into the United States when customers returned those items to Milwaukee. Tr. (Richman) at 542:14-543:19; *see also* Tr. (Richman) at 543:20-544:5; RDX-0005C.6, 8; JPX-0102C. Milwaukee inspected the returned items for damage, repackaged resalable items, and sent those resalable items to Milwaukee's distribution center in Mississippi for sale inside the United States. Tr. (Richman) at 542:14-543:19; *see also* Tr. (Richman) at 543:20-544:5; RDX-0005C.6, 8; JPX-0102C.

While Klein specifically cited record evidence and legal support for its re-importation allegation in its initial post-hearing brief, Milwaukee in its post-hearing responsive brief failed to address both the cited re-importation and resale facts of record and the cited Commission re-importation decisions. *Compare* CIB at 13-14 *with* RRB at 4-5. Accordingly, Milwaukee has abandoned any argument that the return of Milwaukee Accused Hard Hats and Milwaukee Accused

Safety Helmets fails to satisfy the importation requirement of section 337. *See* Order No. 2, Ground Rule G.R. 14.1 ("The administrative law judge may find that any issue for which a party has the burden of proof that is not set forth in detail in the post-hearing initial brief is abandoned or withdrawn.").

Under Commission precedent, the importation requirement of section 337 is satisfied when U.S.-manufactured articles are exported and subsequently imported back into the United States. *See Certain Chem. Mech. Planarization Slurries & Components Thereof,* Inv. No. 337-TA-1204, Comm'n Op. at 9-12 (Jan. 6, 2022); *Certain Sputtered Carbon Coated Computer Disks and Products Containing Same, Including Disk Drives*, Inv. No. 337-TA-350, USITC Pub. 2701, Comm'n Op. at 4-9 (Nov. 1993) ("We see no basis for respondents' position that the statutory term 'importation' excludes goods that have been 'reimported.'"). Moreover, the importation of a single product within an accused product category is sufficient to satisfy the importation requirement for all products in that category. *Certain Chem. Mech. Planarization Slurries*, Inv. No. 337-TA-1204, Comm'n Op. at 10-11. Thus, even if the Milwaukee Accused Hard Hats and Milwaukee Accused Safety Helmets are all originally manufactured in the United States, the return of some of those items from foreign customers constitutes importation. Furthermore, because at least some Milwaukee hard hat accessories are undisputedly manufactured overseas and imported (JX-0017C ¶ 3), it is immaterial that one of those products—the accused Milwaukee headlamp mount (SKU 48-73-1090)—is manufactured domestically; the importation requirement has been satisfied for the category of accessory products under investigation.

I find, based on undisputed record evidence, that at least one product within each of the product categories at issue in this investigation—glow fish tapes, hard hats, safety helmets, and accessory products—has been imported into the United States. In view of this evidence, I find that

the importation requirement of section 337 has been satisfied with respect to all Accused Products. *See* 19 U.S.C. § 1337(a)(1)(B)(i).

IV. AUTHORITY OVER IMPORTED GOODS

No party disputes the Commission's statutory authority to issue a remedy against imported accused products in accordance with 19 U.S.C. § 1337 if there is a violation of that statute. Although Milwaukee argues that certain accused products should not be subject to remedial orders because they are not imported into the United States, as discussed above, Milwaukee does not contest that imported accused products would be subject to remedial orders in the event the Commission finds a violation of section 337. *See* RRB at 5. I find that the Commission has statutory authority over the imported Accused Products under 19 U.S.C. § 1337. *See Sealed Air Corp. v. Int'l Trade Comm'n*, 645 F.2d 976, 985-86 (C.C.P.A. 1981); 19 U.S.C. § 1337.

V. AUTHORITY OVER THE PARTIES

All parties have actively participated in this investigation and no party has contested the Commission's statutory authority over the parties. *See* CIB at 12-13; RRB at 4. I find that the Commission has statutory authority over the parties in accordance with the Commission's governing statutes. *See, e.g.*, 19 U.S.C. §§ 1333, 1337(e)-(f).

VI. PERSON OF ORDINARY SKILL IN THE ART

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. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

A person of ordinary skill in the art is a hypothetical person who is presumed to be aware of all pertinent prior art. *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1992). Determining the appropriate level of skill for this hypothetical person can involve

consideration of the types of problems encountered in the art, prior art solutions to those problems, rapidity with which innovations are made, sophistication of the technology at issue, the educational level of active workers in the field, and the level of education of the inventors themselves. *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

The parties do not dispute that a person of ordinary skill in the art would have had (1) at least a bachelor's degree in engineering or (2) at least two years of industry or research experience concerning tools or equipment used in the construction industry. CIB at 14-15 (citing Tr. (Giachetti) at 352:11-353:2; Tr. (Smith) at 805:13-17); RIB at 15 (citing Tr. (Shewchenko) at 193:7-21; Tr. (Klopp) at 622:9-21).

In view of the parties' agreement, I adopt their definition of a person of ordinary skill in the art.

VII. CLAIM CONSTRUCTION

"An infringement analysis entails two steps. The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (en banc) (cleaned up), *aff'd*, 517 U.S. 370 (1996). Claim construction resolves legal disputes between the parties regarding claim scope. *See Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1319 (Fed. Cir. 2016).

Evidence intrinsic to the application, prosecution, and issuance of a patent is the most significant source of the legally operative meaning of disputed claim language. *See Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the patent claims, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *see also Markman*, 52 F.3d at 979.

"[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms." *Phillips*, 415 F.3d at 1314; *see Interactive Gift Express, Inc. v. CompuServe Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) ("In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point out and distinctly claim the subject matter which the patentee regards as his invention." (cleaned up)). The context in which a term is used in an asserted claim can be "highly instructive." *Phillips*, 415 F.3d at 1314. Additionally, other claims in the same patent, asserted or unasserted, may also provide guidance as to the meaning of a claim term. *Id.*

The specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). "[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." *Phillips*, 415 F.3d at 1316. "In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor." *Id*. As a general rule, however, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Id*. at 1323. In the end, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be . . . the correct construction." *Id*. at 1316 (quoting *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

This section addresses the construction of seven disputed terms previously briefed by the parties and argued at the *Markman* hearing.[6]

A. Safety Helmet Patents

As the '327 and '265 patents share a common specification, citations to the '327 specification also apply to the '265 specification, and vice versa.

1. "wherein the outer shell is reversible"

The term "wherein the outer shell is reversible" is recited in claim 8 of the '327 patent. The following table sets forth the constructions proposed by the parties:

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "wherein the outer shell is designed to be worn by a user in both forward and reverse orientations"	wherein the front and back of the outer shell have substantially the same construction, such that the user's view is not obstructed when the outer shell is oriented frontwards or backwards

See CIB at 15.

The dispute between the parties regarding this claim is relatively narrow. The parties agree that this term requires that the claimed safety helmet must "actually be usable when the outer shell is reversed," and that the claims do not cover merely "any outer shell that a user might wear backwards, regardless of whether the design permits safe or functional use in that orientation." CRCCB at 8 (citing ROCCB at 15, 18). The parties' disagreement centers on Milwaukee's position that the claim language requires the front and back of the outer shell to "have substantially the

[6] An eighth claim term, "wherein the front receptacle and the rear receptacle are of identical construction," was briefed and argued at the *Markman* hearing, but this term was recited only in claims of the '327 patent that have been terminated from this investigation. Therefore, this initial determination will not address the construction of this term.

same construction" and that "the user's view is not obstructed when the outer shell is oriented frontwards or backwards."

I find that Milwaukee's proposed construction is inappropriately narrow and inserts ambiguity into the scope of the claim.

With regard to Milwaukee's argument that the front and back of the helmet have "substantially the same construction," the claim language is instructive here. Limitations 8[a][i], 8[a][ii], and 8[a][iii] read:

> 8[a][i] an outer shell adapted to be worn by a user, the outer shell being molded from a common material and having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris,
>
> 8[a][ii] wherein the outer shell is reversible such that one of the front side or the rear side is oriented above a face of the user when the outer shell is worn by the user, and
>
> 8[a][iii] wherein the brim is configured to be disposed above the face of the user when the outer shell is worn by the user with the front side being oriented above the face of the user;

This language shows that the safety helmet *must* have a front brim but may or may not have a rear brim. This alone shows that the claims do not require the front and back of the outer shell to "have substantially the same construction" as proposed by Milwaukee.

The specification also demonstrates that the front and back of the outer shell does not need to "have substantially the same construction." For example, the preferred embodiment illustrated in Figure 1 is described and shown as having a brim only "disposed over the wearer's face" when the helmet is worn in the "standard orientation":

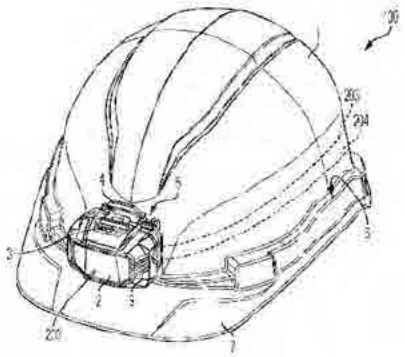


FIG. 1

'327 patent at 3:60-64, Fig. 1. Milwaukee's proposed construction thus reads out a preferred embodiment of the invention and is incorrect when viewed in context. *See Kaufman v. Microsoft Corp.*, 34 F.4th 1360, 1372 (Fed. Cir. 2022).

The second half of Milwaukee's proposed construction, the requirement that "the user's view is not obstructed when the outer shell is oriented frontwards or backwards," fares no better. As discussed at the claim construction hearing, even though a front brim does not fully obstruct a wearer's view, it does affect the user's field of view in an upwards direction. Markman Tr. at 124:22-125:12. Thus Milwaukee's proposal reads out a preferred embodiment of the invention, illustrated above, that teaches a front brim overhanging the wearer's face when the safety helmet is worn in a forward orientation. Moreover, Milwaukee's proposal injects ambiguity into the claim language by requiring a determination of the degree of visual obstruction that would be encompassed by the claim, a concept found nowhere in the specification.

By contrast, Klein's proposal that the claim term be afforded its plain and ordinary meaning is supported by the intrinsic evidence. The patent discloses a safety helmet that the user can wear in both forward and reverse orientations. *See, e.g.*, '327 patent at 6:8-29 (teaching that a light source may project forward or rearward and "illuminat[e] the area in front of a user when the safety helmet is in its reverse orientation"), 6:30-7:6 (teaching a "standard orientation" where various

light sources may be powered up and down as the user moves the safety helmet into a "reverse orientation").

Having rejected Milwaukee's arguments, the record does not contain evidence that this phrase needs further construction beyond its plain meaning. *See Bissell, Inc. v. Int'l Trade Comm'n*, No. 2024-1509, 2026 WL 1290562, at *4 (Fed. Cir. May 11, 2026) (affirming decision where "the Administrative Law Judge merely applied the plain and ordinary meaning of the claim language"); *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015) (the district court did not err when it resolved "the heart of the parties' disagreement—and declined to further construe the term because it was a 'straightforward term' that required no construction"). The claim term "wherein the outer shell is reversible" will be construed to have its plain and ordinary meaning to one of ordinary skill in the art, which the parties have agreed encompasses the concept of a safety helmet configured to be worn by a user in both forward and reverse orientations.

2. "protruding nub"

The term "protruding nub" is recited in asserted claims 8 and 17 of the '327 patent.

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "small structure extending from the surface"	small bump extending outwardly

See CIB at 15.

The dispute between the parties regarding this claim is relatively narrow. Both sides agree that the claimed "protruding nub" is small and that it extends from the outer surface of the safety helmet. *See* COCCB at 18-20; CRCCB at 10-11; ROCCB at 20-21; RRCCB at 10-13. While not apparent from the proposed constructions above, the parties' dispute with respect to this term centers on whether the claimed "nub" can include a shape that has a recess in it or whether it is

entirely convex without any surface concavities. *See* ROCCB at 21 ("Klein's construction . . . is an attempt to encompass a recess, as is included Klein's domestic industry products.").

The intrinsic evidence supports a finding that the term "nub," as used in the claims of the '327 patent, is not limited to a "bump" having no recesses in the surface.

The specification of the '327 patent describes and depicts the preferred embodiment of the "protruding nub" of the claimed invention. '327 patent at 3:65-4:15, Figs. 3-4. The specification states that the "protruding nub 17 extend[s] from the surface of the hard outer shell 1 of the safety helmet 100" and that a "clip 19" of an accessory device "receives the protruding nub 17" and "lock[s] it into place." *Id.* at 4:3-11. Figures 3 and 4 depict this preferred embodiment of the protruding nub and accessory device clip, denoted by 17 and 19, respectively:

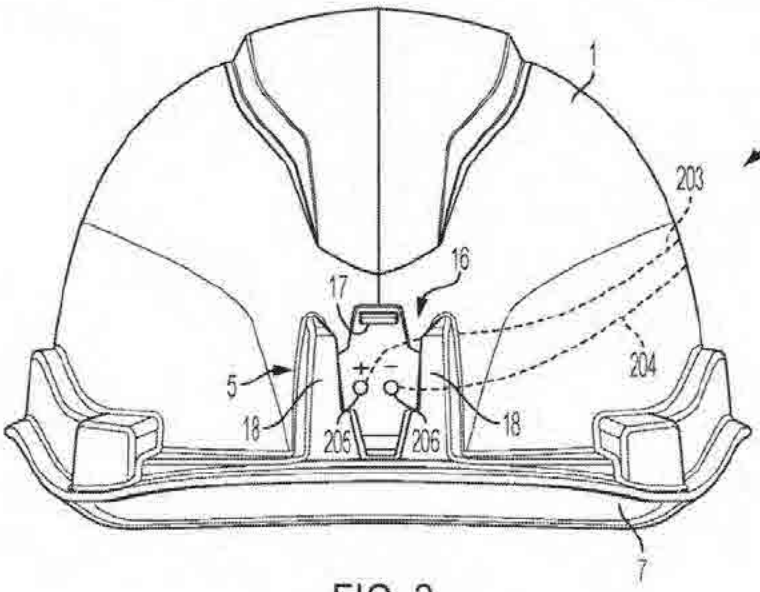


FIG. 3

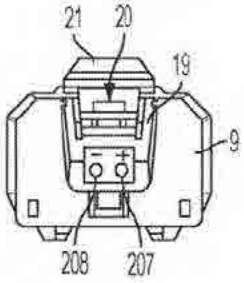


FIG. 4

'327 patent at Figs. 3-4. The patent figures illustrate protruding nubs on the front and rear of the helmet that that are not entirely convex, or include what Milwaukee refers to as a "recess." *See* Tr. (Shewchenko) at 205:25-206:11, 1005:5-1006:13; JX-0015 ('491 Provisional) at Fig. 5; '327 patent at Figs. 5, 8; JX-0005.0293 ('327 File History).

To the extent that Milwaukee contends that its proposed definition excludes a small protrusion having recesses in the surface of the protrusion, such a construction is contrary to a preferred embodiment of the invention illustrated above and is incorrect when viewed in context. *See Kaufman*, 34 F.4th at 1372.

Milwaukee's citation to the American Heritage Dictionary definition of "nub" meaning "small lump" does nothing to resolve the dispute. ROCCB at 21 (citing ROCCB Ex. 9 at 5). This extrinsic evidence does not state that a nub excludes surfaces with an indentation and thus does not address the dispute between the parties.

Indeed, neither party's proposed definition assists in resolving the dispute. No party has explained a material difference between the claimed "nub," the "lump" in Milwaukee's cited dictionary definition, the "bump" in Milwaukee's proposed construction, and the "small structure" in Klein's proposed construction. Because no material difference in claim scope has been identified between these various terms, I need not decide among them. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (claim construction is required "only to the extent necessary to resolve the controversy"); *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (claim construction "is not an obligatory exercise in redundancy"). The dispute here is resolved by clarifying that a "protruding nub" can have indentations on its surface. No further construction is necessary beyond that making that point. *See Bissell, Inc.*, 2026 WL 1290562, at *4 (affirming decision where "the Administrative Law Judge merely applied the plain and ordinary meaning of the claim language"); *Summit 6, LLC*, 802 F.3d at 1291 (the district court did not err when it resolved "the heart of the parties' disagreement—and declined to further construe the term because it was a 'straightforward term' that required no construction").

3. "a stop"

The term "a stop" is recited in asserted claim 1 of the '265 patent.

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "structure that inhibits movement"	small bump extending outwardly

See CIB at 15.

Milwaukee does not dispute that a stop inhibits movement. *See* ROCCB at 18-21; RRCCB at 10-14. The dispute between the parties regarding this claim term centers on whether it should be construed to mean the same thing as "protruding nub," discussed above. *See, e.g.*, ROCCB at 18. Milwaukee argues that "the intrinsic record makes clear that the terms 'protruding nub' and 'stop' are directed to the same subject matter and should be given the same construction. ROCCB at 18. Klein disagrees that the claimed "protruding nub" is equivalent to the claimed "stop" and thus argues that they should not be construed to mean the same thing. *See* COCCB at 21-22.

The specification teaches that the "protruding nub" is the preferred embodiment of the "stop" of the claimed safety helmet: "As also shown in FIGS. 3 and 4, the front tapered receiver slot 5 includes a tapered channel 16 formed between a pair of raised sidewalls 18 and a stop, shown in the preferred embodiment as a protruding nub 17 extending from the surface of the hard outer shell 1 of the safety helmet 100." '327 patent at 3:67-4:5. The specification thus treats "stops" and "protruding nubs" as overlapping, but distinct, classes of structures.

The language of the claims in the '327 patent, which shares the same specification as the '265 patent, further confirms that a "stop" and a "protruding nub" are not necessarily coextensive in the invention. Claim 1 of the '327 patent specifies "a protruding nub." '327 patent at claim 1. Claim 2 of the '327 patent depends from claim 1 and goes on to further limit the invention by

stating that "the protruding nub [of claim 1] comprises a stop." *Id.* at claim 2. This language supports a conclusion that not all protruding nubs are stops.

Milwaukee argues that the prosecution history shows that Klein intended "stop" to mean "protruding nub" because "[t]he term 'stop' did not appear in the original specification." ROCCB at 19-20. While it is true that the word "stop" was not recited in the body of the specification as filed with the original application that matured into the '327 patent, the original application did include two claims reciting "a stop, wherein the [first] accessory device includes a spring tab with a pawl, and wherein . . . the pawl [of the accessory device] engages the stop to releasably mount the [first] accessory device in the front receptacle." JX-0005.0021, .0022 ('327 file history). The Federal Circuit has stated that "[o]riginally filed claims have long been held to be part of the specification." *Allergan USA, Inc. v. MSN Lab'ys Priv. Ltd.*, 111 F.4th 1358, 1374 (Fed. Cir. 2024). More to the point, however, is the fact that nothing in this history expressly or impliedly limits a "stop" to mean the same thing as a "protruding nub." Milwaukee's citation to the prosecution history does not support its position.

Having rejected Milwaukee's argument that the meaning of "stop" is coterminous with the meaning of "protruding nub," no further dispute remains to be resolved. The record does not contain evidence that the term "stop" needs further construction beyond its plain meaning. *See Bissell, Inc.*, 2026 WL 1290562, at *4 (affirming decision where "the Administrative Law Judge merely applied the plain and ordinary meaning of the claim language"); *Summit 6, LLC*, 802 F.3d at 1291 (the district court did not err when it resolved "the heart of the parties' disagreement—and declined to further construe the term because it was a 'straightforward term' that required no construction"). The claim term "stop" will be construed to have its plain and ordinary meaning to one of ordinary skill in the art.

4. "external slot"

The term "external slot" is recited in asserted claims 8 and 17 of the '327 patent and asserted claim 1 of the '265 patent.

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "slot formed on the exterior of the helmet"	narrow groove between two sidewalls that protrude from the shell

See CIB at 15.

No party disputes that the "slot" in question is located on the exterior of the helmet. *See* COCCB at 23 ("these two words merely indicate that the claimed slot is formed on the exterior of the helmet"); RRCCB at 16 (Milwaukee's proposed construction "makes the slot external to the shell"). The parties' dispute centers on whether an "external slot" requires structures having a particular geometry shown in the preferred embodiment, as Milwaukee contends, or whether the phrase should retain a plain and ordinary meaning without requiring a specific geometry, as Klein contends. For the reasons explained below, I determine that the intrinsic evidence does not support construing "external slot" to require the groove and sidewalls proposed by Milwaukee.

The claim language provides strong guidance for interpreting this term. The independent claims specify that an "external slot" is located on or along the exterior of the outer shell. *See* '327 patent at claims 1, 8, 16, 17; '265 patent at claim 1. For example, claim 17 of the '327 patent describes "a front receptacle having an external slot extending upwardly on the front side on the exterior surface of the outer shell," and the '265 patent uses materially identical language. This language identifies the position of the slot but does not include additional limitations like sidewalls or any other specific configuration.

The independent and dependent claims in both asserted patents further confirm that an "external slot" is broader than the specific structure proposed by Milwaukee. For example, the

'327 patent recites "an external slot" in independent claim 8, and later, in dependent claims, further limits the invention with specific wall structures: claims 9 and 12 require "a receiver slot flanked by raised walls," and claim 14 adds "a first sidewall" and "a second sidewall" that retain a bracket. '327 patent at claims 8, 9, 12, 14. Similarly, claim 1 of the '265 patent requires that the receptacles have "a pair of external slots," and other limitations refer expressly to sidewalls and raised walls. *See* '265 patent at claim 1. Reading "two sidewalls that protrude from the shell" into "external slot," as proposed by Milwaukee, would render redundant the further limitations of the dependent claims in the '327 patent and the additional distinct limitations in claim 1 of the '265 patent.

The Federal Circuit has explained that dependent claims play an important role in defining the scope of the invention and should not be rendered meaningless by reading their limitations into an independent claim. *See Phillips*, 415 F.3d at 1314-15 ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim."). Milwaukee's proposed construction would be contrary to the more logical reading suggested by claim differentiation. *See Merck & Co. v Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."); *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("[W]here the limitation that is sought to be "read into" an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest."). The better reading here is that the "external slot" in the asserted patent claims refers simply to a type of opening, and specific structural boundary features are recited separately. Interpreting the disputed term in this way preserves the integrity of the claim hierarchy and gives effect to all of the claim language.

Turning to the specification of the asserted patents, that intrinsic record shows no reason to depart from the ordinary meaning of "external slot." Milwaukee notes that the specification uses the term "external slot" only once, in the context of the preferred embodiment illustrated in Figure 3, which includes a "tapered channel between raised sidewalls." *See* ROCCB at 22. Milwaukee contends that the term "external slot" must be limited to the structure of the preferred embodiment because the specification describes no other configurations. *Id.* The Federal Circuit, however, has cautioned that examples and preferred embodiments in the specification ordinarily do not limit the scope of the claims. *See Phillips*, 415 F.3d at 1323. The specification here uses no definitional language that restricts "external slot" only to a groove formed by protruding sidewalls. The specification instead describes an "exemplary embodiment" showing how an external slot may be constructed, not as an exclusive or mandatory configuration. *See* '327 patent at 3:55. The specification includes no clear lexicography or unmistakable disavowal limiting "external slot" to the specific geometry and structural configuration of Figure 3. *See Thorner v. Sony Computer Ent. Am. LLC,* 669 F.3d 1362, 1365 (Fed. Cir. 2012) ("There are only two exceptions to [the] general rule" that the words of a claim are generally given their ordinary and customary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution."); *see also Phillips*, 415 F.3d at 1316.

Further, the specification and claims consistently use the word "slot" to describe a bounded space that receives a portion of an accessory's mating receptacle; the word is not used in the specification or the claims as a label for the particular structures that define a void. The specification describes, for instance, a "slot 20" in an accessory clip that "receives" the protruding nub. *See* '327 patent at 4:9-11. This passage does not specify a structure for the "slot." Likewise,

claim 1 of the '327 patent requires that "at least a portion of the mating receptacle [be] selectively engageable within each of the external slot of the front receptacle or the additional external slot of the rear receptacle," and claims depending from claim 1 describe that "the external slot aligns the accessory device therein" and "is configured to receive a portion of the accessory device." '327 patent at 8:32-39, 8:55-58. That usage is consistent with the ordinary understanding of the word "slot" and does not necessarily require two protruding sidewalls to fulfill that purpose.

The prosecution history also does not support limiting an "external slot" to a particular sidewall configuration. During examination, the applicants distinguished their invention from a prior art reference called Bielefeld in a variety of ways, including by explaining that their claims were directed to slots "extending along the exterior of the outer shell" as opposed to the "*internal*" slots in Bielefeld. *See* JX-0005.0243 ('327 patent file history) (Sept. 27, 2021, Office Action Response at 8). Klein amended the relevant claims to recite an "external slot" in that context. *See* JX-0005.0237-41. Milwaukee disagrees with Klein's characterization of this prosecution history, but neither party argues that this prosecution history contains a disavowal of claim scope. *Compare* RRCCB at 15 ("As such, Klein was not distinguishing the claimed external slots from internal slots in the prior art.") *with* COCCB at 24 ("This plain and ordinary meaning is confirmed by the prosecution history of the '327 Patent."). Thus, the prosecution history does not support Milwaukee's more limiting construction. *See Thorner*, 669 F.3d at 1365.

The hearing testimony also supports a conclusion that an ordinary artisan at the time of the invention would not understand the term "external slot" to necessarily include the structures found in Milwaukee's proposal. Klein's expert Mr. Shewchenko credibly testified that in the phrase "receiver slot flanked by raised walls," the "raised sidewalls are the physical structure, and the slot is the recess or the gap," and that an object cannot "flank" itself. *See* Tr. (Shewchenko) at 331:3-19.

That testimony is consistent with the claim language, which treats "slot" as the recess and "raised walls" or "sidewalls" as adjacent but distinct structures. *See id.* at 331:17-19.

Milwaukee attacks the credibility of Mr. Shewchenko's testimony by contending that he "offered four different, inconsistent interpretations of the term 'external slot' across his infringement, technical domestic industry, and validity opinions, in which he: (i) first did not offer any interpretation of the claimed 'external slot;' (ii) testified that an external slot is a ***structure alone***; (iii) testified that an external slot is a ***void alone***; and (iv) testified that an external slot is a ***structure plus a void***." RRB at 6-7 (citing RIB at 74-76). Milwaukee points to Mr. Shewchenko's demonstrative slide CDX-0013C.0042 as showing the inconsistency between his positions:



RIB at 74-75; CDX-0013C.0042. As characterized by Milwaukee, the leftmost illustration captioned "Pair of External Slots" shows that Mr. Shewchenko takes the position that a slot is "a void alone," whereas the rightmost illustration captioned "External Slot" shows that he takes the contradictory position that a slot is "a structure plus a void." RIB at 74.

At the evidentiary hearing, I probed Mr. Shewchenko further on his testimony regarding the meaning of "slot." Tr. (Shewchenko) at 331:20-337:20. Mr. Shewchenko reiterated his position that a slot is a void alone and that the rightmost illustration on his demonstrative slide CDX-0013.0042 could have been prepared in a different way to highlight only the internal portion of the external slot without highlighting the structure. Tr. (Shewchenko) at 337:8-22. I am satisfied that Mr. Shewchenko's testimony credibly explains the apparent discrepancy present in the demonstrative slide.

Despite Milwaukee's criticisms, *see, e.g.*, RRB at 6-8, Mr. Shewchenko's testimony that a slot is a void alone aligns with the position Klein takes in its post-hearing briefs. For example, Klein contends it has consistently taken the position that a slot "is a void, formed by structure, that receives something, and in the claims, the structure is provided by the outer shell." *See* CRRB at 1-2 (citing CIB at 22-23). Neither Mr. Shewchenko's testimony nor Klein's position is in conflict with the teachings of the patents in that a void alone, unbounded by *any* structure, is not a slot as claimed in the invention.

Testimony adduced at the hearing also reflects the idea that physical recesses in the invention can be described in different ways, including as a single external slot ('327 patent) or as a pair of external slots ('265 patent). Mr. Shewchenko credibly explained that, in the '265 patent, the "primary mounting slot" can be thought of as "a pair of external slots" facing each other between raised sidewalls, whereas the '327 patent treats the same overall recess as a unitary "external slot." *See* Tr. (Shewchenko) at 307:2-309:22. I do not find that the basic meaning of "slot" is changed by the fact that some descriptions in the patents characterize the invention by describing two opposing sides while other descriptions focus on a unitary slot that receives the accessory.

Milwaukee raises two other objections that warrant discussion. First, Milwaukee contends that Klein's construction renders the word "external" redundant because the claims already specify that the slot is located "on the exterior surface of the outer shell." *See* ROCCB at 22-23. Milwaukee asserts that if "external" only denotes location, then the claims redundantly state the same idea twice. *See id.* This argument is not persuasive. The claims use "external" as a concise location indicator. The later phrase "on the exterior surface of the outer shell" clarifies and makes explicit the precise placement of the slot on the exterior "surface." The two expressions complement each other. The law does not forbid a drafter from using multiple words that convey related aspects of a limitation when doing so promotes clarity or precision. *See, e.g.*, *InnovaPure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1120 (Fed. Cir. 2004) (acknowledging that drafters may use "different words to express similar concepts" in claims).

Second, Milwaukee argues that unless "external slot" is limited to a narrow groove between protruding sidewalls, the term might cover any slit or hole in the outer shell. *See* Markman Tr. at 195:6-21. Milwaukee contends that this outcome would improperly broaden the claim scope. *See id.* The claims, however, foreclose this concern through additional limitations. As mentioned earlier, the claims do not merely identify a slot, they specify either a slot or pair of slots that are part of a "receptacle" with which an accessory device is "selectively engageable." *See, e.g.*, '327 patent at 8:20-47 (claim 1); '265 patent at 8:22-28 (claim 1). To infringe, a device with a slot must be configured as recited in every element of the claim. A mere through-hole or an incidental gap in the helmet shell would not satisfy the other requirements of claim 1 in each asserted patent. There is no need to impose additional, unclaimed structural requirements to guard against the hypothetical overbreadth Milwaukee imagines.

Returning to the dispute between the parties, no party asserts that the "external" modifier in the claimed "external slot" connotes anything other than its plain and ordinary meaning in this context. COCCB at 23 ("these two words merely indicate that the claimed slot is formed on the exterior of the helmet"); RRCCB at 16 (Milwaukee's proposed construction "makes the slot external to the shell"). So Klein's proposal that the construction include the phrase "formed on the exterior of the helmet" is not required to resolve the parties' dispute, and I do not adopt it. *See Vivid Techs., Inc.*, 200 F.3d at 803 (claim construction is required "only to the extent necessary to resolve the controversy"); *U.S. Surgical Corp.*, 103 F.3d at 1568 (claim construction "is not an obligatory exercise in redundancy").

The only remaining dispute here is resolved by clarifying that the claimed "external slot" does not require the specific structural formulation in Milwaukee's construction, for all of the reasons that have been noted above. Beyond making that point, a person of ordinary skill in the art would apply the plain and ordinary meaning of the term "external slot" in the context of the asserted patents. No further construction is necessary. *See Bissell, Inc.*, 2026 WL 1290562, at *4 (affirming decision where "the Administrative Law Judge merely applied the plain and ordinary meaning of the claim language"); *Summit 6, LLC*, 802 F.3d at 1291 (the district court did not err when it resolved "the heart of the parties' disagreement—and declined to further construe the term because it was a 'straightforward term' that required no construction"). Applying the plain and ordinary meaning of the term respects the structure of the claims, is consistent with the written description and figures, and avoids importing limitations from preferred embodiments or the prosecution history that do not clearly disavow scope.

5. "disposed centrally relative to the external slot"

The term "disposed centrally relative to the external slot" is recited in asserted claims 8 and 17 of the '327 patent.

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "between the outer bounds of the external slot"	positioned in the middle of two sidewalls that protrude from the shell

See CIB at 16.

The dispute between the parties regarding this claim focuses on the placement of the claimed "protruding nub" relative to the claimed "external slot." *See* COCCB at 27-29; ROCCB at 23-24. At the claim construction hearing, the parties could not articulate how construing this claim term would help resolve the issues raised in this investigation. *See, e.g.*, Markman Tr. at 223:22-225:13.

Indeed, a review of the parties' post-hearing briefs indicates that construction of this claim term would not be material to resolution of the issues. For instance, none of Milwaukee's noninfringement arguments or arguments regarding the technical prong rest on whether the claimed "protruding nub" is "disposed centrally relative to the external slot." Rather, Milwaukee argues that the Accused Headwear Products lack the claimed "external slot" and that the Domestic Industry Headwear Products lack the recited "protruding nub" and "pair of external slots." *See* RRB at 5-48. Moreover, Klein's validity arguments do not turn on the construction of this claim term. *See* CRB at 28-32 (arguing Yan in view of Dailey does not render obvious "protruding nub"), 36-38 (arguing Yan in view of Nesbitt does not render obvious "protruding nub").

For these reasons, the claim term "disposed centrally relative to the external slot" will be afforded its plain and ordinary meaning as understood by a person of skill in the art. No further construction is necessary. *See Summit 6, LLC*, 802 F.3d at 1291 (the district court did not err when

it resolved "the heart of the parties' disagreement—and declined to further construe the term because it was a 'straightforward term' that required no construction").

B. Glow Fish Tape Patents

As the '209 and '573 patents share a common specification, citations to the '209 specification also apply to the '573 specification, and vice versa.

1. "transparent"

The term "transparent" is recited in asserted claims 1 and 6 of the '209 patent.

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "clear"	clear material

CIB at 16.

The dispute between the parties centers on whether the term "transparent" can be construed broadly to encompass openings in a solid[7] opaque material, or whether a person of ordinary skill in the art would understand the term "transparent" to be an attribute of a solid material. *See* ROCCB at 6. The intrinsic evidence supports a finding that the term "transparent," as used in the claims of the '209 patent, refers to a characteristic of a solid material.

For instance, the language of asserted claims 1 and 6 use the term "transparent" to describe a property of solid structures:

[7] I use the term "solid" here to contrast the state of the "transparent" matter contemplated in the invention from matter in other states, such as a gas. I conclude that this is what Milwaukee means by its use of the word "material" in its proposed construction. *See* ROCCB at 10-11. The use of the term "solid" to describe the invention should not be understood to limit how the invention might be made. For example, the patents describe components that are "preferably molded using a suitable process, such as injection molding," which may involve matter in a liquid state during manufacture. *See, e.g.*, '209 patent at 3:43-46. The asserted claims are apparatus claims and do not limit the invention to devices made using a particular method.

> Limitation 1[d]: "wherein at least one of the sidewalls of the case is transparent to allow the luminescent material to be energized by light passing through the at least one of the sidewalls."
>
> Limitation 6[d]: "wherein at least a portion of the case is transparent to allow the luminescent material to be energized by light passing through the portion."

'209 patent at claims 1, 6. Indeed, the word "transparent" in the claims always modifies a solid structure, such as "one of the sidewalls of the case," "a portion of the case," "the walls of the case," or "a component of the case." *See id.* at claims 1-18. This context is a strong indication that Klein's construction is incorrect. *See Phillips*, 415 F.3d at 1314 (the context in which a term is used in an asserted claim can be "highly instructive").

In addition, the specification consistently uses the term "transparent" to describe light transmission through a solid material. For instance, with reference to FIG. 1 (reproduced below), the specification teaches: "At least a portion of the case **14** is transparent to allow the luminescent material **22** to be energized by light passing through the transparent portion and into the storage compartment **26**." '209 patent at 3:27-30. "In the illustrated and highly preferred embodiment, the walls **32**, **34** and **36** are all transparent to allow the luminescent material **22** to be energized by light passing into the compartment **26** through the wall **32**, **34**, and **36**." '209 patent at 3:55-58.

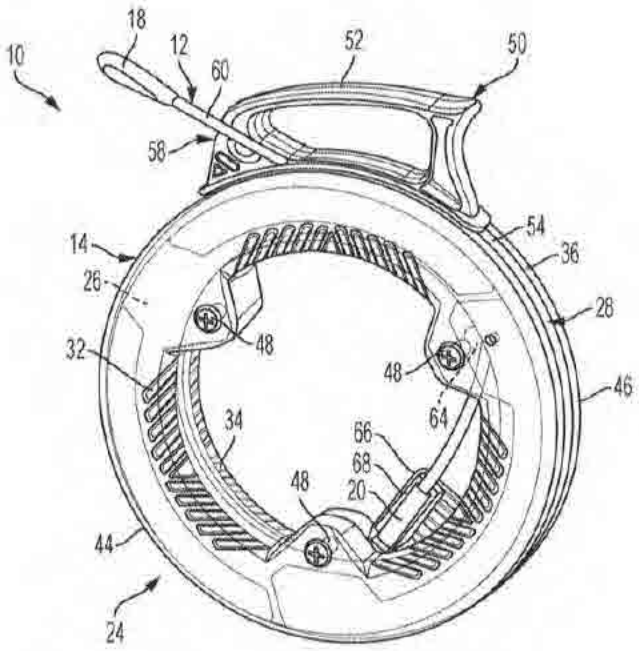


FIG. 1

'209 patent at Fig. 1.

The specification also draws a distinction between the terms "transparent" and "opaque," supporting a conclusion that the term "transparent" refers to a property of a solid material: "For example, in some applications it may be desirable for just one of the side walls **32** to be transparent, with the other side wall **32** and the other walls **34** and **36** being opaque. As another example, it may be desirable for just a portion of one of the walls **32**, **34**, and/or **36** to be transparent." '209 patent at 5:17-23.

In addition, construing "transparent" to refer to a solid material is consistent with statements made by Klein during prosecution of the '209 patent. In a Non-Final Rejection dated June 8, 2022, the Examiner rejected claims 1-20 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent Publication No. 2019/0292005 ("Miller") in view of U.S. Patent No. 6,293,519 ("Farretta"). JX-0006.0094 ('209 file history). The Examiner stated that Miller "teaches a fish tape assembly . . . wherein at least one of the sidewalls (FIG. 14 in view of FIG. 1, first clamshell 190)

of the case (FIG. 14 in view of FIG. 1, fish tape drum 182) is transparent to allow the luminescent material to be energized by light passing through the at least one of the sidewalls (FIG. 14 in view of FIG. 1, first clamshell 190)." JX-0006.0094-95.

In response to the Non-Final Rejection, Klein argued that "the rejection of all the claims is based on a mischaracterization of the disclosure of Miller." JX-0006.0153. In particular, Klein argued:

> [T]here is nothing in Miller et al. that even hints at a transparent sidewall, let alone teaches a transparent sidewall, let alone further teaches such a sidewall that allows a luminescent material to be energized by light passing through such a sidewall. In this regard, it is further noted that the undersigned can find nothing in the figures and description cited in the rejection (FIG. 14, FIG. 1, the Abstract, and/or paragraphs [0047][0050] and [0066]-[0072]) that supports the rejections assertion that the clamshell 190 and/or fish tape drum 182 is transparent as asserted in the rejection. Further in this regard, it is noted that all the figures portray the drum 182 and clamshell 190 as being opaque rather than transparent, with not a single figure, or even a portion of a single figure, being illustrated to show a transparent wall. Indeed, FIGS. 14 and 19 show that the clamshell 190 blocks the view of the interior except where the interior can be view through the slots 250 that extend through the clamshell 190.

Id.

Figure 14 of Miller is reproduced below, with the numeric indicators for clamshell 190 and slots 250 circled in red:

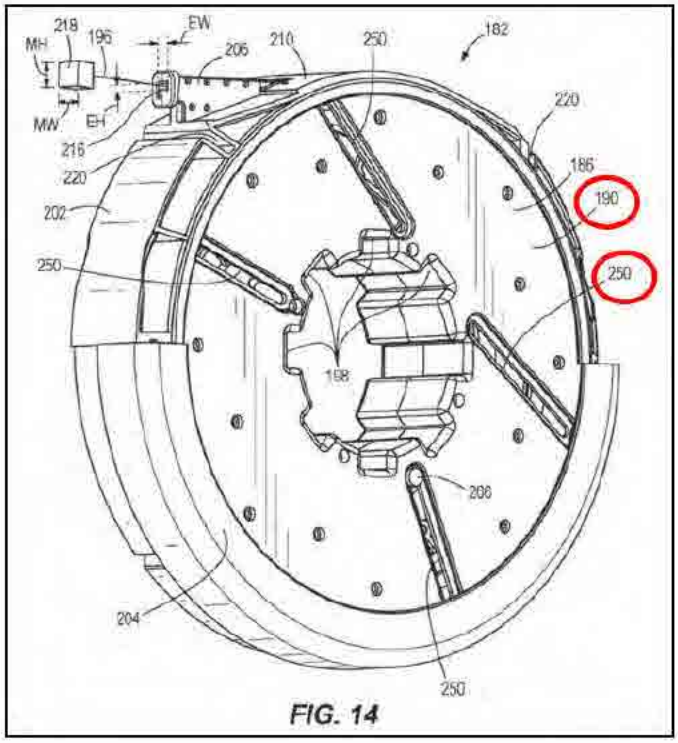


FIG. 14

Miller at Fig. 14 (annotated).

As illustrated by Figure 14, even though Klein acknowledged in its response to the Non-Final Rejection that Miller teaches slots 250 extending through the clamshell (analogous to the sidewall in the pending claims), it nonetheless explicitly argued to the Patent Office that these slots did not equate to "transparent" sidewalls as required by the claims. Klein's argument to the Patent Office in its effort to distinguish the Miller prior art thus supports an understanding of "transparent" that means a solid material through which light passes and is not satisfied by mere openings in an opaque, solid structure. *See Fenner Invs., Ltd. v. Cellco P'ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015) ("Any explanation, elaboration, or qualification presented by the inventor during patent examination is relevant, for the role of claim construction is to 'capture the scope of the actual invention' that is disclosed, described, and patented.").

Klein's arguments to the contrary are not persuasive.

Klein argues that the term "transparent" should not be construed to include solid "material" because the doctrine of claim differentiation requires a distinction between "transparent" and "transparent material." COCCB at 8-9. Specifically, Klein refers to dependent claims 12 and 13 in support of its argument. *Id.* These claims, along with claims 6 and 11 from which they depend, are reproduced below for reference:

> 6. A fish tape system comprising:
>
> a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;
>
> a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, an annular opening extending around a circumference of one of the inner and outer walls, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and
>
> a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;
>
> ***wherein at least a portion of the case is transparent*** to allow the luminescent material to be energized by light passing through the portion.
>
> 11. The fish tape system of claim 6 ***wherein one of the sidewalls and portions of the innermost and outermost walls are defined by a first component of the case, and the other of the sidewalls and other portions of the innermost and outermost walls are defined by a second component of the case***, the first and second components being assembled together to form the storage compartment.
>
> 12. The fish tape system of claim 11 ***wherein at least one of the first and second components comprises a transparent material***.
>
> 13. The fish tape system of claim 11 ***wherein both of the first and second components comprises a transparent material***.

'209 patent at claims 6, 11, 12, 13 (emphasis added).

As shown above, dependent claims 12 and 13 further limit the "first component" and "second component" (introduced in dependent claim 11) such that those limitations each "comprise[] a transparent material." Claims 12 and 13 do not distinguish between the term "transparent" (recited in claim 6) and the term "transparent material" (recited in claims 12 and 13).

Moreover, claim differentiation "is 'not a hard and fast rule of construction' [and] 'cannot broaden claims beyond their correct scope.'" *Kraft Food, Inc. v. Int'l Trading Co.*, 203 F.3d 1362, 1368 (Fed. Cir. 2000) (citations omitted). For example, evidence in the "written description and prosecution history [may] overcome any presumption arising from the doctrine of claim differentiation." *Id.* Here, as discussed above, the claims and specification use the term "transparent" to describe a material property of solid structures. And during prosecution, Klein argued its alleged invention was different from a prior art reference having open spaces (i.e., lacking a transparent, solid material). This intrinsic evidence informs the proper scope of the term "transparent," notwithstanding Klein's claim differentiation argument. *See id.* at 1368.

Klein also identifies a portion of the file history to support its proposed construction. Klein argues:

> Tellingly, during prosecution of the '209 Patent, the examiner interpretated [sic] "transparent" to mean "clear." ("It is noted that, the term 'transparent' (transmitting light; able to be seen through with clarity: https://www.wordweboline.com/search.pl?w=transparent) as recited in the rejected claims at issue was given its broadest reasonable interpretation of 'clear' (allowing light to pass through: https://www.wordwebonline.com/search.pl?w=clear), which is common and consistent with the interpretation that those skilled in the art would reach.").

COCCB at 10 (emphasis omitted) (citing COCCB Ex. 8 at 7).

But Klein's reliance on the examiner's interpretation here is outweighed by statements Klein made during prosecution that distinguished the claimed invention's transparent sidewalls

from the open slots disclosed in the Miller reference. Klein's arguments during prosecution properly inform the scope of the claims. *See, e.g.*, *Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1352-53 (Fed. Cir. 2019) (holding statements presented by the inventor during prosecution may be "relevant" to claim construction even in the absence of clear and unmistakable disavowal of claim scope) (citations omitted).

At the evidentiary hearing, Klein argued that Milwaukee's proposed construction "improperly read[s] out embodiments contemplated by the specification," citing teachings in the specification that the case can be molded from Acrylonitrile butadiene styrene ("ABS"). CIB at 99-100 (citing Tr. (Giachetti) at 420:20-421:22 (discussing '573 patent at 3:55-63); Tr. (Giachetti) at 1064:23-1065:9; '573 patent at 5:16-23). Klein argues that, because its expert testified that "ABS is 'typically opaque'" and the specification states "at least portions of both of the sidewalls of the case are transparent to allow the luminescent material to be energized by light passing through the sidewalls," this means that "using opaque ABS in that scenario leads to only one possible configuration that allows light to pass through the sidewalls: putting 'windows, openings in the case.'" CIB at 99-100.

Klein's argument is not persuasive. Klein relies on testimony from its expert that ABS is "typically opaque." CIB at 99-100. But "typically" does not mean "always," and the recited passage from the specification says case "components 44 and 46 can be molded from any suitable material, such a suitable polymeric/plastic/composite material." '209 patent at 3:58-63. This teaching implies that different solid materials may be used in making a single case wall. Thus, even if some parts of the case wall are made from opaque ABS, the invention may incorporate other transparent solids within the wall to accomplish the objectives of the invention. Indeed, the same portion of the specification that discusses using ABS also states "[i]n the illustrated and

highly preferred embodiment, the walls 32, 34 and 36 are all transparent to allow the luminescent material 22 to be energized by light passing into the compartment 26 through the wall 32, 34, and 36" before stating that "[i]n this regard, the components 44 and 46 can be molded from any suitable material" and then identifying ABS as one such "suitable material." *See* RDX-0002C.0017; '209 patent at 3:55-63. Taken as a whole, these teachings strongly support a conclusion that when the claim uses the term "transparent," it means a transparent solid material.

For these reasons, I find that the term "transparent" in the asserted claims is always used to describe a characteristic of a solid material. This resolves the dispute between the parties.

2. "light passing through [the at least one of the sidewalls / the portion]"

The term "light passing through the at least one of the sidewalls" is recited in claim 1 of the '209 and '573 patents, and the term "light passing through the portion [of the case]" is recited in claim 6 of the '209 and '573 patents.[8]

Klein's Proposal	Milwaukee's Proposal
Plain and ordinary meaning: "light entering the case through [the at least one of the sidewalls / the portion]"	light passing through the material that forms [the at least one of the sidewalls / the portion]

CIB at 16.

The dispute between the parties here is the same as the dispute with respect to the term "transparent"—Milwaukee proposes a construction requiring light to pass through solid "material," whereas Klein proposes a construction that does not require passage through solid "material." *See* COCCB at 10-12, ROCCB at 10-12.

[8] The parties had originally also proposed constructions for the term "light passing through the sidewalls," which was recited in asserted claims that were subsequently terminated from the investigation. *See, e.g.*, ROCCB at 10.

As with the term "transparent" discussed above, the intrinsic evidence demonstrates that in the invention light passes through a transparent solid material as opposed to passing through an opening or hole in an opaque solid material.

The claim language, including for claims that were formerly asserted in this investigation and later withdrawn, recites variations of: "light passing through" "sidewalls" or through a portion "of the case." '209 patent at claims 1-4, 6, 8, 9, and 14; '573 patent at claims 1-3, 6-8, and 14. The claims describe a property of the case—a solid material—that allows light to pass through it. The claims never refer to light passing through a gap or opening in either the sidewalls or the case.

In addition, every reference to "light passing through" in the specification of the Glow Fish Tape Patents is paired with a reference to the sidewall or portion of the case having the material property of transparency. For example, the specification recites: "light passing through the transparent portion and into the storage compartment 26." '209 patent at 3:29-30. This teaching confirms that the light must pass through a transparent solid material forming the sidewalls or portion of the case rather than through gaps, holes, or other openings in the case.

And as discussed above with respect to the term "transparent," Klein responded to the Patent Office's rejection of claims over Miller by stating that "there is nothing in Miller et al. that even hints at a transparent sidewall, let alone teaches a transparent sidewall, let alone further teaches such a sidewall that allows a luminescent material to be energized by light passing through such a sidewall." JX-0006.0153. While Klein acknowledged that Miller described slots 250 extending through the clamshell (i.e., the sidewall), which would allow light to enter the case, Klein argued that this does not fall within the allowed scope of the claims. The prosecution history thus supports reading the "light passing through" limitations to mean light passing through a solid material.

For these reasons, I find that when the asserted claims use the phrase "light passing through," the "sidewall" or "portion" of the "case" through which the light passes must always be a solid material. This resolves the dispute between the parties.

VIII. SAFETY HELMET PATENTS

A. Infringement

In a section 337 investigation, the complainant bears the burden of proving infringement of the asserted patent claims by a preponderance of the evidence. *See Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1349 (Fed. Cir. 2010). This standard "requires proving that infringement was more likely than not to have occurred." *Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1341 n.15 (Fed. Cir. 2005).

"[W]hoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent." 35 U.S.C. § 271(a). "Literal infringement requires the patentee to prove that the accused device contains each limitation of the asserted claim(s). If any claim limitation is absent, there is no literal infringement as a matter of law." *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). Literal infringement is a question of fact. *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008).

Even if an accused device does not literally infringe a patent claim, it may nevertheless be found infringing under the doctrine of equivalents. *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.,* 520 U.S. 17, 21 (1997). The evaluation of whether equivalence exists can be performed by the "function-way-result test" or through the insubstantial differences test. *Voda v. Cordis Corp.*, 536 F.3d 1311, 1326 (Fed. Cir. 2008).

Liability for induced infringement attaches when three elements are proved: (1) direct infringement by a third party, (2) the inducer knew that the induced acts constitute patent infringement, and (3) the inducer took active steps to encourage direct infringement. *Hikma Pharmaceuticals USA Inc. v. Amarin Pharma Inc.*, No. 24-889, slip op. at 4 (U.S. June 4, 2026); *Suprema, Inc. v. Int'l Trade Comm'n*, 796 F.3d 1338, 1352-53 (Fed. Cir. 2015) (en banc).

Klein asserts that various Milwaukee Accused Headwear Products infringe claims 8, 10, and 17 of the '327 patent and claims 1-4 of the '265 patent. CIB at 16. Appendix I to Klein's initial post-hearing brief identifies the specific models of Accused Hard Hats, Accused Safety Helmets (including Non-stipulated Accused Safety Helmets), and Accused Accessory Devices that are accused of infringing each specific claim.

The following sections will first discuss Klein's allegations of direct infringement of the Safety Helmet Patents. Indirect infringement will be addressed below in section VIII.A.11.

1. '327 Patent – Claim 8

Klein asserts that claim 8 is infringed by the combination of any Accused Hard Hat with two of the Accused Accessory Devices identified in Appendix I of its initial post-hearing brief. CIB at 40, AI-1-3, AI-6. Claim 8 requires a safety helmet having an "external slot" (element 8[b][i]) and "a protruding nub . . . disposed centrally relative to the external slot" (element 8[b][ii]). As will be shown below, the Accused Hard Hats do not have this configuration, either literally or under the doctrine of equivalents, whether in combination with Accused Accessory Devices or not.

a) 8[pre]: "A safety helmet, comprising: "

Klein argues that the preamble of claim 8 of the '327 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the claim. CIB at 17 (citing *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808

(Fed. Cir. 2002)), 41. Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 5-48.

I need not decide whether or not the preamble is limiting for infringement purposes because the preamble is satisfied: examination of the Accused Hard Hats shows they are "safety helmets." Tr. (Shewchenko) at 228:22-229:4; JPX-0007; JPX-0008; JX-0115.0001; JX-0178.0001; '327 patent at 1:14-17.

b) 8[a][i]: "an outer shell adapted to be worn by a user, the outer shell being molded from a common material and having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris, "

The evidence shows that the Accused Hard Hats include an outer shell adapted to be worn by a user that is molded from a common material with an exterior surface defining front and rear sides, and a brim extending forward from the front side configured to shield the user's eyes from sunlight or falling debris. *See* Tr. (Shewchenko) at 229:5-18; JPX-0007; JPX-0008; JX-0115.0001; JX-0178.0001; JX-0159C.0001; JX-0161C.0001; CX-0218.0001; JX-0037.0001; JX-0161C; CX-1512C (Hyma Dep.) at 128:22-129:12, 151:5-152:9, 181:5-182:5. Examination of the physical representative Accused Hard Hat shows this limitation is satisfied. JPX-0008. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 5-33.

c) 8[a][ii]-8[a][iii]: "wherein the outer shell is reversible such that one of the front side or the rear side is oriented above a face of the user when the outer shell is worn by the user, and wherein the brim is configured to be disposed above the face of the user when the outer shell is worn by the user with the front side being oriented above the face of the user; "

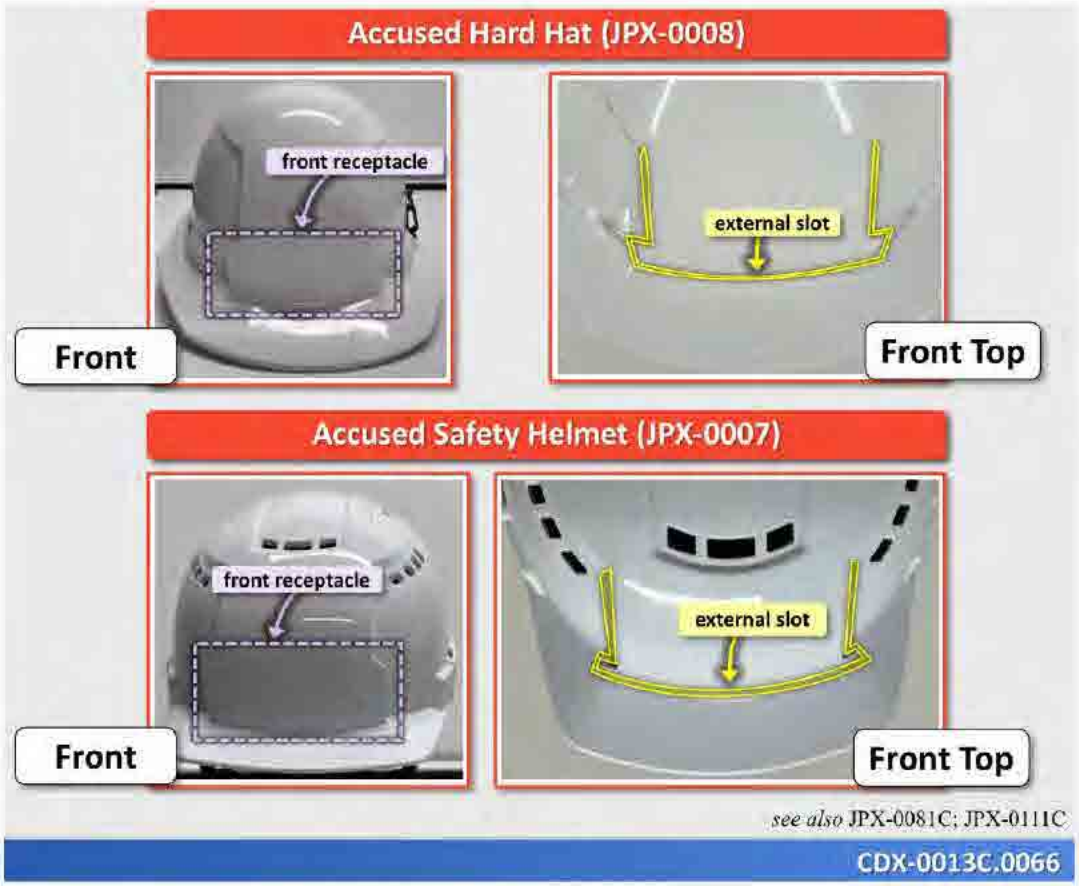
Examination of the physical sample of the representative Accused Hard Hat shows that its outer shell is reversible and meets the requirements of these limitations under the plain meaning

of "wherein the outer shell is reversible." JPX-0008. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 5-33.

d) 8[b][i]: "a front receptacle being integrally molded with the outer shell and having an external slot extending upwardly along the front side on the exterior surface of the outer shell above the brim and"

The evidence shows that each of the Accused Hard Hats includes an integrally molded front receptacle, which Milwaukee refers to as a "front mount." *See* Tr. (Shewchenko) at 229:19-233:1; CX-1512C (Hyma Dep.) at 77:1-21, 151:5-152:9, 181:5-182:5; JPX-0007-JPX-0008; JPX-0081C; JPX-0111C; JX-0159C; JX-0161C. Milwaukee does not dispute that the Accused Hard Hats have "a front receptacle being integrally molded with the outer shell . . . extending upwardly along the front side on the exterior surface of the outer shell above the brim." *See* RRB at 5-33. The dispute lies in whether the Accused Hard Hats have the claimed "external slot." *See id.*

To show this limitation in the Accused Hard Hats, Klein identifies an area around the convex exterior surface of the front of the Accused Hard Hats and two vertical, trapezoidal-shaped fins located on either side of the convex surface, shown in yellow in the demonstrative slide below:

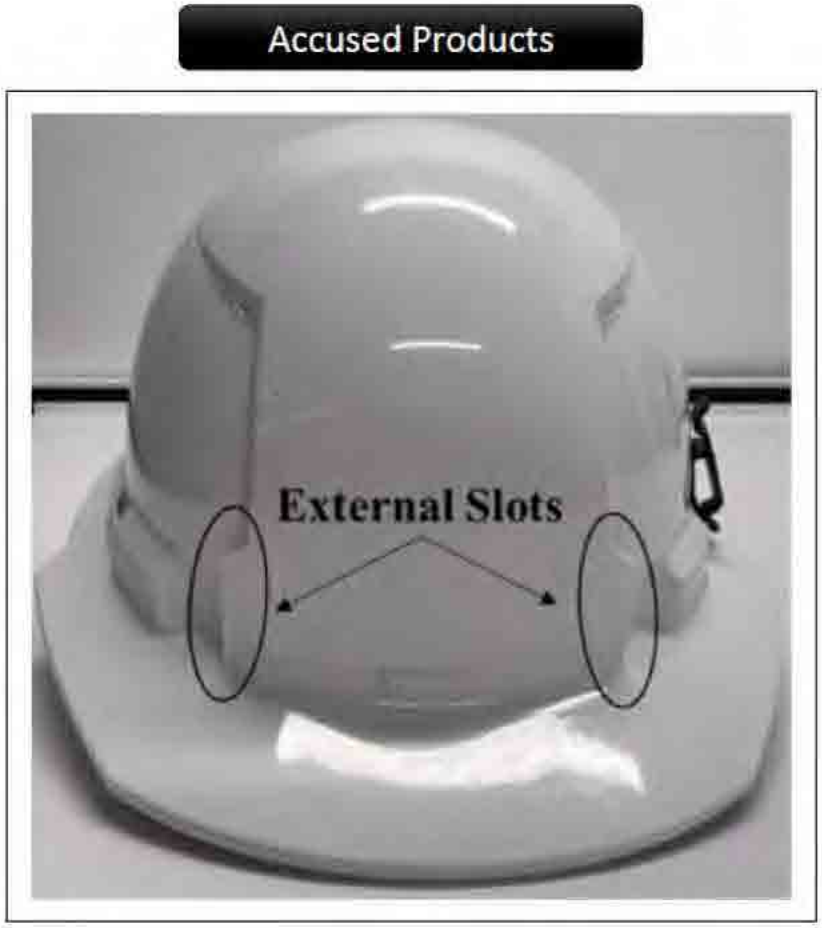


CDX-0013C.0066.

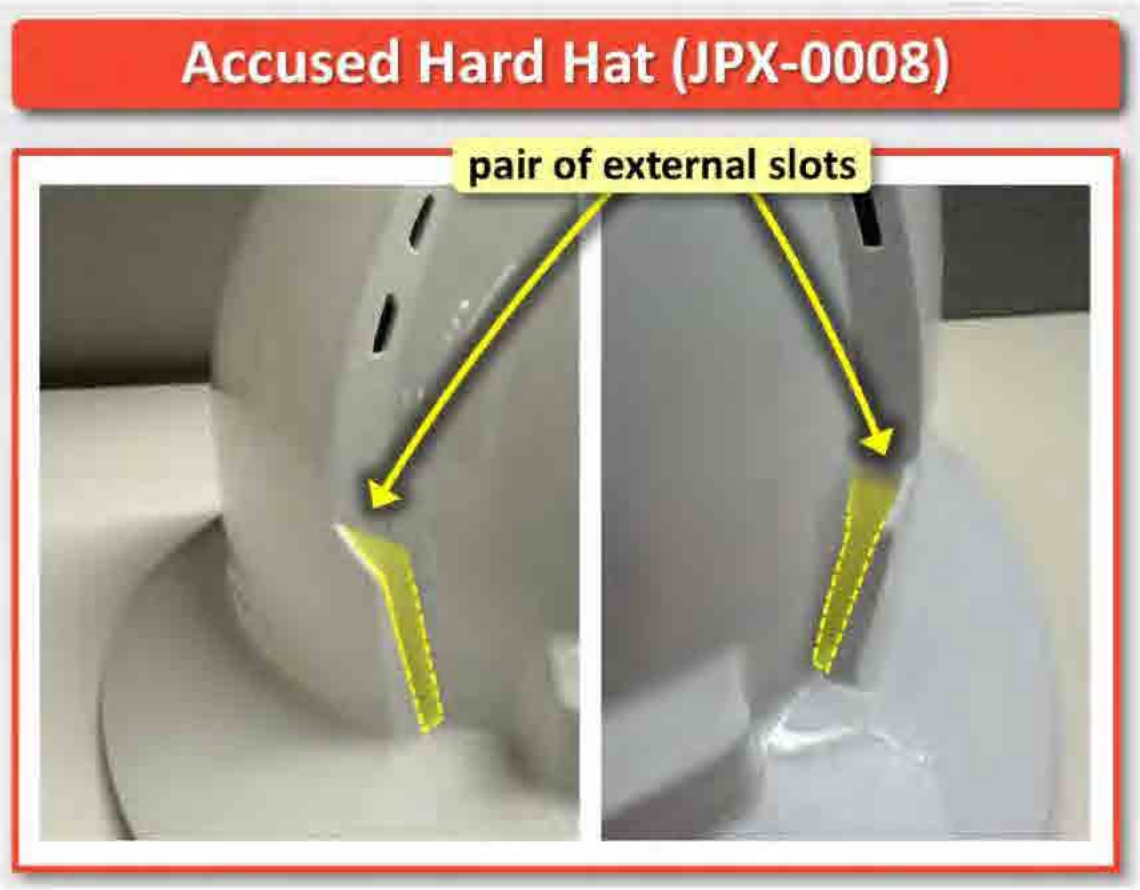
While the record contains evidence that the Accused Hard Hats have many kinds of slots,[9] the dispute centers on the voids behind the trapezoidal fins on the left and right side of the front face of the hat and the face of the hat between the fins. As discussed above in section VII.A.4, I have construed "external slot" according to its plain and ordinary meaning. Comparing this term to the Accused Hard Hats, I find, as a factual matter, that each Accused Hard Hat has at least one

[9] Milwaukee documents refer to various features of the Accused Hard Hats and Accused Safety Helmets as "(4) BOLT™ Slots," "4 BOLT™ Accessory Slots," "(2) Universal Slots," and "2 Universal Accessory Slots." CX-0218.001, CX-0907.0003, and JX-0037.0001. These features are on the sides of the Accused Hard Hats and Accused Safety Helmets and are not part of the claimed receptacle. *See, e.g.*, Tr. (Richman) 553:12-554:23. No party asserts that these other slots are covered by the asserted patent claims, and I determine they are not relevant to the asserted patent claims.

external slot, but each external slot does not encompass all that Klein has highlighted in yellow in the demonstrative slide CDX-0013C.0066 above. Instead, I find that Mr. Shewchenko circled the relevant slots in this image from his expert report:



RDX-0001C.36. These slots are seen from other perspectives and highlighted in yellow in this annotated image prepared by Mr. Shewchenko to illustrate his trial testimony in connection with claim 1 of the '265 patent:



CDX-0013C.0095.

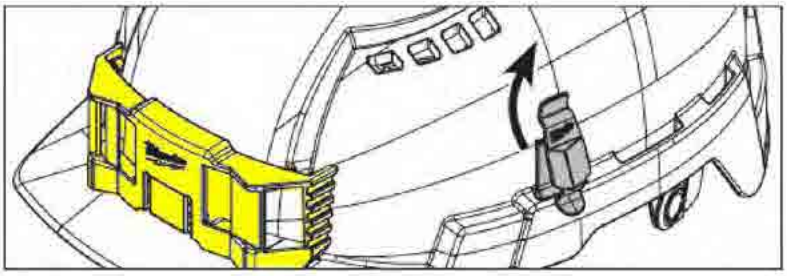
I do not find that the span of the face of the hard hat between these two slots—which Klein included in the yellow highlighting in CDX-0013C.0066—is part of a slot; that central span is just the front face of the Accused Hard Hat and has no recess into which anything can be inserted.

Experts for both Klein and Milwaukee and other witnesses all testified that the spaces behind the trapezoidal fins are spaces that receive the mating structure of the Accused Accessory Devices. Tr. (Shewchenko) at 245:15-246:1, 250:11-22, 321:11-22; Tr. (Klopp) at 760:14-761:4 ("Q. And on the Milwaukee accused product, there's space on either side of the front mount behind what you call the ribs, right? A. There is. Q. And that space on either side of the front mount is for the accessory device to slide into, right, sir? A. Yeah, each of those spaces, the sort of the C-shaped aspect of the accessory, engages and grabs in behind those ribs."); *see also* Tr. (Richman) at

568:25-569:16; CX-1512C (Hyma Dep.) at 134:1-13 ("Q. And the -- so there's a space between the vertical rib and the -- sort of like the dome shape of the hard hat, right? A. Yes. Q. And there's a piece of the mounting bracket, the headlamp mount bracket, that fits into that open space, right? A. Yes.").

Accordingly, I find that the Accused Hard Hats have four slots, two in the front and two in the back, as Klein's expert Mr. Shewchenko more credibly testified in connection with claim 1 of the '265 patent. *See* Tr. (Shewchenko) at 245:15-246:7.

I have considered the other evidence identified by Klein in its post-hearing brief, but that evidence does not persuade me to adopt a different conclusion. Klein highlights evidence and testimony in which Milwaukee materials appear to refer to the pair of front slots together as a single slot:



Using the Head Lamp Clip

1. To install a head lamp, remove manufacturer's head-band from the light.
2. From the back of the clip, unstrap the hook and loop strapping.
3. Loop the strapping through the light and refasten on the clip.
4. Slide the accessories into the front or back slot. The accessory should "click" into place.
5. Pull on the accessory to ensure it is locked in.
6. To remove, squeeze the ends of the accessory together and slide off of the helmet.

CX-1535.0002 (highlighting by Milwaukee, CIB at 47); *see also* CIB at 47-49 (citing JX-0115.0002 (June 2019); JX-0172.0002 (Aug. 2022); JX-0178.0002 (Dec. 2021);

CX-1543.0002 (Nov. 2025), JPX-0014, JPX-0090C). But this evidence is not necessarily inconsistent with my conclusion. The instructions tell a user to "[s]lide the accessories *into* the front or back *slot*." JX-0115.0002 (emphasis added). Thus, the instruction calls the portion of the Accused Hard Hats "into" which something slides a "slot." Nothing slides "into" the structure of the front face of the Accused Hard Hat that Klein includes in its proposed slot. Thus, if anything, the instruction evidence indicates that the span of the front face between the two trapezoidal fins is *not* a slot. While it could have been more accurate for Milwaukee to instruct users to "*slide the edges of* the accessories into the front or back slots," the less precise instruction does not persuade me that the face of the Accused Hard Hat between the fins is a slot or part of a slot. It is not.

I have also considered testimony from a Milwaukee employee about the instructions above. Milwaukee presented testimony that "Milwaukee Tool mistakenly put 'front or back slot' in the user manual." Tr. (Richman) at 554:24-555:5. I give this testimony little weight. This oral statement appears litigation-inspired, whereas the written instructions about sliding accessories "into the front or back slot" were prepared prior to litigation and are inherently less biased. Additionally, the testimony that the instructions were written "mistakenly" never explains what about the instruction was a mistake or what language would correct the mistake, further undermining the probative value of the testimony excusing the writing. I would reach the same conclusion if there were no such testimony in the record.

For extra measure, I find that each of the slots, as identified in CDX-0013C.0095, meet the construction of "external slot" proposed by either party. The slots I have identified are formed on the exterior of the Accused Hard Hat, as Klein proposed, and the slots are a narrow groove between two sidewalls that protrude from the shell, as Milwaukee proposed.

Because I have determined that the Accused Hard Hats have the claimed slot necessary to prove literal infringement, Klein's argument under the doctrine of equivalents is moot. *Cf.* CIB at 52-55. For thoroughness, however, I determine that Klein's doctrine of equivalents argument has no merit, as discussed below.

Klein argues the three elements of the doctrine of equivalents test thusly: "As Mr. Shewchenko explained, the claimed external slot and the relevant feature of the Accused [Headwear] Products perform the same function (receiving a portion of an accessory device), in the same way (by providing an opening, space, void, or recess into which a portion of the accessory device is inserted), to achieve the same result (releasably securing the accessory device to the front receptacle)." CIB at 52 (citing Tr. (Shewchenko) at 234:1-236:12; '327 patent at 3:54-4:15, Figs. 1, 3; JPX-0007; JPX-0008; JX-0032.0002-07; CX-1535.0002; JX-0115.0002; JPX-0090C; CX 1512C (Hyma Dep.) at 134:1-13). Milwaukee disputes Klein's theory about the "way" the accused structure performs the function identified by Klein. RRB at 17-20.

Some context is useful to evaluate Klein's doctrine of equivalents argument. Klein's infringement theory requires that the span of the face of the hard hat between the two trapezoidal fins be part of the claimed "external slot" because if that area is not part of the "external slot," then, as explained below, the "nub" required by the next claim limitation 8[b][ii] is not "disposed centrally relative to the external slot." If the claimed "external slot" on the Accused Hard Hats literally covers only the recess behind the trapezoidal fins, then Klein seeks through the doctrine of equivalents to include the face of the hard hat between the fins as part of the claimed "external slot."

Klein asserts that the "way" the accused structure receives a portion of an accessory device is "by providing an opening, space, void, or recess into which a portion of the accessory device is

inserted." *See* CIB at 52. The problem with Klein's theory is that the structure Klein seeks to cover by the doctrine—the span of the face of the hard hat between the fins—is *not* "an opening, space, void, or recess into which a portion of the accessory device is inserted." At best, the Accused Accessory Devices rest in front of the span of the face of the Accused Hard Hat; they are not "inserted" "into" that structure. Thus, the structure Klein seeks to cover by its doctrine of equivalents argument fails Klein's own "way" test.

The fact that the Accused Accessory Devices have portions that are inserted into recesses behind the trapezoidal fins, matching Klein's "way" argument, does not save Klein's doctrine of equivalents theory. Those recesses are just literal slots, as defined by the claim. Klein has not shown that accused structure *beyond* the literal scope of "external slot" functions in the same "way" as the actual claim limitation.

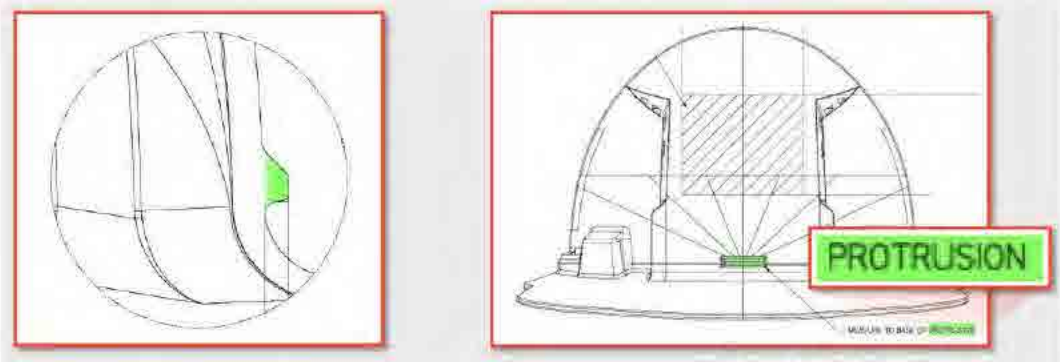
Klein also attempts to apply the doctrine of equivalents through a reference to the insubstantial differences test in a single sentence and the duplication of a demonstrative slide from trial. *See* CIB at 53-54. Klein's conclusory argument cites no testimony from the trial about insubstantial differences. I find any argument by Klein about insubstantial differences has been forfeited under the Ground Rules because it is not set forth in detail in Klein's initial post-hearing brief. *See* Order No. 2, Ground Rule 14.1. To the extent it is not forfeited, the argument fails on the merits because it lacks particularized testimony. *See Texas Instruments Inc. v. Cypress Semiconductor Corp.*, 90 F.3d 1558, 1567 (Fed. Cir. 1996) ("[A] patentee must still provide particularized testimony and linking argument as to the 'insubstantiality of the differences' between the claimed invention and the accused device or process, or with respect to the function, way, result test when such evidence is presented to support a finding of infringement under the doctrine of equivalents."); *Certain Automated Put Walls & Automated Storage & Retrieval Sys.,*

Associated Vehicles, Associated Control Software, & Component Parts Thereof, Inv. No. 337-TA-1293, Final Initial Determination at 66-67 (Mar. 31, 2023), *unreviewed by* Comm'n Op. (July 31, 2023). Additionally, Klein's reproduced slide cursorily states, "[n]o substantial difference in form: provide an opening, space, void, or recess into which a portion of the accessory device is inserted." As explained above, the face of the Accused Hard Hat that Klein seeks to cover through this argument is *not* "an opening, space, void, or recess into which a portion of the accessory device is inserted." Klein's insubstantial differences argument fails for this reason as well.

For at least these reasons, Klein has not met its burden to show that any accused combination meets this claim limitation under the doctrine of equivalents. I do find, however, that the Accused Hard Hats meet this limitation literally.

e) 8[b][ii]: "a protruding nub, wherein the protruding nub is integrally molded with the outer shell from the common material and is disposed centrally relative to the external slot and directly onto the exterior surface of the outer shell; "

Klein identifies a protruding nub on the Accused Hard Hats as follows:



JX-0159C.0002-03 (annotated)

CIB at 56.

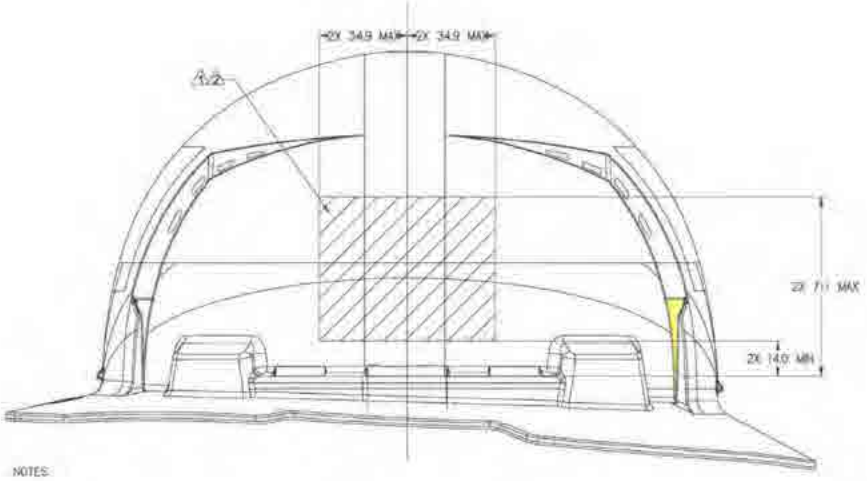
An examination of the representative Accused Hard Hat shows that the front receptacle of the Accused Hard Hats includes a protruding nub that is integrally molded with the outer shell from the common material:



CDX-0013C.0061, JPX-0008; *see also* JPX-0007; Tr. (Shewchenko) at 236:13-238:1; Tr. (Klopp) at 735:21-736:16; CX-1512C (Hyma Dep.) at 134:14-18, 135:24-136:19, 151:5-152:9, 243:5-16; CX-1513C (Richman) at 32:13-19; JPX-0081C; JPX-0111C; JX-0159C.0002-03; JX-0161C.0002.

Milwaukee does not contest that the Accused Hard Hats have a protruding nub integrally molded with the outer shell on the exterior from a common material. *See* RRB at 5-33.

This limitation also requires, however, that the protruding nub "is disposed centrally relative to the external slot." I find, as a factual matter, that the Accused Hard Hats have no such nub "disposed centrally relative to the external slot" of limitation 8[b][i]. As I have illustrated in the image below, the nub on the Accused Hard Hats is, at best, alongside the bottom third of the length of one of the slots discussed above in connection with limitation 8[b][i]:



JX-0159C.003 (slot annotated in yellow, protrusion annotated in green). Additionally, I find there is no other relationship between a relevant slot and the nub that shows that the nub "is disposed centrally relative to the external slot" as required by the claim.

For extra measure, I find that the nub is not "disposed centrally relative to the external slot" under either party's proposed construction of that term. *See supra* section VII.A.5.

I determine Klein has not shown that this limitation is met by any Accused Headwear Products. Accordingly, infringement of claim 8 of the '327 patent has not been proved.

f) 8[c]: "a rear receptacle having an additional external slot disposed on the rear side on the exterior of the outer shell; "

Both parties present arguments for this claim limitation that rise and fall with their arguments regarding limitation 8[b][i]. CIB at 57-58; RRB at 5-20.

An examination of the representative Accused Hard Hat shows that it has a rear receptacle that is materially identical to the front receptacle. JPX-0008. I find that the rear receptacle has "an additional external slot" as required by this claim limitation for the same reasons noted above in connection with limitation 8[b][i]. And for the same reasons noted above, I do not find that the span of the rear face of the hard hat between the two trapezoidal fins—which Klein included in

the yellow highlighting in CDX-0013C.0079—is part of a slot. That span is just the rear face of the Accused Hard Hat and has no recess into which anything can be inserted.

I note an additional reason that I do not adopt Klein's proposed slot on the rear of the Accused Hard Hats. This limitation specifies that the additional external slot is "disposed *on* the rear side of the exterior of the outer shell." '327 patent, claim 8, element 8[c] (emphasis added). Klein's proposal *includes* the rear side of the outer shell as part of the alleged slot. Klein has failed to show how its proposed rear slot is "disposed *on* the rear side of the exterior of the outer shell." In contrast, the feature I find to be "an additional external slot" is plainly "disposed *on* the rear side of the exterior of the outer shell" of the Accused Hard Hats.

Klein also summarily argues, "To the extent this limitation is not met literally, it is met under the doctrine of equivalents for the same reasons explained regarding the 'external slot' of the front receptacle." CIB at 58. Klein's doctrine of equivalents argument with respect to this claim limitation is moot because I have found that this claim limitation is literally met by the Accused Hard Hats. And for the same reasons I noted above in connection with limitation 8[b][i], Klein's doctrine of equivalents argument fails on the merits. Beyond the reasons given above, Klein's doctrine of equivalents argument with respect to this limitation 8[c] fails for the additional reason that Klein has not addressed the differing claim language here requiring "an additional external slot *disposed on the rear side* on the exterior of the outer shell."

g) 8[d]-8[e]: "a first accessory device having a first mating receptacle formed thereon, at least a portion of the first accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; and a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell."

Klein argues that "[e]ach Accused Accessory Device in Appendix I [of Klein's initial post-hearing brief], when combined with the Accused Hard Hats and/or Safety Helmets, meets the 'first accessory device' and/or 'second accessory device' limitations of these elements." CIB at 59. The demonstrative slide reproduced below lists these accessory devices, where the "HH" column indicates accessories compatible with Accused Hard Hats and the "SH" column indicates accessories compatible with Accused Safety Helmets:

Accused Accessory Device	HH	SH
Headlamp Mount (JPX-0014)	✓	✓
Low-Profile Headlamp Mount (JPX-0015)	✓	✓
REDLITHIUM™ USB Headlamp (JPX-0009)	✓	✓
First Gen. Sun Visors/Sunshades (JPX-0010, JPX-0011, JPX-0013)	✓	✓ *
Second Gen. Sun Visors/Sunshades (JPX-0012)	✓	✓ *
Universal Eye Visors (JPX-0016, JPX-0020)	✓	✓
Gasketed Eye Visors (JPX-0018)	✓	✓
Safety Helmet Only Eye Visors (JPX-0017, JPX-0021)		✓
Task Full Face Shield (JPX-0022, JPX-0023)	✓	✓
Gasketed Full Face Shield (JPX-0019)	✓	✓ *

CDX-0013C.0082.[10]

Examination of the Accused Accessory Devices shows that they each include mating receptacles and that two or more Accused Accessory Devices are releasably mountable onto the front and/or rear receptacles of the Accused Hard Hats and Safety Helmets at the same time.

[10] Safety helmet-only eye visors are only combined with Accused Safety Helmets. CIB at 59 n.4.

JPX-0007-JPX-0023; *see also* Tr. (Shewchenko) at 239:21-241:25; CX-1535.0002; JX-0115.0002; JX-0168; JX-0169; JX-0170; JX-0171; JX-0172.0002; JX-0173; JX-0174; JX-0175; CX-1512C (Hyma Dep.) at 133:22-134:13, 154:13-18, 155:1-157:2, 157:22-158:14, 159:5-161:14, 165:6-12, 165:16-171:21, 172:4-173:14.

Milwaukee has argued that Klein has not met its burden to "show an act of direct infringement for each and every Accused Accessory Device— i.e., an infringer making, using offering to sell, selling, or importing one or two Accused Accessory Devices together with the Accused Hard Hats or Safety Helmets." RRB at 26-27 (citing Tr. (Klopp) at 640:16-24). I address this argument separately in section VIII.A.9.

2. '327 Patent – Claim 10

Claim 10 of the '327 patent depends from independent claim 8 and reads: "The safety helmet of claim 8, wherein the common material is a molded plastic material." Because I have determined that independent claim 8 has not been shown to be infringed, I determine that dependent claim 10 has not been shown to be infringed for the same reasons given above in connection with limitations 8[b][i] and 8[b][ii].

For thoroughness, I find that the common material used to form the outer shell and protruding nub of the Accused Hard Hats is a molded plastic material called high-density polyethylene or HDPE. Tr. (Shewchenko) at 244:17-24; CX-0218.0001; JX-0159C.0001. Milwaukee does not contest that a common material is used to form the outer shell and protruding nub of the Accused Hard Hats and that that material is a molded plastic material. *See* RRB at 5-33.

3. '327 Patent – Claim 17

Claim 17 of the '327 patent is an independent claim similar to claim 8 of the same patent, except that claim 17 does not have language equivalent to limitations 8[a][ii]-8[a][iii] stating that

"the outer shell is reversable." Klein asserts that claim 17 is infringed by the combination of any Accused Hard Hat or Accused Safety Helmet (including the Non-stipulated Accused Safety Helmets) with two of the Accused Accessory Devices identified in Appendix I of its initial post-hearing brief. CIB at 40, AI-1-6.

The parties agree that the disputed issues in claim limitations 17[b][i] and 17[b][ii] correspond to the disputed issues of claim limitations 8[b][i] and 8[b][ii]. CIB at 45-57; *see* RRB at 5-33. With respect to claim limitations 17[b][i] and 17[b][ii], there are no relevant differences between the features of the Accused Hard Hats discussed above in connection with claim limitations 8[b][i] and 8[b][ii] and corresponding features on the Accused Safety Helmets. JPX-0007; JPX-0008; *see* Tr. (Shewchenko) at 227:22-228:3; Tr. (Klopp) at 618:25-619:3, 730:5-11. Thus, for the same reasons I have discussed above in connection with claim limitations 8[b][i] and 8[b][ii], I find that Klein has not shown any combination of Accused Hard Hats, Accused Safety Helmets (including Non-stipulated Safety Helmets), and Accused Accessory Devices have "a protruding nub disposed centrally relative to the external slot" of a "front receptacle," as required by limitations 17[b][i] and 17[b][ii]. I therefore determine Klein has not shown infringement of claim 17 for at least that reason.

I additionally find that Klein has not shown any combination of Accused Hard Hats, Accused Safety Helmets (including Non-stipulated Safety Helmets), and Accused Accessory Devices have "a protruding nub disposed centrally relative to the external slot" of a "rear receptacle," as required by limitation 17[c], for the same reasons discussed above in connection with claim limitation 8[b][ii].

For thoroughness, I address each element of claim 17 below.

a) 17[pre]: "A safety helmet, comprising: "

Klein argues that the preamble of claim 17 of the '327 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the claim. CIB at 17 (citing *Catalina Marketing Int'l, Inc.*, 289 F.3d at 808), 41. Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 5-48.

I need not decide whether or not the preamble is limiting for infringement purposes because the preamble is satisfied: examination of the Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets) shows they are "safety helmets." Tr. (Shewchenko) at 228:22-229:4; JPX-0007; JPX-0008; JX-0115.0001; JX-0178.0001; '327 patent at 1:14-17.

b) 17[a]: "an outer shell adapted to be worn by a user, an exterior of the outer shell having a front side, a rear side, and a brim extending outwardly from the front side and configured to shield the user's eyes from sunlight or falling debris; "

The evidence shows that the Accused Hard Hats and Accused Safety Helmets include an outer shell adapted to be worn by a user that is molded from a common material with an exterior surface defining front and rear sides, and a brim extending forward from the front side configured to shield the user's eyes from sunlight or falling debris. *See* Tr. (Shewchenko) at 229:5-18; JPX-0007; JPX-0008; JX-0115.0001; JX-0178.0001; JX-0159C.0001; JX-0161C.0001; CX-0218.0001; JX-0037.0001; JX-0161C; CX-1512C (Hyma Dep.) at 128:22-129:12, 151:5-152:9, 181:5-182:5. Examination of the physical representative Accused Hard Hat and Accused Safety Helmet shows this limitation is satisfied for the accused products subject to the representative products stipulation. JPX-0007; JPX-0008.

As to the Non-stipulated Accused Safety Helmets, Milwaukee's own expert Dr. Klopp admitted those helmets "are called brimless safety helmets, even though they have a small brim on

the front." Tr. (Klopp) at 641:22-642:16; *see also* 772:10-773:7 (Dr. Klopp agreeing that although Milwaukee refers to certain safety helmets as brimless, "they do, in fact, have a small brim that extends out from the front"). Klein's expert Mr. Shewchenko credibly testified that the brim on the Non-stipulated Accused Safety Helmets "will provide some extended protection from falling debris, compared to the bare shell." Tr. (Shewchenko) at 254:1-255:16; *see also* CPX-0345; CX-0938; JX-0164C.0002; JX-0165C.0001.

On the other hand, Milwaukee's senior vice president of product marketing, Mr. Richman, answered questions at trial as to whether the Non-stipulated Accused Safety Helmets provide protection from sunlight or falling debris: "Q. Do the Milwaukee Tool brimless helmets protect users from sun and debris? A. No, they do not. Q. So how do users get that protection then? A. You would have to attach other accessories if you want or go to the front-brim helmet." Tr. (Richman) at 559:17-22.

I give Mr. Richman's testimony on this point[11] little weight because it is inconsistent with the physical evidence and with testimony from experts retained by both opposing parties. My examination of the physical exhibit of the Non-stipulated Accused Safety Helmet in the record and photographs of other Non-stipulated Accused Safety Helmets confirmed that those helmets have a brim, as experts from both parties testified:

[11] The question posed to Mr. Richman used the conjunctive "and" between sun and debris, while the claim itself uses the disjunctive: "sunlight or falling debris." *Compare* Tr. (Richman) at 559:17-22 *with* '327 patent, claim element 17[a]. The brim in question need only do one or the other to satisfy the limitation. It is unclear if Mr. Richman's answer was dependent on an understanding that the brim in question must do both. But even if the question were posed using the correct claim language, if Mr. Richman were to give the same answer in response, I would give it little weight for the same reasons discussed herein.



Annotated photograph of physical exhibit CPX-0345 in evidence

See CPX-0345; CX-0938; JX-0037.0001; *see also* Tr. (Klopp) at 641:22-642:16, 772:10-773:7; Tr. (Shewchenko) at 229:5-18, 254:1-255:16.

I find the front brim of the Non-stipulated Accused Safety Helmets will necessarily "shield the user's eyes from sunlight." When the sun is directly overhead in the sky, the user's eyes will be shielded from sunlight entirely by the shadow of the brim. As the relative position of the sun moves through an arc, the brim will continue to shield the user's eyes for much of that arc, until the angle of the sunlight is nearly parallel to the brim, as with any hat brim.

Similarly, the front brim of the Non-stipulated Accused Safety Helmets will "shield the user's eyes from . . . falling debris." Because of the law of gravity, "falling" debris (as opposed to, say, blowing debris) falls in a direction normal to the surface of the earth. The front brim of the Non-stipulated Accused Safety Helmets, which is approximately perpendicular to that path, will necessarily shield the user's eyes from debris falling in the region of the brim.

Certainly, the brim on the Non-stipulated Accused Safety Helmets will shield a user's eyes from more sunlight and from more falling debris than a helmet without such a front brim.

Based on my own examination of the Non-stipulated Accused Safety Helmet in evidence, and pictures of other Non-stipulated Accused Safety Helmets in the record, I find that those products have a brim extending outwardly from the front side that is configured to shield the user's eyes from sunlight or falling debris.

Accordingly, I find that all Accused Hard Hats and Accused Safety Helmets (including Non-stipulated Accused Safety Helmets)[12] satisfy this limitation.

c) 17[b][i]: "a front receptacle having an external slot extending upwardly on the front side and "

For purposes of this analysis, the front receptacles of the Accused Hard Hats and the Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) are materially identical to each other. *See* JPX-0007; JPX-0008; CPX-0345; CX-0938; JX 0037.0001. The evidence shows that each of the Accused Hard Hats and Accused Safety Helmets includes an integrally molded front receptacle, which Milwaukee refers to as a "front mount." *See* Tr. (Shewchenko) at 229:19-233:1; CX-1512C (Hyma Dep.) at 77:1-21, 151:5-152:9, 181:5-182:5; JPX-0007-JPX-0008; JPX-0081C; JPX-0111C; JX-0159C; JX-0161C. Milwaukee does not dispute that the Accused Hard Hats and Safety Helmets have "a front receptacle . . . on the front side." *See* RRB at 5-33.

[12] Milwaukee has separately argued that Klein has not met its burden to show infringement for each Non-stipulated Accused Safety Helmet because Klein's expert Mr. Shewchenko did not testify separately regarding each of the 32 Non-stipulated Accused Safety Helmets. RRB at 28-29. I address this argument separately in section VIII.A.8.

The dispute lies in whether the Accused Hard Hats and Accused Safety Helmets have the claimed "external slot." *See id.* For the reasons discussed above with respect to Limitation 8[b][i], I find that this limitation is literally satisfied by at least one of the slots shown below:



CDX-0013C.0095.

I also reject Klein's doctrine of equivalents argument for this claim limitation 17[b][i] for the same reasons given above in connection with claim limitation 8[b][i].

d) 17[b][ii]: "a protruding nub disposed centrally relative to the external slot, the protruding nub being integrally molded with the outer shell on the exterior from a common material; "

For purposes of this analysis, the front receptacles of the Accused Hard Hats and the Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) are materially identical to each other. *See* JPX-0007; JPX-0008; CPX-0345; CX-0938; JX 0037.0001.

Milwaukee does not contest that the Accused Hard Hats and Safety Helmets have a protruding nub integrally molded with the outer shell on the exterior from a common material. *See* RRB at 5-33.

This limitation also requires, however, that the protruding nub "is disposed centrally relative to the external slot." For the same reasons discussed above in connection with respect to limitation 8[b][i], I find that the Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) do not have a nub "disposed centrally relative to the external slot" of a front receptacle under the plain meaning of this claim term or under either parties' proposed construction.

I determine Klein has not shown that this limitation is met by any Accused Headwear Products. Accordingly, infringement of claim 17 of the '327 patent has not been proved for at least this reason.

e) 17[c]: "a rear receptacle having an additional external slot disposed on the rear side on the exterior of the outer shell, the rear receptacle having an additional protruding nub disposed centrally relative to the additional external slot, the additional protruding nub being integrally molded with the outer shell on the exterior from the common material; "

For purposes of this analysis, the rear receptacles of the Accused Hard Hats and the Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) are materially identical to each other and to their respective front receptacles. *See* JPX-0007; JPX-0008; CPX-0345; CX-0938; JX 0037.0001. Both parties present arguments for this claim limitation that rise and fall with their arguments regarding limitation 17[b][i]. CIB at 57-58; RRB at 5-9.

I find that the rear receptacle has "an additional external slot" as required by this claim limitation for the same reasons noted above in connection with limitations 8[b][i] and 17[b][i].

This claim limitation 17[c], however, also requires "an additional protruding nub disposed centrally relative to the additional external slot" of the rear receptacle. No similar limitation is found in connection with the rear receptacle of claim 8. But the analysis of the "external slot" and "protruding nub" in limitations 8[b][i] and 8[b][ii] still applies, and for those same reasons I find that this claim limitation is not met.

I also reject Klein's doctrine of equivalents argument for this claim limitation 17[c] for the same reasons given above in connection with claim limitation 8[b][i].

I determine Klein has not shown that this limitation is met by any Accused Headwear Products. Accordingly, infringement of claim 17 of the '327 patent has not been proved for at least this reason.

f) 17[d]-17[e]: "a first accessory device having a first mating receptacle formed thereon, at least a portion of the first accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; and a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; "

Klein argues that "[e]ach Accused Accessory Device in Appendix I [of Klein's initial post-hearing brief], when combined with the Accused Hard Hats and/or Safety Helmets, meets the 'first accessory device' and/or 'second accessory device' limitations of these elements." CIB at 59. Klein relies on the same evidence and reasoning discussed with respect to Limitation 8[d]-8[e] above. *Id.*

Examination of the Accused Accessory Devices shows that they include mating receptacles and that two or more Accused Accessory Devices are releasably mountable onto the front and/or rear receptacles of the Accused Hard Hats and Safety Helmets at the same time. JPX-0007–

JPX-0023; CPX-0345; *see also* Tr. (Shewchenko) at 239:21-241:25; CX-1535.0002; JX-0115.0002; JX-0168; JX-0169; JX-0170; JX-0171; JX-0172.0002; JX-0173; JX-0174; JX-0175; CX-1512C (Hyma Dep.) at 133:22-134:13, 154:13-18, 155:1-157:2, 157:22-158:14, 159:5-161:14, 165:6-12, 165:16-171:21, 172:4-173:14.[13]

Milwaukee has argued that Klein has not met its burden to "show an act of direct infringement for each and every Accused Accessory Device— i.e., an infringer making, using offering to sell, selling, or importing one or two Accused Accessory Devices together with the Accused Hard Hats or Safety Helmets." RRB at 26-27 (citing Tr. (Klopp) at 640:16-24). I address this argument separately in section VIII.A.9.

g) 17[f]: "wherein the brim, the front receptacle, and the rear receptacle are a unitary feature of the outer shell."

Examination of the representative Accused Hard Hat and Safety Helmet (including the Non-stipulated Safety Helmets) shows that the brim, front receptacle, and rear receptacle are unitary features of the outer shells of those products. JPX-0007; JPX-0008; CPX-0345; JX-0037.0001; *see also* Tr. (Shewchenko) at 242:17-21; CX-1512C (Hyma), 151:5-152:9, 181:5-182:5; JPX-0081C; JPX-0111C; JX-0159C.0002-03; JX-0161C.0001-04. Milwaukee does not dispute that the Accused Hard Hats and Safety Helmets have a brim, front receptacle, and rear receptacle that are unitary features of the outer shell. *See* RRB at 5-33.

4. '265 Patent – Claim 1

Klein asserts that claim 1 of the '265 patent is infringed by the combination of any Accused Hard Hat or Safety Helmet (including the Non-stipulated Safety Helmets) with one of the Accused

[13] Also as noted above in connection with Limitations 8[d]-8[e] of the '327 patent, Milwaukee's noninfringement argument specific to the Accused Accessory Devices will be discussed separately in section VIII.A.9.

Accessory Devices identified in Appendix I of its initial post-hearing brief. *See* CIB at 75-76, AI-1-6. The evidence shows that there are no relevant differences between the Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets) with respect to claim 1 of the '265 patent. JPX-0007; JPX-0008; CPX-0345; CX-0938; JX-0037.0001; *see* Tr. (Shewchenko) at 227:22-228:3; Tr. (Klopp) at 618:25-619:3, 730:5-11. For the reasons discussed below, I find claim 1 of the '265 patent is literally infringed by the combinations of Accused Headwear Products asserted by Klein.

a) 1[pre]: "A safety helmet system, comprising: "

Klein argues that the preamble of claim 1 of the '327 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the claim. CIB at 17 (citing *Catalina Marketing Int'l, Inc.*, 289 F.3d at 808), 76. Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 5-48.

I need not decide whether or not the preamble is limiting for infringement purposes because the preamble is satisfied. Milwaukee refers to the combination the Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets) together with the Accused Accessory Devices as the "Milwaukee BOLT System." CX.0239.0001; *see also* Tr. (Richman) at 566:23-567:7; CPX-0343. I find the Milwaukee BOLT System products combine to form a safety helmet system.

b) 1[a]: "a safety helmet comprising: "

Examination of the Accused Hard Hats and Safety Helmets (including the Non-stipulated Safety Helmets) shows they are "safety helmets." Tr. (Shewchenko) at 228:22-229:4; JPX-0007;

JPX-0008; JX-0115.0001; JX-0178.0001. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 5-33.

c) 1[b]: "a molded outer shell adapted to be worn by a user, the outer shell having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side; "

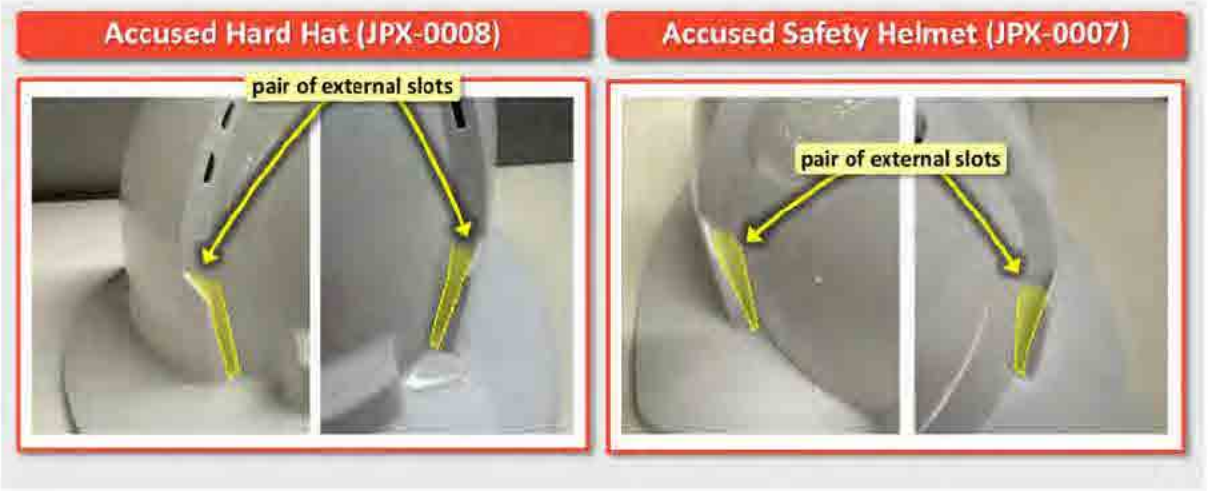
As discussed in connection with limitation 17[a] of the '327 patent above, the evidence shows that the Accused Hard Hats and Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) have an outer shell adapted to be worn by a user that is molded from a common material with an exterior surface defining front and rear sides, and a brim extending forward from the front side. *See* Tr. (Shewchenko) at 229:5-18; JPX-0007; JPX-0008; JX-0115.0001; JX-0178.0001; JX-0159C.0001; JX-0161C.0001; CX-0218.0001; JX-0037.0001; JX-0161C; CX-1512C (Hyma Dep.) at 128:22-129:12, 151:5-152:9, 181:5-182:5. Examination of the physical representative Accused Hard Hat and Accused Safety Helmet shows this limitation is satisfied for the accused products subject to the representative products stipulation. JPX-0007; JPX-0008. Milwaukee does not contest that the representative Accused Hard Hat and Accused Safety Helmet meet this limitation. *See* RRB at 5-33.

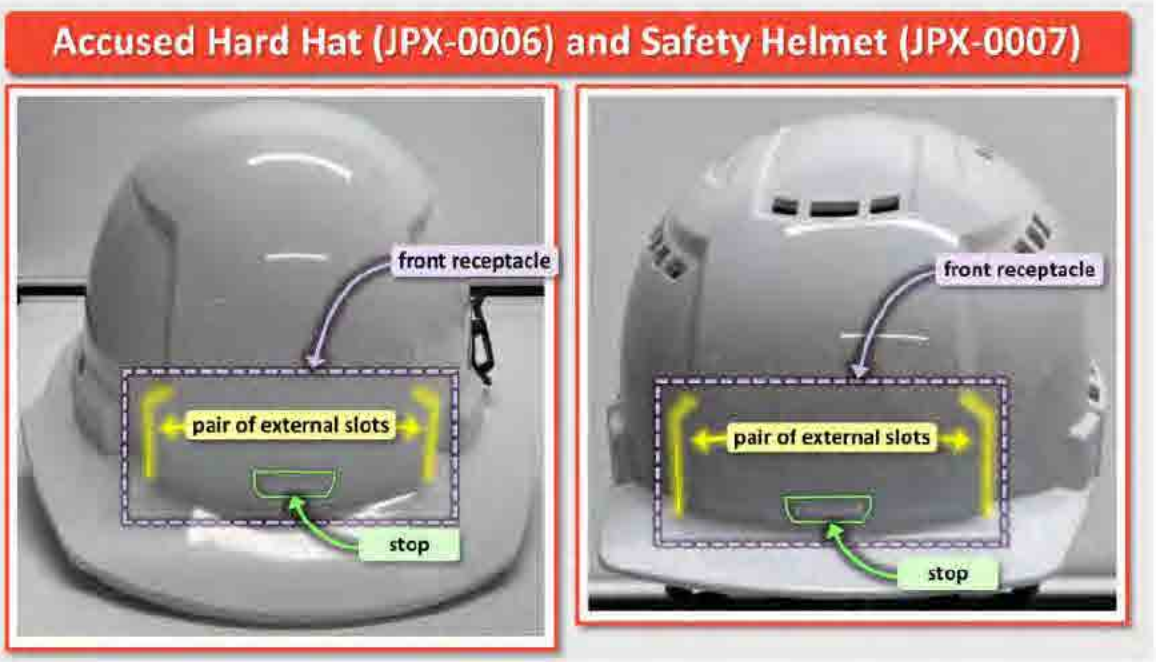
For the Non-stipulated Accused Safety Helmets, the evidence shows that they "have a small brim that extends out from the front" for all of the reasons discussed in connection with claim 17[a] of the '327 patent. Tr. (Klopp) at 641:22-642:3. I therefore find that the Non-stipulated Safety Helmets also satisfy this limitation.[14]

[14] Also as noted above in connection with limitation 17[a] of the '327 patent, the sufficiency of the evidence with respect to the Non-stipulated Accused Safety Helmets will be separately discussed in section VIII.A.8.

d) 1[c]: "a front receptacle having a first pair of external slots and a stop, wherein each of the first pair of external slots extends upwardly along the front side of the outer shell and the stop is disposed between the first pair of external slots, and wherein the stop is integrally molded with the exterior surface of the outer shell; and "

The evidence shows that the Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets) satisfy this limitation. *See* Tr. (Shewchenko) at 245:15-248:12; JPX-0007-JPX-0008; CPX-0345; JPX-0081C; JPX-0111C. As shown in the demonstrative slides reproduced below, the front receptacles of the Accused Hard Hats and Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) have a pair of external slots extending upwardly along the front side and an integrally molded stop that is disposed between the pair of external slots:





CDX-0013C.0095, .0098.

For all of the reasons discussed above in connection with limitation 8[b][i] and 17[b][i] of the '327 patent, the areas of the Accused Hard Hat and Safety Helmet marked by yellow annotation above are each an "external slot," where "slot" has been construed according to its plain and ordinary meaning. Experts for both Klein and Milwaukee and other witnesses all testified that the spaces behind the fins are spaces that receive the mating structure of the Accused Accessory Devices. Tr. (Shewchenko) at 245:15-246:1, 250:11-22, 321:11-22; Tr. (Klopp) at 760:14-761:4 ("Q. And on the Milwaukee accused product, there's space on either side of the front mount behind what you call the ribs, right? A. There is. Q. And that space on either side of the front mount is for the accessory device to slide into, right, sir? A. Yeah, each of those spaces, the sort of the C-shaped aspect of the accessory, engages and grabs in behind those ribs."); *see also* Tr. (Richman) at 568:25-569:16; CX-1512C (Hyma Dep.) at 134:1-13 ("Q. And the -- so there's a space between the vertical rib and the -- sort of like the dome shape of the hard hat, right? A. Yes. Q. And there's

a piece of the mounting bracket, the headlamp mount bracket, that fits into that open space, right? A. Yes.").

Milwaukee contends that Klein has not met its burden on infringement because Klein and its expert Mr. Shewchenko offered inconsistent interpretations of "external slot" across the two Asserted Helmet Patents. RRB at 21-22. Whatever inconsistency may exist in the positions taken by Klein or Mr. Shewchenko, in this determination I consistently apply the same ordinary meaning of "external slot" to a variety of different factual scenarios. As compared to expert testimony elicited in the context of litigation, I give more weight to the physical evidence of the Accused Headwear Products I examined. *See, e.g.*, *Lee v. Mike's Novelties, Inc.*, 543 F. App'x. 1010, 1016 (Fed. Cir. 2013) ("[n]o expert testimony was required" where jurors could handle and assess the physical evidence of the accused product); *see also Union Carbide Corp. v. Am. Can Co.*, 724 F.2d 1567, 1573 (Fed. Cir. 1984) (no expert testimony needed to explain technology involving plastic bags in the validity context). I specifically asked all parties at the hearing if there was any objection to me making my own observations about the physical evidence and no party raised an objection. Tr. at 1119:25-1122:24. My evaluation of the record evidence persuades me that the Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets) have a "pair of external slots."[15]

In addition, the area of the Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets) marked by green annotation in the above demonstrative slide

[15] Throughout its post-hearing briefing, Milwaukee has raised various criticisms of the consistency of the positions taken by Klein and Mr. Shewchenko. *See, e.g.*, RRB at 6-7. I have considered any such inconsistencies, and I have compared them the intrinsic patent evidence and the physical evidence. I have generally given more weight to the intrinsic patent evidence and the physical evidence. The conclusions in this initial determination reflect that weighing.

is the claimed "stop" as construed above in section **Error! Reference source not found.**. Examination of the physical samples of the Accused Headwear Products shows that this structure on the Accused Hard Hats and Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) inhibits movement of the Accused Accessory Devices when the latter are clicked into place in the front receptacle. JPX-0006; JPX-0007; CPX-0345; CX-0938; JX-0037.0001; JPX-0009–JPX-0023.

I find this limitation is literally satisfied by the Accused Hard Hats and Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets).

Klein alternatively contends that "[t]o the extent this limitation is not met literally, it is met under the doctrine of equivalents for the same reasons explained regarding the '327 Patent 'external slot' limitation." CIB at 80. I determine Klein's doctrine of equivalents argument in connection with claim element 1[c] fails for several reasons.

First, the claim language at issue here differs from the "external slot" limitation in claims 8 and 17 of the '327 patent. Any doctrine of equivalents analysis must still begin with the words of the claim, and Klein has presented no argument explaining how an accused feature is equivalent to the words of element 1[c] of the '265 patent. *See Warner-Jenkinson Co.*, 520 U.S. at 29 ("Each element contained in a patent claim is deemed material to defining the scope of the patented invention, the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole."). Any such argument has been forfeited under the Ground Rules because it is not set forth in detail in Klein's initial post-hearing brief. *See* Order No. 2, Ground Rule 14.1.

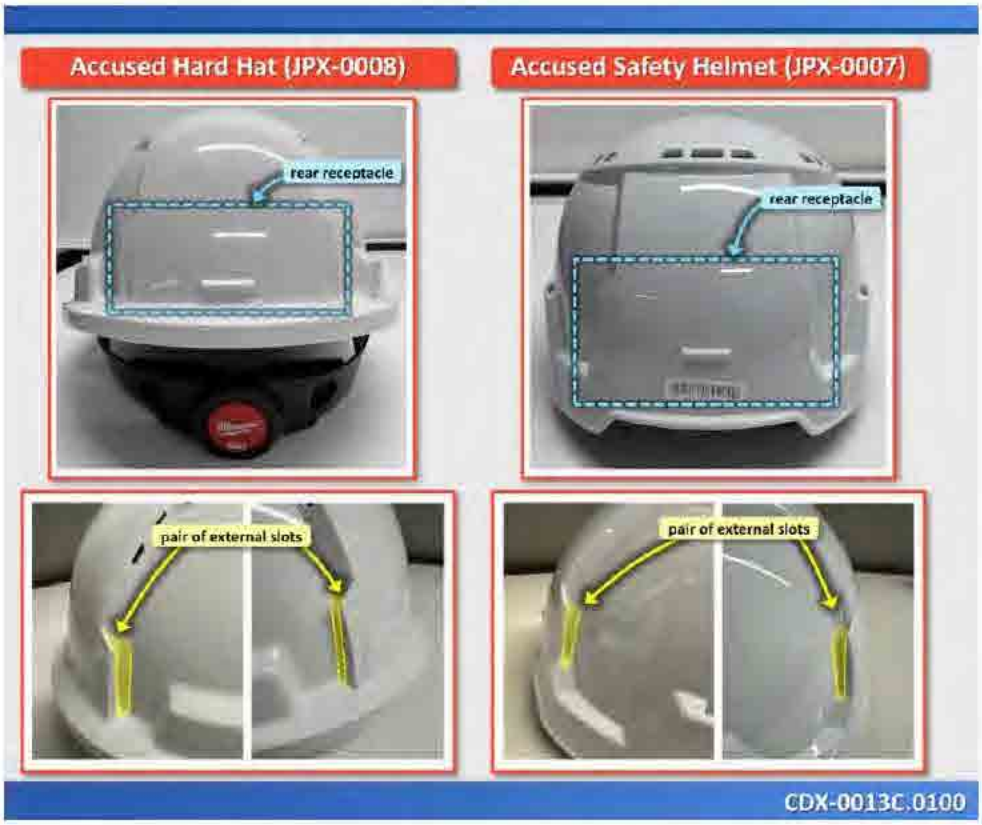
Next, in connection with this claim limitation 1[c] of the '265 patent, Klein has pointed to different features in the Accused Headwear Products than it identified in connection with the "external slot" limitation in the '327 patent. Specifically, in connection with the "external slot"

limitation in the '327 patent, Klein pointed to features that included the span of the face of the hard hat between the two trapezoidal-shaped fins, but in connection with this limitation 1[c] Klein does not include that span. Klein has not explained how these different features relate to "the same reasons explained regarding the '327 patent." Any such argument has been forfeited under the Ground Rules because it is not set forth in detail in Klein's initial post-hearing brief. *See* Order No. 2, Ground Rule 14.1.

Finally, even if Klein had preserved a doctrine of equivalents argument based on "the same reasons explained regarding the '327 patent," I would find no merit in such an argument for the same reasons explained above in connection with claim 8 and claim 17 of the '327 patent.

e) 1[d]: "a rear receptacle disposed on the rear side on the exterior surface of the outer shell, the rear receptacle having a second pair of external slots; and "

For purposes of this analysis, the rear receptacles of the Accused Hard Hats and the Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) are materially identical to each other and to their respective front receptacles. *See* JPX-0007; JPX-0008; CPX-0345; CX-0938; JX 0037.0001. Both parties present arguments for this claim limitation that rise and fall with their arguments regarding limitation 17[b][i]. CIB at 59-62; RRB at 20-25. As illustrated in the demonstrative slide below, the Accused Hard Hats and Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) each have a rear receptacle that includes a second pair of external slots:



CDX-0013C.0100. The areas identified in yellow annotation are each an "external slot" for the reasons discussed above with respect to limitation 1[c] of this '265 patent and other similar reasoning throughout this determination, including in connection with limitation 8[b][i] and 8[c] of the '327 patent. This limitation is therefore satisfied.

Klein also summarily argues, "To the extent this limitation is not met literally, it is met under the doctrine of equivalents for the same reasons explained regarding the '327 Patent 'external slot' limitation." CIB at 81. Klein's doctrine of equivalents argument with respect to this claim limitation is moot because I have found that this claim limitation is literally met by the Accused Hard Hats and Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets). And for the same reasons I noted above in connection with limitation 1[c], Klein's doctrine of equivalents argument fails on the merits.

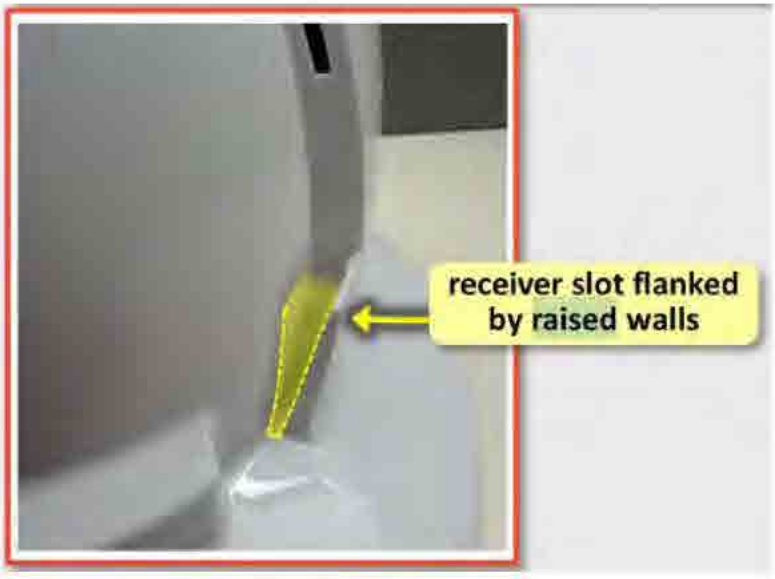
f) **1[e]: "an accessory device having a mating receptacle formed thereon, at least a portion of the mating receptacle being selectively engageable with the front receptacle or the rear receptacle such that the accessory device is releasably mountable onto each of the front receptacle and the rear receptacle; "**

Klein argues that "[e]ach Accused Accessory Device [in Appendix I of Klein's initial post-hearing brief], when combined with the Accused Hard Hats and/or Safety Helmets, meets the 'accessory device' limitation of this element." *See* CIB at 81. Examination of these Accused Accessory Devices shows that each includes a mating receptacle that is selectively engageable with and releasably mountable onto both the front and rear receptacles of the Accused Hard Hats and/or Safety Helmets. JPX-0007-JPX-0023; *see also* Tr. (Shewchenko) at 239:21-241:25; CX-1535.0002; JX-0115.0002; JX-0168; JX-0169; JX-0170; JX-0171; JX-0172.0002; JX-0173; JX-0174; JX-0175; CX-1512C (Hyma Dep.) at 133:22-134:13, 154:13-18, 155:1-157:2, 157:22-158:14, 159:5-161:14, 165:6-12, 165:16-171:21, 172:4-173:14. Moreover, Milwaukee's expert Dr. Klopp has testified that there are no relevant differences between these Accused Accessory Devices. Tr. (Klopp) at 620:13-16.

As with limitations 8[d]-8[e] of the '327 patent, Milwaukee contends that Klein has not met its burden to "show an act of direct infringement for each and every Accused Accessory Device— i.e., an infringer making, using offering to sell, selling, or importing one or two Accused Accessory Devices together with the Accused Hard Hats or Safety Helmets." RRB at 26-27 (citing Tr. (Klopp) at 640:16-24). I address this argument separately in section VIII.A.9.

g) **1[f]: "wherein each of the first pair of external slots of the front receptacle is a receiver slot flanked by raised walls, and the stop comprises a protruding member, wherein the accessory device includes a clip, and wherein the receiver slot aligns the accessory device therein, the raised walls retain the accessory device therebetween, and the protruding member engages the clip to releasably mount the accessory device in the front receptacle."**

The evidence shows that the combination of an Accused Hard Hats and Safety Helmets (including the Non-stipulated Accused Safety Helmets), together with one Accused Accessory Device identified in Appendix I, satisfies this limitation. Examination of the physical samples of the Accused Headwear Products shows that each of the pair of external slots of the front receptacle on the Accused Hard Hat or Safety Helmet is a receiver slot that aligns an accessory device therein because each receives part of the mating receptacles on the Accused Accessory Devices. *See, e.g.*, JPX-0007-JPX-0023; CPX-0345. The receiver slot is flanked by at least the raised wall of the trapezoidal-shaped fin and by the raised wall with a surface furthest from and normal to the viewer in this photograph:



CDX-0013C.0104 (annotating a photograph of JPX-0008).

In addition, the front stop of the Accused Hard Hat or Safety Helmet is a protruding member. JPX-0007; JPX-0008; CPX0345. Further, each Accused Accessory Device includes a clip that engages with the protruding member on the Accused Hard Hats and Safety Helmets to releasably secure the Accused Accessory Device in the front receptacle. These clips are variously referred to in Milwaukee's user instructions as a "clip," "retention cleat," "slider," "back tab," and "slide lock." JX-0115.0002; JX-0168.0001; JX-0169.0001-02; JX-0171.0001-02; JX-0173.0001-02; JX-0174.0001-02.

Milwaukee does not contest that the majority of this limitation is satisfied by the Accused Hard Hats and the Accused Safety Helmets, including the Non-stipulated Accused Safety Helmets. *See* RRB at 5-33. Specifically, Milwaukee does not contest that "the stop comprises a protruding member," "the accessory device includes a clip," or that "the receiver slot aligns the accessory device therein, the raised walls retain the accessory device therebetween, and the protruding member engages the clip to releasably mount the accessory device in the front receptacle." *See id.*

Milwaukee argues that the Accused Hard Hats and the Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets) do not satisfy this limitation because they do not have the recited "pair of external slots." *See* RRB at 20-25. But as discussed above in connection with limitation 1[c] of this '265 patent and in connection with other similar limitations, Milwaukee's arguments fail.

5. '265 Patent – Claim 2

Klein asserts that claim 2 is infringed by the combination of any Accused Hard Hat or Safety Helmet (including the Non-Stipulated Safety Helmets) with one of the Accused Accessory Devices identified in Appendix I of its initial post-hearing brief. *See* CIB at 75-76, 87, AI-1-6.

Claim 2 of the '265 patent depends from claim 1 and reads: "The safety helmet system of claim 1, wherein the outer shell, the front receptacle, and the rear receptacle are formed from a common material." The evidence shows that the outer shell and receptacles of the Accused Hard Hats are formed from a common material called HDPE and the outer shell and receptacles of the Accused Safety Helmets are formed from a common material called LEXAN. Tr. (Shewchenko), 253:7-25; JX-0037.0001; CX-0218.0001; JX-0161C.0001; JX-0159C.0001. Milwaukee does not contest that the Accused Hard Hats and Safety Helmets are made of a common material. *See* RRB at 5-33.

I find claim 2 of the '265 patent is literally infringed by the combinations of Accused Headwear Products asserted by Klein.

6. '265 Patent – Claim 3

Klein asserts that claim 3 is infringed by the combination of any Accused Hard Hat or Safety Helmet (including the Non-stipulated Safety Helmets) with one of the Accused Accessory Devices identified in Appendix I of its initial post-hearing brief. *See* CIB at 75-76, 87, AI-1-6.

Claim 3 of the '265 patent depends from claim 2 and reads: "The safety helmet system of claim 2, wherein the common material is plastic." The evidence shows that the HDPE used to form the outer shell and receptacles of the Accused Hard Hats and the LEXAN used to form the outer shell and receptacles of the Accused Safety Helmets are both plastic. Tr. (Shewchenko), 253:7-25; JX-0037.0001; CX-0218.0001; JX-0161C.0001; JX-0159C.0001. Milwaukee does not contest that the Accused Hard Hats and Safety Helmets are made of plastic. *See* RRB at 5-33.

I find claim 3 of the '265 patent is literally infringed by the combinations of Accused Headwear Products asserted by Klein.

7. '265 Patent – Claim 4

Klein asserts that claim 4 is infringed by the combination of any Accused Hard Hat or Safety Helmet (including the Non-stipulated Safety Helmets) with one of the Accused Accessory Devices identified in Appendix I of its initial post-hearing brief. *See* CIB at 75-76, 88, AI-1-6.

Claim 4 of the '265 patent depends from claim 1 and reads: "The safety helmet system of claim 1, further including a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell."

The evidence shows that each of the Accused Accessory Devices listed in Appendix I of Klein's initial post-hearing brief satisfies this limitation for the reasons discussed above with respect to Limitations 8[d]-[e] and 17[d]-[e] of the '327 patent.

Milwaukee does not argue that the Accused Accessory Devices fail to satisfy the additional limitation of claim 4. *See* RRB at 5-33.

I find claim 4 of the '265 patent is literally infringed by the combinations of Accused Headwear Products asserted by Klein.

8. Non-stipulated Accused Safety Helmets

As noted above in section I.D.1, Milwaukee argues that the Non-stipulated Accused Safety Helmets are materially different from the representative Milwaukee BOLT White Front Brim Safety Helmet (48-73-1320) (JPX-0007) that Klein focused on at trial to demonstrate infringement of claim 17 of the '327 patent by all Accused Safety Helmets listed in Appendix I. JX-0016C ¶¶4-5. *See* RRB at 28-30; CIB at 10-11. And although Klein argued that all Accused Safety Helmets, including the Non-stipulated Accused Safety Helmets, infringe claims 1-4 of the '265 patent, Milwaukee did not argue that the Non-stipulated Accused Safety Helmets were materially different

from the representative Milwaukee BOLT White Front Brim Safety Helmet (48-73-1320) (JPX-0007) for purposes of the '265 patent analysis. *See* CIB at 75-76, 87-88, AI-1-6; RRB at 5-33. Milwaukee instead argues that Klein has "failed to meet its burden of proof that each and every one of the Accused Brimless Safety Helmets infringe the Asserted Claims." RRB at 27-28. These 32 Non-stipulated Accused Safety Helmets were not part of the parties' representativeness stipulation (JX-0016C) and are listed Appendix I to Klein's initial post-hearing brief. For reference, they are also identified in the table below:

Description	SKUs
BOLT Safety Helmet (USA), Class C	48-73-1300, 48-73-1302, 48-73-1304, 48-73-1306, 48-73-1308, 48-73-1310, 48-73-1312, 48-73-1334
BOLT Safety Helmet (USA), Class E	48-73-1301, 48-73-1303, 48-73-1305, 48-73-1307, 48-73-1309, 48-73-1311, 48-73-1313, 48-73-1335
BOLT Safety Helmet with IMPACT ARMOR Liner, Class C	48-73-1350, 48-73-1352, 48-73-1354, 48-73-1356, 48-73-1358, 48-73-1360, 48-73-1362, 48-73-1378
BOLT Safety Helmet with IMPACT ARMOR Liner, Class E	48-73-1351, 48-73-1353, 48-73-1355, 48-73-1357, 48-73-1359, 48-73-1361, 48-73-1363, 48-73-1379

RDX-0001.45.

Milwaukee argues that "it is Klein's burden to prove that each and every one of these products infringes," but that "at the Hearing, Mr. Shewchenko only mentioned one of the SKUs for these products and did not analyze the 31 other SKUs that Klein accuses of infringement." RIB at 27 (citing Tr. (Shewchenko) at 254:1-255:1; (Klopp) at 641:22-643:3). Milwaukee acknowledges that "Mr. Shewchenko testified that the single SKU he mentioned was essentially identical to the other ***non-brimless*** Accused Products that he analyzed," but further argues that

"nowhere in his testimony did Mr. Shewchenko analyze, or even mention, the 31 other brimless SKUs that Klein accuses of infringement." RIB at 27-28 (citing Tr. (Shewchenko) at 254:1-255:1). Milwaukee asserts: "This is a failure of proof." *Id.* at 28.

Milwaukee continues its argument:

> Klein's Initial Post-Hearing Brief highlights this deficiency. Klein does not, and cannot, cite any testimony or evidence from its own infringement expert. Instead, Klein cites Dr. Klopp's demonstrative slide in which he lists the 32 SKUs for the Brimless Safety Helmets and testified that Mr. Shewchenko failed to address all of them. CIB, 10 (citing RDX-0001.0045); Tr. (Klopp) at 641:22-643:3. But it was Mr. Shewchenko's burden, not Dr. Klopp's, to list out these products, and explain how each and every one of them infringes. Mr. Shewchenko and Klein have not done that.

RRB at 28.

Milwaukee's argument is not persuasive. First, while Milwaukee's allegation the Klein's expert "did not analyze the 31 other SKUs" might have some rhetorical shock value, the reality is that the 32 SKUs in question all use one of two plastic outer shells, both of which are pictured in multiple places in the record:



	Vented Safety Helmet		Safety Helmet	
Part # & Color	48-73-1300		48-73-1301	
	48-73-1302		48-73-1303	
	48-73-1304		48-73-1305	
	48-73-1306		48-73-1307	
	48-73-1308		48-73-1309	
	48-73-1310		48-73-1311	
	48-73-1312		48-73-1313	

JX-0037.0001; *see also* RX-0570; RX-0571; RX-0572; RX-0573. And the only difference between the outer shell of the Class C helmet on the left and the outer shell of the Class E helmet on the right is venting. *See* JX-0132C.0010 ("Vented (Class C) hard hats offer temperature reduction but are not voltage rated. Unvented (Class E) hard hats are proof-tested for electrical work with protection up to 20,000 volts.").

Some Non-stipulated Accused Safety Helmet SKUs include an IMPACT ARMOR Liner and some do not. The record contains printouts of Milwaukee and Home Depot webpages that contain photographs of each type of Non-stipulated Safety Helmet. RX-0570 (Class C); RX-0571 (Class E); RX-0572 (Class C with IMPACT ARMOR Liner); RX-0573 (Class E with IMPACT ARMOR Liner). No party asserts that the IMPACT ARMOR Liner is a material difference between these products, and I find based on the record evidence that it is not.

I further find that there are no material differences between the SKU that Milwaukee admits that Mr. Shewchenko discussed in his testimony and the other 31 SKUs for which Milwaukee says there is a failure of proof.

Additionally, Mr. Shewchenko is allowed to provide his opinion about features of a group of products without marching through every piece of supporting evidence. While the Federal Rules of Evidence do not necessarily apply in section 337 proceedings, those rules are nonetheless informative as to what inferences can appropriately be drawn from expert testimony. *Compare, e.g., Certain Stainless Steel Prods., Certain Processes for Mfg. or Relating to Same, & Certain Prods. Containing Same*, Inv. No. 337-TA-933, Comm'n Op. at 23-24 (June 1, 2019) (ground rule regarding personal knowledge of witnesses "must be read in conjunction with . . . the Federal Rules of Evidence" concerning expert witness testimony) *with Certain Network Devices, Related Software & Components Thereof (I)*, Inv. No. 337-TA-944, Comm'n Op. at 15-16 (June 1, 2019)

("The Commission is not bound to apply the FRE [Federal Rules of Evidence] and as such need not apply them here. Instead, the Commission is bound by the Administrative Procedures Act, 5 U.S.C. § 500-596 ('APA'), and can consider all relevant evidence.").

Federal Rule of Evidence 705 states that "an expert may state an opinion--and give the reasons for it--without first testifying to the underlying facts or data. But the expert may be required to disclose those facts or data on cross-examination." Fed. R. Ev. 705. This rule "functions to abbreviate trials by permitting opinion testimony without factual foundation." *Symbol Techs., Inc. v. Opticon, Inc.*, 935 F.2d 1569, 1576 (Fed. Cir. 1991). "Patent cases, so often typified by lengthy testimony on complex technical issues, are particularly served by this purpose." *Id.*

Klein's expert Mr. Shewchenko followed Rule 705 when testifying in direct examination about the Non-stipulated Accused Safety Helmets. For emphasis, testimony indicating that Mr. Shewchenko was testifying about all 32 Non-stipulated Accused Safety Helmets is highlighted:

> Q. Now, we discussed earlier that the parties agreed on certain representative accused products. Are there any **Milwaukee safety helmets that Milwaukee contends are different than the representative safety helmet** you identified earlier?
>
> A. **Yes**, there's a third helmet that I have displayed here. It is safety helmet 48-73-1300.
>
> Q. Do you have a physical sample of that safety helmet with you?
>
> A. Yes, I do. This is CPX-0345.
>
> Q. How do **these safety helmets** compare to the safety helmets that you discussed earlier?
>
> A. This safety helmet is essentially identical to the helmets that we just discussed with the exception of the front brim has a shorter version than the fully extended brim that we saw earlier.
>
> Q. Have you considered whether **these safety helmets** meet the claims of the '327 and '265 patents?
>
> A. **Yes,** I have.

Q. What did you conclude?

A. I came to the same conclusions in that **the helmets are identical for the same reasons I provided earlier today**.

Q. Just to be clear, did you find that **they meet the claims** of the '327 and '265 patents?

A. **Yes, they meet all the limitations of the claims** for the '32[7] and '265.

Q. **What if anything does Milwaukee say is different about the safety helmets?**

A. **Milwaukee states that these are brimless helmets.**

Q. In your opinion, **do these safety helmets have a brim** that extends forward or outwardly from the front side?

A. **Yes**. My opinion is that it does have a brim. You will see that it is a shorter version of the forward brim and it does indeed stick out forward as you can see here.

Q. Does this brim offer some level of protection from sunlight or falling debris?

A. It will probably provide limited protection against sunlight but it will provide some extended protection from falling debris, compared to the bare shell.

Q. Having now gone through all of the '327 and '265 patent claims, can you summarize your infringement opinions for the Court?

A. In summary, **the accused hard hats and accessory devices** meet claims 8 to 10 and 17 of the '327 and claims 1 to 4 of the '265. **The accused safety helmet and accessory devices** meet claim 17 of the '327 and claims 1 to 4 of the '265.

Tr. (Shewchenko) at 254:1-255:24.

As can be seen from the testimony above, Mr. Shewchenko addressed the one material difference between the Non-stipulated Accused Safety Helmets and the other Accused Safety Helmets: the depth of the brim. If Milwaukee contended that Mr. Shewchenko was incorrect when he testified that all other material aspects of the Non-stipulated Accused Safety Helmets "are identical for the same reasons" he gave when discussing other products, Milwaukee was free to cross-examine Mr. Shewchenko on that point. But when Milwaukee had that opportunity, Milwaukee "chose not to expose [Mr. Shewchenko's] testimony to the glaring light of cross-

examination on this issue." *Compare Symbol Techs.*, 935 F.2d at 1576 *with* Tr. (Shewchenko) at 324:6-325:16. Thus, the Commission is "free to accept or reject" Mr. Shewchenko's testimony that the Non-stipulated Accused Safety Helmets infringe or do not infringe for the reasons stated by Mr. Shewchenko. *See Symbol Techs.*, 935 F.2d at 1576. With respect to claim 17 of the '327 patent and claims 1 through 4 of the '265 patent, I do accept Mr. Shewchenko's testimony that the material features of the Non-stipulated Accused Safety Helmets are the same as the Accused Safety Helmets identified in the parties' stipulation in JX-0016C.

Moreover, other record evidence beyond Mr. Shewchenko's testimony also indicates that, with the exception of a dispute about the depth of the brim, the question of infringement by the Non-stipulated Accused Safety Helmets rises or falls for the same reasons as all Accused Safety Helmets. For example, Milwaukee's expert Dr. Klopp testified regarding his examination of the Non-stipulated Accused Safety Helmets: "Q. Having analyzed that evidence, in your opinion, do the brimless safety helmets infringe any claim of the asserted helmet patents? A. No, and it's for the same reasons in terms of the mounting of accessories. It's essentially exactly the same as the other products." Tr. (Klopp) at 642:11-16. Here, Dr. Klopp has opined that the accessory mounting system for the Non-stipulated Accused Safety Helmets is materially identical to the accessory mounting system for the other Accused Hard Hats and Accused Safety Helmets. The physical evidence confirms that testimony. CPX-0345.

I find the single Non-stipulated Accused Safety Helmet SKU that Mr. Shewchenko analyzed in detail is representative of the 31 other Non-stipulated Accused Safety Helmets, and that all Non-stipulated Accused Safety Helmets infringe claims 1 through 4 of the '265 patent for the reasons discussed in detail herein.

9. Accused Accessory Devices

Milwaukee argues that Klein has "failed its burden of proof" to show that the Accused Accessory Devices infringe the '327 and '265 patents because "it has failed to show an act of direct infringement for each and every Accused Accessory Device—i.e., an infringer making, using[,] offering to sell, selling, or importing one or two Accused Accessory Devices together with the Accused Hard Hats or Safety Helmets." RRB at 26 (citing Tr. (Klopp) at 640:16-24).

The record evidence, however, shows that Milwaukee admits that its personnel conduct testing on "the combination of accessories with a hard hat or safety helmet" in order "to determine if different accessories fit on the hard hats and safety helmets." CX-1342C.0344. This evidence alone is sufficient to conclude that a person in the United States has "made" each combination that Klein accuses of infringement in this investigation. CIB at AI-1-6. Because Milwaukee tests the combinations, this evidence is also sufficient to conclude that a person in the United States has "used" each combination that Klein accuses of infringement in this investigation. *See id.* Presuming that the combinations meet every element of an asserted claim, these acts constitute direct infringement of that claim by making and using the claimed invention. *See* 35 U.S.C. § 271(a); *Certain Blood Cholesterol Testing Strips & Associated Sys. Containing the Same*, Inv. No. 337-TA-1116, Comm'n Op., 2022 WL 834244, at *23 (Feb. 1, 2022) ("'[U]se' of a patented invention is a type of direct infringement under 35 U.S.C. § 271(a)."); *Certain Beverage Dispensing Sys. & Components Thereof*, Inv. No. 337-TA-1130, Comm'n Op., 2020 WL 8675357, at *21 (June 1, 2020) ("ABI has itself used the NOVA system in the United States, in violation of 35 U.S.C. § 271(a), when its employees dispensed beer from a NOVA system assembled from the imported components.").

Additional record evidence corroborates such a conclusion and provides additional evidence of acts that constitute direct infringement (so long as the combination meets all claim limitations). For example, Milwaukee's vice president of marketing Derek Rose testified at his deposition:

> Q. Fair to say in any given month, there's someone in America wearing a Milwaukee shirt, showing how the BOLT product works?
>
> A. Yes.
>
> Q. That means taking the product out, safety helmet, hard hat, putting out accessories, mixing and matching, either with the universal slot or the mounts, right?
>
> A. That's -- yeah, that's correct.

CX-1508C (Rose Dep.) at 90:12-20; *see also* CX-1513C (Richman Dep.) at 407:19-408:23, 409:19-410:14, 411:9-22 (Milwaukee senior vice president of product marketing Zach Richman confirming the same).

Additionally, Milwaukee identified documents in its interrogatory responses to show that its personnel conduct testing on "the combination of accessories with a hard hat or safety helmet" in order "to determine if different accessories fit on the hard hats and safety helmets." CX-1342C.0344 (citing METCO1442_00012354 and METCO1442_00012380). Some of these documents appear in the record as JX-0176 and JX-0177. One of these documents provides a list of 16 online videos that show "INSTALLATION & REPLACEMENT" of various Accused Accessory Devices on Accused Hard Hats and Accused Safety Helmets and a chart showing which Accused Accessory Devices are recommended to be combined with which Accused Hard Hats and which Accused Safety Helmets. *See* JX-0176.0017, .0019.

Another Milwaukee document shows a user putting a Headlamp—an Accused Accessory Device—onto an Accused Safety Helmet:



JX-0177.0002.

Additionally, the record contains Milwaukee advertising showing the accused Milwaukee BOLT Full Brim Vented Safety Helmet, Type II, Class C, model number 48-73-1650 (and other colors of the same helmet) combined with the following Accused Accessories: Headlamp, Low-Profile Headlamp Mount, Eye Visors, and 2nd Gen. Sun Visor:



CX-0907.0004. At least the middle image above shows an Accused Accessory Device attached to both a front and rear receptacle on the accused safety helmet model number 48-73-1650. *Id.* The same advertisement lists numerous other Accused Accessory Devices that may be attached to the accused safety helmet. *Id.* at .0003. The accused safety helmet in the advertisement is one that Milwaukee agrees has no material distinguishing features from the representative Accused Safety

Helmet. *See id.*; JX-16.0002, .0008. These images show the combination apparatus has been made and used in the United States.

The record also contains evidence that consumers assemble the Accused Accessory Devices with the Accused Hard Hats and Accused Safety Helmets and use the combination. For example, the record contains a user review from La Verne, California, which states, "I bought this USB headlamp for my BOLT hardhat and the light clipped onto the front of my hardhat perfectly. The battery clipped on to the back of the helmet perfectly." CX-0177.0003. This is evidence of direct infringement. *See Blood Cholesterol Testing*, Comm'n Op., 2022 WL 834244, at *23 ("'[U]se' of a patented invention is a type of direct infringement under 35 U.S.C. § 271(a).").

Further, I note the asserted claims do not require that an accessory device actually be inserted into a receptacle on a helmet, but only that the accessory device be "releasably mountable." *See* '327 patent, limitations 8[d]-8[e] and 17[d]-17[e]; '265 patent, limitation 1[e]. No party disputes that proposition. This means a sale which includes an Accused Accessory Device together with an Accused Hard Hat or Safety Helmet is a sale of the invention in claims 1 through 4 of the '265 patent, for example. An unauthorized sale of a combination meeting each limitation of a patent claim is direct infringement. 35 U.S.C. § 271(a).

Here, the record contains evidence that Milwaukee sells each combination of Accused Headwear Products that Klein accuses of infringement. Milwaukee sells these combinations to retailer customers such as Home Depot, including packages that include an Accused Hard Hat or Safety Helmet and at least two Accused Accessory Devices. *See* Tr. (Shewchenko) at 258:5-11; CX-0180.0002; CX-0776.0001; CX-0778.0001; CX-0779.0001; CX-0783.0001; CX-1513C (Richman Dep.) at 121:12-18; JPX-0106C; *see also* JPX-0114C; JPX-0115C. These sales are

direct infringement of at least claims 1 through 4 of the '265 patent because they include the sale of a combination having every element of those claims. 35 U.S.C. § 271(a).

Similarly, an unauthorized offer for sale of a combination meeting each limitation of a patent claim is direct infringement. 35 U.S.C. § 271(a). Here, the record contains evidence of an offer by Home Depot to sell an Accused Hard Hat together with a Headlamp Accused Accessory Device. CX-0180.0002. The record contains other individual Home Depot offers to sell a combination of other Accused Accessory Devices in combination with either an Accused Hard Hat or an Accused Safety Helmet. *See* CX-0776.0001; CX-0778.0001; CX-0779.0001; CX-0783.0001. The Accused Accessory Devices in these offers for sale include Headlamps, Eye Visors, 1st Gen. Sun Visors/Sunshades, and Accessory Mounts. *See id.* These offers for sale are direct infringement of at least claims 1 through 4 of the '265 patent, for example.

From the circumstantial and direct evidence above, I find that Milwaukee personnel and consumers have made each combination of Accused Headwear Products that Klein accuses of infringement in the United States and have used each accused combination in the United States. I also find Milwaukee has "sold" to retailers in the United States each combination of Accused Headwear Products that Klein accuses of infringement. I further find that, because all of Milwaukee's sales are to retailers, those retailers have sold and offered to sell to consumers in the United States each combination of Accused Headwear Products that Klein accuses of infringement. The combinations made, used, offered for sale, and sold meet each limitation of at least claims 1 through 4 of the '265 patent, as explained above. Accordingly, there is ample evidence of direct infringement of claims 1 through 4 of the '265 patent by each combination of Accused Headwear Products that Klein has accused of infringement. *See Golden Blount, Inc. v. Robert H. Peterson Co.*, 438 F.3d 1354, 1362 (Fed. Cir. 2006) (instruction sheet and a

"demonstration device assembled by" a defendant were sufficient evidence that "each time an EMB was attached to a primary burner by either Peterson or an end-user, the combination was infringing"); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317-18 (Fed. Cir. 2009) ("a finding of infringement can rest on as little as one instance" of direct infringement, which can be supported by circumstantial evidence "relating to the extensive sales" of products, "the dissemination of instruction manuals," and expert testimony); *see also C.R. Bard, Inc. v. AngioDynamics, Inc.*, 979 F.3d 1372 (Fed. Cir. 2020) (evidence showing that an accused infringer "directed medical providers to perform each step of the claimed methods," combined with expert testimony that medical providers did so, constituted sufficient circumstantial evidence of direct infringement "even when there is no direct evidence of a specific person" performing each step); *Moleculon Rsch. Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986) (where a method claim could only be directly infringed by a puzzle user, circumstantial evidence of sales and user instructions was sufficient evidence of direct infringement); *Certain High-Density Fiber Optic Equip. & Components Thereof*, Inv. No. 337-TA-1194, Comm'n Op. at 33-34, (Aug. 23, 2021) (circumstantial evidence can be sufficient for the fact-finder to reasonably conclude that, sometime during the relevant period, more likely than not one entity somewhere in the United States performed an act of direct infringement, even when there is no direct evidence of a specific person doing so); *see also Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1365 (Fed. Cir. 2012) (circumstantial evidence that an accused infringer "designs a product for use in an infringing way and instructs users to use the product in an infringing way" can be enough to support a conclusion of direct infringement, precluding summary judgment to the contrary).

Above I have determined that the combinations of the Accused Headwear Products identified by Klein in Appendix I to its initial post-hearing brief do not meet each limitation of the

asserted claims of the '327 patent, either literally or under the doctrine of equivalents because they lack certain claimed features. *See* CIB at AI-1-6. For thoroughness, however, I find that if the Accused Hard Hats and Accused Safety Helmets had a protruding nub "disposed centrally relative to the external slot," the evidence of making, using, offering for sale, and selling the combinations of Accused Headwear Devices identified by Klein would constitute direct infringement of the asserted '327 patent claims.

10. Safety Helmet Patents Direct Infringement Conclusions

In sum, the record evidence demonstrates that Accused Hard Hats, Accused Safety Helmets, and Accused Accessory Devices arranged in various combinations satisfy all limitations of the asserted claims of the '265 patent. These combinations are summarized below:

- '327 patent claim 8: not satisfied
- '327 patent claim 10: not satisfied
- '327 patent claim 17: not satisfied
- '265 patent claim 1: any Accused Hard Hat or Accused Safety Helmet (including Non-stipulated Accused Safety Helmets) with one of the Accused Accessory Devices identified in Appendix II
- '265 patent claim 2: any Accused Hard Hat or Accused Safety Helmet (including Non-stipulated Accused Safety Helmets) with one of the Accused Accessory Devices identified in Appendix II
- '265 patent claim 3: any Accused Hard Hat or Accused Safety Helmet (including Non-stipulated Accused Safety Helmets) with one of the Accused Accessory Devices identified in Appendix II

- '265 patent claim 4: any Accused Hard Hat or Accused Safety Helmet (including Non-stipulated Accused Safety Helmets) with two of the Accused Accessory Devices identified in Appendix II

11. Indirect Infringement

Klein alleges that Milwaukee indirectly infringes the '327 and '265 patents because it had knowledge of the patents and "induced retailers and end-users to directly infringe by making, using, selling, and offering to sell the claimed inventions in the United States." CIB at 36 (citing *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 765-66 (2011)); CIB at 75.

Liability for induced infringement attaches when three elements are proved: (1) direct infringement by a third party; (2) the inducer knew that the induced acts constitute patent infringement, and (3) the inducer took active steps to encourage direct infringement. *Hikma Pharmaceuticals USA Inc.*, slip op. at 4; *Suprema, Inc. v. Int'l Trade Comm'n*, 796 F.3d 1338, 1352-53 (Fed. Cir. 2015) (en banc).

With regard to the first element, I have determined above that Klein has not shown direct infringement of any asserted claim of the '327 patent. Accordingly, I determine Klein has not shown Milwaukee is liable for inducement of infringement of the '327 patent. It follows from this conclusion that Klein has not shown that Milwaukee violated section 337 by importing or selling "articles that infringe" the '327 patent via inducement. *See Suprema,* 796 F.3d at 1352-53.

Klein has shown, however, direct infringement of claims 1 through 4 of the '265 patent by consumers in the United States who make and use each combination of Accused Headwear Products identified by Klein in Appendix I of its initial post-hearing brief, as explained above. CIB at AI-1-6.

This leads to the second element of the inducement test: whether Milwaukee knew the induced acts constitute patent infringement. Milwaukee admits it had knowledge of the '265 patent as of at least April 8, 2025, when the '265 patent issued. CX-1342C.0328-329; CX-1508C (Rose Dep.) at 234:21-236:16. Klein argues that "Milwaukee was indisputably aware that it was inducing infringement [of the '265 patent] as of April 11, 2025, when Klein moved to amend to allege that Accused Headwear Products infringe the '265 Patent and included a claim chart demonstrating infringement." CIB at 75. I find that Milwaukee and its personnel did in fact know that making, using, offering for sale, and selling the combinations of Accused Headwear Products identified by Klein would constitute infringement of the '265 patent at least by April 11, 2025, when Milwaukee saw that infringement specifically mapped out in claim charts.

That leads to the third element of the inducement test: whether Milwaukee took active steps to encourage direct infringement. The record is clear on this point. Milwaukee's vice president of marketing Derek Rose testified at his deposition on August 8, 2025, that Milwaukee tells its customer Home Depot that Milwaukee "is going to help you sell our product in your stores" with thousands of reps who "demonstrate products like the BOLT system in stores" by "taking the product out, safety helmet, hard hat, putting out accessories, mixing and matching, either with the universal slot or the mounts." CX-1508C (Rose Dep.) at 87:11-90:20. When Mr. Rose was asked, "Does that still happen today?"—on August 8, 2025, after receiving the '265 claim chart from Klein in April—Mr. Rose confirmed, "Yes, it does." *Id.* at 89:21-25. I find that, since becoming aware of the '265 patent infringement claim charts in April 2025, Milwaukee has actively encouraged and instructed retailers to sell and offer to sell, and consumers to make and use, the combinations of Accused Headwear Products identified in Appendix I of its initial post-hearing brief in the United States. *See* CIB at AI-1-6.

I find that Milwaukee is liable for inducement of infringement of claims 1 through 4 of the '265 patent.

As I have noted, Klein did not prove direct infringement of the asserted claims of the '327 patent and thus did not prove Milwaukee liable for inducement of infringement of that patent. For thoroughness, however, I find that if the Accused Hard Hats and Accused Safety Helmets had a protruding nub "disposed centrally relative to the external slot" and direct infringement were proved, the same evidence that shows Milwaukee is liable for inducement of infringement of the '265 patent would lead me to conclude that Milwaukee is liable for inducement of infringement of the asserted claims of the '327 patent.

B. Technical Prong

For a patent-based complaint, a violation of section 337 can be found "only if an industry in the United States, relating to the articles protected by the patent . . . concerned, exists or is in the process of being established." 19 U.S.C. § 1337(a)(2). The complainant bears the burden of establishing that the domestic industry requirement is satisfied. *John Mezzalingua Assocs., Inc. v. Int'l Trade Comm'n*, 660 F.3d 1322, 1331 (Fed. Cir. 2011). The domestic industry requirement of section 337 is often described as having an economic prong and a technical prong. *Lashify, Inc. v. Int'l Trade Comm'n*, 130 F.4th 948, 954 (Fed. Cir. 2025); *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 12-14, USITC Pub. No. 4120 (Dec. 2009).

The technical prong of the domestic industry requirement is satisfied when the complainant in a patent-based section 337 investigation establishes that it is practicing or exploiting the patents at issue. *See* 19 U.S.C. § 1337(a)(2) and (3); *Certain Microsphere Adhesives, Process for Making Same and Prods. Containing Same, Including Self-Stick Repositionable Notes*, Inv. No.

337-TA-366, Comm'n Op. at 8, USITC Pub. No. 2949 (Jan. 1996). "The test for satisfying the 'technical prong' of the industry requirement is essentially [the] same as that for infringement, *i.e.*, a comparison of domestic products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). The technical prong may be satisfied either literally or under the doctrine of equivalents. *See Certain Ground Fault Circuit Interrupters and Products Containing Same*, Inv. No. 337-TA-739, Comm'n Op., 2012 WL 2394435, at *46 (June 8, 2012); *Certain Soft-Edged Trampolines and Components Thereof*, Inv. No. 337-TA-908, Initial Determination at 12 (Dec. 5, 2014). To prevail, the complainant must establish by a preponderance of the evidence that the domestic product practices one or more valid claims of the patent. *See Spansion*, 629 F.3d at 1349; *Certain Vision-Based Driver Assistance System Cameras and Components Thereof*, Inv. No. 337-TA-907, Comm'n Op. at 36, USITC Pub. No. 4866 (Feb. 2019). It is sufficient to show that the products practice any claim of an asserted patent, not necessarily an asserted claim of that patent. *See Certain Male Prophylactic Devices*, Inv. No. 337-TA-546, Comm'n Op. at 38, USITC Pub. No. 4005 (May 2008). In other words, there may be a violation of section 337 where the Domestic Industry Products practice one claim of an asserted patent but the Accused Products infringe a different claim of that same patent.

Klein asserts that the Domestic Industry Headwear Products practice claims 8, 10, and 17 of the '327 patent and claims 1-4 of the '265 patent. CIB at 16. Appendix II to Klein's initial post-hearing brief identifies the specific models of Domestic Industry Hard Hats, Domestic Industry Safety Helmets, and Domestic Industry Accessory Devices that are alleged to practice each specific claim.

1. '327 Patent – Claim 8

Klein asserts that claim 8 is practiced by the combination of any Domestic Industry Hard Hat with two of the Domestic Industry Accessory Devices identified in Appendix II of its initial post-hearing brief. CIB at 16, AII-1-6, AII-9. These combinations will be referred to as the "'327 Claim 8 Domestic Industry Combinations."

a) 8[pre]: "A safety helmet, comprising: "

Klein argues that the preamble of claim 8 of the '327 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the claim. CIB at 17 (citing *Catalina Marketing Int'l, Inc.*, 289 F.3d at 808). Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 5-48.

I need not decide whether or not the preamble is limiting for technical prong purposes because the preamble is satisfied: examination of the Domestic Industry Hard Hats shows they are safety helmets. JPX-0005; JPX-0006; *see* Tr. (Shewchenko) at 200:15-201:4; CX-0262.0002; JX-0044.0001; CX-0100.0001.

b) 8[a][i]: "an outer shell adapted to be worn by a user, the outer shell being molded from a common material and having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris, "

The record evidence demonstrates that the Domestic Industry Hard Hats include an outer shell adapted to be worn by a user that is molded from a common material, PC-ABS, with an exterior surface defining front and rear sides, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris. Tr. (Shewchenko) at 201:5-19; JPX-0005; JPX-0006; CPX-0119C-CPX-0120C; CX-0262.0001-02; JX-0044.0001;

CX-0100.0001; CX-0104C.0001. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 33-48.

I therefore find that the '327 Claim 8 Domestic Industry Combinations practice this limitation.

c) 8[a][ii]-8[a][iii]: "wherein the outer shell is reversible such that one of the front side or the rear side is oriented above a face of the user when the outer shell is worn by the user, and wherein the brim is configured to be disposed above the face of the user when the outer shell is worn by the user with the front side being oriented above the face of the user; "

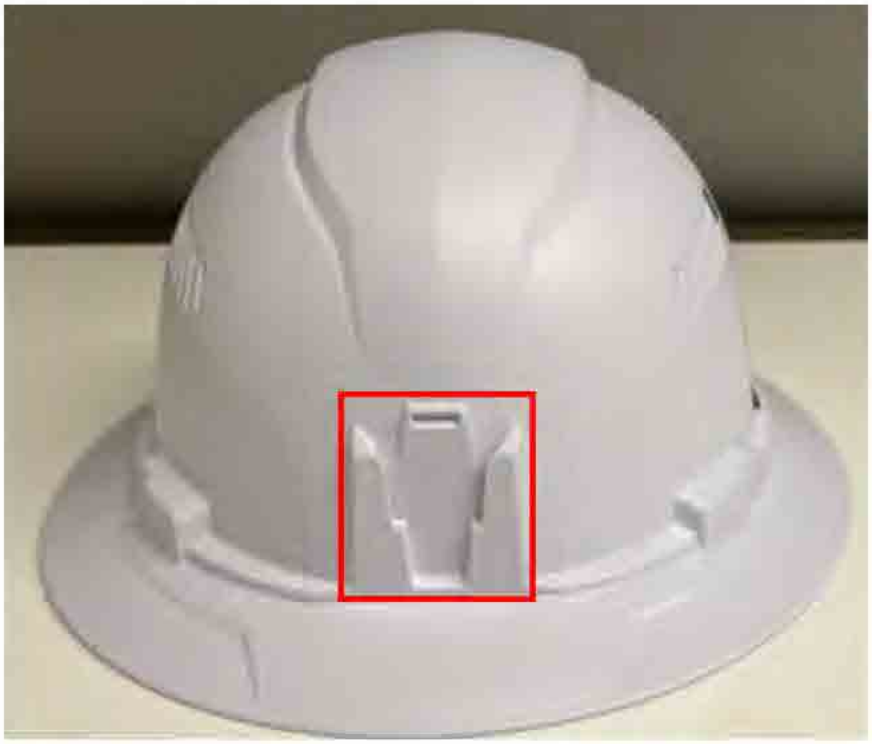
The record evidence demonstrates that the outer shell of each of the Domestic Industry Hard Hats is reversible and meets the requirements of these limitations under the plain meaning of "wherein the outer shell is reversible." *See* Tr. (Shewchenko), 213:11-214:12; JPX-0006; CPX-0120C; CX-0262.0001-02; JX-0044.0001; CX-0258.0001. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 33-48.

I therefore find that the '327 Claim 8 Domestic Industry Combinations practice this limitation.

d) 8[b][i]: "a front receptacle being integrally molded with the outer shell and having an external slot extending upwardly along the front side on the exterior surface of the outer shell above the brim and"

The evidence shows that each of the Domestic Industry Hard Hats includes a front receptacle that is integrally molded with the outer shell with an external slot extending upwardly along the front side above the brim. *See* Tr. (Shewchenko) at 201:20-202:18; JPX-0005; JPX-0006; CPX-0119C; CPX-0120C; CX-0104C.0001; JX-0045C; JX-0046C. Milwaukee does not dispute that the Domestic Industry Hard Hats meet this limitation. *See* RRB at 33-48.

As discussed above in section VII.A.4, I construed "slot" according to its plain and ordinary meaning. The location of the external slot located on the front side of the Domestic Industry Hard Hats is shown in the annotated photograph below:

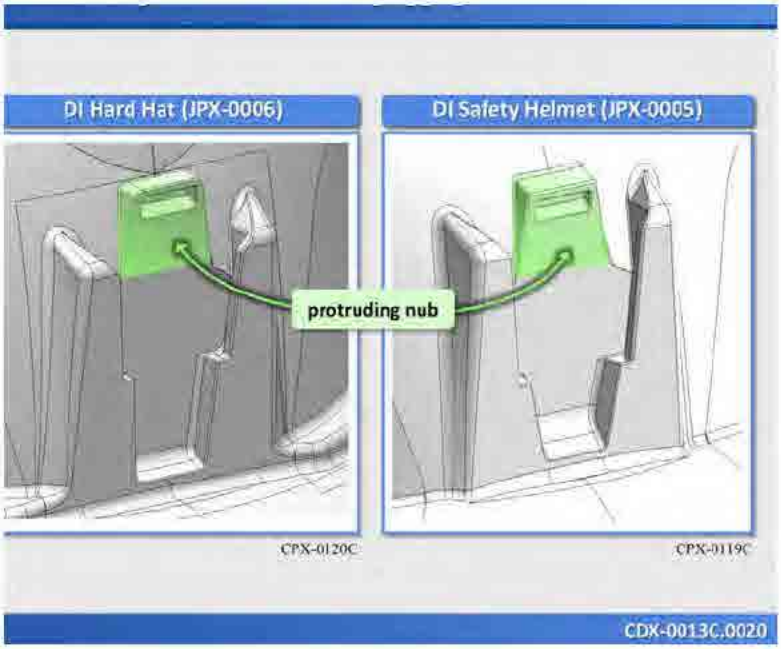


JPX-0006; CX-0194.0002 (annotated). I find the slot is the void between the raised walls on the left and right side of the red square and the raised walls inside the red square having a surface normal to and closest to the viewer.

I therefore find that the '327 Claim 8 Domestic Industry Combinations practice this limitation. For extra measure, I find that the slot, as identified in CX-0194.0002 (annotated), meets the construction of "external slot" proposed by either party. The slot I have identified is formed on the exterior of the Accused Hard Hat, as Klein proposed, and the slot is a narrow groove between two sidewalls that protrude from the shell, as Milwaukee proposed.

e) 8[b][ii]: "a protruding nub, wherein the protruding nub is integrally molded with the outer shell from the common material and is disposed centrally relative to the external slot and directly onto the exterior surface of the outer shell; "

Examination of the Domestic Industry Hard Hats demonstrates that they satisfy this limitation. JPX-0006. The claimed protruding nub is illustrated in the demonstrative slide below and is integrally molded with the outer shell from the common material:



CDX-0013C.0020; JPX-0005; JPX-0006.

This protruding nub is also disposed centrally relative to the external slot because it is horizontally centered between the outer bounds of the external slot. JPX-0006.

Milwaukee raises several arguments in support of its position that the Domestic Industry Hard Hats do not have a protruding nub, but none are persuasive. *See* RRB at 33-45. Milwaukee reprises its claim construction position that the claimed "protruding nub" cannot have any recess in its surface. *See* RRB at 33-39. But, as discussed above in section VII.A.2**Error! Reference source not found.**, nothing in the intrinsic evidence mandates that the protruding nub cannot have

any surface concavities or that it is restricted to only the preferred embodiment taught in the specification. Here, the nub on the Accused Hard Hats is no less a protruding nub simple because it also has a small recessed area in its surface.

Milwaukee raises other claim construction and disclaimer arguments that were not briefed for the claim construction hearing. *See* RRB at 37-39, 42-44. Those arguments violate the procedural schedule in the investigation, which set deadlines for presenting arguments on the terms that were discussed at the claim construction hearing. *See* Order. No. 7 (May 1, 2025). Milwaukee's new arguments are rejected on at least that basis.

Even if I were to consider Milwaukee's new arguments, they have no merit. Specifically, Milwaukee argues that the wedge-shaped structure on the Accused Hard Hats has a ledge, and Klein disclaimed reading the "protruding nub" limitation onto a "ledge" during prosecution. RRB at 42-44. I find that during prosecution of the '327 patent, the examiner issued a rejection, stating "[i]t would have been obvious . . . to have replaced the attachment means of Ramey with the molded attachment means of Theisen." JX-0005.0314-0315 ('327 File History). Klein disagreed that a person of ordinary skill would have been motivated to make such a modification and explained that, "[a]s can be seen in the device of Theisen, the alleged protruding nub, which is structured more as a ledge that hangs adjacent a closed opening, would require an insert of multipiece mold to construct, which adds cost and complexity" and that "one of ordinary skill in the art . . . would not opt for a more complex molding." JX-0005.0409-10 ('327 File History). I find that this statement by Klein discusses a motivation to modify the Theisen reference and does not clearly and unmistakably narrow the scope of the claimed nub.

Milwaukee also has not shown that the claimed "protruding nub" should be limited to the preferred embodiments taught in the patents. *See id.* at 37-39. Milwaukee has shown no clear and

unmistakable disclaimer or lexicography. *See Thorner,* 669 F.3d at 1365 (Fed. Cir. 2012) ("There are only two exceptions to [the] general rule" that the words of a claim are generally given their ordinary and customary meaning: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution."); *see also Phillips*, 415 F.3d at 1316.

I therefore find that the '327 Claim 8 Domestic Industry Combinations practice this limitation.

f) 8[c]: "a rear receptacle having an additional external slot disposed on the rear side on the exterior of the outer shell; "

Examination of the Domestic Industry Hard Hats demonstrates that each has "a rear receptacle . . . disposed on the rear side on the exterior of the outer shell." JPX-0006. Milwaukee does not dispute the presence of the rear receptacle. *See* RRB at 33-48.

No party disputes that the rear receptacle of the Domestic Industry Hard Hats is identical in all material ways to the front receptacle. In connection with limitation 8[b][i] above, I found that the Domestic Industry Hard Hats have an "external slot" on the front side of the outer shell. For similar reasons, I find that the Domestic Industry Hard Hats also have an "external slot" on the rear side of the outer shell. Accordingly, I find that that the '327 Claim 8 Domestic Industry Combinations practice this limitation.

g) **8[d]-8[e]: "a first accessory device having a first mating receptacle formed thereon, at least a portion of the first accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; and a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell."**

The record evidence shows that each Domestic Industry Accessory Device in Appendix II to Klein's initial post-hearing brief, when combined with the Domestic Industry Hard Hats, meets the requirements of the "first accessory device" and/or "second accessory device" of these limitations. A demonstrative slide listing these Domestic Industry Accessory Devices is reproduced below, where the "HH" column indicates accessories compatible with Domestic Industry Hard Hats and the "SH" column indicates accessories compatible with Domestic Industry Safety Helmets:

DI Accessory Device	HH	SH
Rechargeable Light Array Headlamp (Klein 56049) (JPX-0025)	✓	✓
Headlamp (Klein 56062) (JPX-0026)	✓	✓
Safety Lamp (Klein 56063) (JPX-0027)	✓	✓
Rechargeable Headlamp (Klein 56064) (JPX-0028)	✓	✓
Rechargeable 2-Color LED Headlamp (Klein 56414) (JPX-0029)	✓	✓
Intrinsically Safe LED Headlamp (Klein 60156) (JPX-0031)	✓	✓
Headlamp (Klein KHH56220) (JPX-0034)	✓	✓
Rechargeable Wide-Beam Hard Hat Headlamp (Klein KHH56308) (JPX-0035)	✓	✓
Cooling Fan (Klein 60155) (JPX-0030)	✓	✓
Lightweight Cooling Fans (Klein 65023) (JPX-0032)	✓	✓
Turbo Cooling Fan (Klein 60821) (JPX-0033)	✓	✓
Modular Battery (Klein 29025) (JPX-0024)	✓	✓

CDX-0013C.0028.

The devices listed in the slide above all have mating receptacles, each is releasably mountable onto both the front and rear receptacles of the Domestic Industry Hard Hats, and first

and second Domestic Industry Accessory Devices can be mounted simultaneously. *See* Tr. (Shewchenko) at 208:24-211:8; Tr. (Klopp) at 732:2-8; JPX-0005; JPX-0006; JPX-0024 – JPX-0035; CX-0011; CX-0012; CX-0073; CX-0100; CX-0262; CX-0311; CX-0560; CX-0564; CX-0566; CX-0569; CX-0571; CX-0575; CX-0582. Milwaukee does not dispute the presence of these claimed features in the Domestic Industry Accessory Devices. *See* RRB at 33-48.

Accordingly, I find that that the '327 Claim 8 Domestic Industry Combinations practice these limitations.

2. '327 Patent – Claim 10

Claim 10 of the '327 patent depends from claim 8 and reads: "The safety helmet of claim 8, wherein the common material is a molded plastic material." The record evidence shows that the common material used to form the outer shell and "protruding nub" of the Domestic Industry Hard Hats, PC-ABS, is molded plastic. Tr. (Shewchenko) at 214:20-215:8; CX-0262.0001-02; JX-0033.0003; JX-0044.0001. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 33-48.

Accordingly, I find that that the '327 Claim 8 Domestic Industry Combinations practice claim 10.

3. '327 Patent – Claim 17

Klein asserts that claim 17 is practiced by the combination of any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with two of the Domestic Industry Accessory Devices identified in Appendix II of its initial post-hearing brief. CIB at 16, AII-1-6, AII-9. These combinations will be referred to as the "'327 Claim 17 Domestic Industry Combinations."

a) 17[pre]: "A safety helmet, comprising: "

Klein argues that the preamble of claim 17 of the '327 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the claim. CIB at 17 (citing *Catalina Marketing Int'l, Inc.*, 289 F.3d at 808). Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 5-48.

I need not decide whether or not the preamble is limiting for technical prong purposes because the preamble is satisfied: examination of the Domestic Industry Hard Hats and Domestic Industry Safety Helmets shows they are safety helmets. JPX-0005; JPX-0006; *see* Tr. (Shewchenko) at 200:15-201:4; CX-0262.0002; JX-0044.0001; CX-0100.0001.

b) 17[a]: "an outer shell adapted to be worn by a user, an exterior of the outer shell having a front side, a rear side, and a brim extending outwardly from the front side and configured to shield the user's eyes from sunlight or falling debris; "

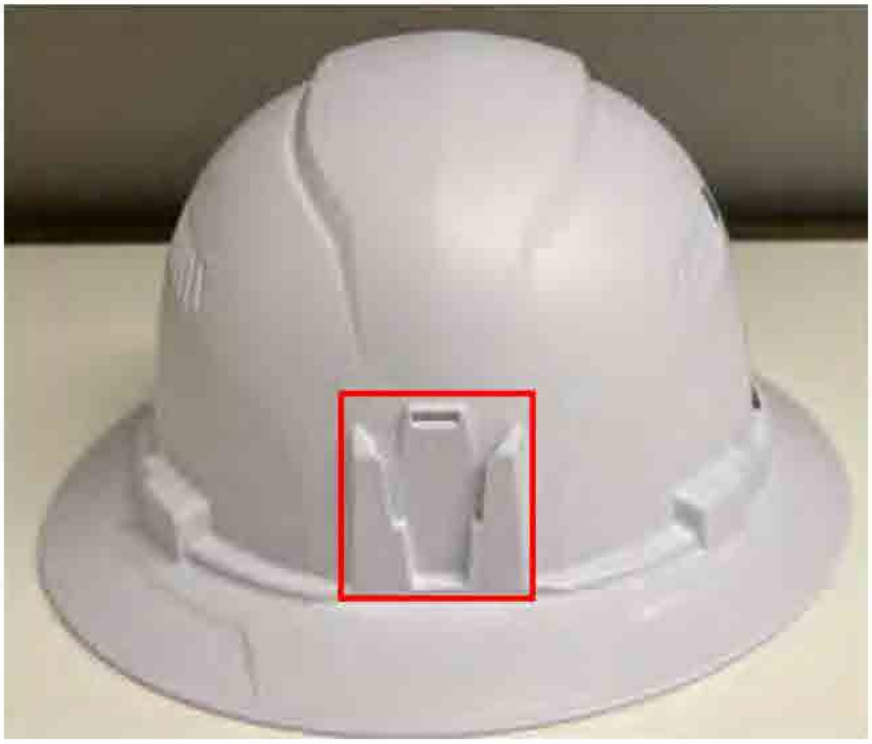
The record evidence demonstrates that the Domestic Industry Hard Hats and Safety Helmets include an outer shell adapted to be worn by a user that is molded from a common material, PC-ABS, with an exterior surface defining front and rear sides, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris. Tr. (Shewchenko) at 201:5-19; JPX-0005; JPX-0006; CPX-0119C-CPX-0120C; CX-0262.0001-02; JX-0044.0001; CX-0100.0001; CX-0104C.0001. Milwaukee does not contest that this limitation is satisfied. *See* RRB at 33-48.

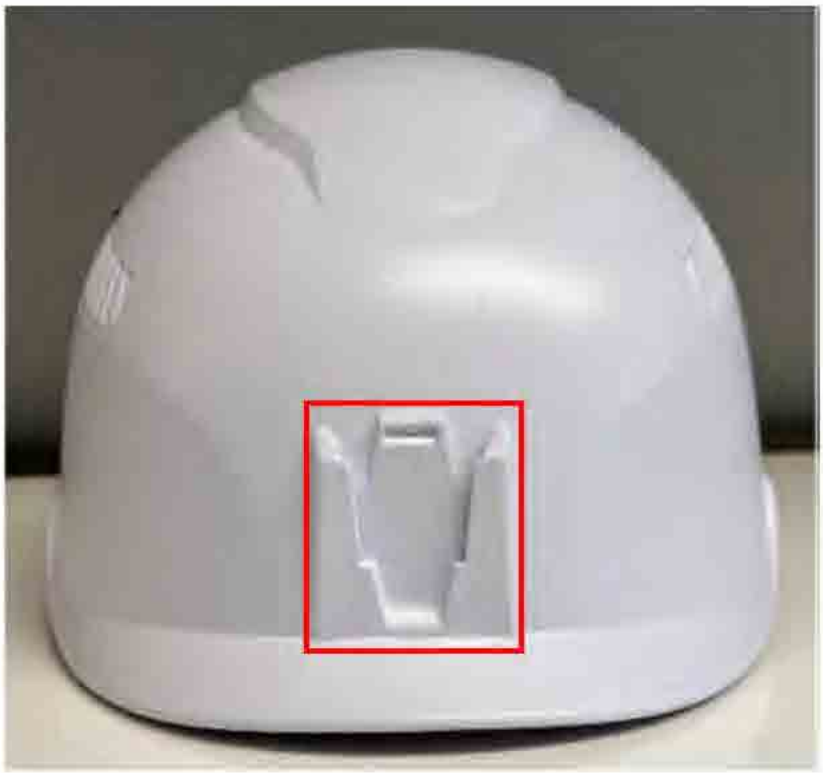
I therefore find that the '327 Claim 17 Domestic Industry Combinations practice this limitation.

c) 17[b][i]: "a front receptacle having an external slot extending upwardly on the front side and "

As discussed above with respect to limitation 8[b][i], the evidence shows that each of the Domestic Industry Hard Hats and Domestic Industry Safety Helmets includes a front receptacle that is integrally molded with the outer shell with an external slot extending upwardly along the front side above the brim. *See* Tr. (Shewchenko) at 201:20-202:18; JPX-0005; JPX-0006; CPX-0119C; CPX-0120C; CX-0104C.0001; JX-0045C; JX-0046C. An examination of the representative hard hat and representative safety helmet shows that the front receptacles of each are materially identical to each other. JX-0005; JX-0006. Milwaukee does not dispute that the Domestic Industry Safety Helmets have the claimed "external slot." *See* RRB at 33-48.

As discussed above in section VII.A.4, I construed "slot" according to its plain and ordinary meaning. The location of the external slot located on the front side of the Domestic Industry Hard Hats and Safety Helmets are shown in the annotated photographs below:





JPX-0005; CX-0194.0002 (annotated). For both the representative hard hat and the representative safety helmet, I find the slot is the void between the raised walls on the left and right side of the red square and the raised walls inside the red square having a surface normal to and closest to the viewer.

I therefore find that the '327 Claim 17 Domestic Industry Combinations practice this limitation.

d) 17[b][ii]: "a protruding nub disposed centrally relative to the external slot, the protruding nub being integrally molded with the outer shell on the exterior from a common material; "

Examination of the Domestic Industry Safety Helmets shows that they have a claimed protruding nub that is materially identical to the protruding nub in the Domestic Industry Hard Hats. JPX-0005; JPX-0006. Milwaukee's arguments that the Domestic Industry Hard Hats and Domestic Industry Helmets have no protruding nub are identical to the arguments addressed above

in connection with limitation 8[b][ii]. I reject them for the same reasons set forth above with respect to limitation 8[b][ii]. And for the same reasons described in that earlier analysis, I find the '327 Claim 17 Domestic Industry Combinations practice this limitation.

e) **17[c]: "a rear receptacle having an additional external slot disposed on the rear side on the exterior of the outer shell, the rear receptacle having an additional protruding nub disposed centrally relative to the additional external slot, the additional protruding nub being integrally molded with the outer shell on the exterior from the common material; "**

Examination of the Domestic Industry Safety Helmets demonstrates that each has "a rear receptacle . . . disposed on the rear side on the exterior of the outer shell." JPX-0005.

Milwaukee does not dispute the presence of the rear receptable; the dispute arises regarding whether the rear receptable has the claimed "protruding nub." *See* RRB at 33-48.

Examination of the physical exhibits shows that the rear receptacles on the Domestic Industry Safety Helmets are materially identical to the rear receptacles on the Domestic Industry Hard Hats. JX-0005; JX-0006. As it was established above that the front receptacles of the Domestic Industry Headwear Products have protruding nub as recited in limitation 17[b][ii], I find that the rear receptacles of the Domestic Industry Headwear Products also have "protruding nub" for the same reasons. Accordingly, I find that that the '327 Claim 17 Domestic Industry Combinations practice this limitation.

f) 17[d]-17[e]: "a first accessory device having a first mating receptacle formed thereon, at least a portion of the first accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; and a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell; "

The record evidence shows that each Domestic Industry Accessory Device in Appendix II to Klein's initial post-hearing brief, when combined with the Domestic Industry Hard Hats and/or Safety Helmets, meets the requirements of the "first accessory device" and/or "second accessory device" of these limitations. A demonstrative slide listing these Domestic Industry Accessory Devices is reproduced below, where the "HH" column indicates accessories compatible with Domestic Industry Hard Hats and the "SH" column indicates accessories compatible with Domestic Industry Safety Helmets:

DI Accessory Device	HH	SH
Rechargeable Light Array Headlamp (Klein 56049) (JPX-0025)	✓	✓
Headlamp (Klein 56062) (JPX-0026)	✓	✓
Safety Lamp (Klein 56063) (JPX-0027)	✓	✓
Rechargeable Headlamp (Klein 56064) (JPX-0028)	✓	✓
Rechargeable 2-Color LED Headlamp (Klein 56414) (JPX-0029)	✓	✓
Intrinsically Safe LED Headlamp (Klein 60156) (JPX-0031)	✓	✓
Headlamp (Klein KHH56220) (JPX-0034)	✓	✓
Rechargeable Wide-Beam Hard Hat Headlamp (Klein KHH56308) (JPX-0035)	✓	✓
Cooling Fan (Klein 60155) (JPX-0030)	✓	✓
Lightweight Cooling Fans (Klein 65023) (JPX-0032)	✓	✓
Turbo Cooling Fan (Klein 60821) (JPX-0033)	✓	✓
Modular Battery (Klein 29025) (JPX-0024)	✓	✓

CDX-0013C.0028.

The devices listed in the slide above all have mating receptacles, each is releasably mountable onto both the front and rear receptacles of the Domestic Industry Hard Hats and/or

Safety Helmets, and first and second Domestic Industry Accessory Devices can be mounted simultaneously. *See* Tr. (Shewchenko) at 208:24-211:8; Tr. (Klopp) at 732:2-8; JPX-0005; JPX-0006; JPX-0024 – JPX-0035; CX-0011; CX-0012; CX-0073; CX-0100; CX-0262; CX-0311; CX-0560; CX-0564; CX-0566; CX-0569; CX-0571; CX-0575; CX-0582. Milwaukee does not dispute the presence of these claimed features in the Domestic Industry Accessory Devices. *See* RRB at 33-48.

Accordingly, I find that that the '327 Claim 17 Domestic Industry Combinations practice these limitations.

g) 17[f]: "wherein the brim, the front receptacle, and the rear receptacle are a unitary feature of the outer shell."

It is undisputed that the brim, front receptacle, and rear receptacle are unitary features of the outer shells of the Domestic Industry Hard Hats and Safety Helmets. Tr. (Shewchenko), 211:9-19; JPX-0005; JPX-0006; CPX-0119C – CPX-0120C. *See* RRB at 33-48.

Accordingly, I find that that the '327 Claim 17 Domestic Industry Combinations practice this limitation.

4. '265 Patent – Claim 1

Klein asserts that claim 1 of the '265 patent is practiced by the combination of any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with one of the Domestic Industry Accessory Devices identified in Appendix II of its initial post-hearing brief. CIB at 64, AII-1-6, AII-9. These combinations will be referred to as the "'265 Domestic Industry Combinations."

a) 1[pre]: "A safety helmet system, comprising: "

Klein argues that the preamble of claim 1 of the '265 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the

claim. CIB at 65 (citing *Catalina Marketing Int'l, Inc.*, 289 F.3d at 808). Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 5-48.

I need not decide whether or not the preamble is limiting for technical prong purposes because the preamble is satisfied: examination of the Domestic Industry Hard Hats and Domestic Industry Safety Helmets shows they are safety helmets. JPX-0005; JPX-0006; *see* Tr. (Shewchenko) at 200:15-201:4; CX-0262.0002; JX-0044.0001; CX-0100.0001.

b) 1[a]: "a safety helmet comprising: "

Examination of the Domestic Industry Hard Hats and Safety Helmets show that they are "safety helmets" for the reasons explained regarding '327 patent limitations 8[pre] and 17[pre]. JX-0005; JX-0006. I therefore find that the '265 Domestic Industry Combinations satisfy this limitation.

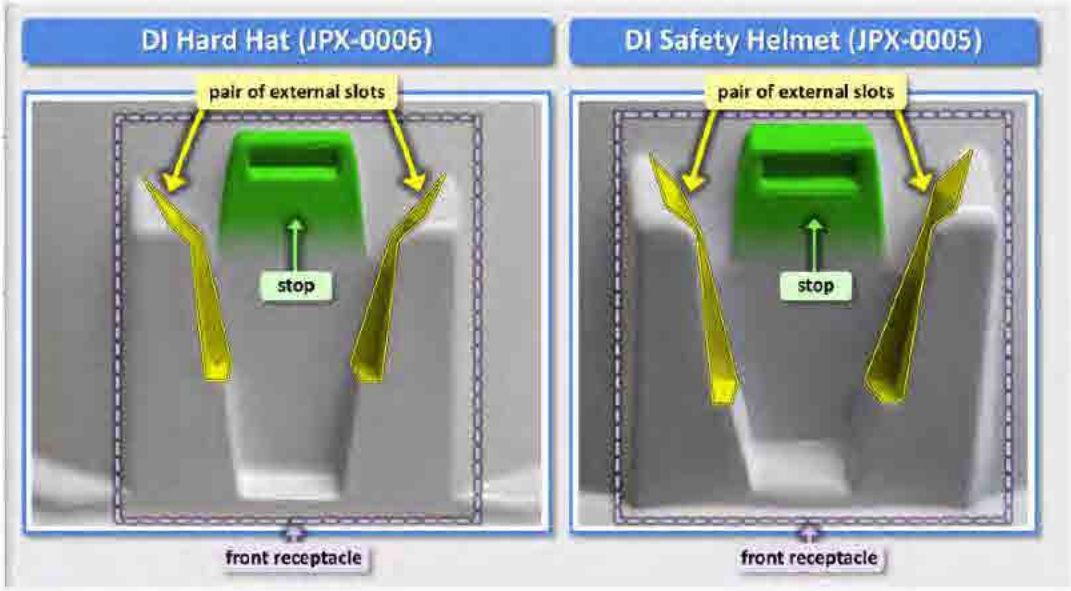
c) 1[b]: "a molded outer shell adapted to be worn by a user, the outer shell having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side; "

Examination of the Domestic Industry Hard Hats and Safety Helmets show that they practice limitation 1[b] for the reasons explained regarding '327 patent Limitations 8[a] and 17[a]. I therefore find that the '265 Domestic Industry Combinations satisfy this limitation.

d) 1[c]: "a front receptacle having a first pair of external slots and a stop, wherein each of the first pair of external slots extends upwardly along the front side of the outer shell and the stop is disposed between the first pair of external slots, and wherein the stop is integrally molded with the exterior surface of the outer shell; and "

Examination of the Domestic Industry Hard Hats and Safety Helmets show that their front receptacles include a pair of external slots extending upwardly along the front side and an integrally molded stop disposed between the pair of external slots. JX-0005; JX-0006. As discussed above in section VII.A.4, I construed "slot" according to its plain and ordinary meaning.

The locations of the pair of external slots and the stop are illustrated in the demonstrative slide reproduced below:



CDX-0013C.0045.

Moreover, the wedge-shaped protrusion shown with green annotation in the slide above comprises the claimed "stop" as construed above in section VII.A.3. Examination of the physical samples of the Domestic Industry Headwear Products shows that this structure on the Domestic Industry Hard Hats and Domestic Industry Safety Helmets inhibits movement of the Domestic Industry Accessory Devices when the latter are clicked into place in the front receptacle. JX-0005; JX-0006; e.g., JPX-0035.

Milwaukee argues that the Domestic Industry Hard Hats and Safety Helmets do not have the claimed "pair of external slots" because they "include a ***single*** accessory mount" on the front and on the back, and "not a 'pair of external slots.'" RRB at 45-47. Milwaukee cites testimony from an inventor and testimony from a Klein engineer who worked on the Domestic Industry Hard Hats and Safety Helmets that, with respect to the structure identified in the red box in the photos

above, "we consider that structure there to be one slot." RRB at 47 (quoting RX-0869C (Behlmer Dep.) at 38:9-16, 38:25-39:4).

Milwaukee's argument is unavailing. First, as to the inventor testimony, "[w]hether an inventor's testimony is consistent with a broader or narrower claim scope, that testimony is still limited by the fact that an inventor understands the invention but may not understand the claims, which are typically drafted by the attorney prosecuting the patent application." *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008). The same principle applies to an engineer who worked on a product. And with respect to the testimony of either witness, I find the physical evidence I examined to be more probative of the factual determination I must make when comparing the claims to the accused device. That physical evidence shows a pair of external slots on each hat or helmet, as highlighted in the photographs above.

Further, even if it is true that the Domestic Industry Hard Hats and Safety Helmets have a single accessory mount, nothing precludes that mount from having constituent elements that include a pair of external slots. Indeed, the claim language itself lays this out by describing "*a* front receptacle *having a first pair* of external slots." '265 patent, claim limitation 1[c] (emphasis added).

Additionally, it is of no moment that the "external slot" claimed in the '327 patent can cover the same structure in the Domestic Industry Hard Hats and Safety Helmets as the "pair of external slots" at issue in this limitation 1[c] of the '265 patent. "The art of claiming sometimes involves drafting claims in a variety of ways to encompass the disclosed subject matter . . ." *Vascular Sols. LLC v. Medtronic, Inc.*, 117 F.4th 1361, 1370 (Fed. Cir. 2024). "[T]wo claims with different terminology can define the exact same subject matter." *Curtiss-Wright Flow Control*

Corp. v. Velan, Inc., 438 F.3d 1374, 1380 (Fed. Cir. 2006); *see also Tandon Corp. v. U.S. Int'l Trade Comm'n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987) ("[T]wo claims which read differently can cover the same subject matter.").

I find that the '265 Domestic Industry Combinations satisfy this limitation.

e) 1[d]: "a rear receptacle disposed on the rear side on the exterior surface of the outer shell, the rear receptacle having a second pair of external slots; and "

For purposes of this analysis, the rear receptacles of the Domestic Industry Safety Helmets and the Domestic Industry Safety Helmets are materially identical to each other and to their respective front receptacles JX-0005; JX-0006. Therefore, for the reasons discussed above with respect to the front receptacle in limitation 1[c], I find the Domestic Industry Safety Helmets and Hard Hats have a rear receptacle with a second pair of external slots. I therefore find that the '265 Domestic Industry Combinations satisfy this limitation.

f) 1[e]: "an accessory device having a mating receptacle formed thereon, at least a portion of the mating receptacle being selectively engageable with the front receptacle or the rear receptacle such that the accessory device is releasably mountable onto each of the front receptacle and the rear receptacle; "

The evidence shows that each Domestic Industry Accessory Device listed in Appendix II of Klein's initial post-hearing brief is an accessory device that satisfies this limitation. Examination of these Domestic Industry Accessory Devices shows they each include a mating receptacle that is selectively engageable with and releasably mountable onto both the front and rear receptacles of the Domestic Industry Hard Hats and Safety Helmets. *See* Tr. (Shewchenko) at 220:12-221:8; Tr. (Klopp) at 732:2-8. These Domestic Industry Accessory Devices are illustrated in the demonstrative slides reproduced below:

Domestic Industry: Element 1[e]

'265 Patent, Claim 1

1[e] an accessory device having a mating receptacle formed thereon, at least a portion of the mating receptacle being selectively engageable with the front receptacle or the rear receptacle such that the accessory device is releasably mountable onto each of the front receptacle and the rear receptacle;

JX-0004 ('265 Patent) at Cl. 1



CDX-0013C.0048

Domestic Industry: Element 1[e]

'265 Patent, Claim 1

1[e] an accessory device having a mating receptacle formed thereon, at least a portion of the mating receptacle being selectively engageable with the front receptacle or the rear receptacle such that the accessory device is releasably mountable onto each of the front receptacle and the rear receptacle;

JX-0004 ('265 Patent) at Cl. 1

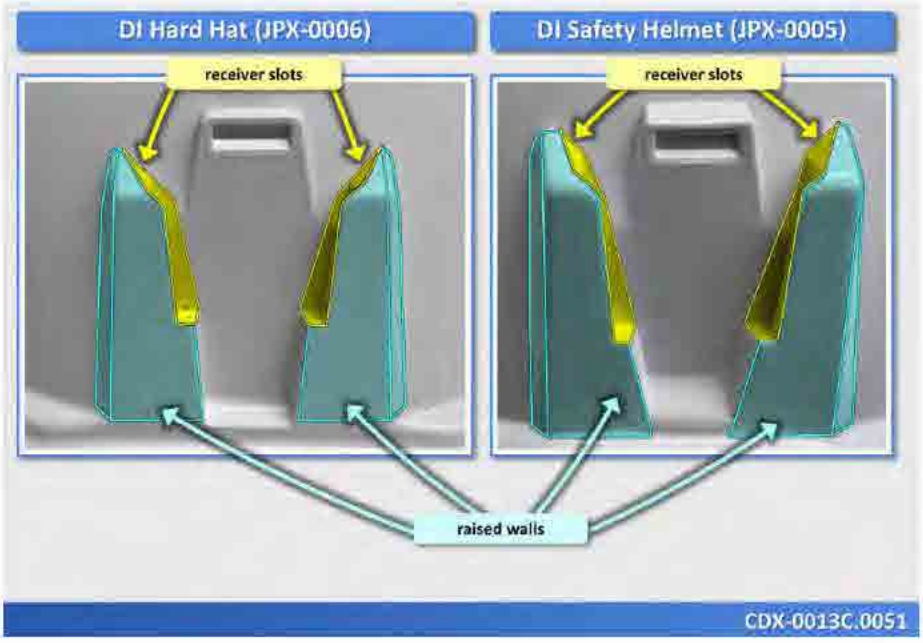


CDX-0013C.0049

CDX-0013C.0048-49. The evidence further establishes there are no relevant differences between the Domestic Industry Accessory Devices in the context of this technical prong analysis. Tr. (Klopp) at 619:21-24.

g) **1[f]: "wherein each of the first pair of external slots of the front receptacle is a receiver slot flanked by raised walls, and the stop comprises a protruding member, wherein the accessory device includes a clip, and wherein the receiver slot aligns the accessory device therein, the raised walls retain the accessory device therebetween, and the protruding member engages the clip to releasably mount the accessory device in the front receptacle."**

Examination of the Domestic Industry Hard Hats and Safety Helmets shows that each of the first pair of external slots of the front receptacle is a receiver slot flanked by raised wall. JX-0005; JX-0006. These raised walls are identified by blue highlighting in the demonstrative slide reproduced below:



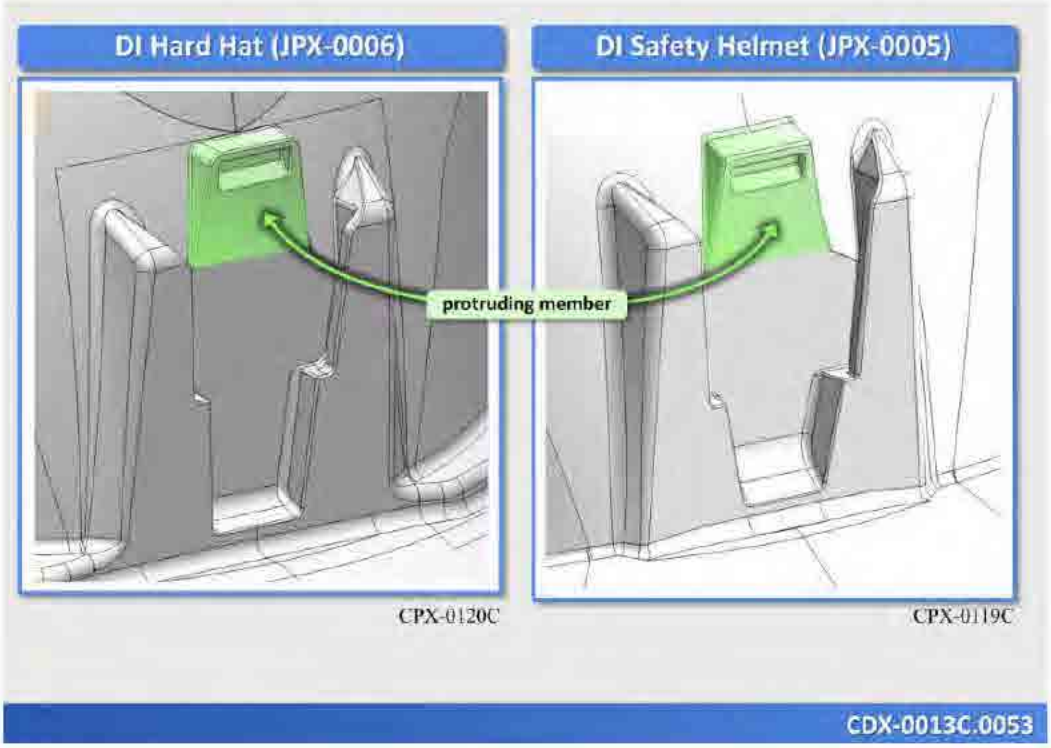
CDX-0013C.0051.

As Klein's expert Mr. Shewchenko testified, each of these slots is flanked by two raised walls that retain the Domestic Industry Accessory devices therebetween, "one protruding from the

helmet shell in the fore/aft direction and continuation in the lateral direction." Tr. (Shewchenko) at 312:10-20, 313:24-315:4.

Milwaukee contends that Klein has not met its burden to show this limitation in the Domestic Industry Safety Helmets and Hard Hats because Mr. Shewchenko inconsistently highlighted walls and labeled them as part of an "external slot" but highlighted only voids and not walls when illustrating his testimony of a "pair of external slots." *See* RRB at 21 (reproducing CDX-0013C.0042). Milwaukee's argument lacks merit. First, Mr. Shewchenko's testimony is not necessarily equivalent to Klein's position as a party, and second, Klein's evidence that the technical prong has been met is not limited to Mr. Shewchenko's testimony. And even if Mr. Shewchenko was inconsistent with the annotations in slides illustrating his testimony, I am persuaded by the physical evidence that the Domestic Industry Safety Helmets and Hard Hats have a pair of slots meeting limitation 1[c] and that those slots are flanked by raised walls in accordance with this limitation 1[f]. JPX-0005; JPX-0006; CDX-0013C.0051.

As for the claimed "stop," the Domestic Industry Safety Helmets and Hard Hats have a stop identified in green in the demonstrative slide below:



CDX-0013C.0053.

As demonstrated by an examination of the physical exhibits, this wedge-shaped structure is a protruding member that inhibits movement of an accessory device when the accessory device is clipped into place. *See* JX-0005; JX-0006; *see, e.g.*, JPX-0035. Moreover, each Domestic Industry Accessory Device includes a clip that engages with the wedge-shaped protruding member to releasably secure the Domestic Industry Accessory Device in the front receptacle. *See* JX-0005; JX-0006; *see, e.g.*, JPX-0035; *see also* Tr. (Shewchenko), 223:2-223:8.

I therefore find that the '265 Domestic Industry Combinations satisfy this limitation.

5. '265 Patent – Claim 2

Claim 2 of the '265 patent depends from claim 1 and reads: "The safety helmet system of claim 1, wherein the outer shell, the front receptacle, and the rear receptacle are formed from a common material." Milwaukee does not contest that this limitation is satisfied. *See* RRB at 33-48.

I find the outer shell and receptacles of the Domestic Industry Hard Hats and Safety Helmets are formed from a common material. Tr. (Shewchenko), 211:9-19; JPX-0005; JPX-0006.

Accordingly, I find that that the '265 Domestic Industry Combinations practice the additional limitation of claim 2.

6. '265 Patent – Claim 3

Claim 3 of the '265 patent depends from claim 2 and reads: "The safety helmet system of claim 2, wherein the common material is plastic." Milwaukee does not contest that this limitation is satisfied. *See* RRB at 33-48.

I find the common material used to form the Domestic Industry Hard Hats and Safety Helmets is plastic. Tr. (Shewchenko), 211:9-19; JPX-0005; JPX-0006.

Accordingly, I find that that the '265 Domestic Industry Combinations practice the additional limitation of claim 3.

7. '265 Patent – Claim 4

Claim 4 of the '265 patent depends from claim 1 and reads: "The safety helmet system of claim 1, further including a second accessory device having a second mating receptacle formed thereon, at least a portion of the second accessory device being releasably mountable onto each of the front receptacle or the rear receptacle on the exterior of the outer shell."

The evidence shows that each of the Domestic Industry Accessory Devices listed in Appendix II of Klein's initial post-hearing brief satisfies this limitation for the reasons discussed above with respect to Limitations 8[d]-[e] and 17[d]-[e] of the '327 patent.

I therefore find that the '265 Domestic Industry Combinations satisfy this limitation.

8. Safety Helmet Patents Technical Prong Conclusions

In sum, the record evidence demonstrates that Domestic Industry Hard Hats, Domestic Industry Safety Helmets, and Domestic Industry Accessory Devices arranged in various combinations satisfy all limitations of all asserted claims of the '327 and '265 patents. These combinations are summarized below:

- '327 patent claim 8: any Domestic Industry Hard Hat with two of the Domestic Industry Accessory Devices identified in Appendix II
- '327 patent claim 10: any Domestic Industry Hard Hat with two of the Domestic Industry Accessory Devices identified in Appendix II
- '327 patent claim 17: any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with two of the Domestic Industry Accessory Devices identified in Appendix II
- '265 patent claim 1: any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with one of the Domestic Industry Accessory Devices identified in Appendix II
- '265 patent claim 2: any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with one of the Domestic Industry Accessory Devices identified in Appendix II
- '265 patent claim 3: any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with one of the Domestic Industry Accessory Devices identified in Appendix II

- '265 patent claim 4: any Domestic Industry Hard Hat or Domestic Industry Safety Helmet with two of the Domestic Industry Accessory Devices identified in Appendix II

As summarized in the list above, all Domestic Industry Headwear Products practice claim 17 of the '327 patent and claims 1-4 of the '265 patent, and only a subset of the Domestic Industry Headwear Products have been shown to practice claims 8 and 10 of the '327 patent. Nevertheless, I determine the technical prong of the domestic industry requirement has been satisfied.

C. Validity

1. Obviousness Legal Standard

Under 35 U.S.C. § 103, a patent may be found invalid as obvious if "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." 35 U.S.C. § 103(a). Because obviousness is determined at the time of invention, rather than the date of litigation, "[t]he great challenge of the obviousness judgment is proceeding without any hint of hindsight." *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364, 1375 (Fed. Cir. 2011).

When a patent is challenged as obvious, the critical inquiry in determining the differences between the claimed invention and the prior art is whether there is an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *See KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417-18 (2007). Thus, based on a combination of several prior art references, "the burden falls on the patent challenger to show by clear and convincing evidence that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, and would have had a reasonable expectation of success

in doing so." *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007) (citations omitted).

Obviousness is a determination of law based on underlying determinations of fact. *Star Scientific*, 655 F.3d at 1374. The factual determinations behind a finding of obviousness include: (1) the scope and content of the prior art, (2) the level and content of the prior art, (3) the differences between the claimed invention and the prior art, and (4) objective indicia of non-obviousness. *KSR*, 550 U.S. at 399 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966)). These factual determinations are referred to collectively as the "*Graham* factors." Objective indicia of non-obviousness—also known as secondary considerations—include commercial success, long felt but unresolved need, and the failure of others. *Id.* When present, these objective indicia "give light to the circumstances surrounding the origin of the subject matter sought to be patented," but they are not dispositive on the issue of obviousness. *Geo. M. Martin Co. v. Alliance Mach. Sys. Int'l*, 618 F.3d 1294, 1304-06 (Fed. Cir. 2010). For evidence of such objective indicia to be given substantial weight in the obviousness determination, its proponent must establish a nexus between the evidence and the merits of the claimed invention. *See W. Union Co. v. MoneyGram Payment Sys. Inc.*, 626 F.3d 1361, 1372-73 (Fed. Cir. 2010) (citing *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995)).

Facts underlying a determination of obviousness must be proven by clear and convincing evidence. *Carella v. Starlight Archery & Pro Line Co.*, 804 F.2d 135, 138 (Fed. Cir. 1986).

2. Asserted Prior Art

Milwaukee argues that all asserted claims of the Safety Helmet Patents are invalid as obvious in view of the following four pieces of prior art:

- Chinese Patent Publication CN 202026888 U to Yan (RX-0305) ("Yan");

- U.S. Patent No. 9,993,043 to Daley (JX-0137) ("Daley");
- U.S. Patent No. 4,304,009 to Nesbitt et al. (JX-0138) ("Nesbitt"); and
- German patent application DE 20 2006 007 009 U1 to Kiessler (RX-310) ("Kiessler").

RIB at 15-72, 76-92.

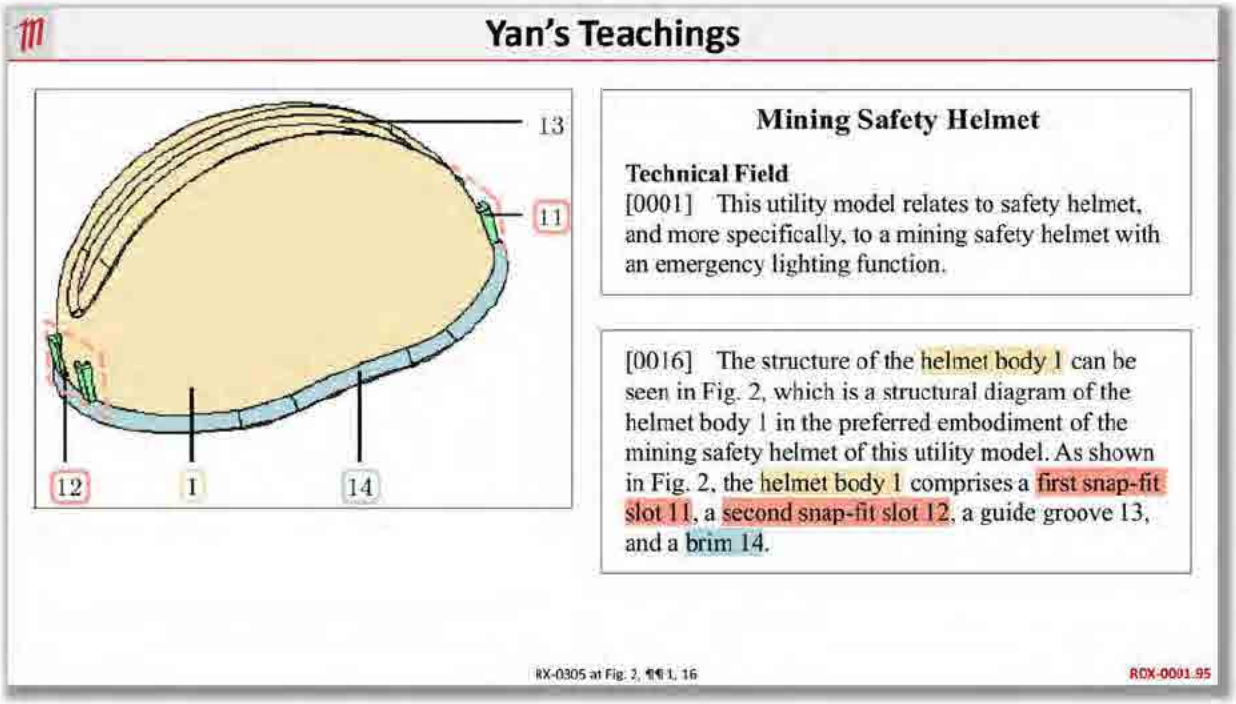
3. '327 and '265 Patent Claims in View of Yan and Daley

Milwaukee argues that all asserted claims of the '327 patent and all asserted claims of the '265 patent are invalid as obvious in view of prior art references Yan and Daley. RIB at 15-67, 76-86.

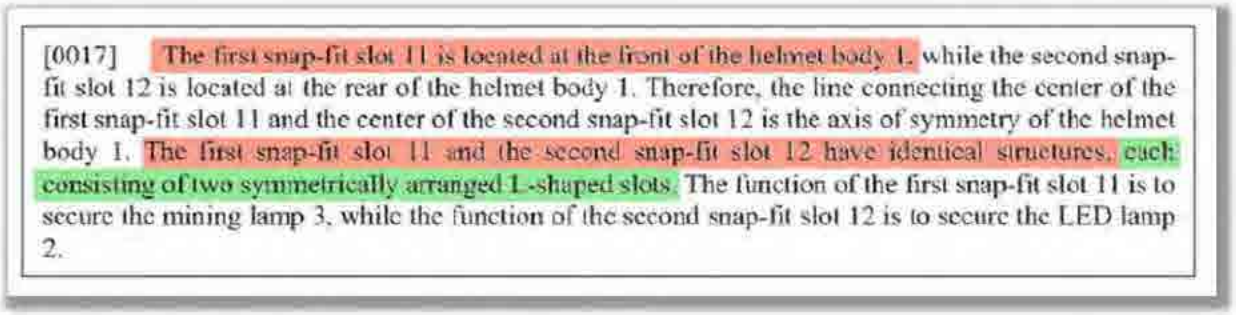
For the reasons discussed below, Milwaukee has not shown by clear and convincing evidence that a person of ordinary skill in the art at the time of the invention would have been motivated to modify Yan in view of Daley to arrive at the inventions disclosed in the asserted claims of the '327 patent and '265 patent. A discussion of a subset of claim limitations is dispositive.

a) Yan

Chinese Patent Publication CN 202026888 U to Yan ("Yan") was published on November 9, 2011, and qualifies as prior art under 35 U.S.C. § 102(a)(1) of the America Invents Act ("AIA"). As shown in the demonstrative slides reproduced below, Yan is directed to a "safety helmet" that includes a helmet body 1, brim 14, and snap-fit slots 11 and 12, each of which includes a pair of symmetrically arranged L-shaped slots. RX-0305 (Yan) ¶¶ 1, 16, 17.

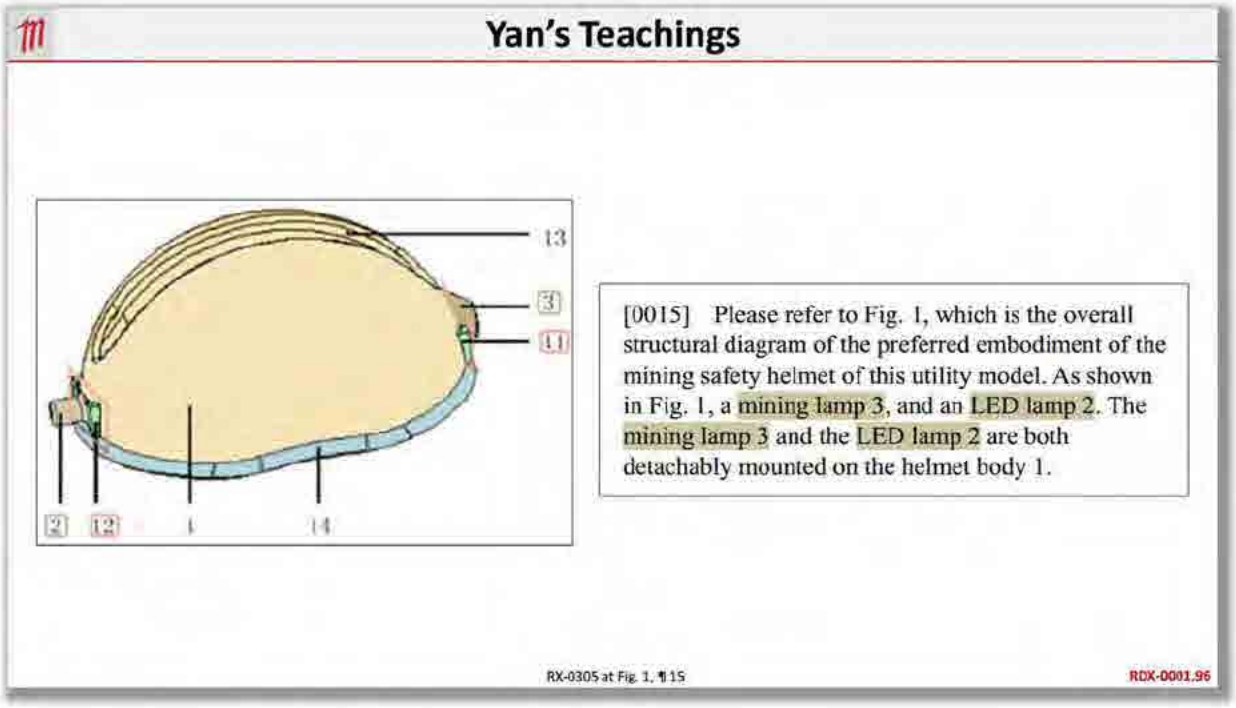


RDX-0001.0095; *see also* Yan ¶¶ 1, 16, Fig. 2.



RDX-0001.0143; *see also* Yan ¶ 0017.

As illustrated in the demonstrative slide reproduced below, Yan's snap-fit slots 11 and 12 are used to "detachably mount[]" a mining lamp 3 and LED lamp 2. RX-0305 ¶ 15.



RDX-0001.0096; *see also* Yan ¶ 15, Fig. 1.

b) Daley

U.S. Patent No. 9,993,043 to Daley ("Daley") was filed on March 24, 2016, and qualifies as prior art under AIA 35 U.S.C. § 102(a)(2). Daley is directed to a "safety helmet." JX-0137 (Daley) at 1:12-14. As illustrated in Figure 3 reproduced below, Daley's safety helmet includes a shell 22, brim 26, and a pair of locking ears 42a and 42b with an "integrally-molded" protrusion 43b therebetween. JX-0137 at 5:22-43. Daley further discloses a headlight assembly 50 that includes a male bracket 46 with an "integrally-molded" recessed detent 43a. *Id.* Daley teaches that, "[u]pon complete insertion of male bracket 46 into the locking ears [42a and 42b], the protrusion 43b 'snaps' into the detent 43a, thereby temporarily securing the headlight assembly 50 to the shell 22." *Id.*

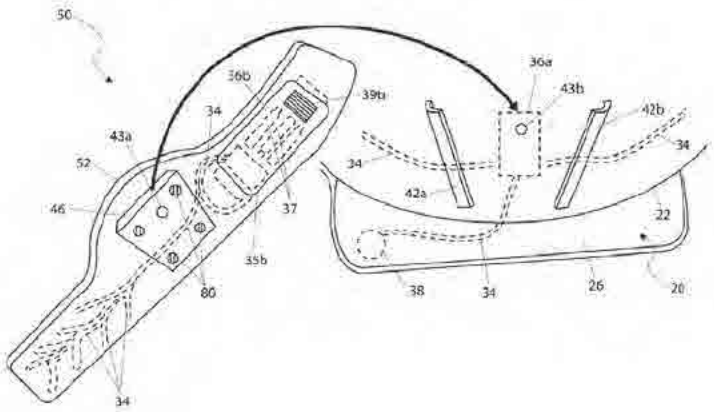


Fig. 3

JX-0137 at Fig. 3.

c) "integrally molded," "unitary feature," or "common material" (all asserted claims)

Limitations 8[b][i] and 17[f] of the '327 patent require "a front receptacle being integrally molded with the outer shell" and that "the brim, the front receptacle, and the rear receptacle are a unitary feature of the outer shell." Claim 1[b] of the '265 patent requires a "stop integrally molded with the exterior surface of the outer shell," while claims 2 through 4 of the '265 patent require "the outer shell, the front receptacle, and the rear receptacle are formed from a common material." Yan does not teach a front receptacle or stop integrally molded with the outer shell, that the front receptacle is a unitary feature of the outer shell, or that the outer shell, the front receptacle, and the rear receptacle are formed from a common material. Milwaukee does not contest these deficiencies. *See* RIB at 30, 37, 78-81.

By contrast, Daley teaches a front receptacle that is integrally molded with the outer shell and is also thus a unitary feature of the outer shell. JX-0137 (Daley) at 5:22-27 ("The example of the apparatus 10 illustrated here includes a first locking ear 42a and a second locking ear 42b, for example, being integrally-molded into the shell 22.").

But Milwaukee has not convincingly demonstrated that a person of skill in the art would have been motivated to integrally mold Yan's front receptacle (the snap-fit slots) and other features in view of Daley. *See* RIB at 30-31, 37-38. Milwaukee instead argues that a "[person of skill in the art] reading [Daley's] disclosures in conjunction with Yan would have understood that the Yan-Daley combination discloses a brim, front receptacle, and rear receptacle that are a unitary feature of the outer shell" and that "the Yan-Daley combination further discloses '. . . the stop is integrally molded with the exterior surface of the outer shell.'" *Id.* at 37-38, 78-81. "[I]t is insufficient to simply conclude the combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination." *Metalcraft of Mayville, Inc.*, 848 F.3d at 1366.

Milwaukee has failed to meet its burden to show clearly and convincingly that the invention in any Asserted Safety Helmet Patent claim would have been obvious to a person of ordinary skill reading the Yan and Daley prior art. Milwaukee's obviousness defense for all Asserted Safety Helmet Patent claims based on this combination fails for this reason alone.

d) front "brim" (all asserted claims)

The '327 patent Limitation 8[a][i] reads:

> an outer shell adapted to be worn by a user, the outer shell being molded from a common material and having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris

The '327 patent Limitation 17[a] reads:

> an outer shell adapted to be worn by a user, an exterior of the outer shell having a front side, a rear side, and a brim extending outwardly from the front side and configured to shield the user's eyes from sunlight or falling debris

The '265 patent Limitation 1[b] reads:

> a molded outer shell adapted to be worn by a user, the outer shell having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side

Yan does not clearly and convincingly disclose these limitations. Yan teaches a brim 14 and describes brim 14 as follows: "The brim 14 is located at the bottom of the helmet body and encircles the bottom edge of the helmet body 1. Therefore, both the first snap-fit slot 11 and the second snap-fit slot 12 are located above the brim 14. The function of brim 14 is to enhance protective coverage, effectively preventing small falling debris from entering the miner's eyes, ear, mouth, or nose. Yan ¶ 0019. The description of brim 14 does not clearly and convincingly show that it extends forward or outwardly from the front side of the Yan helmet. Figures 1 and 2 of Yan, reproduced below, also fail to show clearly and convincingly that brim 14 extends forward or outwardly:

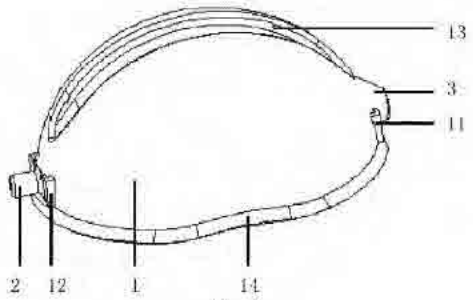


Fig. 1

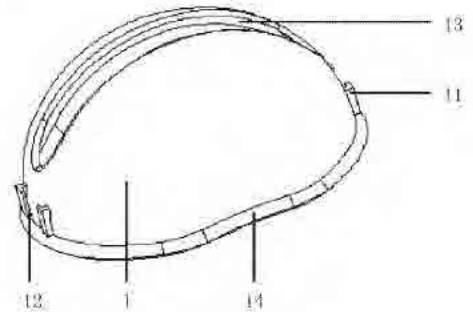


Fig. 2

Yan at Figs. 1-2.

By contrast, Daley teaches that "[t]he shell also includes a brim extending from a front side of an outer surface" and illustrates this brim in Figure 3. JX-0137 at 1:61-67, Fig. 3. Milwaukee's expert Dr. Klopp opined that a person of skill in the art would have understood that Daley's brim extends forward from the front side of the safety helmet and is configured to shield the user's eyes from sunlight or falling debris because it extends outwardly enough to serve this purpose. Tr. (Klopp) at 673:23-674:7.

But Milwaukee has not convincingly demonstrated that a person of skill in the art would have been motivated to modify the helmet in Yan to include the brim taught by Daley. *See* RIB at 21-24. "[I]t is insufficient to simply conclude the combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination." *Metalcraft of Mayville, Inc. v. The Toro Co.*, 848 F.3d 1358, 1366 (Fed. Cir. 2017).

Milwaukee has failed to meet its burden to show clearly and convincingly that the invention in any Asserted Safety Helmet Patent claim would have been obvious to a person of ordinary skill reading the Yan and Daley prior art. This is a second independent reason Milwaukee's obviousness defense for all Asserted Safety Helmet Patent claims based on this combination fails.

e) "wherein the outer shell is reversible" ('327 patent claims 8 and 10)

Limitation 8[a][ii] of the '327 patent recites, in part, "wherein the outer shell is reversible." Both Yan and Daley are silent as to the reversibility of the helmets they disclose, and thus they do not clearly and convincingly show helmets configured to be worn by a user in both forward and reverse orientations.

Milwaukee has not shown by clear and convincing evidence that an invention having the claimed "reversible" outer shell would have been obvious to a person of ordinary skill in the art at

the time of the invention. Milwaukee's obviousness defense for claims independent claim 8 and dependent claim 10 of the '327 patent fails for this additional reason.

f) Conclusion

As discussed above, Milwaukee's obviousness defenses based on the combination of Yan and Daley fail because it has not been shown by clear and convincing evidence that a person of skill in the art at the time of the invention would have a reason to combine Yan and Daley to arrive at the inventions of any Asserted Safety Helmet Patent claim. Accordingly, the asserted claims of the '327 and '265 patents have not been shown as invalid as obvious over Yan and Daley under 35 U.S.C. § 103.

4. '327 and '265 Patent Claims in View of Yan and Nesbitt

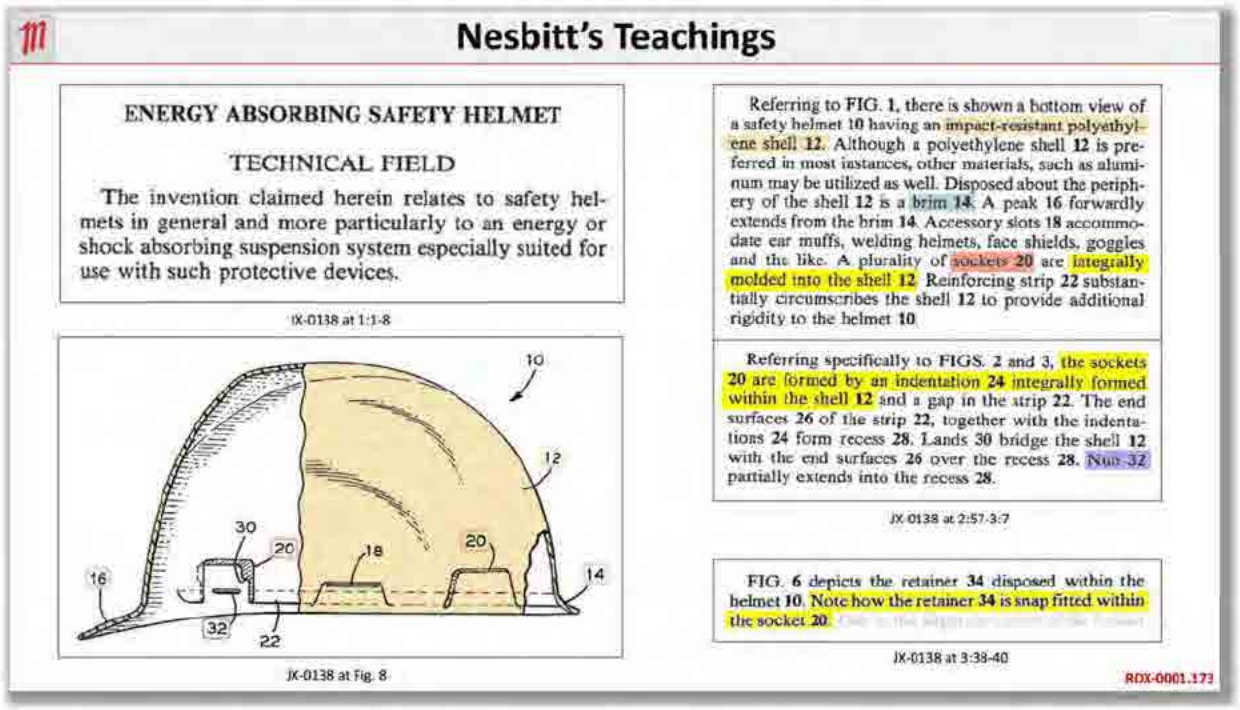
Milwaukee argues that all asserted claims of the '327 patent and all asserted claims of the '265 patent are invalid as obvious in view of prior art references Yan and Daley. RIB at 67-72, 91-92.

For the reasons discussed below, Milwaukee has not shown by clear and convincing evidence that a person of ordinary skill in the art at the time of the invention would have been motivated to modify Yan in view of Nesbitt to arrive at the inventions disclosed in the asserted claims of the '327 patent and '265 patent. A discussion of a subset of claim limitations is dispositive.

a) Nesbitt

U.S. Patent No. 4,304,009 to Nesbitt et al. ("Nesbitt") was published on December 8, 1981, and qualifies as prior art under AIA 35 U.S.C. § 102(a)(1). JX-0138 (Nesbitt). Nesbitt is directed to an "energy absorbing safety helmet" that includes a polyethylene shell 12 and a brim 14. JX-0138 at 1:1-8, 2:57-3:7. Nesbitt's safety helmet further includes a plurality of sockets 20 that

are integrally molded into the shell, each including a nub 32. *Id.* at 2:57-3:7. Nesbitt's sockets 20 are used to "snap fit[]" a removable suspension system into place. *Id.* at 3:38-40. The safety helmet of Nesbitt is illustrated in the demonstrative slide reproduced below:



RDX-0001.0173.

b) "integrally molded," "unitary feature," or "common material" (all patent claims)

Limitations 8[b][i] and 17[f] of the '327 patent require "a front receptacle being integrally molded with the outer shell" and that "the brim, the front receptacle, and the rear receptacle are a unitary feature of the outer shell." Claim 1[b] of the '265 patent requires a "stop integrally molded with the exterior surface of the outer shell," while claims 2 through 4 of the '265 patent require "the outer shell, the front receptacle, and the rear receptacle are formed from a common material." Yan does not teach a front receptacle or stop integrally molded with the outer shell, that the front receptacle is a unitary feature of the outer shell, or that the outer shell, the front receptacle, and the

rear receptacle are formed from a common material. Milwaukee does not contest these deficiencies. *See* RIB at 30, 37, 78-81, 92.

By contrast, Nesbitt teaches a plurality of sockets 20 that are integrally molded into the shell and are also thus unitary features of the outer shell, each including a nub 32. JX-0138 (Nesbitt) at 2:57-3:7.

But Milwaukee has not demonstrated that a person of skill in the art would have been motivated to integrally mold Yan's front receptacle (the snap-fit slots) and other features in view of Nesbitt. *See* RIB at 69-72, 91-92. Milwaukee instead argues that a "[person of skill in the art] would have been motivated to combine Yan and Nesbitt for substantially similar reasons as the Yan-Daley combination and would have made the combination in a substantially similar manner." *Id.* at 69; *see also id.* at 70-72; 92. "[I]t is insufficient to simply conclude the combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination." *Metalcraft of Mayville, Inc.*, 848 F.3d at 1366.

Milwaukee has failed to meet its burden to show clearly and convincingly that the invention in any Asserted Safety Helmet Patent claim would have been obvious to a person of ordinary skill reading the Yan and Nesbitt prior art. Milwaukee's obviousness defense for all Asserted Safety Helmet Patent claims based on this combination fails for this reason alone.

c) front "brim" (all asserted claims)

The '327 patent Limitation 8[a][i] reads:

> an outer shell adapted to be worn by a user, the outer shell being molded from a common material and having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side and configured to shield the user's eyes from sunlight or falling debris

The '327 patent Limitation 17[a] reads:

> an outer shell adapted to be worn by a user, an exterior of the outer shell having a front side, a rear side, and a brim extending outwardly from the front side and configured to shield the user's eyes from sunlight or falling debris

The '265 patent Limitation 1[b] reads:

> a molded outer shell adapted to be worn by a user, the outer shell having an exterior surface defining a front side, a rear side, and a brim extending forward from the front side

As explained above, Yan does not clearly and convincingly disclose an "outer shell having . . . a brim extending [forward/outwardly/forward] from the front side." By contrast, Nesbitt teaches a brim 14 extending from the front of the helmet. Nesbitt at 2:57-3:7, Fig. 8.

But Milwaukee has not demonstrated that a person of skill in the art would have been motivated to modify the helmet in Yan to include the brim taught by Nesbitt. *See* RIB at 69-72, 91-92. "[I]t is insufficient to simply conclude the combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination." *Metalcraft of Mayville, Inc.*, 848 F.3d at 1366.

Milwaukee has failed to meet its burden to show clearly and convincingly that the invention in any Asserted Safey Helmet Patent claim would have been obvious to a person of ordinary skill reading the Yan and Nesbitt prior art. This is a second independent reason Milwaukee's obviousness defense for all Asserted Safety Helmet Patent claims based on this combination fails.

d) "wherein the outer shell is reversible" ('327 patent claims 8 and 10)

Limitation 8[a][ii] of the '327 patent recites, in part, "wherein the outer shell is reversible." Both Yan and Nesbitt are silent as to the reversibility of the helmets they disclose, and thus they do not clearly and convincingly show that helmets were designed to be worn by a user in both forward and reverse orientations.

Milwaukee has not shown by clear and convincing evidence that an invention having the claimed "reversible" outer shell would have been obvious to a person of ordinary skill in the art at the time of the invention. Milwaukee's obviousness defense for claims independent claim 8 and dependent claim 10 of the '327 patent fails for this additional reason.

e) Conclusion

As discussed above, Milwaukee's obviousness defenses based on the combination of Yan and Nesbitt fail because it has not been shown by clear and convincing evidence that a person of skill in the art at the time of the invention would have a reason to combine Yan and Nesbitt to arrive at the inventions of any Asserted Safety Helmet Patent claims. Accordingly, the asserted claims of the '327 and '265 patents have not been shown as invalid as obvious over Yan and Nesbitt under 35 U.S.C. § 103.

5. '265 Patent Claims in View of Yan, Daley, and Kiessler

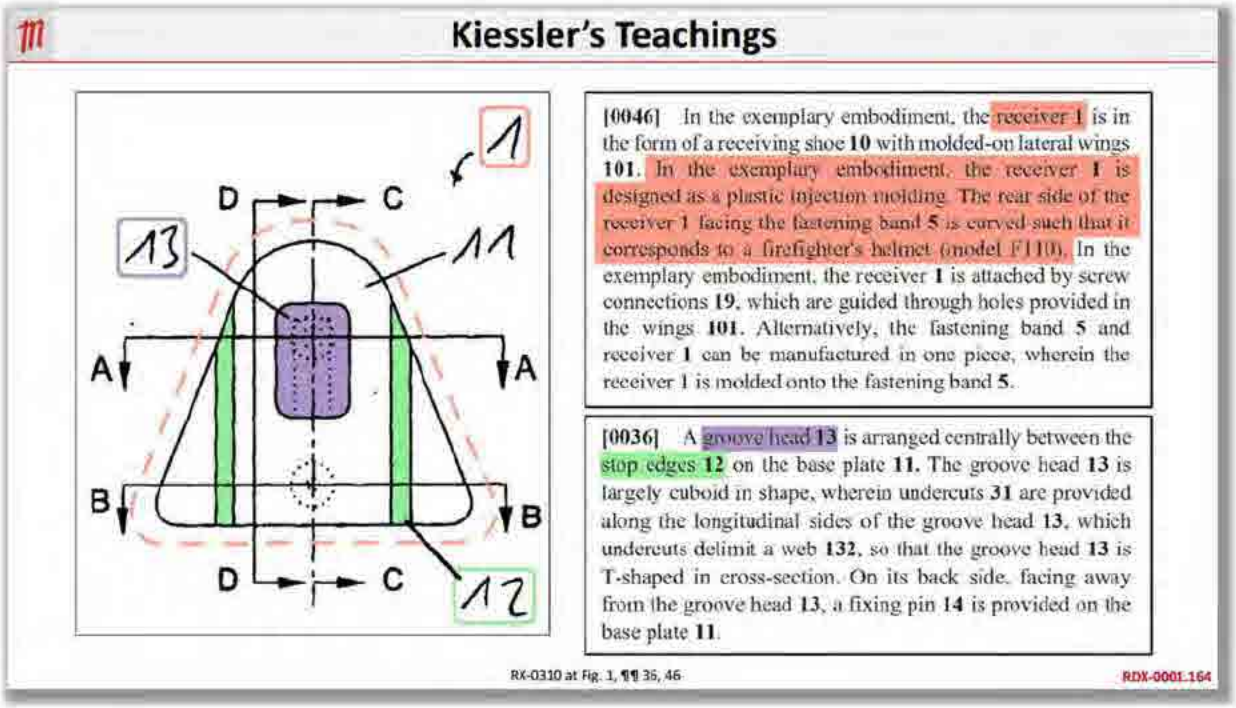
Milwaukee argues that all asserted claims of the '265 patent are invalid as obvious in view of prior art references Yan and Daley and Kiessler. RIB at 86-91.

For the reasons discussed below, Milwaukee has not shown by clear and convincing evidence that a person of ordinary skill in the art at the time of the invention would have been motivated to modify Yan in view of Daley and further in view of Kiessler to arrive at the inventions disclosed in the asserted claims of the '265 patent. A discussion of a subset of claim limitations is dispositive.

a) Kiessler

German patent application DE 20 2006 007 009 U1 to Kiessler ("Kiessler") was published on August 31, 2006, and qualifies as prior art under AIA 35 U.S.C. § 102(a)(1). RX-310 (Kiessler). Kiessler is directed to a safety helmet, and specifically a "firefighter's helmet" with "a device for

attaching a lamp" to the helmet. RX-0310 ¶ 1. Kiessler's invention "ensures that the lamp is securely fixed to the helmet even when subjected to vertical impacts from below." *Id.* ¶ 5. As illustrated in the demonstrative slide reproduced below, Kiessler's attachment mechanism includes a "plastic injection mold[ed]" receiver 1 with a groove head 13. RX-0310 ¶¶ 36, 46.



RDX-0001.0164.

Kiessler discloses details about the headlamp that attaches to the receiver. Specifically, Kiessler discloses that its headlamp "can pivot" through use of its clamping lever 21 that has a recess 213 with a keyhole-shaped cutout 2131, which connects to the helmet's groove head 13. RX-0310 ¶¶ 13, 38, 39. Kiessler further describes how the clamping lever 21 is connected to the back of the headlamp to make the headlamp pivotable—with a shaft 22 and nut 23. RX-0310 ¶ 40.

b) Discussion and Conclusion

Milwaukee has not shown that claim 1 of the '265 patent is obvious in view of Yan, Daley, and Kiessler for many of the same reasons discussed above with respect to the Yan-Daley

combination alone. For example, Milwaukee has not shown that Kiessler cures the Yan-Daley deficiencies as to a front receptacle with an "integrally molded" stop required limitation 1[c] or "a brim extending forward from the front side" as required by limitation 1[b]. *See* RIB at 89-91. Milwaukee has therefore failed to show clearly and convincingly that Kiessler in view of Yan and Daley renders this limitation obvious and its obviousness defense for claim 1 of the '265 patent fails for this reason alone.

And because claims 2, 3, and 4 of the '265 patent depend from claim 1, Milwaukee has also failed to show by clear and convincing evidence that a person of skill in the art would combine Kiessler with Yan and Daley to arrive at the inventions of these claims. Accordingly, the asserted claims of the '265 patent have not been shown as invalid as obvious over Yan, Daley, and Kiessler under 35 U.S.C. § 103.

6. Objective Indicia of Non-Obviousness

The obviousness inquiry can be informed by objective indicia, also known as "secondary considerations," such as the commercial success of a product embodying the invention, a long-felt need for the solution provided by the invention, and the failure of others to find the solution provided by the invention. *Graham*, 383 U.S. at 13-17; *Dystar Textilfarben GmbH & Co Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). "Evidence arising out of the so-called 'secondary considerations' must always when present be considered en route to a determination of obviousness." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983) (cleaned up). When present, those objective indicia "give light to the circumstances surrounding the origin of the subject matter sought to be patented," but they are not dispositive on the issue of obviousness. *Geo. M. Martin Co.*, 618 F.3d at 1304-06. For evidence of objective indicia of non-obviousness to be given substantial weight in the obviousness determination, the

proponent of that evidence must establish a nexus between the evidence and the merits of the claimed invention. *See W. Union Co.* 626 F.3d at 1372-73 (citing *In re GPAC Inc.*, 57 F.3d at 1580).

Klein argues that "the evidence confirms the presence of multiple objective indicia, any one of which would be sufficient on its own to confirm the non-obviousness of the claimed inventions." CRB at 39 (citing *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1311 (Fed. Cir. 2010) (treating commercial success, industry praise, and copying each as "proof[] of non-obviousness")). Klein further argues: "Taken together, the non-obviousness evidence is overwhelming." *Id.* I have weighed the evidence offered by Klein, as well as any counter evidence offered by Milwaukee, before reaching any conclusion about the obviousness of any asserted claim. *See Apple Inc. v. Samsung Elec. Co., Ltd.*, 839 F.3d 1034, 1048 (Fed. Cir. 2016) (en banc). I discuss that evidence below.

a) Nexus

The proponent of objective evidence of non-obviousness "bears the burden of showing that a nexus exists between the claimed features of the invention and the objective evidence offered to show non-obviousness." *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1359 (Fed. Cir. 1999). However, "there 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, LLC v. Kohler Co.*, 829 F.3d 1317, 1329 (Fed. Cir. 2016) (cleaned up).

Klein asserted that it is entitled to a presumption of nexus because its Domestic Industry Headwear Products embody the asserted claims. CRB at 41-42. Milwaukee responds that a nexus cannot be presumed because "[t]he evidence of purported objective indicia does not relate to any novel claim limitations in the Asserted Helmet Patents." RIB at 39. Milwaukee argues the

Domestic Industry Headwear Products include several unclaimed features and therefore a nexus cannot be presumed. RIB at 39-40. The list of unclaimed features in the hats and helmets includes "the suspension system, moisture-wicking fabrics, ratcheting mechanism, and vents." *Id.*

But the Federal Circuit has instructed that "the patent owner can show that it is the claimed combination as a whole that serves as a nexus for the objective evidence." *Id.* Here, the claimed combination as a whole is a safety helmet system comprising a hard hat or safety helmet and one or more accessory devices. And even if some of the Domestic Industry Headwear Products include some unclaimed features, those unclaimed features, standing alone, do not necessarily defeat a presumption of nexus. *See Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1374 (Fed. Cir. 2019). The more important point is the fact that each Domestic Industry Safety Helmet Product is designed as a whole for practicing the claims of the Asserted Safety Helmet Patents.

The technical prong analyses detailed above demonstrate that the invention protected by the asserted claims is not merely a small component of a larger final product—the Domestic Industry Headwear Products as a whole are the claimed invention. Accordingly, I find that Klein is entitled to a presumption that a nexus exists between the claimed features of the invention and the objective evidence offered to show non-obviousness. *See Crocs*, 598 F.3d at 1310-11 ("Because the Commission found, based on substantial evidence, that Crocs shoes practice the '858 patent and that the Crocs shoes were commercially successful, Crocs established a *prima facie* case of nexus.").

Moreover, even if a nexus were not presumed, I find Klein's objective evidence offered to show non-obviousness in fact relates to the features of the patented invention, as detailed further below.

b) Long-Felt but Unmet Need / Failure of Others

Klein's technical expert Mr. Shewchenko testified that there was a long-felt but unmet need for mechanisms to temporarily secure accessories like headlamps to safety helmets. Tr. (Shewchenko) at 992:23-993:25 ("[T]he long-felt need is the ability to securely mount the headlamp to a hard hat . . . without the use of secondary attachment means such as, you know, head bands, tape, clips, that sort of thing.") Testimony from employees at Klein and Milwaukee confirm this long-felt need. Tr. (Deshpande) at 115:1-8 ("we found out the attachment of accessories to hard hats was specifically a big [pain point]"); Tr. (Rose) at 448:20-22 ("[C]learly they [Klein] were trying to address a similar unmet user need with a headlamp and how you attach that."); Tr. (Hyma) at 511:12-15 ([redacted]). This pain point is reflected in market survey responses collected by Klein. JX-0113C.0007 at 13-14 ("Head lamp is always slipping off"; "Head lamp doesn't hold or lack of attachments"), 16 ("It's a challenge to equip it with a headlamp").

As described in the'327 patent specification, existing solutions for this problem involved the use of "band-type mounting systems," which were "prone to slipping off from the safety helmet" and "require[ed] constant adjustment by the user." JX-0001 ('327 patent) at 1:34-38; *see also* Tr. (Hyma) at 510:7-511:7. As a result, users resorted to clipping, zip-tying, and duct taping headlamp straps onto their hard hats:

[redacted]

JX-0132C.0012.



CX-1516; CX-0872C.0008.

Milwaukee's expert testified that the need for such modifications was "a long-standing user frustration." Tr. (Klopp) at 790:1-8. Milwaukee's vice president of marketing Derek Rose also described this user frustration as "a big problem." Tr. (Rose) at 443:6-19, 444:5-16 ("Everyone on the team has been out on job sites and seen these exact same problems."). Milwaukee's vice president of industrial design Steven Hyma agreed that the need for such modifications [redacted] Tr. (Hyma) at 511:18-512:19. And, during the 2019 launch of the accused Milwaukee BOLT products, Milwaukee's senior vice president of

product marketing Zach Richman identified "modifying their hard hats, whether they're ziptying, duct-taping even, making sure their headlamps stay secure without falling off" as a "frustration[] that our users . . . feel day in and day out." CPX-0137 (video) at timestamp 00:18-01:00; Tr. (Richman) at 563:8-566:6. Further, emphasizing the long-felt nature of this frustration, Mr. Richman explained "[t]here hasn't really been any innovation over the past hundred years, same hard hat across the board." *Id.*

The evidence also shows that there was a long-felt but unmet need for a mechanism to temporarily secure headlamps and other accessories to safety helmets worn in reverse. Tr. (Shewchenko) at 992:23-993:5, 994:20-995:3. The '472 provisional application that later matured into the Safety Helmet Patents explains that "a standard helmet with a fixed or mounted headlamp does not provide illumination for the user in reverse orientation." JX-0009 at [0011]. Named inventor Shantanu Deshpande confirmed this was a "pain point" for users. RX-0873C (Deshpande Dep.) a, 28:5-12; Tr. (Deshpande) at 115:1-8; *see also* CX-1511C (Hyma Dep.) at 32:7-12 ("Q. One of the challenges you were trying to tackle is how do you attach an accessory to a hard hat in a way that's integrated to the hard hat and is reversible; is that fair? A. Yes.").

Klein adduced evidence to show that the claimed inventions solved these long-felt needs. Tr. (Shewchenko) at 994:1-19, 995:4-15. For example, a third-party review of Klein's Domestic Industry Headwear Products declared, "[t]his Klein Tools hard hat solves the age-old problem of saggy, floppy work lights on a hard hat with a rechargeable magnetic light" that "clips into the accessory slot on the front or back of a hard hat for reversed wear . . . ." JX-0073.0007. And a Pro Tool Innovation Award described "[c]lips on the back and front [that] let you mount Klein headlamps without the need for a strap" JX-0116.0007.

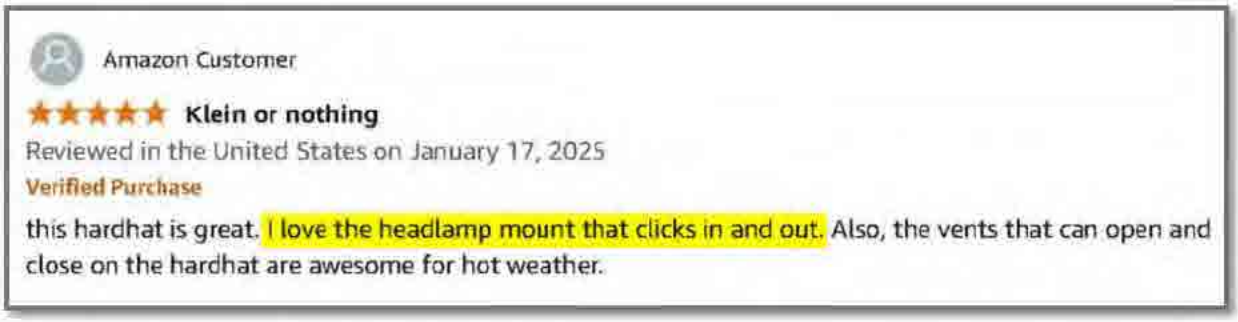
The record evidence thus shows that there was a long-felt but unmet need in the market for the type of product that Klein introduced with its Domestic Industry Headwear Products, and that others had previously failed to meet that market need. This evidence is a strong indication that the inventions protected by the asserted claims would not have been obvious to a person of ordinary skill in the art at the time of the invention.

c) Industry Praise

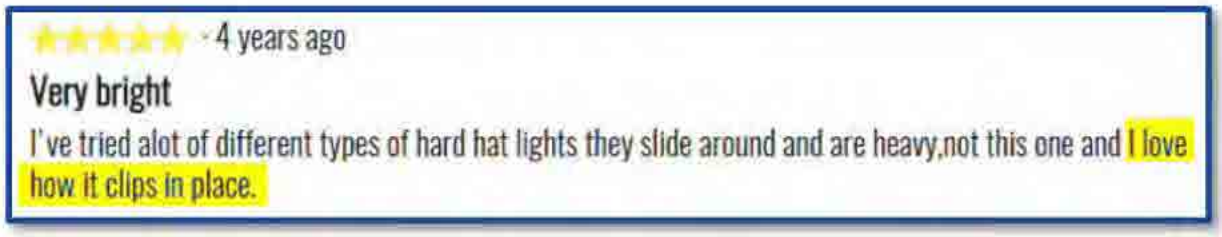
Evidence adduced at the hearing demonstrates industry praise for Klein's Domestic Industry Headwear Products. For example, the Domestic Industry Headwear Products were Pro Tool Innovation's "Winner" in the Hard Hats category upon release of Klein's hard hats in 2019, and again in 2020, 2021, and 2024. Tr. (Leos) at 172:8-22; JX-0116.0006-07; JX-0117.0006-07; JX-0118.0020-21; JX-0119.0015-17; Tr. (O'Flaherty) at 79:8-80:22. The Domestic Industry Headwear Products were also declared "Best Overall" in BobVila.com's 2023 "The Best Hard Hates, Tested and Reviewed." JX-0073.0001.

In bestowing these awards, these publications specifically praised the claimed inventions. Tr. (Shewchenko) at 996:2-15. For example, the BobVila.com award noted that the product "[c]omes with a work light that snaps into the grooves in the hard hat" and that the "rechargeable magnetic light . . . clips into the accessory slot on the front or back . . . making it one of the best hard hat headlamps on the market." JX-0073.0006-07. And, as discussed above, this same publication credited Klein's Domestic Industry Headwear Products with "solv[ing] the age-old problem of saggy, floppy work lights on a hard hat." JX-0073.0006-07. Similarly, the 2019 ProTools award noted that "[c]lips on the back and front" of the Domestic Industry Headwear Products "let you mount Klein headlamps without the need for a strap." JX-0116.0007.

The evidence also shows that the Domestic Industry Headwear Products have received praise from end-users, examples of which are shown in the product reviews reproduced below:

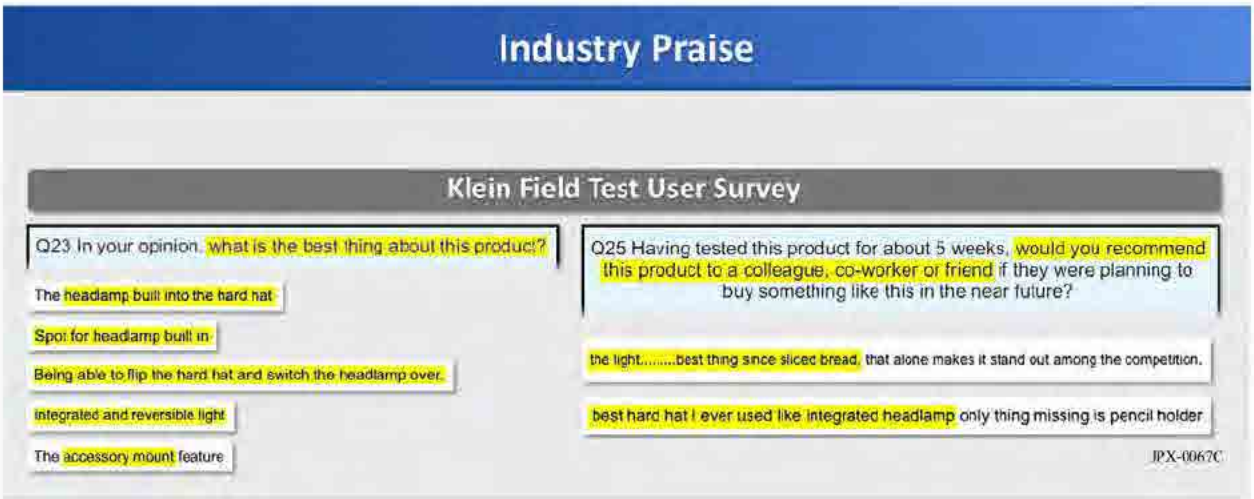


CX-0259.0008 (annotated).



JX-0033.0006 (annotated).

Klein's internal market surveys also reflect end-user praise:



JPX-0067C (annotated); CDX-0125C.0040; *see also* Tr. (Shewchenko) at 996:16-997:4.

These examples of industry praise refer to benefits associated with the patented features of the Domestic Industry Headwear Products, including reversibility of the outer shell and the ability to removably attach accessories to the front and rear of the outer shell. I therefore find industry praise of the Domestic Industry Headwear Products (which embody the patent claims) is a strong indication that the inventions protected by the asserted claims would not have been obvious to a person of ordinary skill in the art at the time of the invention.

d) Commercial Success

Klein adduced evidence showing that the Domestic Industry Headwear Products have sold well since they were first commercialized in 2019, and that this success has continued through the date of the complaint.

Klein's expert Ms. Leos testified that "[t]he sales, the revenue, the volume, and the growth of the domestic industry safety helmet system products demonstrates" commercial success. Tr. (Leos) at 1092:5-15. These products "have performed very strongly and have delivered consistent year-over-year growth." Tr. (O'Flaherty) at 80:23-81:7. Indeed, "in the first full year of sales of the safety helmet system D[omestic] I[ndustry] products, Klein Tools had revenues of over [redacted] Those revenues grew to over [redacted] by 2024." Tr. (Leos) at 1092:12-15. The growth rate of Domestic Industry Safety Helmet Product sales is [redacted], which shows the commercial success of these products in the context of Klein's business. Tr. (Leos) at 1092:16-19.

Milwaukee argues that there is no nexus between the commercial success of the Domestic Industry Headwear Products and the Safety Helmet Patents because other, non-claimed features were driving sales of the Domestic Industry Headwear Products. *See* RIB at 46-47. This argument is belied by evidence establishing that "D[omestic] I[ndustry] hard hat sales are [redacted] higher

on a volume basis and [redacted] higher on a revenue basis than the non-D[omestic] I[ndustry] hard hat products." Tr. (Leos) at 1093:1-17.

In further support of its nexus argument, Milwaukee argues that Klein "does not charge a price premium due to the claimed patented features," but this argument ignores contrary evidence. *See* RIB at 47. The evidence shows that non-D[omestic] I[ndustry] products are "largely made up of carbon fiber hard hat products" using more expensive material and produced using a more expensive manufacturing process, and thus a price comparison is not indicative of whether Klein charges a premium for the claimed features. Tr. (Leos) at 1093:18-1094:17. But as Ms. Leos testified, to account for differences in material and manufacturing costs, it is more informative to look at gross profit percentage, which shows a relative premium for the Domestic Industry Hard Hats. Tr. (Leos) at 1093:18-1094:17 ([redacted]).

And the evidence showing that some users appreciate the comfort and other non-claimed features of the Domestic Industry Headwear Products is not enough to rebut Klein's showing of commercial success. *Cont'l Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1273 (Fed. Cir. 1991) ("It is not necessary, however, that the patented invention be solely responsible for the commercial success . . . ."). At the hearing, Klein's witnesses credibly confirmed that the patented accessory mounts and the accessories compatible therewith are critical to the user experience and commercial success of the Domestic Industry Headwear Products. Tr. (O'Flaherty) at 106:11-17; Tr. (Deshpande) at 114:16-115:19; RX-0873C (Deshpande Dep.) at 106:5-108:8, 182:13-19, 183:11-184:12; RX-0872C (O'Flaherty Dep.) at 222:5-224:2, 226:1-9; RX-0869C (Behlmer Dep.) at 87:6-90:1, 92:11-23.

The evidence thus shows that the patented features of the Domestic Industry Headwear Products, such as reversibility and the ability to removably attach accessories to the front and back

of the hard hat or safety helmet, have contributed to the commercial success of the Domestic Industry Headwear Products. I find that the commercial success of the Domestic Industry Headwear Products (which embody the patent claims) is a strong indication that the inventions protected by the asserted claims would not have been obvious to a person of ordinary skill in the art at the time of the invention.

e) Copying

Klein alleges that Milwaukee copied Klein's prototype for the Domestic Industry Headwear Products during the development of the Accused BOLT Products. CIB at 62-75. Testimonial and documentary evidence adduced at the hearing form a timeline of relevant events, which is summarized below.

Klein developed a design for mounting accessories to a safety helmet in 2017, and that design did not change thereafter. Tr. (Deshpande) at 114:12-116:2; JPX-0065C (Concept tab). Design in hand, Klein [redacted] and shared information regarding its design under a non-disclosure agreement (NDA). Tr. (O'Flaherty) at 74:8-75:19; CX-0741C. Klein's prototyping work [redacted] lasted approximately 18 months and was "ongoing as of September 14th, 2018." Tr. (O'Flaherty) at 75:7-12. Meanwhile, "[t]oward the end of the first quarter in 2018, [Klein] presented the concept to [redacted] again under a non-disclosure agreement. Tr. (O'Flaherty) at 75:20-76:5.

As shown in the roadmap proposal document reproduced below, Milwaukee had an idea for a hard hat with accessory mounts in 2016.



RDX-0006C.0011; JPX-0117C.0006; Tr. (Rose) at 442:16-444:4; Tr. (Hyma) at 492:7-10.

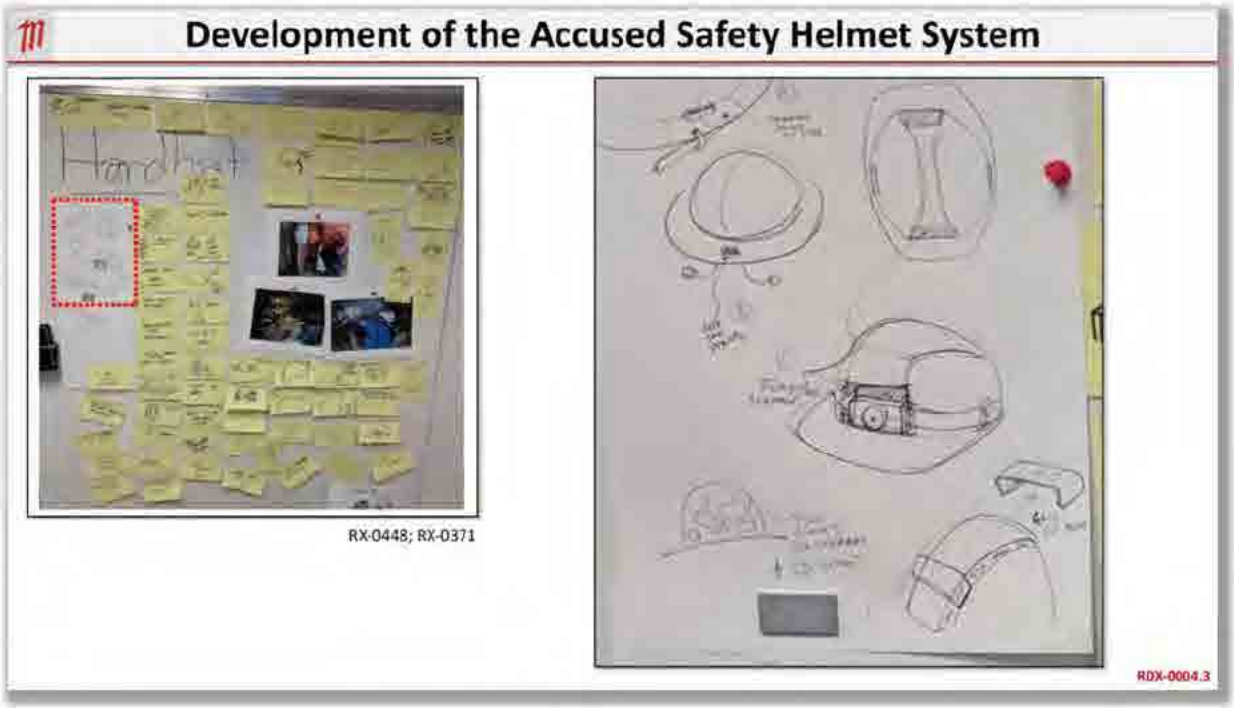
The design shown in this 2016 document is similar to the design implemented in the Accused Headwear Products:



JPX-0117C.0006; RX-0741.

Milwaukee paused work on this design and did not move forward with the hard hat project until Spring/Summer 2018. Tr. (Rose) at 444:5-24; Tr. (Hyma) at 492:11-14. In May 2018,

Milwaukee received a request from Home Depot to pitch a line of personal protective equipment ("PPE"), including hard hats. CX-1342C.0078-79; CX-1511C (Hyma Dep.) at 19:17-20. As shown below, on July 11, 2018, Milwaukee held an "ideation" session with several engineers and designers who conceived ideas for accessory mounts that ended up in the ultimate design. RX-0371C; RX-0448C; Tr. (Hyma) at 492:15-497:5; Tr. (Richman) at 546:7-548:12.




Development of the Accused Safety Helmet System
RX-0448; RX-0371
PACKOUT CLIP
RDX-0004.4
Development of the Accused Safety Helmet System
RX-0448; RX-0371
TOOLING PULL DIRECTION
RDX-0004.5

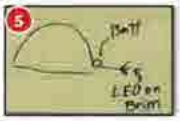
RDX-0004.3-4.5.

Brainstorming (July 2018): Lots of Mounts & Accessories



RX-0448C; RX-0371C



















RDX-0005C.11

Brainstorming (July 2018): Customization



RX-0448C; RX-0371C

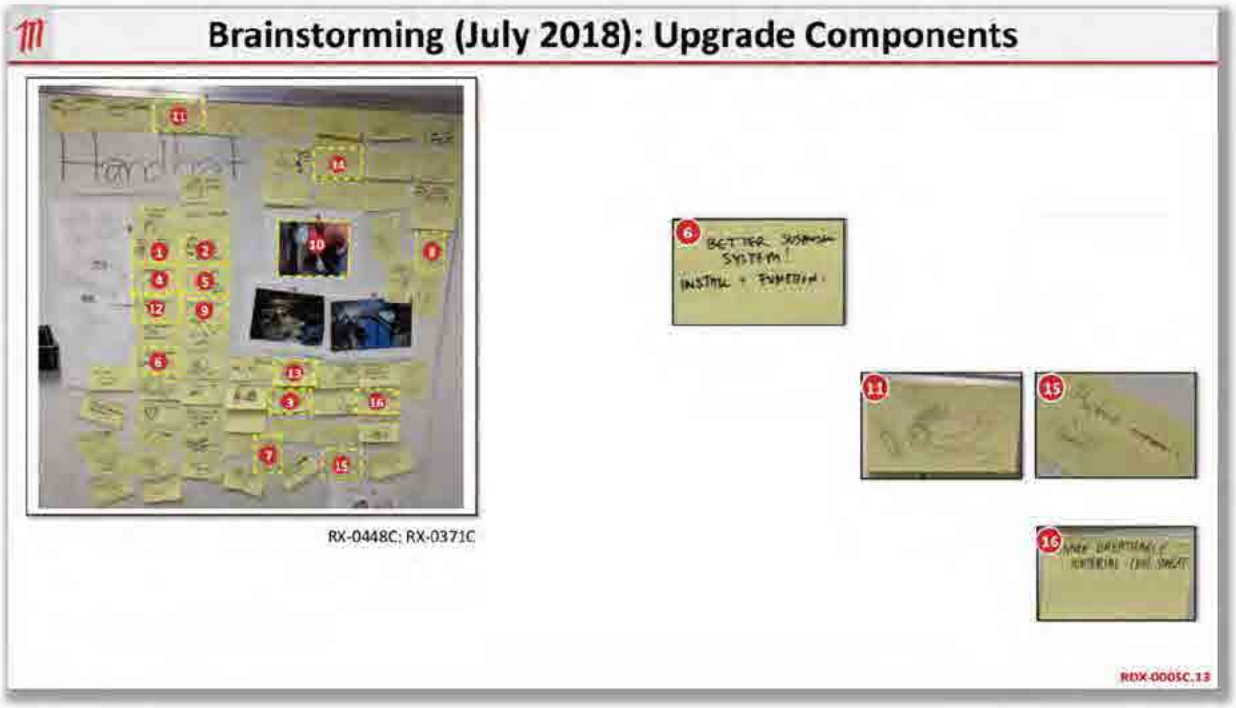






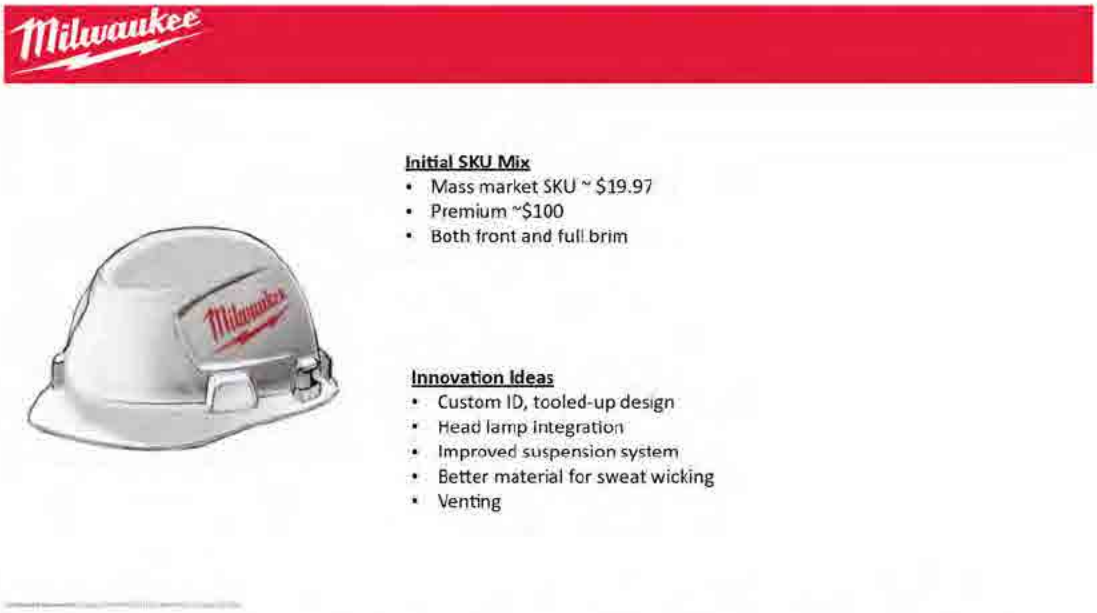


RDX-0005C.12



RDX-0005C.11-13.

Milwaukee's initial concept plan was dated July 13, 2018, and listed "Head lamp integration" as an objective:



JPX-0119C.0003; Tr. (Hyma) at 513:23-515:25, 517:7-10; CDX-0008C.0025, .0028.

Later in July 2018, Milwaukee added a horizontal hole on the body of the shell and a rib on the brim for a headlamp clip:



RX-0218C; CDX-0008C.0030; Tr. (Hyma) at 517:13-518:21. Milwaukee's vice president of industrial design Steve Hyma testified the project was "in its infancy" at this point. Tr. (Hyma) at 517:13-518:21. Milwaukee presented this design to Home Depot on August 7, 2018:



JX-0182C.0020; Tr. (Hyma) at 518:22-519:24; CX-1511C (Hyma Dep.) at 20:12-25; JX-0181C.0016; Tr. (Rose) at 444:17-445:25.

On September 14, 2018, senior Milwaukee employees, including Derek Rose (then-vice president in charge of hard hats), Tim Albrecht (Milwaukee Group President), and Scott Eisenhardt (engineer and then-hard hat project leader) visited Nicety in China. Tr. (Rose) at 468:16-472:9; CX-1508C (Rose Dep.) at 42:19-43:14, 165:18-24; JPX-0089C (Agenda tab). There, Milwaukee team members saw a Klein prototype hard hat, and Mr. Albrecht took photographs of "the front … with the headlamp clipped into the slot," a similar shot "with the headlamp turned on," the "headlamp clipped into the rear receptacle," and "the front of the Klein hard hat but this time showing the mount without any attachment obstructing the structure." Tr. (Rose) at 481:15-482:20. These photographs are reproduced below:



CPX-0332-0335; CX-1508C (Rose Dep.) at 53:15-54:24.

While still onsite at Nicety, Mr. Albrecht emailed the photographs to Milwaukee's hard hat team in the United States, including Steve Hyma (lead hard hat designer), Zach Richman (PPE project lead), and two members of the headlamp team, Paul Fry and Tom Simeone. CX-1508C (Rose Dep.) at 29:25-33:1, 45:2-22; Tr. (Rose) at 477:19-478:25, 480:14-481:2; CX-1508C (Rose Dep.) at 12:3-11; CX-1272C; CPX-0332-335; CDX-0010C.0032; *see also* Tr. (Hyma) at 528:1-531:18; Tr. (Rose) at 479:1-480:13. Mr. Hyma forwarded these images to three additional Milwaukee employees a few days later. JX-0185C.0001. Upon his return, Mr. Rose discussed the Klein hard hat with Mr. Richman and Mr. Hyma, and discussed the photograph with at least

Mr. Richman. Tr. (Rose) at 485:21-24; CX-1508C (Rose Dep.) at 32:5-9; CX-1513C (Richman Dep.) at 304:24-305:13, 305:22-307:16, 308:5-24.

By October 24, 2018, Milwaukee had "develop[ed] a top-pull mount" where "the user would basically slide an accessory down onto a front mount into a space behind two vertical ribs." Tr. (Hyma) at 521:3-522:1. Mr. Hyma agreed on cross-examination that this was "the first time that there were vertical ribs allowing this downward sliding insertion of accessories that's helpful for blind insertion." Tr. (Hyma) at 521:13-22.



JPX-0088C. Then, on November 30, 2018, Milwaukee "adds a protruding nub to its hard hat design." Tr. (Hyma) at 522:2-523:4; JPX-0087C. In December 2018, Milwaukee added the protruding nub to the rear mount. Tr. (Hyma) at 523:5-17; JPX-0083C.

In view of this timeline, Klein argues that "Milwaukee had access to Klein's patented design, and incorporated features from that design into its final product, which is strong copying evidence supporting a finding of nonobviousness." CRB at 73.

Viewing the record as a whole, I find that the evidence does not support a finding that Milwaukee copied the Domestic Industry Safety Helmet Patents when designing the Accused

Safety Headwear Products. Even though the timeline of events shows that Milwaukee changed its helmet design after seeing the Klein prototype at Nicety, testimony from three Milwaukee fact witnesses all credibly and unequivocally testified that Milwaukee did not use or consider Klein's prototype in developing any products. Tr. (Rose) at 450:3-6 (Q. "Did Milwaukee change the design of its own hard hat and helmet products based on the Klein prototype that it saw at the Nicety visit?" A. "No, not at all."); Tr. (Hyma) at 506:14-507:11 (testifying that Klein's copying allegations are incorrect, noting: "I'm very proud of where it ended up just because of all the creative problem-solving we achieved through this."); Tr. (Richman) at 552:15-18 (Q. "Are you aware of any instances as the team leader where you were influenced by that Klein Tools design when you were developing Milwaukee's product?" A. "No."), 557:25-559:6.

Instead, the weight of the evidence shows Milwaukee's design was more influenced by: (i) user feedback; (ii) manufacturing feedback from Milwaukee's supplier Dynamic Safety; (iii) ideas from other Milwaukee product lines; (iv) internal test results; and (v) competitor companies that did not include Klein. Tr. (Rose) at 450:13-451:4; Tr. (Hyma) at 502:12-506:13; Tr. (Richman) at 552:25-553:11, 557:25-559:6. The testimonial evidence is consistent with contemporaneous documentary evidence. RX-0204C; RX-0207C; RX-0250C; RX-0448C; JPX-0084C; JPX-0087C; JX-0126C; JX-0135C; JX-0088C.

For the reasons above, I find the timeline of events surrounding Milwaukee's development of the Accused BOLT Safety Helmet System does not show copying of Klein's Domestic Industry Safety Helmet Patents. These facts therefore are not an indication either way as to whether the inventions protected by the asserted claims would have been obvious to a person of ordinary skill in the art at the time of the invention.

f) Conclusion

I find that the record evidence relating to objective indicia of non-obviousness, when viewed as a whole, supports a finding that Milwaukee has failed to show, clearly and convincingly, that any asserted patent claim is invalid as obvious under 35 U.S.C. § 103.

7. Written Description

The issue of whether a patent is invalid for failure to meet the written description requirement of 35 U.S.C. § 112 is a question of fact. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 670 F.3d 1171, 1188 (Fed. Cir. 2012). The hallmark of the written description requirement is the disclosure of the invention. *See Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). The test for determining the sufficiency of the written description in a patent requires "an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed." *Id.* "The level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology." *Id.* To satisfy the written description requirement, a patent need not describe "every conceivable and possible future embodiment" of the invention. *Cords Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1365 (Fed. Cir. 2003). Whether a patent provides adequate written description for a claim presents a question of fact. *Duke Univ. v. Sandoz Inc.*, 160 F.4th 1305, 1310 (Fed. Cir. 2025). And like all patent invalidity defenses to infringement, lack of adequate written description must be proven by clear and convincing evidence. *Id.*

Milwaukee argues that certain asserted claims of the Safety Helmet Patents are invalid for failure to meet the written description requirement of 35 U.S.C. § 112. RRB at 8-12, 72-76. Each of Milwaukee's written description arguments is addressed below.

a) '327 Patent Claims 8, 10, and 17: "protruding nub"

Milwaukee argues that claims 8, 10, and 17 of the '327 patent are invalid for failure to satisfy the written description requirement because "[t]here is no written description support for Klein's interpretation" of the claimed "protruding nub." RIB at 8-12. In particular, Milwaukee argues that the feature Klein identifies as the claimed "protruding nub" in the Domestic Industry Hard Hats and Safety Helmets, which is a wedge-shaped structure discussed above in section VIII.B, lacks written description support in the patent specification. *Id.*

Here, Milwaukee's argument "merely revives its [technical prong] argument in the cloak of a validity challenge." *See Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1321 (Fed. Cir. 2003) (affirming lower court finding that the asserted patent was not invalid for lack of written description). The Federal Circuit has long held that "[t]he invention is, for purposes of the 'written description' inquiry, *whatever is now claimed*." *In re Entresto*, 125 F.4th 1090, 1097 (Fed. Cir. 2025) (quoting *Vas-Cath Inc. v. Mahurka*r, 935 F.2d 1555, 1564 (Fed. Cir. 1991)). Thus, "the question . . . is not whether the specification provides an adequate description of the [domestic industry products], but whether the specification provides an adequate description of the claimed invention." *See Rex Med., L.P. v. Intuitive Surgical, Inc.*, 156 F.4th 1289, 1306 (Fed. Cir. 2025) (citation omitted).

As discussed in the claim construction section above, the '327 specification states that the "protruding nub 17 extend[s] from the surface of the hard outer shell 1 of the safety helmet 100" and that a "clip 19" of an accessory device "receives the protruding nub 17" and "lock[s] it into

place." '327 patent at 4:3-11. In addition, Figures 3 and 4 depict this preferred embodiment of the protruding nub and accessory device clip, denoted by 17 and 19, respectively. *Id.* at Figs. 3-4. This disclosure is also present in the original application that matured into the '327 patent. *See* JX-0009 ('472 Provisional) at [0021]; JX-0015 ('491 Provisional) at [0013]. Indeed, Milwaukee argues in its initial post-hearing brief that "the intrinsic evidence . . . describes the 'protruding nub' . . . as a structure 'extending from a surface . . . .'" RIB at 9.

For these reasons, I find that Milwaukee has failed to show by clear and convincing evidence that the asserted claims of the '327 patent are invalid for failure to satisfy the written description requirement with respect to the term "protruding nub."

b) '265 Patent Claims 1-4: "protruding member"

Milwaukee argues that claims 1-4 of the '265 patent are invalid for failure to satisfy the written description requirement with respect to the term "protruding member" for the same reasons Milwaukee argued with respect to the term "protruding nub." RIB at 76. Milwaukee "do[es] not dispute that the term 'protruding member' has essentially the same scope as the term 'protruding nub.'" *Id.*

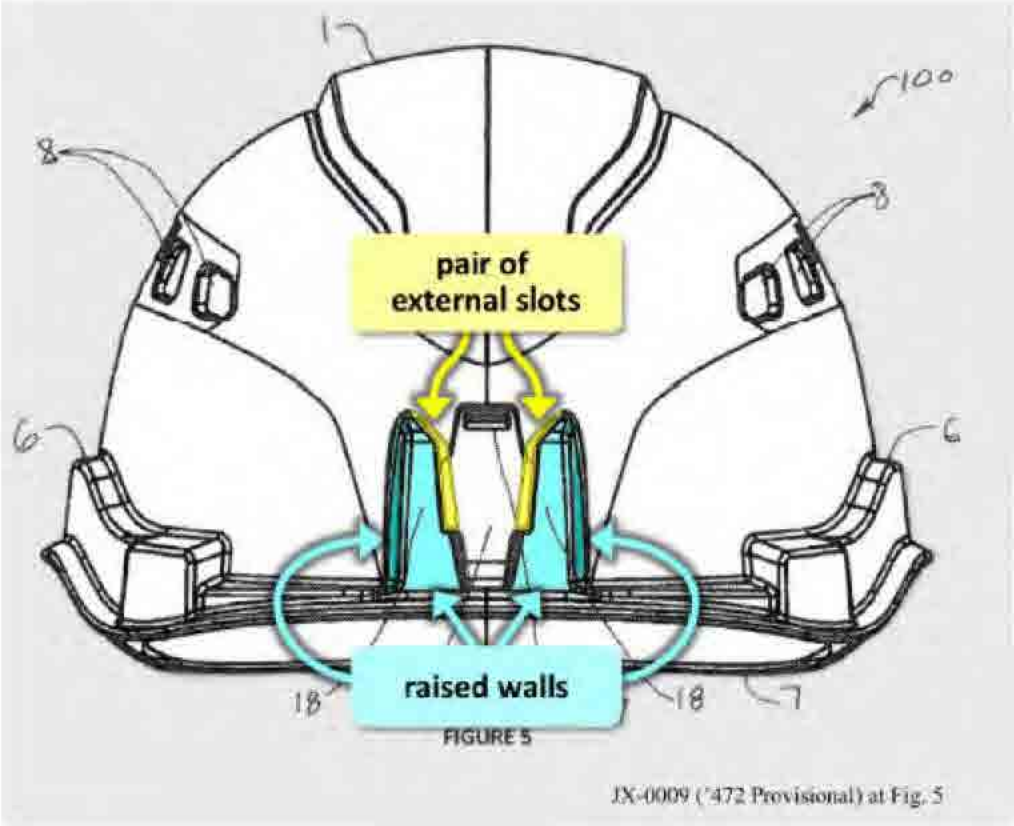
For the reasons discussed above with respect to the term "protruding nub," I find that Milwaukee has failed to show by clear and convincing evidence that the asserted claims of the '265 patent are invalid for failure to satisfy the written description requirement with respect to the term "protruding member."

c) '265 Patent Claims 1-4: "first pair of external slots" and "second pair of external slots"

Milwaukee argues that claims 1-4 of the '265 patent are invalid for failure to satisfy the written description requirement with respect to the terms "first pair of external slots" and "second pair of external slots." RIB at 72-76. Milwaukee reprises many of the arguments it made during

claim construction and also argues that the specification teaches only single slots and not a pair of external slots. *Id.* Milwaukee's argument is not persuasive. Although the exact words "pair of external slots" do not appear in the specification, the figures and text show that the inventors were in possession of front and rear receptacles each comprising two external slots, as claimed, as of the filing of the application.

For example, an annotated version of Figure 5 included in the provisional application that matured into the '265 patent shows the location of the pair of external slots with yellow annotation:



See CDX-0125C.0051.

This figure depicts a front receptacle with a pair of external slots bounded by the raised walls identified with blue annotation. *See also* '265 patent at Fig. 3; JX-0009 ('472 Provisional) at Fig. 5; JX-0015 ('491 Provisional) at Fig. 3. These slots receive the mounting bracket of an

accessory device such that the mounting bracket is "retained by the raised sidewalls 18." '265 patent at 3:67-4:8; *see also* JX-0009 at [0021]; JX-0015 at [0013]. And while these figures show the front receptacle, the patent describes the rear receptacle as having a "substantially identical design." JX-0004 at 4:31-34, 5:50-54, 6:8-14; JX-0009 at [0016], [0021]. Therefore, the patent describes a rear receptacle with a pair of external slots substantially identical to the pair of external slots located at the front receptacle.

For these reasons, I find that Milwaukee has failed to show by clear and convincing evidence that the asserted claims of the '265 patent are invalid for failure to satisfy the written description requirement with respect to the terms "first pair of external slots" and "second pair of external slots."

IX. GLOW FISH TAPE PATENTS

A. Infringement

Klein asserts that Milwaukee "directly infringes claim 6 [of the '209 patent] by importing, using, offering to sell, and selling the G[low] F[ish] T[ape] Accused Products" and that "Milwaukee indirectly infringes claim 6 [of the '209 patent] by actively and knowingly inducing direct infringement by others." CIB at 90-91. Klein also asserts that Milwaukee "directly infringes [claim 6 of the '573 patent] by importing, using, offering to sell, and selling the G[low] F[ish] T[ape] Accused Products" and that Milwaukee "induces infringement of claim 6 of the '573 Patent for the same reasons explained regarding the '209 Patent." CIB at 119.

The following sections will first discuss Klein's allegations of direct infringement of the Glow Fish Tape Patents. Indirect infringement will be addressed below in section IX.A.3.

1. '209 Patent – Claim 6

No party disputes that the record evidence shows that the Glow Fish Tape Accused Products satisfy limitations 6[pre], 6[a], 6[b], and 6[c] of claim 6. *See* RRB at 49-63. The dispute between the parties as to infringement of claim 6 centers on whether the Glow Fish Tape Accused Products satisfy limitation 6[d], which requires "a portion of the case is transparent." *Id.*

a) 6[pre]: "A fish tape system comprising: "

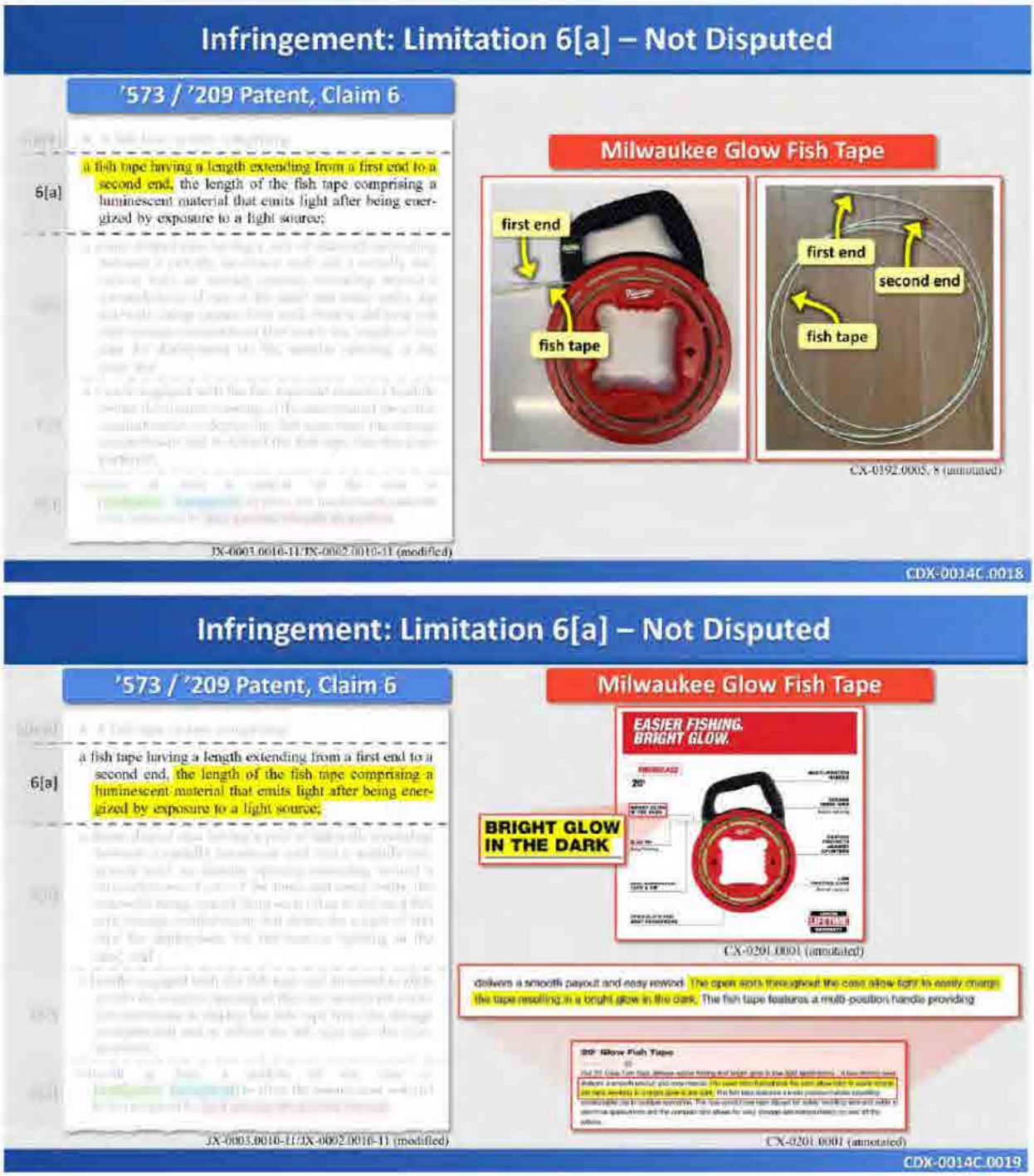
Klein argues that the preamble of claim 6 of the '209 patent is not limiting because it does not "recite[] essential structure" and is not "necessary to give life, meaning, and vitality" to the claim. CIB at 93 (citing *Catalina Marketing Int'l, Inc.*, 289 F.3d at 808). Milwaukee did not address the issue of whether the claim preamble is limiting in its post-hearing brief. *See* RRB at 49-63.

I need not decide whether or not the preamble is limiting for infringement purposes because the preamble is satisfied: the Glow Fish Tape Accused Products are fish tape systems. JPX-0003; CX-0192.0003; *see* Tr. (Giachetti) at 357:15-23.

b) 6[a]: "a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source; "

An examination of the physical sample of the representative Milwaukee 20' GFT product shows that Glow Fish Tape Accused Products satisfy this limitation. JPX-0003.

Klein's technical expert Dr. Robert Giachetti also testified that the Glow Fish Tape Accused Products satisfy this limitation. Tr. (Giachetti) at 357:24-359:4. Dr. Giachetti illustrated his testimony using the demonstrative slides reproduced below:



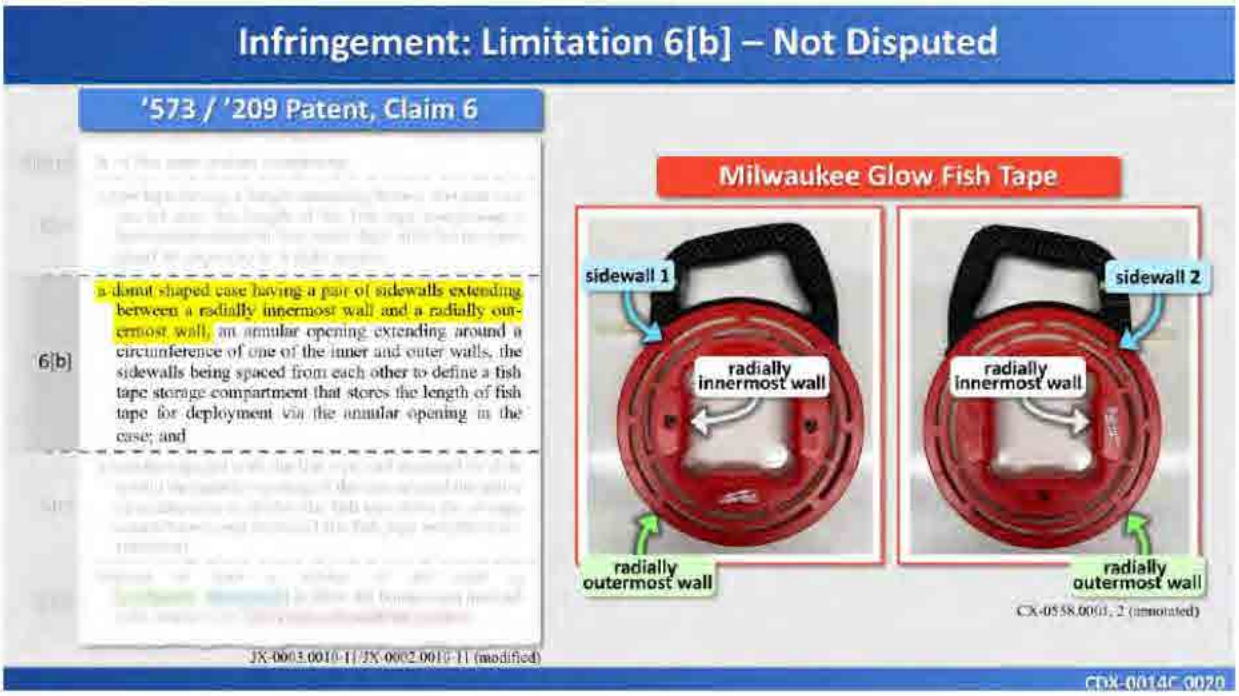
CDX-0014C.0018-19; *see also* CX-0192.0005, 0008; JPX-0003; CX-0201.0001 (advertising "Bright Glow"); JX-0152C.0010 (similar).

The record evidence thus shows that this limitation is satisfied.

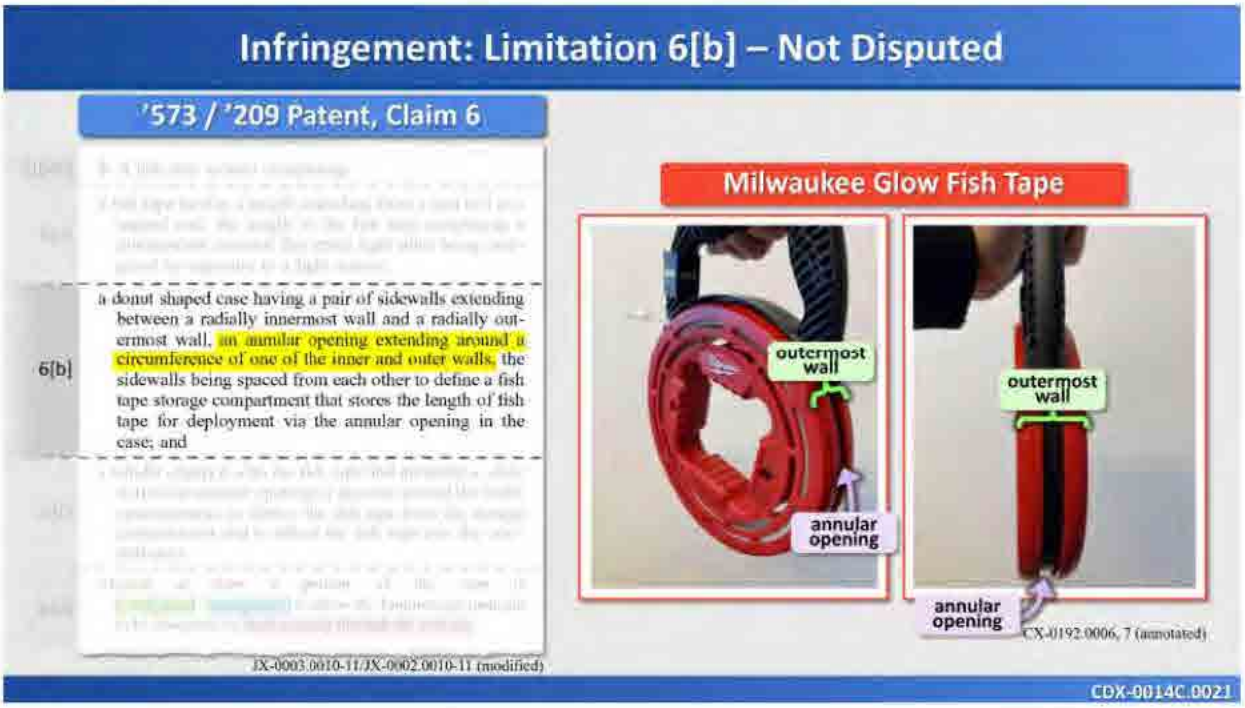
c) 6[b]: "a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, an annular opening extending around a circumference of one of the inner and outer walls, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and "

An examination of the physical sample of the representative Milwaukee 20' GFT product shows that Glow Fish Tape Accused Products satisfy this limitation. JPX-0003.

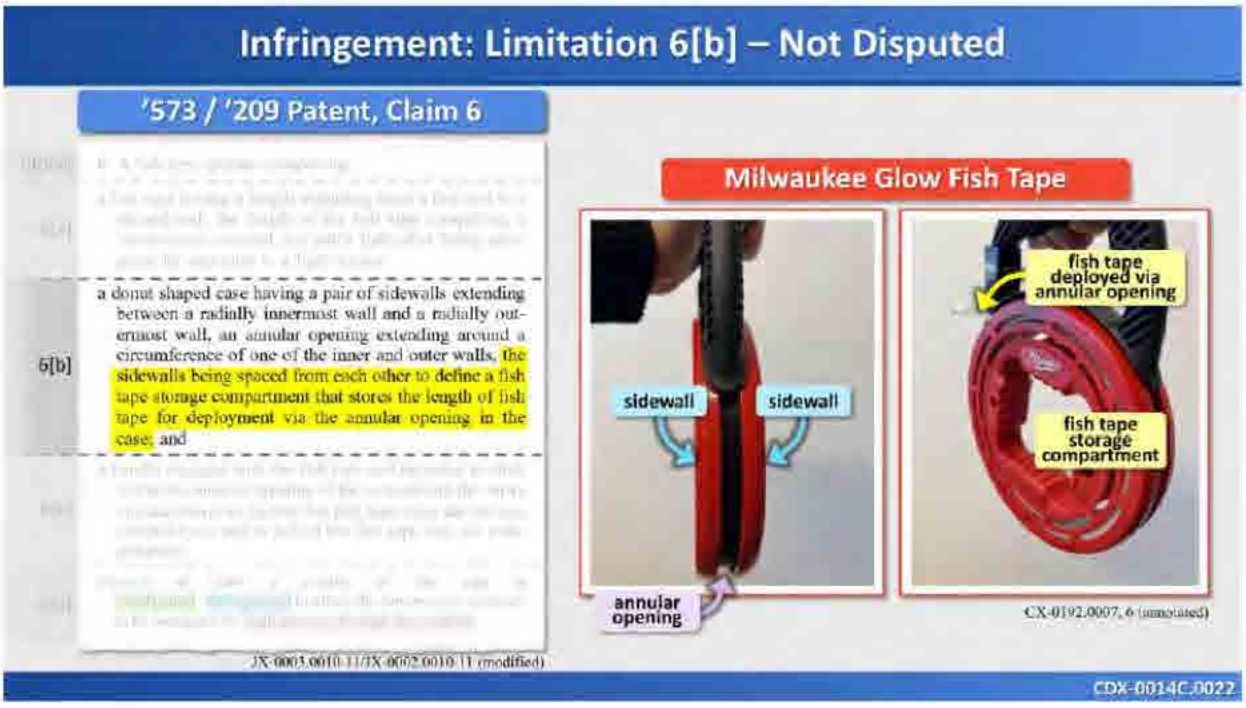
Klein's technical expert Robert Giachetti also testified that the Glow Fish Tape Accused Products satisfy this limitation. Tr. (Giachetti) at 359:5-360:8. Dr. Giachetti illustrated his testimony using the demonstrative slides reproduced below:



CDX-0014C.0020; *see also* CX-0558.0001-0002.



CDX-0014C.0021; *see also* CX-0192.0006-7.



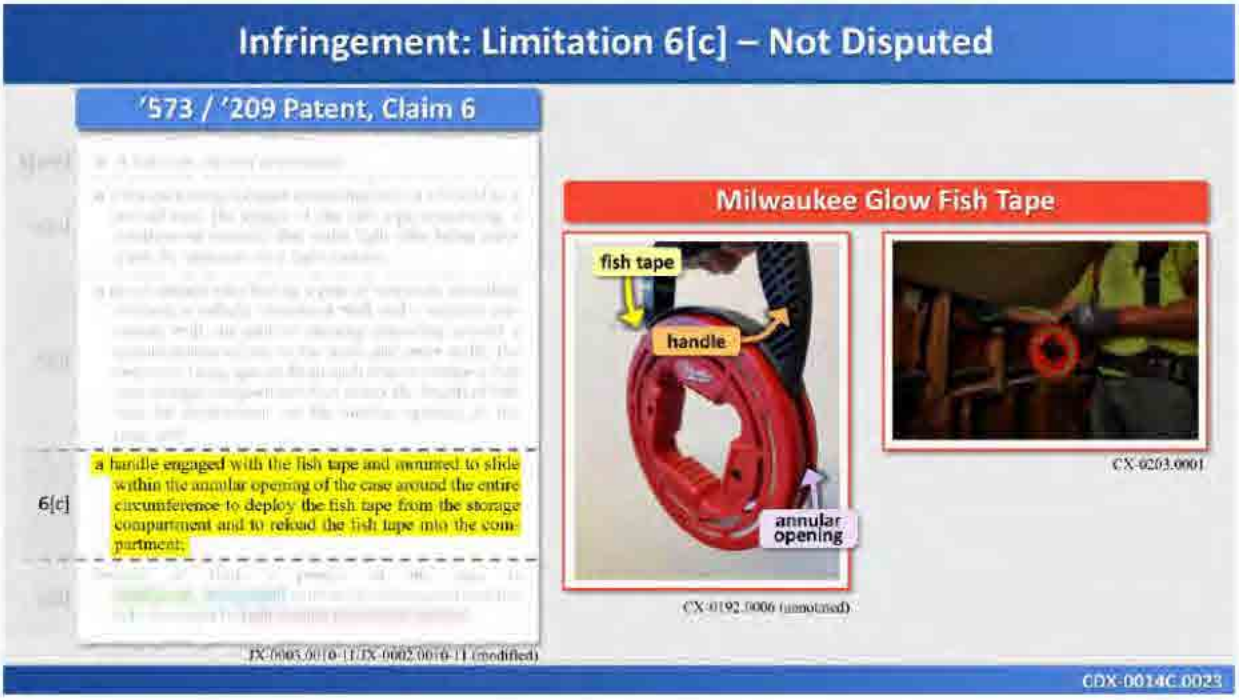
CDX-0014C.0022; *see also* CX-0192.0006-7.

The record evidence thus shows that this limitation is satisfied.

d) 6[c]: "a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment; "

An examination of the physical sample of the representative Milwaukee 20' GFT product shows that Glow Fish Tape Accused Products satisfy this limitation. JPX-0003.

Klein's technical expert Robert Giachetti also testified that the Glow Fish Tape Accused Products satisfy this limitation. Tr. (Giachetti) at 360:9-17. Dr. Giachetti illustrated his testimony using the demonstrative slide reproduced below:



CDX-0014C.0023; *see also* CX-0192.0005-0007; CX-0203.0001.

The record evidence thus shows that this limitation is satisfied.

e) 6[d]: "wherein at least a portion of the case is transparent to allow the luminescent material to be energized by light passing through the portion."

As discussed above in section VII.B.1, "transparent" is used in the '209 patent to describe a characteristic of a solid material. Under this meaning, the Accused Glow Fish Tape Products do not literally practice this limitation. Examination of the physical sample of the representative Milwaukee 20' GFT product shows that none of the Glow Fish Tape Accused Products have a case with a transparent solid portion—a portion containing transparent material—that allows the luminescent material to be energized by light passing through the portion. JPX-0003.

Klein concedes there is no direct infringement under this understanding of the term "transparent" and argues that the Glow Fish Tape Accused Products nevertheless infringe under the doctrine of equivalents using either the function-way-result test or the insubstantial differences test. CIB at 106-13.

For the function-way-result-test, Klein identifies the function of the claimed "portion of the case [that is] transparent" as "to allow light to enter and charge the tape while it is in the case." *See* CIB at 107 (citing Tr. (Rose) at 467:14-17, 465:14-23). Klein argues that the open slots in the cases of the Accused Glow Fish Tape Products "perform this function in substantially the same way as the claimed element (i.e., providing or creating pathways via which light can pass from outside of the case into the fish tape storage compartment)." CIB at 109 (citing Tr. (Giachetti) at 370:19-372:19; '573 patent at 3:19-30; JX-0152C.0028 ("Windowed housing to allow charging."); JPX-0003). For the result, Klein argues:

> The open slots or windows of the G[low] F[ish] T[ape] Accused Products achieve the same result as the claimed "portion of the case [that] is [transparent/configured] to allow the luminescent material to be energized by light passing through the portion" (i.e., allowing the luminescent material to be energized by light from outside of the case while the length of the fish tape is stored in the fish tape storage compartment of the case).

CIB at 110 (citing Tr. (Giachetti) at 372:20-374:4; '573 patent at 3:19-30; CDX-0014C.0039; CX-0422.0002; JPX-0003).

Regarding the insubstantial differences test, Klein argues:

> "[T]he purpose of both the 'portion of the case [that] is [transparent/configured] to allow the luminescent material to be energized by light passing through the portion' claimed in the '209 and '573 Patents and the G[low] F[ish] T[ape] Accused Products' 'open slots or windows' is to expose the luminescent material along the length of the fish tape to light (e.g., from outside of the case) so that the luminescent material can be energized/charged while the fish tape is stored in the fish tape storage compartment of the case."

CIB at 112 (citing '209 patent at 3:22-30, Abstract, 1:53-55, 2:26-36, 2:44-46, 3:55-58; Tr. (Giachetti) at 375:9-376:16; CDX-0014C.0041; CPX-0290C (Landscape-PBA tab) (the purpose of both "Open Slots" and "Clear Case" is to "Re-Charge" the tape)). Klein further argues that the open slots or windows in the Glow Fish Tape Accused Products are insubstantially different from the relevant claim limitation "because there is no substantial or significant difference in the ability to charge luminescent material with ambient light that passes from outside the case into the fish tape storage compartment." CIB at 112 (citing Tr. (Giachetti) at 377:6-21; CDX-0014C.0042; CX-0201.0001; CX-1510C (Cabrera Dep.) at 91:3-6; CX-1509C (Silas Dep.) at 75:14-77:6 ("Q. So in your view, are the holes in this case equivalent to a clear plastic case? A. Performance-wise, they perform the same."); CX-1508C (Rose Dep.) at 214:15-23 ("it was very similar glow performance"), 277:13-16; JX-0139C.0027 ("[g]low on par with Klein")).

Neither of Klein's doctrine of equivalent arguments is persuasive.

Regarding the function-way-result test, Klein has failed to show that the "way" is substantially the same. Indeed, Milwaukee's expert Dr. Smith testified that there is a substantial difference between the way light traverses a solid material, such as in the portion of the case at issue here, versus traversing empty space in the open slots/windows in the Glow Fish Tape Accused

Products. Tr. (Smith) at 817:11-818:15. Moreover, Klein's expert Dr. Giachetti testified that, in the Domestic Industry Glow Fish Products that have a solid material forming the portion of the case, the pathway of light goes from the light source, through the air, through the clear case, and then through the little bit of air in the case until it is absorbed by the glow fish tape. Tr. (Giachetti) at 399:20-25. By contrast, in the Glow Fish Tape Accused Products, light passes through the open slots by moving directly from the light source through the air in the open slots until it is absorbed the glow fish tape. Tr. (Giachetti) at 400:1-5. Therefore, because the Glow Fish Tape Accused Products' open slots/windows do not perform substantially the same function in substantially the same way as the claimed portion of the case, Klein has failed to demonstrate that limitation 6[d] of the '209 patent is infringed under the doctrine of equivalents using the function-way-result test.

As for the insubstantial differences test, Klein's argument discounts evidence showing there is a substantial difference between the claimed portion of the case that requires the presence of a material on the one hand and open slots that are the complete absence of material on the other. *See* Tr. (Smith) at 815:1-816:10. As discussed above with respect to the function-way-result test, the pathway of light entering the case through a transparent material is substantially different from the pathway of light entering the case through an open hole. Therefore, Klein has also failed to demonstrate that limitation 6[c] of the '209 patent is infringed under the doctrine of equivalents using the insubstantial differences test.

In sum, as a factual matter, I am not persuaded by Klein's showing that the differences between the "transparent" claim limitations and the windows without solid material in the Glow

Fish Tape Accused Products are insubstantial.[16] Accordingly, I determine Klein has not shown infringement of claim 6 of the '209 patent literally or under the doctrine of equivalents.

2. '573 Patent – Claim 6

No party disputes that the record evidence shows that the Glow Fish Tape Accused Products satisfy limitations 6[pre], 6[a], 6[b], and 6[c] of claim 6. *See* RRB at 49-63. The dispute between the parties as to infringement of claim 6 centers on whether the Glow Fish Tape Accused Products satisfy limitation 6[d], which requires "a portion of the case is configured to allow the luminescent material to be energized by light passing through the portion." *Id.*

a) 6[pre], 6[a], 6[b], and 6[c]

Limitations 6[pre]-6[c] of the '573 patent are identical to limitations 6[pre]-6[c] of the '209 patent, and the Glow Fish Tape Accused Products satisfy these limitations for the reasons set forth above in section IX.A.1.

b) 6[d]: "wherein at least a portion of the case is configured to allow the luminescent material to be energized by light passing through the portion."

As discussed above in sectionVII.B.2, when the asserted claims use the phrase "light passing through" the "sidewall" or "portion of the case," it means the "sidewall" or "portion of the case" through which the light passes must always be a solid material. With this understanding, the Accused Glow Fish Tape Products do not literally practice this limitation. Examination of the physical sample of the representative Milwaukee 20' GFT product shows that none of the Glow Fish Tape Accused Products have a case with a transparent solid portion—a portion containing

[16] Because the differences between the claim limitation and the accused features are not insubstantial, I need not reach Milwaukee's arguments (RRB at 58-63) about how prosecution history estoppel and ensnarement may affect the scope of equivalents.

transparent material—that allows the luminescent material to be energized by light passing through the portion. JPX-0003.

Klein concedes there is no direct infringement under this understanding of the claim language and argues that the Glow Fish Tape Accused Products nevertheless infringe under the doctrine of equivalents for the same reasons they infringe limitation 6[d] of the '209 patent under the doctrine of equivalents. CIB at 123. However, the claim language at issue here differs from the claim language in claim 6 of the '209 patent. Any doctrine of equivalents analysis must still begin with the words of the claim, and Klein has presented no argument explaining how an accused feature is equivalent to the words of this element 6[d] of the '573 patent. *See Warner-Jenkinson Co.*, 520 U.S. at 29 ("Each element contained in a patent claim is deemed material to defining the scope of the patented invention, the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole."). Any such argument has been forfeited under the Ground Rules because it is not set forth in detail in Klein's initial post-hearing brief. *See* Order No. 2, Ground Rule 14.1.

Even if Klein had preserved a doctrine of equivalents argument "for the same reasons as the '209 Patent," CIB at 123, I would find no merit in such an argument for the same reasons explained above in connection with claim 6 of the '209 patent.

I find that Klein has not shown that the Accused Glow Fish Tape Products infringe limitation 6[d] of the '573 patent literally or under the doctrine of equivalents.

3. Glow Fish Patents Direct Infringement Conclusions

In sum, the record evidence demonstrates that the Accused Glow Fish Tape Products do not infringe either the '209 or '573 patent literally or under the doctrine of equivalents.

4. Indirect Infringement

Klein argues that Milwaukee indirectly infringes claim 6 of the '209 patent and claim 6 of the '573 patent by "actively and knowingly inducing direct infringement by others." CIB at 91-92, 119. Klein argues that "Milwaukee's customers directly infringe the asserted claims of the '209 Patent by using, offering for sale, and selling the G[low] F[ish] T[ape] Accused Products." CIB at 91 (citing CX-0173.0002 (Milwaukee website "Where to Buy" list with 2025 copyright); CX-0421; CX-0422 (Home Depot webpages); Tr. (Giachetti) at 384:25-385:17; CDX-0014C.0051-52. Klein further argues that Milwaukee "had knowledge of the '209 Patent as of approximately February 2021," before its December 2023 launch of the Glow Fish Tape Accused Products. CIB at 91 (citing CX-1342C.0329; Tr. (Giachetti) at 386:3-9; Tr. (Rose) at 467:8-10).

Liability for induced infringement attaches when three elements are proved: (1) direct infringement by a third party; (2) the inducer knew that the induced acts constitute patent infringement, and (3) the inducer took active steps to encourage direct infringement. *Hikma Pharmaceuticals USA Inc.*, slip op. at 4; *Suprema, Inc. v. Int'l Trade Comm'n*, 796 F.3d 1338, 1352-53 (Fed. Cir. 2015) (en banc).

The inquiry here ends with the first requirement for inducement: I have determined above that Klein has not shown direct infringement of any asserted claim of the '209 patent or '573 patent. Accordingly, I determine Klein has not shown Milwaukee is liable for inducement of infringement of those patents. It follows from this conclusion that Klein has not shown that Milwaukee violated section 337 by importing or selling "articles that infringe" the '209 patent or '573 patent via inducement. *See Suprema,* 796 F.3d at 1352-53.

B. Technical Prong

1. '209 Patent

I previously issued an initial determination finding on summary determination that the Glow Fish Tape Domestic Industry Products practice claims 1 and 5 of the '209 patent. Order No. 17. The Commission did not review my initial determination and thus determined that the technical prong of the domestic industry requirement has been satisfied for claims 1 and 5. EDIS Doc. ID 869475.

Klein also asserts that the Glow Fish Tape Domestic Industry Products practice claim 6 of the '209 patent. CIB at 89. As shown in the table below, the limitations of claim 6 are substantially similar to the limitations of claim 1:

'209 patent claim 1	'209 patent claim 6
1[pre] A fish tape system comprising:	6[pre] A fish tape system comprising:
1[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;	6[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;
1[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, the outermost wall having an annular opening extending around a circumference of the outer wall, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and	6[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, an annular opening extending around a circumference of one of the inner and outer walls, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and
1[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference of the outer wall to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;	6[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;
1[d] wherein at least one of the sidewalls of the case is transparent to allow the luminescent material to be energized by light passing through the at least one of the sidewalls.	6[d] wherein at least a portion of the case is transparent to allow the luminescent material to be energized by light passing through the portion.

The evidence supporting summary determination that the Glow Fish Tape Domestic Industry Products practice limitations 1[pre] and 1[a] of the '209 patent establishes that the Glow Fish Tape Domestic Industry Products practice limitations 6[pre] and 6[a] of the same patent.

Moreover, an examination of the physical sample of the representative Klein Glow in the Dark Fish Tape, 20-Foot products shows that the Glow Fish Tape Domestic Industry Products practice limitations 6[b], 6[c], and 6[d]. JPX-0001. In addition, Klein's technical expert Dr. Giachetti testified regarding the differences between claims 1 and 6 and explained how, in his opinion, the Glow Fish Tape Domestic Industry Products practice claim 6. Tr. (Giachetti) at 353:3-355:6.

Milwaukee does not contest that the Domestic Industry Glow Fish Tape Products practice claim 6 of the '209 patent. *See* RRB at 49-63.

For these reasons, I find that the technical prong of the domestic industry requirement is satisfied for claim 6 of the '209 patent.

2. '573 Patent

I previously issued an initial determination finding on summary determination that the Glow Fish Tape Domestic Industry Products practice claims 1 and 5 of the '573 patent. Order No. 17. The Commission did not review my initial determination and thus determined that the technical prong of the domestic industry requirement has been satisfied for claims 1 and 5. EDIS Doc. ID 869475.

Klein also asserts that the Glow Fish Tape Domestic Industry Products practice claim 6 of the '573 patent. CIB at 118. As shown in the table below, the limitations of claim 6 are substantially similar to the limitations of claim 1:

'573 patent claim 1	'573 patent claim 6
1[pre] A fish tape system comprising:	6[pre] A fish tape system comprising:

'573 patent claim 1	'573 patent claim 6
1[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;	6[a] a fish tape having a length extending from a first end to a second end, the length of the fish tape comprising a luminescent material that emits light after being energized by exposure to a light source;
1[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, the outermost wall having an annular opening extending around a circumference of the outer wall, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and	6[b] a donut shaped case having a pair of sidewalls extending between a radially innermost wall and a radially outermost wall, an annular opening extending around a circumference of one of the inner and outer walls, the sidewalls being spaced from each other to define a fish tape storage compartment that stores the length of fish tape for deployment via the annular opening in the case; and
1[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference of the outer wall to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;	6[c] a handle engaged with the fish tape and mounted to slide within the annular opening of the case around the entire circumference to deploy the fish tape from the storage compartment and to reload the fish tape into the compartment;
1[d] wherein at least one of the sidewalls of the case is configured to allow the luminescent material to be energized by light passing through the at least one of the sidewalls.	6[d] wherein at least a portion of the case is configured to allow the luminescent material to be energized by light passing through the portion.

The evidence supporting summary determination that the Glow Fish Tape Domestic Industry Products practice limitations 1[pre] and 1[a] of the '573 patent establishes that the Glow Fish Tape Domestic Industry Products practice limitations 6[pre] and 6[a] of the same patent.

Moreover, an examination of the physical sample of the representative Klein Glow in the Dark Fish Tape, 20-Foot products shows that the Glow Fish Tape Domestic Industry Products practice limitations 6[b], 6[c], and 6[d]. JPX-0001. In addition, Klein's technical expert Dr. Giachetti testified regarding the differences between claims 1 and 6 and explained how, in his opinion, the Glow Fish Tape Domestic Industry Products practice claim 6. Tr. (Giachetti) at 353:3-355:6.

Milwaukee does not contest that the Domestic Industry Glow Fish Tape Products practice claim 6 of the '573 patent. *See* RRB at 49-63.

For these reasons, I find that the technical prong of the domestic industry requirement is satisfied for claim 6 of the '573 patent.

C. Validity

1. Obviousness Legal Standard

I apply the same standard for obviousness here as articulated in section VIII.C.1 above.

2. Asserted Prior Art

Milwaukee argues that all asserted claims of the Glow Fish Tape Patents are invalid as obvious in view of the following four pieces of prior art:

- European Patent Application Publication EP 1391412 to Hartranft (RX-0347) ("Hartranft");
- U.S. Patent No. 6,293,519 to Farretta (RX-0349) ("Farretta");
- U.S. Patent No. 5,505,432 to Noonan (RX-0341) ("Noonan"); and
- Milwaukee's 25' Steel Fish Tape Product No. 48-22-4181 (RPX-0016) ("MFT").

RIB at 93-138.

3. '209 and '573 Patent Claims 1 and 6 in View of Hartranft and Farretta

Milwaukee argues that claims 1 and 6 of the '209 patent and claims 1 and 6 of the '573 patent are invalid as obvious in view of prior art references Hartranft and Farretta. RIB at 93-121, 132-34.

For the reasons discussed below, Milwaukee has not shown by clear and convincing evidence that a person of ordinary skill in the art at the time of the invention would have been motivated to modify Hartranft in view of Farretta to arrive at the inventions disclosed in the asserted claims of the '209 and '573 patents. A discussion of a subset of claim limitations is dispositive.

a) Hartranft

European Patent Application Publication EP 1391412 to Hartranft ("Hartranft") published on February 25, 2004, and qualifies as 35 U.S.C. § 102(a)(1) prior art under the America Invents Act ("AIA"). RX-0347.0001 (Hartranft). Hartranft teaches a fish tape system with a fish tape 12 stored within a housing 10 that is "a translucent or clear housing." RX-0347 at [0001], [0009], Fig. 2. Hartranft further teaches that housing 10 "is made out of any lightweight, translucent material," that the "term 'translucent' as used herein is intended to include any material that allows sufficient light to pass through such that the fish tape is observable as it rests in the housing," and that the "term includes materials that pass so much light that they might be considered transparent." RX-0347 at [0009].

b) Farretta

U.S. Patent No. 6,293,519 to Farretta ("Farretta") issued on September 25, 2001, and qualifies as 35 U.S.C. § 102(a)(1) prior art under the America Invents Act. RX-0349.0001 (Farretta). Farretta teaches a luminous snake 10 comprising a flexible core strip 2 constructed of a flattened strip of metallic material that has a phosphorescent outer layer 4. RX-0349 at 3:28-30, 3:34-42. The phosphorescent coating 4 is "typically applied to the core strip in sufficient thickness to form an electrically non-conductive barrier on the core strip." RX-0349 at 3:54-56. Farretta also states that a known problem with prior art fish tape systems is difficulty of use due to "the long, narrow and confined passageways housing electrical conductors [being] dimly illuminated or completely dark" such that "it is often difficult or impossible to determine exactly where and upon what the snake is entangled." RX-0349 at 1:34-63. According to Farretta, the phosphorescent-coated fish tape it describes provides a solution to this problem by providing "visible illumination

in the absence of ambient light" to make it "easy to locate and identify in the dimly lit confines of an electrical conduit." RX-0349 at 1:66-2:4, 2:26-31.

c) 1[a] and 6[a]: "fish tape comprising a luminescent material"

Limitations 1[a] and 6[a] of both the '209 and '573 patents recite "fish tape comprising a luminescent material." Hartranft does not disclose a fish tape comprising a luminescent material. *See* RX-0347. Milwaukee argues that a person of skill in the art would have been motivated to combine Farretta's phosphorescent snake coating with the fish tape in Hartranft to improve the visibility of Hartranft's fish tape when used in dark conduits. RIB at 99-100. Milwaukee identifies two reasons why a person of skill in the art would have been motivated to make this combination, but neither are persuasive.

Milwaukee contends it was known that "fish tape would snag within a conduit and be difficult to locate due to poor visibility," and that "[g]iven this, a [person of skill in the art] would have been motivated to use Farretta's phosphorescent coating on the fish tape in Hartranft" to improve visibility. RIB at 98-99. But nothing in Hartranft suggests that snagging or low visibility is a problem needing a solution. *See* RX-0347. Milwaukee relies on Farretta's teaching that "the long, narrow and confined passageways housing electrical conductors are dimly illuminated or completely dark" and that it is "often difficult or impossible to determine exactly where and upon what the snake is entangled" to suggest the motivation to combine, but Farretta solved this problem by teaching a phosphorescent snake. RX-0349 at 1:34-58, 2:26-31; *see also* RIB at 99. There is no suggestion in the art of record that would lead a person of ordinary skill to combine the snake device of Farretta (or its phosphorescent coating) into the case of Hartranft in a configuration that would permit a luminescent tape to charge within the case. *See Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1369 ("Because each device independently operates effectively, a

[person of skill] . . . would have no reason to combine the features of both devices into a single device.") (Fed. Cir. 2012).

Milwaukee also argues that metal fish tapes posed an electrical shock risk, and that a person of skill in the art would be motivated to add Farretta's phosphorescent coating to such tapes to "reduce the risk of electrical shock." RIB at 99. This argument is contradicted by evidence showing that both Klein and Milwaukee currently sell metal fish tapes without any nonconductive coating. CX-0970.0001-0002; RX-0870C (Pearson Dep.) at 20:22-23; Tr. (Rose) at 434:6-22; CX-1508C (Rose Dep.) at 324:1-16 (referring to "bread-and-butter steel fish tapes"). Far from being a problem in need of a solution, steel fish tapes are products with known trade-offs, and Klein and Milwaukee are unlikely to market steel fish tapes if they posed an unreasonable risk of electrical shock.

Milwaukee has thus failed to convincingly show that a person of ordinary skill in the art would have been motivated to combine the fish tape of Hartranft with the phosphorescent coating of Farretta to arrive at the inventions claimed in claims 1 and 6 of the '209 and '573 patents.

d) 1[d] and 6[d]: "transparent" / "light passing through"

Broadly speaking, limitations 1[d] and 6[d] of both the '209 and '573 patents require that light pass through a transparent, solid portion of a fish tape case to energize luminescent material within. Hartranft teaches a "translucent fish tape housing" that "allows a user to observe the type, amount and condition of the tape within the housing without having to remove the tape." RX-0347.0001. But at no point does Hartranft teach a housing that is sufficiently translucent so as to allow light passing through to charge a fish tape comprising a luminescent material. Neither does Farretta. Therefore, neither Hartranft nor Farretta clearly and convincingly disclose limitations 1[d] and 6[d]. Klein has not shown an ordinary artisan reading Hartranft and Farretta

would arrive at the inventions of claims 1 and 6 of the '209 and '573 patents, and the obviousness defense fails for this additional reason alone.

e) Conclusion

Milwaukee has not shown by clear and convincing evidence that claims 1 and 6 of the '209 patent and or claims 1 and 6 of the '573 patent are invalid as obvious in view of Hartranft and Farretta under 35 U.S.C. § 103.

4. '209 and '573 Patent Claim 5 in View of Hartranft, Farretta, and Noonan

Milwaukee argues that claim 5 of the '209 patent and claim 5 of the '573 patent are invalid as obvious in view of prior art references Hartranft, Farretta, and Noonan. RIB at 121-24, 135. As discussed below, Milwaukee has not shown by clear and convincing evidence that a person of ordinary skill in the art at the time of the invention would have been motivated to modify Hartranft in view of Farretta and Noonan to arrive at the inventions disclosed in the asserted claims of the '209 and '573 patents. A discussion of a subset of claim limitations is dispositive.

a) Noonan

U.S. Patent No. 5,505,432 to Noonan ("Noonan") issued on April 9, 1996, and qualifies as 35 U.S.C. § 102(a)(1) prior art to the Glow Fish Tape Patents. RX-0321 (Noonan). Noonan describes an anti-snagging device for a fish tape system. RX-0321 at Abstract. As illustrated in Figures 1 and 3 shown below, "[t]he anti-snagging device 24 comprises a roller 26, which is preferably in the form of a sphere. The roller 26 is journaled on an axially disposed pin 28 that extends between the arms of a yoke 30." RX-0321 at 3:43-46.

FIG. 1

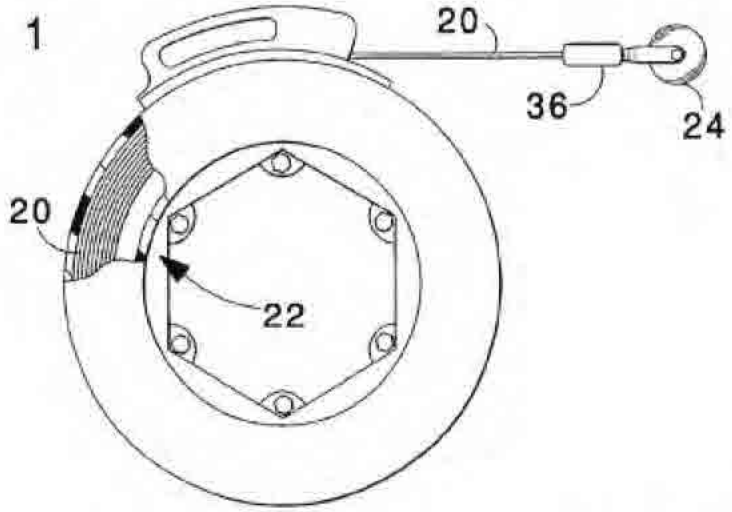
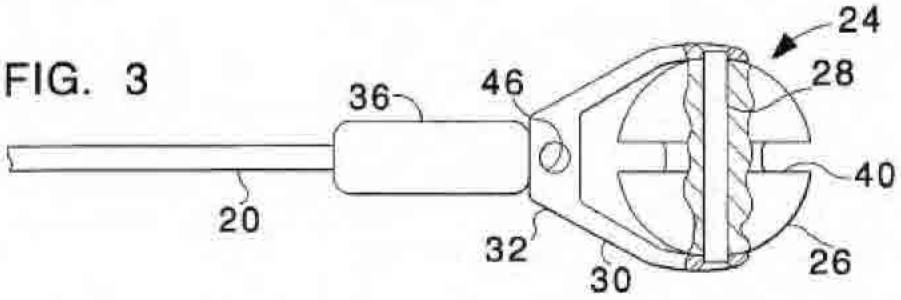


FIG. 3



b) Discussion and Conclusion

Claim 5 of the '209 patent is identical to claim 5 of the '573 patent. Both depend from claim 1 of their respective patents, and both read: "The fish tape system of claim 1 wherein the fish tape further comprises a threaded opening in at least one of the first and second ends." '209 patent at claim 5, '573 patent at claim 5. As discussed above, the Hartranft-Farretta combination does not render claim 1 of the '209 patent or claim 1 of the '573 patent obvious because a person of skill in the art would have been motivated to combine the references to achieve fish tape comprising a luminescent material or a housing that is sufficiently translucent so as to allow light passing through to charge a fish tape comprising a luminescent material. Noonan does not cure the deficiencies in the Hartranft-Faretta combination, and Milwaukee does not contend otherwise. *See* RRB at 121-24.

In addition, neither Hartranft nor Farretta teach a threaded opening, and Milwaukee relies on Noonan to fill this gap. *See* RIB at 121-24, 135. Milwaukee argues that a person of skill in the art would have been motivated to combine Noonan with Hartranft-Farretta because Noonan teaches that a "longstanding problem in the use of 'fish tapes' is that they jam when being fed through a conduit," a problem that Milwaukee asserts "can be caused by the leading end of the fish tape snagging on a portion of the conduit or on previously installed conductors within the conduit." RIB at 123 (citing Noonan at 1:44-62). Milwaukee argues that "Noonan provides a solution to this problem with its anti-snagging device that utilizes a threaded bore on the fish tape end to connect to the threaded stem of the anti-snagging device" and that a person of skill in the art "would have been motivated to modify the Hartranft-Farretta fish tape to include a threaded bore on one end to use Noonan's anti-snagging device to solve the known problem of fish tape wire being snagged within conduits during use." RIB at 123 (citing Noonan at 2:1-14; Tr. (Smith) at 841:23-842:15).

Milwaukee's argument is not persuasive. Hartranft does not disclose that the device therein has any problem with snagging, and Milwaukee identifies no such disclosure. *See* RX-0347. Hartranft teaches that a low-profile "eyelet 14 is fixed to the end of the fish tape to permit ready attachment of a wire or cable," and Milwaukee's proposed modification removes this leader and replaces it with another structure without identifying any reason why, without the hindsight provided by the claimed invention, a person of skill would do so. *See* RX-0347 ¶ [0009]; Tr. (Giachetti) at 1058:5-16.

Milwaukee has failed to convincingly show that a person of ordinary skill in the art would have been motivated to combine Noonan with Hartranft and Farretta to arrive at the inventions claimed in asserted claim 5 of the '209 patent and asserted claim 5 of the '573 patent. Milwaukee

has thus not shown by clear and convincing evidence that these claims are invalid as obvious in view of Noonan, Hartranft, and Farretta under 35 U.S.C. § 103

5. '573 Patent Claim 5 in view of MFT, Farretta, and Noonan

Milwaukee argues that claim 5 of the '573 patent is invalid as obvious in view of a prior art Milwaukee fish tape (MFT) and in view of references Farretta and Noonan. RIB at 137-38.

For the reasons discussed below, Milwaukee has not shown by clear and convincing evidence that a person of ordinary skill in the art at the time of the invention would have been motivated to modify the prior art Milwaukee fish tape in view of Farretta and Noonan to arrive at the inventions disclosed in claim 5 of the '573 patent. A discussion of a subset of claim limitations is dispositive.

a) MFT

"MFT" refers to Milwaukee's 25' Steel Fish Tape Product No. 48-22-4181. RIB at 124. Milwaukee argues that the Milwaukee fish tape qualifies as prior art under 35 U.S.C. § 102(a)(1) because it was on sale before the priority date of the Glow Fish Tape Patents. RRB at 124-25. An invention is "on sale" when it is the subject of a commercial offer for sale and ready for patenting. *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998). Ready for patenting may be satisfied "by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention." *Id.* at 67-68. Milwaukee asserts that its fish tape meets both requirements to qualify as prior art. RRB at 124-25.

The record evidence shows that the Milwaukee fish tape in question was the subject of a commercial offer for sale to the public by at least April 2019. JPX-0110C; RDX-0006C.0004; Tr. (Rose) at 433:22-5. And given that commercial sales of that fish tape were made to the public by

at least April 2019, it was necessarily reduced to practice by that time. Although the physical sample of the fish tape (RPX-0016) that Milwaukee's invalidity expert Dr. Smith analyzed in this investigation was not itself on sale before the priority date, Milwaukee's vice president of marketing Derek Rose testified that the design of the Milwaukee fish tape in question has not changed since it was first sold in April 2019. Tr. (Rose) at 434:17-435:19.

Klein does not contest that the Milwaukee fish tape in question qualifies as prior art to the Glow Fish Tape Patents under 35 U.S.C. § 102(a)(1). *See* CRB at 104-10. Based on the unrebutted record evidence, I find that Milwaukee has demonstrated clearly and convincingly that Milwaukee fish tape referred to as MFT is prior art to the Glow Fish Tape Patents.

b) Discussion and Conclusion

Claim 5 of the '573 patent depends from claim 1. Milwaukee has made an argument that the combination of MFT and Farretta renders obvious claim 1, but this argument is made contingent on a finding that the Accused Glow Fish Tape Products infringe the '573 patent. RIB at 135-36. As discussed in section IX.A above, it was found that the Accused Glow Fish Tape Products do not infringe either claim 1 or claim 6 of the '573 patent, and thus Milwaukee's obviousness argument as to claim 1 is moot. Nevertheless, Milwaukee argues that the combination of MFT and Farretta renders obvious claim 5 of the '573 patent. RIB at 137-38.

Milwaukee concedes that the MFT-Farretta combination does not teach the additional claim 5 limitation "a threaded opening in at least one of the first and second ends" and relies on Noonan to fill that gap. RIB at 137. Milwaukee's arguments fail for the same reasons explained above in section IX.C.4. Milwaukee has thus failed to show that a person of ordinary skill in the art would have been motivated to combine Noonan with MFT and Farretta to arrive at the inventions claimed in asserted claim 5 of the '573 patent.

6. Objective Indicia of Non-Obviousness

Klein argues that "the evidence of long-felt but unmet need, industry praise, commercial success, and copying is tied to the claimed inventions and strongly supports nonobviousness." CRB at 110 (citing Tr. (Giachetti) at 1044:11-1048:7, 1060:5-1062:23).

I have weighed the evidence offered by Klein, as well as any counter evidence offered by Milwaukee, before reaching any conclusion about the obviousness of the asserted claims. *See Apple Inc.*, 839 F.3d at 1048. I discuss that evidence below.

a) Nexus

I previously issued an initial determination finding on summary determination that the Glow Fish Tape Domestic Industry Products practice claims 1 and 5 of the '209 patent. Order No. 17. The Commission did not review my initial determination and thus determined that the technical prong of the domestic industry requirement has been satisfied for claims 1 and 5. EDIS Doc. ID 869475.

As the Glow Fish Tape Domestic Industry Products embody the invention claimed in the Glow Fish Tape Patents—they feature luminescent fish tape, a donut-shaped case, the claimed handle assembly, and a transparent case that permits the tape to charge while in the case—I find that Klein is entitled to a presumption of nexus between the claimed features of the invention and the objective evidence offered to show non-obviousness. *WBIP*, 829 F.3d at 1329; *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018).

Milwaukee argues that "Klein's secondary considerations evidence largely points to the known prior art luminescent feature that cannot provide the requisite nexus between the evidence and the claimed invention because it is not novel." RRRB at 14. But Milwaukee did not provide any authority to support its argument and I therefore find that Milwaukee has failed to rebut the

presumption that a nexus exists between the claimed features of the invention and the objective evidence of non-obviousness. *See id.*

b) Long-Felt but Unmet Need / Failure of Others

Klein's technical expert opined that there was a long-felt but unmet need for a luminescent fish tape that could charge while in its case. Tr. (Giachetti) at 1044:20-25. According to Klein's witness Sean O'Flaherty, before Klein introduced its Glow Fish Tape Domestic Industry Products, fish tapes had not seen "much innovation in many years." Tr. (O'Flaherty) at 84:15-22. Named inventor Dan Pearson conducted voice-of-the-customer ("VOC") research to understand user frustrations with traditional fish tapes. RX-0870C (Pearson Dep.) at 35:16-36:18. A common theme explored at these sessions was that "steel [fish tape] was hard to see." RX-0870C (Pearson Dep.) at 36:19-37:14; CX-0036C.0006 (Klein pursued "full glow" based on VOC learnings); Tr. (Giachetti) at 1045:1-8; CDX-0126C.0004.

Mr. Pearson worked on this problem, resulting in the "Market's first glow in the dark fish tape" featuring "[f]ull length glow in the dark material" and a "[c]lear case" that "allows glow material to charge from external light source." CX-0021C.0002; Tr. (Giachetti) at 1045:9-16; Tr. (O'Flaherty) at 84:23-85:2. The combination of these features was critical to addressing user need. As Dr. O'Flaherty explained, "[t]he luminescent effect . . . is a relatively short-lived effect," and Klein recognized that "the moment an operator pulled that tape from the housing to utilize the product, the tape had to be . . . ready to glow. That meant that the ability to charge the tape while in its resting condition or while in its storage condition, that was a critical requirement in order to realize the full utility that the glow might bring." Tr. (O'Flaherty) at 83:17-84:14. Not enabling the tape to charge while in the case "would significantly diminish" the product's utility. *Id.*

Before launching the new product, Klein conducted field testing to determine whether its invention addressed the identified user frustrations. CPX-0142C (Field Results Tab). User feedback regarding "the best thing about this product" highlighted the glow-in-the-dark feature and the case permitting the tape to charge. CPX-0142C (Field Results Tab, Q18). After launch, users recognized the utility of the product and their need for it: "Wish I had this earlier! I wish I had this product 15 years ago, certainly would have saved me a lot of headaches, and a lot of time!" CX-0711.0003; CPX-0142C (Field Test Results tab) ("AMAZING AWESOME INVENTION"; "Unique! Never seen anything like it."; "It makes life much easier in dark areas. You know exactly where the wire is going . . . . Honestly, I wish I came up with this idea.").

The record evidence thus shows that there was a long-felt but unmet need in the market for the type of product that Klein introduced with its Domestic Industry Glow Fish Tape Products, and that others had previously failed to meet that market need. This evidence is a strong indication that the inventions protected by the asserted claims would not have been obvious to a person of ordinary skill in the art at the time of the invention.

c) Industry Praise

The evidence shows that the Glow Fish Tape Domestic Industry Products received praise for the patented features. For example, Ohio Power Tools described the products as a "Glow in the Dark Dream!" and emphasized "[t]he unique clear case that the tape is kept in allows ambient light to suffuse the tape throughout the day, charging up its glowing capability that unleashes its full force under cover of darkness-or at least low lighting situations." CX-0623.0001, 3-4; Tr. (Giachetti) at 1047:3-9; Tr. (O'Flaherty) at 88:7-21. Pro Tool Reviews recognized the Glow Fish Tape Domestic Industry Products as "the latest in 'why hasn't this been done before?'" and "recognized that the ability for the glow-in-the-dark material to absorb light and charge when not

in use was critical to delivering the benefit that the product promised to bring." CX-0625.0001, 2; Tr. (O'Flaherty) at 87:13-88:6.

The Glow Fish Tape Domestic Industry Products also received positive user reviews. Tr. (Giachetti) at 1047:10-16; CX-0710.0005 (highlighting "Clear case so you can 'charge' the glow in the dark quickly"); CX-0711.0003-4 ("I wish I had this product 15 years ago"; "easy to find in a dark area"; "glow in the dark is fantastic"; "[i]t's easier to maneuver vs the glow rods").

These examples of industry praise refer to benefits associated with the patented features of the Domestic Industry Glow Fish Tape Products, including the clear case that allows the luminescent tape to charge while in the case. I therefore find industry praise of the Domestic Industry Safety Glow Fish Tape Products (which embody the patent claims) is a strong indication that the inventions protected by the asserted claims would not have been obvious to a person of ordinary skill in the art at the time of the invention.

d) Commercial Success

Klein adduced evidence showing that the Domestic Industry Glow Fish Products have sold well since they were first commercialized, and that this success has continued through the date of the complaint.

According to Klein's expert Ms. Leos, "Klein Tools introduced the first glow fish tape and effectively created the market for glow fish tape with its introduction . . . in December of 2020." Tr. (Leos) at 1101:14-1101:17. "In the first full year of sales in 2021, Klein Tools had revenues of over [redacted]." Tr. (Leos) at 1101:17-1101:19. By 2023, Klein's sales had grown to over [redacted] JPX-0063C; CDX-0089C; RX-0872C (O'Flaherty Dep.) at (sales "50 percent above initial expectations"), 67:7-20, 224:7-225:11; RX-0870C (Pearson Dep.) at 36:19-37:4, 151:7-19; JPX-0056C.

Milwaukee introduced the Glow Fish Tape Accused Products in December 2023, and revenues totaled over [redacted] in 2024, Milwaukee's first full year of sales. Tr. (Leos) at 1101:19-20; CX-1342C.0339. Because "[t]here's only two players in the glow fish tape market," Ms. Leos analyzed the Klein and Milwaukee sales together to analyze the market. *See* Tr. (Leos) at 1101:25-1102:11. The evidence shows that the Glow Fish Tape market has grown since the introduction of Klein's product in 2020, with combined sales reaching [redacted] in 2024. Tr. (Leos) at 1101:21-24.

As discussed above with respect to industry praise, the evidence shows that the patented features of the Domestic Industry Glow Fish Products, such as the clear case that allows the luminescent tape to charge while in the case, have contributed to the commercial success of the Domestic Industry Glow Fish Tape Products. I find that the commercial success of the Domestic Industry Glow Fish Tape Products (which embody the patent claims) is a strong indication that the inventions protected by the asserted claims would not have been obvious to a person of ordinary skill in the art at the time of the invention.

e) Copying

Klein alleges that Milwaukee copied patented features from the Glow Fish Tape Domestic Industry Products. CIB at 119-23. Testimonial and documentary evidence adduced at the hearing form a timeline of relevant events, which is summarized below.

Milwaukee began development of the Glow Fish Tape Accused Products when Home Depot requested in 2023 that Milwaukee develop [redacted] CX-1342C.0074. Milwaukee kicked off its development with [redacted] Tr. (Rose) at 452:6-454:12 (discussing "Power Surge" project), 460:2-21, 453:2-454:12. In February 2023, [redacted]

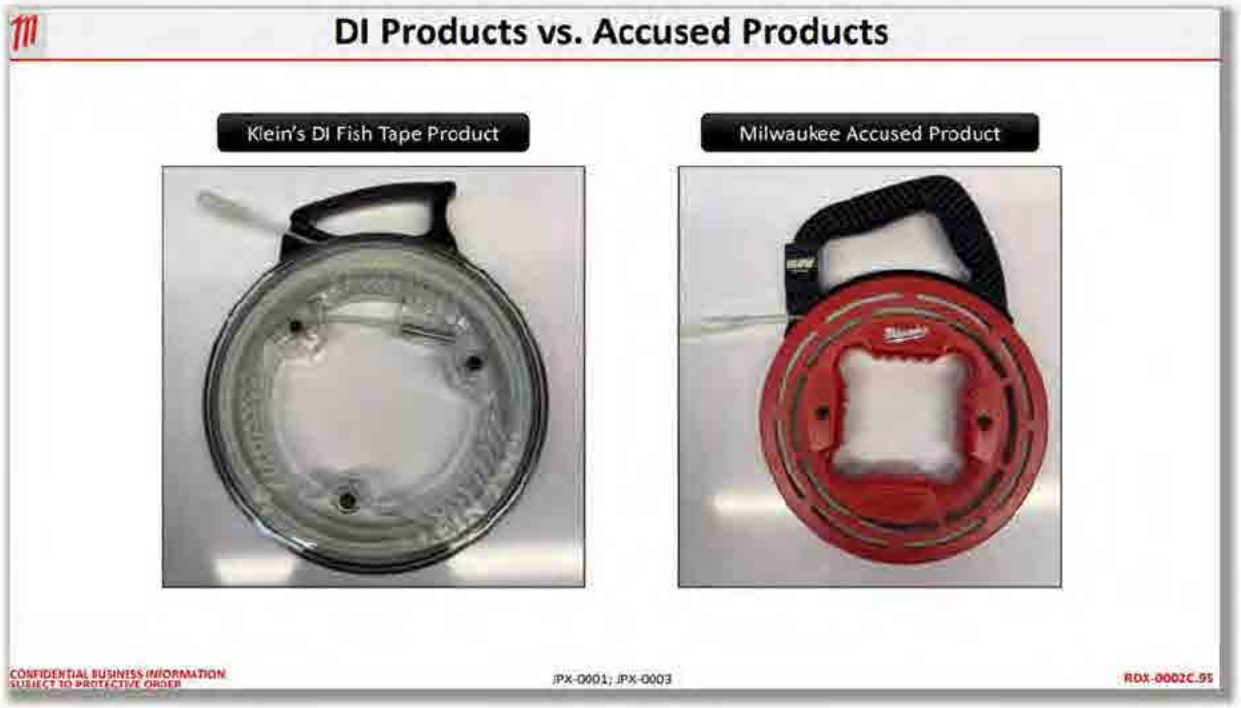
[redacted]. JX-0153C.0010; Tr. (Rose) at 461:6-462:3. Key features that were identified included [redacted] JX-0153C.0010; Tr. (Rose) at 462:1-21. That same analysis document [redacted]. JX-0153C.0012; Tr. (Rose) at 462:22-464:15.

As illustrated in the slide below, Milwaukee's initial prototype was a glowing fish tape housed in a clear plastic case:

[redacted]

JX-0153C.0013.

As illustrated in the demonstrative slide reproduced below, Milwaukee later switched its case design to a "secondary path" with opaque plastic and open slots:



RDX-0002C.0095.

As Milwaukee senior vice president of product marketing Derek Rose testified, Milwaukee initially considered using a clear case during development, but switched to an opaque case for three reasons: (i) Milwaukee learned of Klein's patent and referred the matter to its legal counsel; (ii) the technical team had concerns around the durability of the clear case housing; and (iii) there were manufacturing concerns with the clear case design. Tr. (Rose) at 439:12-440:6. Milwaukee abandoned the clear case design and pivoted to a design that looked "more similar to what [it] already had" for its other fish tape products, with an opaque case and open slots. Tr. (Rose) at 440:7-25.

Viewing the record as a whole, I find that the evidence does not support a finding that Milwaukee copied the Glow Fish Tape Domestic Industry Products when designing the Accused Glow Fish Tape Products. Indeed, the evidence shows that Milwaukee knew of Klein's patent and altered its product in view of that knowledge. These facts therefore are not an indication either way

as to whether the inventions protected by the asserted claims would have been obvious to a person of ordinary skill in the art at the time of the invention.

f) Conclusion

I find that the record evidence relating to objective indicia of non-obviousness, when viewed as a whole, supports a finding that Milwaukee has failed to show, clearly and convincingly, that any asserted patent claim is invalid as obvious under 35 U.S.C. § 103.

7. Written Description

Milwaukee argues that claims 1, 5, and 6 of the '573 patent are invalid for failure to satisfy the written description requirement of 35 U.S.C. § 112. RIB at 138-39. In addressing Milwaukee's arguments, I apply the same standard as articulated in section VIII.C.7 above.

Milwaukee begins its argument by establishing that "claims 1 and 6 of the '209 Patent are nearly identical to claims 1 and 6 of the '573 Patent, differing only in that the '573 Patent replaces the word 'transparent' with 'configured.'" *Id.* at 138. Milwaukee argues that, because there is a presumption that different claims have different claim scope, use of the word "configured" in the '573 patent claims "requires something different than 'at least one of the sidewalls of the case' (claim 1) or 'at least a portion of the case' (claim 6) being 'transparent' to allow light to pass through and energize the fish tape's luminescent material." *Id.* at 138-39 (citing *Mich & Mich TGR, Inc. v. Brazabra Corp.*, 657 F. App'x 971, 975 (Fed. Cir. 2016)). Milwaukee further argues that, "when describing how the luminescent fish tape is energized, the specification only describes the invention as contemplating the use of a transparent case" and that, "[a]s the '573 Patent is presumed to have a different claim scope than a 'transparent' sidewall or portion of the case, there is simply no written description support for these claims, and claims 1 and 6, as well as dependent claim 5 are invalid under 35 U.S.C. § 112(a)."

Milwaukee's argument is not persuasive. Claim differentiation "is 'not a hard and fast rule of construction' [and] 'cannot broaden claims beyond their correct scope.'" *Kraft Food*, 203 F.3d at 1368 (citations omitted). Moreover, "the doctrine of claim differentiation is not as strong across related patents as it would be if the different claim limitations appeared in the same patent." *Clare v. Chrysler Group LLC*, 819 F.3d 1323, 1330 (Fed. Cir. 1323). Here, Milwaukee relies on the doctrine of claim differentiation to argue that two patents in the same family cannot both claim an invention wherein light passes through solid material to charge a luminescent fish tape located in a case. But the very authority that Milwaukee relies on for its argument states that claim differentiation "only creates a presumption that each claim in a patent has a different scope; it is not a 'hard and fast' rule of construction." *Mich & Mich TGR*, 657 F. App'x at 975 (quoting *Bristol–Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1376 (Fed. Cir. 2001)). "The art of claiming sometimes involves drafting claims in a variety of ways to encompass the disclosed subject matter" and claims with different words "are not necessarily 'mutually exclusive.'" *Vascular Sols. LLC v. Medtronic, Inc.*, 117 F.4th 1361, 1370 (Fed. Cir. 2024).

Further, to the extent that Milwaukee's argument turns on a construction of the claims that is broad enough to be satisfied by light passing through windows or openings in the case rather than transparent, solid material, Milwaukee's argument is rejected as moot because I have not adopted such a construction.

Additionally, I find Milwaukee has not convincingly shown the specification for the '573 patent demonstrates insufficient written description of the claimed invention. The specification repeatedly describes "a portion of the case is transparent to allow luminescent material to be energized" and the case can be made of "transparent material." JX-0003 at Abstract, 1:57-59, 2:9-14, 2:28-35, 2:53-56. The specification provides "[n]on-limiting examples of suitable

materials" for the case that "include: polycarbonate, polypropylene, and Acrylonitrile butadiene styrene (ABS)." JX-0003, 3:55-63; Tr. (Giachetti), 1064:23-1065:9. An ordinary artisan would understand that polypropylene can be transparent, translucent, or opaque. *Id.*, 1065:10-21; CX-0939.0004 (2018 article describing polypropylene as "transparent" or "opaque").

I determine Milwaukee has failed to show by clear and convincing evidence that claims 1, 5, and 6 of the '573 patent are invalid for failure to satisfy the written description requirement of 35 U.S.C. § 112.

X. ECONOMIC PRONG OF THE DOMESTIC INDUSTRY REQUIREMENT

Section 337(a)(3) sets forth the following economic criteria for determining the existence of a domestic industry in such investigations:

> (3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned –
>
> (A) significant investment in plant and equipment;
>
> (B) significant employment of labor or capital; or
>
> (C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3). Because the statutory criteria are listed in the disjunctive, satisfaction of any one of them will be sufficient to meet the economic prong of the domestic industry requirement. *See InterDigital Commc'ns, LLC v. Int'l Trade Comm'n*, 707 F.3d 1295, 1303 n.4 (Fed. Cir. 2013); *Certain Variable Speed Wind Turbines and Components Thereof*, Inv. No. 337-TA-376, Comm'n Op. at 15, USITC Pub. No. 3003 (Nov. 1996).

I previously issued an initial determination finding on summary determination that Klein satisfies the domestic industry requirement under prong B for the Glow Fish Tape Patents. Order

No. 17. The Commission did not review my initial determination and thus determined that the economic prong of the domestic industry requirement has been satisfied for the Glow Fish Tape Patents. EDIS Doc. ID 869475.

For the Safety Helmet Patents, Klein argues that it satisfies the economic prong under prongs B and C of section 337 through its "significant and substantial domestic investments in the employment of labor to exploit the technologies protected by the Asserted Safety Helmet Patents." *See* CIB at 124; *see also id.* at 123-38. I address Klein's alleged domestic investments for the Safety Helmet Patents and their significance below.

A. Klein's Domestic Activities

Klein presented evidence to show that each of the Domestic Industry Hard Hats and Domestic Industry Safety Helmets is designed and developed by Klein engineers in Lincolnshire, Illinois. Tr. (Deshpande) at 120:7-10; Tr. (O'Flaherty) at 73:2-5. Shantanu Deshpande, a named inventor of the Safety Helmet Patents, testified that engineering work and product development with respect to the Domestic Industry Headwear Products is ongoing. *See* Tr. (Deshpande) at 121:2-10.

Klein also operates a Klein Tools Boulevard ("KTB") manufacturing plant in Mansfield, Texas, where engineers perform manufacturing engineering activities such as work to expand the manufacturing line for Domestic Industry Headwear Products, trial new plastics, and qualify new tooling. Tr. (Deshpande) at 120:7-13; Tr. (Hankus) at 138:5-13, 139:11-139:14, 142:12-21, 145:17-146:9; RX-0871C (Hankus Dep.) at 153:1-25; Tr. (Leos) at 158:5-19, 160:10-23, 169:23-25; *see* CDX-0012C.0014.

Photographs of Klein's Lincolnshire facility and the KTB manufacturing facility are reproduced below:



JX-0039.0002 (Lincolnshire-left; Mansfield-right).

Klein began developing domestic manufacturing for its Safety Helmet System in fall 2021 and produced its first domestically manufactured Domestic Industry Hard Hat on December 27, 2022. Tr. (Hankus) at 143:21-144:21; *see* CDX-0004C.0004; JPX-0045C; JPX-0107C. John Hankus, Klein's director of manufacturing engineering, testified regarding the manufacturing process at the KTB facility shown in the photographs below:

[redacted]

Tr. (Hankus), 147:2-22; JX-0058C; JX-0066C; JX-0069C. Since 2023, the number of hard hats manufactured by Klein in Texas has increased by double-digit percentages every year. Tr. (Leos) at 169:1-25; RX-0871C (Hankus Dep.) at 45:24-46:9.

B. Klein's Domestic Investments

Klein asserts two types of labor investments relevant to the economic prong analysis: labor relating to engineering, research, and development ("ER&D") and labor relating to domestic

manufacturing. CIB at 126-30. Milwaukee does not contest Klein's calculation of its domestic labor expenses; Milwaukee's arguments regarding the economic prong analysis focus only on whether Klein's investments are significant or substantial. RRB at 64-70; *see* Tr. (Akers) at 951:8.10.

1. Klein's Domestic Manufacturing Labor Expenses

The record evidence demonstrates that Klein has domestic manufacturing labor investments related to the Domestic Industry Headwear Products, including for "Texas-Made Hard Hats" that are completely manufactured at the KTB plant and "Customized Hard Hats" that Klein sources from overseas and customizes in the KTB plant. Tr. (Hankus) at 143:11-20; Tr. (Leos) at 167:20-168:5. From 2023 to 2024, Klein fully manufactured over [redacted] Texas-Made Hard Hats and customized over [redacted] additional Customized Hard Hats. Tr. (Hankus) at 149:12-150:18. Klein incurred over [redacted] in domestic manufacturing labor costs to manufacture these products. Tr. (Leos) at 168:20-25.

Ms. Leos calculated these costs using information from Klein's sales database and manufacturing enterprise resource planning ("ERP") system, where Klein tracks labor hours and costs associated with manufacturing its Domestic Industry Headwear Products. Tr. (Leos) at 167:10-168:19; Tr. (Hankus) at 148:15-149:11, 147:2-147:22; JPX-0073C; JPX-0072C; CPX-0176C; CDX-0004C.0006-07. Ms. Leos identified the volume of Texas-Made and Customized Hard Hats, the labor units per work center that performs labor on the Domestic Industry Headwear Systems, the labor and overhead rates per work center, and the portion of the overhead rate associated with labor. Tr. (Leos) at 167:10-168:19; *see* CDX-0073C; JPX-0048C; JPX-0063C; JPX-0077C; JPX-0075C; JPX-0076C; CPX-0176C. Using this information, she calculated that Klein's domestic labor expenditures associated with the manufacturing of the

Domestic Industry Headwear Products from 2023 to 2024 amounted to [redacted] "made up of [redacted] of direct labor and [redacted] in overhead labor." Tr. (Leos) at 168:20-25.

2. Klein's Domestic ER&D Labor Expenses

As shown by the record evidence, the Domestic Industry Headwear Products are designed and developed almost exclusively in the United States by a team that has numbered up to [redacted] people and included [redacted] different contributors between 2017 and 2024. Tr. (Leos) at 160:25-161:10; Tr. (Deshpande) at 118:9-120:6; Tr. (Hankus) at 141:5-20, 144:22-24; CPX-0177C (tabs "SHS Product Development" and "SHS Manufacturing Development" (listing team)). From 2017 to 2024, Klein invested approximately [redacted] in ER&D labor based on the time this team spent designing and developing the Domestic Industry Headwear Products. Tr. (Leos) at 159:20-160:3; CDX-0012C.0009; CDX-0066C-69C (Leos calculations); CPX-0177C (salaries); Tr. (Deshpande) at 118:10-121:2; Tr. (Hankus) at 144:25-145:16; JPX-0045C; CX-1285C; CX-1501C. Milwaukee does not dispute that over [redacted]—92.1% of the total ER&D labor investment—was incurred in the United States, with just one quality engineer located outside the United States. Tr. (Leos) at 161:22-162:16; Tr. (Akers) at 949:21-950:3; Tr. (Deshpande) at 118:9-120:6. Klein's yearly ER&D labor investments are summarized in the table below:



CDX-0012C.0009.

To calculate these expenditures, Klein's economic expert Ms. Leos: (1) received an identification of employees engaged in ER&D for the Domestic Industry Headwear Products from Messrs. Deshpande and Hankus; (2) calculated the total labor cost for the identified employees on a year-by-year basis—over [redacted] from 2017-2024; and (3) relying on unchallenged time estimates from Messrs. Deshpande and Hankus, calculated the ER&D labor allocated to the Domestic Industry Headwear Products on a year-by-year basis. Tr. (Leos) at 160:25-161:21; Tr. (Hankus) at 137:15-138:1; Tr. (Deshpande) at 112:4-21; CPX-0177C; CDX-0066C (Product Development); CDX-0067C (Manufacturing Development).

The time allocation was estimated because Klein does not track salaried engineering labor on a product or project basis. Tr. (Hankus) at 144:25-145:16; Tr. (Deshpande) at 119:8-120:3. Estimated time allocations are routinely accepted by the Commission, and the time-based

allocations provided by Messrs. Deshpande and Hankus provide a reasonable estimate of Klein's domestic labor investments. *See* Order No. 17 at 12-13.

The record evidence also shows that Klein's domestic ER&D expenditures have grown since 2017. Tr. (Leos) at 163:10-164:9. These expenses represent ongoing new product development and sustaining ER&D for already-released products. *Id.* Moreover, domestic engineering development in the Domestic Industry Headwear Products continues today. Tr. (Hankus) at 145:17-146:9; Tr. (Deshpande) at 121:2-10; Tr. (Leos) at 163:9-164:9.

3. Nexus Between Engineering Labor and the Asserted Safety Helmet Patents

Klein argues that its ER&D labor investments discussed above are also cognizable under prong C because "[t]here is a strong nexus between Klein's ER&D investments relating to the Safety Helmet System and the Asserted Safety Helmet Patents." *See* CIB at 128-29. "Generally, the nexus between the asserted patent and the claimed investments has not been contested in research and development cases. To the extent that the patented technology arises from endeavors in the United States, such a nexus would ordinarily exist." *Certain Integrated Circuit Chips and Prods. Containing the Same*, Inv. No. 337-TA-859, Comm'n Op., at 39 (Aug. 22, 2014) (citations omitted). A nexus between domestic investments and exploitation of the asserted patents through ER&D "may readily be inferred based on evidence that the claimed investment is in the domestic industry article, which itself is the physical embodiment of the asserted patent." *Id.* at 40.

Klein argues that its ER&D investments led to the development of novel features of the Safety Helmet System Products, e.g., integrally molded receptacles on the front and back and secure and releasable mounting of accessory devices. CIB at 128-29 (citing RX-0873C (Deshpande) at 30:7-10). Klein further argues that its ER&D investments also led to and supported the design and development of 238 Domestic Industry Headwear Products, each of which exploit

the technology of the Asserted Safety Helmet Patents. *Id.* at 129 (citing Tr. (Leos) at 166:15-167:9). Klein concludes its argument: "Given the strong nexus between Klein's ER&D investments in its D[omestic] I[ndustry] Safety Helmet Products and the Asserted Safety Helmet Patents, this case represents the 'classic case' for application of subparagraph (C) because substantially all of Klein's ER&D (92.1%) is conducted in the U.S." *Id.* (citing *Certain Marine Sonar Imaging Devices Including DownScan and Sidescan Devices, Prods. Containing the Same, and Components Thereof*, Inv. No. 337-TA-921, Comm'n Op., at 65-66 (Jan. 6, 2016)).

Milwaukee does not dispute Klein has demonstrated a nexus between its domestic investments in ER&D labor with the asserted Safety Helmet Patents. *See, e.g.*, RRB at 64-70. Accordingly, I find that Klein has demonstrated its investments in ER&D labor are cognizable under prong C.

C. Significance of Klein's Domestic Investments

Klein has made cognizable domestic investments in labor related to the Domestic Industry Headwear Products. I now turn to "a holistic review of all relevant considerations" to determine whether those investments are significant. *Wuhan Healthgen Biotechnology Corp. v. Int'l Trade Comm'n*, 127 F.4th at 1334, 1339 (Fed. Cir. 2025). The record supports a finding that each of Klein's investments in ER&D and manufacturing labor are independently significant in the context of Klein's business and the personal protective equipment ("PPE") industry. Without these investments, the Domestic Industry Headwear Products would not exist. Tr. (Deshpande) at 114:7-115:19; *see also* RX-0872C (O'Flaherty) at 30:21-31:1, 222:5-224:2; Tr. (Leos) at 166:15-167:1, 172:8-15.

Klein adduced evidence to show its domestic ER&D labor investments created a category of safety helmets in the market with front and rear accessory compatibility that consumers have

found valuable within the PPE industry. For example, the Domestic Industry Headwear Products have received numerous awards: upon release of Klein's hard hats in 2019, and in three-out-of-five years since, the Domestic Industry Headwear Products have been Pro Tool Innovation's "Winner" in the Hard Hats category. Tr. (Leos) at 172:8-22; CDX-0012C.0017; JX-0116; JX-0117; JX-0118; JX-0119; Tr. (O'Flaherty) at 79:8-80:22. Product reviews also show that consumers have found the patented features of the Domestic Industry Headwear Products valuable. *E.g.*, CX-0959 ("the envy of all the guys on the job sites when they see [the light] built into the helmet"); JX-0033 ("I love how [the light] clips in place"). And Klein's sales of the Domestic Industry Headwear Products have increased from approximately [redacted] in 2019 and, "[b]y 2024, that number had increased to over [redacted]," demonstrating that consumers found these new products valuable. Tr. (Leos) at 171:21-24; CDX-0012C.0016; JPX-0048C; JPX-0063C.

Klein's domestic ER&D labor investments represent 92.1% of all ER&D labor for the Domestic Industry Safety Helmets, a significant amount. Tr. (Leos) at 161:22-162:16, 165:19-166:14; CDX-0012C.0009; CPX-0177C; Tr. (Deshpande) at 118:10-121:10; Tr. (Hankus) at 139:1-21; CDX-0066C-69C. Klein's domestic ER&D labor investments also comprise a significant portion of Klein's operating expenditures with respect to the Domestic Industry Headwear Products in that "Klein Tools' [domestic] ER&D labor makes up [redacted] of Klein Tools' total traceable indirect expenditures for the Safety Helmet System Products in 2023 and 2024." Tr. (Leos) at 164:18-165:18; CDX-0012C.0011; JPX-0063C; JPX-0078C. "The traceable indirect expenditures are effectively Klein Tools' operating expenditures," which "is a broad denominator that shows us a full picture of Klein Tools' non-direct manufacturing expenditures in the Domestic Industry products." Tr. (Leos) at 164:18-165:18.

Klein's domestic investments in ER&D and manufacturing labor are also significant because they contribute to the continued success of the Domestic Industry Headwear Products. Tr. (Hankus) at 142:12- 144:21, 145:17-146:9; RX-0871C (Hankus Dep.) at 13:6-17; Tr. (Leos) at 160:10-23. Klein began manufacturing safety helmets domestically because "the sales and growth was much higher than anticipated . . . [and] the supplier could not keep up with that demand," thereby leading to increased lead times. Tr. (Hankus) at 142:12-143:10. Engineering work was needed to develop domestic manufacturing, including designing the molds, developing a "recipe" for molding, qualifying equipment, identifying quality inspection methods, and analyzing whether the process was feasible and cost effective. Tr. (Hankus) at 143:21-144:21; RX-0871C (Hankus Dep.) at 13:6-17. Klein's domestic production line has been important to the success of its "private label" hard hat business, which has grown from fewer than [redacted] in 2023 to [redacted] in mid-2025. *See* Tr. (Hankus) at 142:18-20.

Moreover, the value added by Klein's over [redacted] in domestic manufacturing labor is independently significant in the context of the patented articles produced at the KTB plant. For example, Klein's domestic labor expenditures comprise [redacted] of the cost of goods sold on average over the 178 different Domestic Industry Headwear Products manufactured or customized at the KTB plant. Tr. (Leos) at 170:1-20; CDX-0012C.0015; CDX-0083C; CDX-0084C.

The sales growth of the Domestic Industry Headwear Products compared to Klein's overall business also supports the significance of Klein's domestic labor investments. As Klein's expert Ms. Leos testified, from 2022 to 2024, "the growth rate of [the Domestic Industry Headwear Products] was approximately [redacted] versus the growth rate of all of Klein Tools' products lines [that] was [redacted] over that same time period." Tr. (Leos) at 171:13-172:7. Klein's vice president of product development Sean O'Flaherty testified that the Domestic Industry Headwear

Products "have performed very strongly" and "[n]ot only that, they have served as a platform onto which we have built other safety businesses to the point that personal protection and safety equipment is now a major category for Klein Tools, although we were a new entrant as recently as 2019." Tr. (O'Flaherty) at 80:23-81:7.

The increasing trend of Klein's domestic manufacturing output and labor expenditures over recent years also shows the significance of these investments. "In 2026, it is expected to have 2X, double the amount of hard hats made and produced and shipped out of the KTB facility" based on the transition of manufacturing of "retail full brim hard hats" to Texas. Tr. (Hankus) at 150:14-18, 141:21-142:4. Ms. Leos's testimony confirms that the increasing demand and domestic output "shows us that manufacturing labor will continue to increase[.]" Tr. (Leos) at 169:2-25. CDX-0012C.0014; JPX-0063C; JPX-0075C; JPX-0076C. Klein's investments in ER&D labor have increased as well, [redacted]. *See* Tr. (Leos) at 163:10-164:9; CDX-0012C.0009-10; CDX-0065C-67C; CPX-0177C.

Milwaukee does not challenge the amounts of Klein's domestic investments relating to the Domestic Industry Headwear Products, only that the investments are significant. *See* RRB at 66-70. But, as I stated in Order No. 17 granting summary determination with respect to a glow fish tape domestic industry, there is "no requirement that the Commission apply the economic comparisons urged by Milwaukee." Order No. 17 at 11-15. The Commission declined to review Order No. 17. Comm'n Notice (Dec. 12, 2025).

D. Summary

For the above reasons, I find that Klein has demonstrated significant employment of labor in the United States for the Domestic Industry Headwear Products. And because no party disputes a nexus between the Safety Helmet Patents and Klein's ER&D investments, I further find that

Klein has demonstrated substantial investment in their exploitation, including engineering, research, and development.

XI. CONCLUSIONS OF LAW

- The Commission has statutory authority to conduct this investigation.
- The importation requirement of section 337 has been satisfied with respect to the Accused Headwear Products and Accused Glow Fish Tape Products.
- Klein owns the '327, '265, '209, and '573 patents by assignment.
- Klein did not prove direct or indirect infringement of asserted claims 8, 10, or 17 of the '327 patent.
- Klein proved direct, literal infringement of asserted claims 1-4 of the '265 patent in the making, using, selling, and offering for sale of the Accused Headwear Products.
- Klein is liable for indirect infringement of asserted claims 1-4 of the '265 patent.
- The Domestic Industry Headwear Products practice the '327 and '265 patents.
- Klein has shown significant investment in labor in the United States with respect to the Domestic Industry Headwear Products.
- Klein has shown substantial investment in the exploitation of the Safety Helmet Patents.
- The asserted claims of the '327, '265, '209 and '573 patents have not been shown to be invalid due to obviousness.
- The asserted claims of the '327, '265, '209 and '573 patents have not been shown to be invalid due for failure to satisfy the written description requirement of 35 U.S.C. § 112.

XII. RECOMMENDED DETERMINATION ON REMEDY AND BOND

The Commission's Rules provide that the administrative law judge shall issue a recommended determination concerning the appropriate remedy in the event the Commission finds a violation of section 337, and the amount of bond to be posted by respondents during Presidential review of the Commission action under section 337(j). *See* 19 C.F.R. § 210.42(a)(l)(ii).

A. Limited Exclusion Order

Section 337(d)(2) provides that in the event the Commission finds a violation of section 337, the Commission shall issue a limited exclusion order directed to the articles of named respondents to the investigation, unless special circumstances exist that justify the imposition of a general exclusion order. 19 U.S.C. § 1337(d)(2); *see Kyocera Wireless Corp. v. Int'l Trade Comm'n*, 545 F.3d 1340 (Fed. Cir. 2008). The Commission has broad discretion in selecting the form, scope, and extent of the remedy in a section 337 proceeding. *Viscofan, S.A. v. U.S. Int'l Trade Comm'n*, 787 F.2d 544, 548 (Fed. Cir. 1986).

Klein argues that a limited exclusion order is an appropriate remedy in this investigation. CIB at 138. Klein does not argue that the Commission should impose a general exclusion order, *id*., and I find there is no support for such a remedy in the evidentiary record. Although Milwaukee does not contest that a limited exclusion order is an appropriate remedy in the event the Commission finds a violation of section 337, Milwaukee argues that any limited exclusion order imposed by the Commission should include a provision whereby Milwaukee can certify that its imported products are not subject to exclusion. *See* RRB at 70. I address that argument below in section XII.B.2.

Accordingly, it is my recommendation that, in the event the Commission finds a violation of section 337 and public interest factors do not weigh against imposing a remedy, a limited

exclusion order should be directed to Milwaukee barring entry of any Accused Headwear Products or other articles that infringe any of claims 1 through 4 of the '265 patent.

B. Limitations on Remedial Orders

Although Milwaukee does not dispute that a limited exclusion order and cease and desist order would be appropriate remedies for any violation found in this investigation, it argues that certain limitations on a remedy are warranted here, and I address these arguments here. RRB at 70-75.

1. Carve-out for Warranty, Repair, and Service

Milwaukee argues that any limited exclusion order or other remedy issued in this investigation "should include a carve out for warranty, repair, and service." RRB at 70-71. But Milwaukee presented no evidence that it provides warranty, services, or repairs for any Accused Product. Instead, Milwaukee's senior vice president of product marketing Mr. Richman testified that, [redacted] Tr. (Richman) at 543:3-15. Milwaukee also failed to identify which spare parts are of particular importance or should be permitted entry despite the entry of a limited exclusion order. Based on this record, I find that no carve out for warranty, repair, or service should be included in any remedy entered in this investigation.

2. Carve-out for Domestically Manufactured Hard Hats and Safety Helmets

Milwaukee argues that its "domestically manufactured hard hats and helmets should not be subject to any remedy issued in this investigation because they do not meet the importation requirement of Section 337." RRB at 72 (citing 19 U.S.C. § 1337(a)(1)(B)). But as discussed in section III above, the importation requirement has been satisfied for all categories of Accused Product, which means, at least with respect to the '265 patent, infringing Milwaukee hard hats and

safety helmets have been imported into the United States, notwithstanding their origin. Having proved a violation of section 337, Klein is entitled to an importation remedy no matter where the products are manufactured. The Commission's "remedial authority extends to the prohibition of all acts reasonably related to the importation of infringing products . . . . [I]t is not a requirement of section 337 that the unfair trade practice to which the remedial order applies originate outside of the United States." *Certain Agric. Tractors Under 50 Power Take-Off Horsepower*, Inv. No. 337-TA-380, Comm'n Op. at 38-39 (Aug. 18, 1999); *see also Certain Sputtered Carbon Coated Computer Disks and Prods. Containing Same, Including Disk Drives*, Inv. No. 337-TA-350, USITC Pub. 2701, Comm'n Op. Denying Summary Determination on Jurisdiction at 8-9 (Nov. 1993) ("[W]e find that the Commission does have jurisdiction over the imported and domestically-manufactured articles."); *Certain Hardware Logic Emulation Sys. & Components Thereof*, Inv. No. 337-TA-383, USITC Pub. 3089, Comm'n Op. at 19-20 (Mar. 1998) ("[I]t is not a requirement of section 337 that the unfair trade practice to which the remedial order applies originate outside of the United States so long as such prohibited products or acts reasonably relate to the unfair trade practice sought to be remedied.").

Milwaukee makes a related argument for narrowing the scope of remedy directed to the Accused Hard Hats and Accused Safety Helmets: "Any exclusion order issued would not reach the Accused Hard Hats and Safety Helmets because they are not imported and any [cease and desist order] should not include the Accused Hard Hats and Safety Helmets for the same reason." RRB at 72. Indeed, the record evidence does show that Milwaukee manufactures hard hats and safety helmets accused in this investigation in the United States at its facility in Mukwonago, Wisconsin, and that the only importation of certain domestically manufactured products was for product returns. Tr. (Richman) at 538:13-19, 542:18-544:16; RDX-0005C.0002-4, .0007-08. Milwaukee

adduced evidence to show that these returns were limited to a discrete number of products and product SKUs and that, while these domestically made products were outside the United States, nothing was changed or altered on them. Tr. (Richman) at 542:18-544:16. Milwaukee concludes its argument: "To the extent any [limited exclusion order] or [cease and desist order] applies to Milwaukee's Accused Hard Hats and Safety Helmets, it should only apply to products that have actually been returned, not products that are manufactured in the U.S. and sold in the U.S. [A]pplying a [cease and desist order] to products that were manufactured in the United States and never exported out of the United States . . . would improperly exceed the scope of the Commission's jurisdiction and preclude legitimate commerce." RRB at 72-73.

To the extent Milwaukee's argument concerns the application of a limited exclusion order to products that are never imported, the argument is moot. A limited exclusion order is necessarily enforced against products presented for entry into the United States; it does not reach other goods. *See Certain High-Density Fiber Optic Equipment and Components Thereof*, Inv. No. 337-TA-1194, Comm'n Op. at 77 (Aug. 23, 2021) ("[I]t is unnecessary to tailor the orders to carve out domestically-manufactured products because the Commission's [general exclusion order] and [cease and desist orders] apply only to imported products.").

Accordingly, I do not recommend that any carve outs for domestically produced hard hats and safety helmets be included in a limited exclusion order.

3. Carve-out for Components and Materials of Hard Hats and Helmets

Milwaukee argues that "[t]he importation of materials and components used to manufacture the Accused Hard Hats and Safety Helmets is insufficient to justify the imposition of a remedy on these products." RRB at 73. Milwaukee identifies certain imported components, such as resin used to manufacture the Accused Headwear Products and red strap material used inside

the Accused Headwear Products, as examples of components that should not be subject to an exclusion order. *Id.* at 74. Milwaukee argues the resin is an "off the shelf product," "not specifically created for Milwaukee, that is purchased by Milwaukee from M. Holland Company LLC and imported from Canada and South Korea." *Id.* (citing Tr. (Richman) at 541:5-542:5; RDX-0005C.0006). Milwaukee further argues that "[t]he red strap material used inside the accused helmet and hard hat products is primarily sold as Christmas ribbon," and that "these materials and components are used on non-accused and non-infringing products, including products sold by third-parties." *Id.* (citing Tr. (Richman) at 541:5-542:5; RDX-0005C.0006). Milwaukee asserts that "the suppliers of these materials and components have not been named in this Investigation" and that "a limited exclusion order should not be extended to components manufactured by unrelated third-parties and which are used for products other than the Accused Products." *Id.*

Klein disagrees with Milwaukee's proposed carve out, arguing that Milwaukee "has not identified any ***Milwaukee*** non-infringing products or non-infringing uses for such components." CIB at 142 (citing Tr. (Richman) at 541:5-542:13 (speculating that components "***can***" be used with third-party products)). Klein also asserts that "Milwaukee also does not deny that at least certain Accused Hard Hat and Safety Helmet components, such as the sweatbands, liners, and chinstraps, are custom-made and specifically imported for the Accused Products at Milwaukee's direction." *Id.* (citing CX-1342C.0022-23; Tr. (Richman) at 542:6-13; RDX-0005C.0006). Klein further argues that Milwaukee's "non-infringing uses" argument "relies on the law of ***contributory*** infringement, which is not at issue in this investigation" and that "[t]he evidence shows that Milwaukee ***directly*** infringes and ***induces*** infringement with its imported components and the Accused Products it manufactures with them." *Id.*

The remedy issued by the Commission in *Certain High-Density Fiber Optic Equipment and Components Thereof*, Inv. No. 337-TA-1194, is instructive. In that investigation, the Commission specified the types of high-density fiber optic equipment and components thereof that would be subject to a general exclusion order:

> The high-density fiber optic equipment and components thereof that are subject to this Order (i.e., "covered articles") are as follows: (a) chassis (or "enclosures") with sliding trays that fit within the standardized racks used in data centers, and (b) removable modules (or "cassettes") that are inserted into the sliding trays of the chassis, wherein the chassis and modules are used to terminate large numbers of fiber-optic cables using standardized connectors (the modules have simplex/duplex components (e.g., LC adapters) on the front and multi-fiber components (e.g., MPO/MTP adapters) on the rear, and are configured to support at least 98 connections per standard rack unit (or "U space")). Also subject to this order are combinations of such chassis and modules, as well as subassemblies (such as tray subassemblies) that are components of such chassis and modules, and any other removable modules that provide a fiber optic connection density of at least one fiber optic connection per 7.0 millimeters (mm) of width of the module's front opening. Not subject to this Order are cable assemblies for use with the covered chassis and modules or noninfringing products such as adapter plates, splice panels, or patch panels.

High-Density Fiber Optic Equipment, General Exclusion Order at 2-3 (Aug. 3, 2021) (EDIS Doc. ID 748567). The Commission included within the scope of the exclusion order components such as chassis and modules that were found to infringe the asserted patents while excluding components such as cable assemblies, adapter plates, splice panels, or patch panels that were not specifically adjudicated as infringing. *Id.*; *High-Density Fiber Optic Equipment*, Comm'n Op. at 78, 80-81. Respondents in that investigation argued that the exclusion order "should not extend to products with substantial non-infringing uses," but the Commission rejected that argument: "To the extent the Respondents urge the Commission to exclude their accused products [from an exclusion order] because they have substantial non-infringing uses, such a request is contrary to Commission practice" and stated that the respondents "have been found to have induced

infringement even though their imported accused products were also found to have substantial noninfringing uses." *High-Density Fiber Optic Equipment*, Comm'n Op. at 78 (citing Final Initial Determination at 108-10). The Commission further noted that "[a]ny Respondent seeking to import any of the accused products for a non-infringing use can seek a determination as to the importation of those products for those purposes." *Id.*

Here, the Notice of Investigation defined the scope of the investigation as: "safety helmet systems—the latter of which include safety helmets and hard hats with an outer shell including a brim and front and rear receptacles, and accessory devices that are releasably mountable onto at least a portion of each of the front and rear receptacles—and components thereof." Notice of Investigation. And as discussed above in section VIII.A, the components of the safety helmet systems that were found to infringe the Safety Helmet Patents include the Accused Hard Hats, Accused Safety Helmets (including the Non-stipulated Accused Safety Helmets), and Accused Accessory Devices. Other components that are used in the manufacture of the Accused Hard Hats and Accused Safety Helmets such as ribbon and resin, were not specifically alleged by Klein to be infringing and have not been adjudicated as infringing. Following the Commission guidance in the *High-Density Fiber Optic Equipment* investigation, it is therefore my recommendation that a limited exclusion order in this investigation cover imported hard hats, safety helmets, and accessory devices but not cover other, non-adjudicated components such as ribbon or resin.

4. Carve-out for Headwear Accessories

With respect to accessories that are capable of being used with the Accused Hard Hats and Accused Safety Helmets, Milwaukee argues that these accessories have multiple non-infringing uses and thus should not be subject to a remedy in this investigation. RRB at 74-76. Milwaukee argues:

> For example, accused accessories, such as variations of the BOLT Eye Visor - Clear Dual Coat Lens (SKUs 48-73-1410, 48-73-1411, 48-73-1415, and 48-73-1416) are compatible with prescription glasses, which are not accused in this Investigation, not within the scope of the Notice of Investigation, and not related to the subject matter of the Asserted Helmet Patents. Tr. (Richman) at 639:25-540:9; RDX-0005C.0005. Further, accused accessories such as the BOLT Sunshade (48-73-1070), BOLT Sun Visor with Sunshade (48-73-1072), and BOLT Sun Visor (48- 73-1073) are compatible with most professional helmets and hard hats, regardless of the manufacturer. Tr. (Richman) at 540:10-18; RDX-0005C.0005. None of these third-party helmets and hard hats have been accused in this Investigation.
>
> The Accused Accessory Devices are not integral to the use or function of the Accused Hard Hats and Safety Helmets. Instead, the Accused Accessory Devices can be sold as standalone products and need not be used with the Accused Hard Hats and Safety Helmets, nor are the Accused Accessory Devices necessary for use of the Accused Accessory Hard Hats and Safety Helmets. Tr. (Richman) at 540:10-18; RDX-0005C.0005. Accordingly, no remedy should issue as to these accessories.
>
> As with the Accused Hard Hats and Safety Helmets discussed above, the accused headlamp mount (SKU 48-73-1090) is not imported and instead is manufactured at Milwaukee's Mukwonago, WI facility. Tr. (Richman) at 539:7-15; RDX-0005C.0005. Accordingly, for the same reasons as discussed above with respect to the domestic Hard Hats and Safety Helmets, no remedy should issue as to the headlamp mount.

RRB at 75-76.

Klein disagrees with Milwaukee's proposed carve out for accessory devices, arguing: "Milwaukee again urges an exception based on the law [of] contributory infringement, which is not at issue in this Investigation. The evidence shows that Milwaukee ***directly*** infringes and ***induces*** infringement with its imported accessories. . .. Therefore, no such carve-out should be included." CIB at 143.

As discussed in section VIII.A above, I found that making, using, selling, and offering for sale combinations of Accused Accessory Devices, Accused Hard Hats, and Accused Safety Helmets directly infringes claims 1-4 of the '265 patent and that Milwaukee is liable for both direct

and induced infringement of those claims. And as discussed immediately above with respect to the *High-Density Fiber Optic Equipment* investigation, the Commission stated that excluding an accused product from an exclusion order on ground that it has substantial non-infringing uses when inducement has been found is "contrary to Commission practice." *High-Density Fiber Optic Equipment*, Comm'n Op. at 78. It is therefore my recommendation that there should be no carve-out from a limited exclusion order for accessory devices.

C. Cease and Desist Order

Section 337 provides that in addition to, or in lieu of, the issuance of an exclusion order, the Commission may issue a cease and desist order ("CDO") as a remedy for a violation of section 337. 19 U.S.C. § 1337(f)(1). Under Commission precedent, "[c]ease and desist orders are generally issued when, with respect to the imported infringing products, respondents maintain commercially significant inventories in the United States or have significant domestic operations that could undercut the remedy provided by an exclusion order." *Certain Air Mattress Systems, Components Thereof, and Methods of Using the Same*, Inv. No. 337-TA-971, Comm'n Op. at 49 (May 17, 2017) (citations and footnote omitted).

Milwaukee stipulated it maintains [redacted] of imported Accused Glow Fish Tape Products and Accused Accessory Devices in its Mississippi storage facility, and Milwaukee agreed that it "waives and will not dispute that the quantity and value of the Milwaukee products identified in Exhibit C [to its stipulation] is commercially significant." JX-0017C ¶¶ 8-9, 12, Ex. C; CX-1342C.0308-17; JPX-0102C.

In view of the record evidence, I find that Milwaukee maintains a commercially significant inventory of Accused Glow Fish Tape Products and Accused Accessory Devices in the United States. It is therefore my recommendation that, in the event the Commission finds a violation of

section 337 and public interest factors do not weigh against imposing a remedy, a cease and desist order should be directed to Milwaukee regarding its domestic inventories of Accused Glow Fish Tape Products and Accused Accessory Devices.

Milwaukee has also argued that a cease and desist order should not be imposed on products that have been manufactured in the United States, namely the Accused Hard Hats and Accused Safety Helmets. RRB at 72. Milwaukee notes the purpose of a cease and desist order is to address domestic activities "that could undercut the remedy provided by an exclusion order." *See Certain Air Mattress Systems, Components Thereof, and Methods of Using the Same*, Inv. No. 337-TA-971, Comm'n Op. at 49 (May 17, 2017) (citations and footnote omitted). If Milwaukee were able to continue to sell its domestically manufactured but infringing Accused Hard Hats and Safety Helmets alongside its stockpile of imported, infringing Accused Accessory Devices, it would undercut the remedy provided by a limited exclusion order. Moreover, domestic sale of infringing but infringing Accused Hard Hats and Safety Helmets creates a demand for the infringing Accused Accessory Devices to put on those hard hats, incentivizing importation of those infringing Accused Accessory Devices.

For these reasons, I recommend that, in the event the Commission finds a violation of section 337 and public interest factors do not weigh against imposing a remedy, the Commission issue the usual cease and desist order against Milwaukee with none of the carve-outs suggested by Milwaukee.

D. Bond During Presidential Review

Pursuant to section 337(j)(3), the administrative law judge and the Commission must determine the amount of bond be required of a respondent, during the 60-day Presidential review period following the issuance of permanent relief, in the event the Commission determines to issue

a remedy. The purpose of the bond is to protect the complainant from any injury. 19 U.S.C. § 1337(j)(3); 19 C.F.R. §§ 210.42(a)(1)(ii), 210.50(a)(3).

When reliable price information is available, the Commission has often set the bond by eliminating the differential in sales prices between the domestic product and the imported, infringing product. *Certain Microsphere Adhesives, Process for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 24, USITC Pub. No. 2949 (1995). In other cases, the Commission has turned to alternative approaches, especially when the level of a reasonable royalty rate could be ascertained. *See Certain Integrated Circuit Telecommunication Chips and Products Containing Same, Including Dialing Apparatus*, Inv. No. 337-TA-337, Comm'n Op. at 41-43, USITC Pub. No. 2670 (1995). A 100% bond has been required when no effective alternative existed. *Certain Flash Memory Circuits and Products Containing Same*, Inv. No. 337-TA-382, USITC Pub. No. 3046, Comm'n Op. at 26-27 (July 1997) (a 100% bond imposed when price comparison was not practical because the parties sold products at different levels of commerce, and the proposed royalty rate appeared to be *de minimis* and without adequate support in the record).

1. Glow Fish Tape Products

Klein argues that bond for the Glow Fish Tape Accused Products should be set at 100% because the Glow Fish Tape Accused Products and the Glow Fish Tape Domestic Industry Products "compete at identical retail price points such that it is impossible to fashion a bond based on price differentials that would protect Klein from 'any injury.'" CIB at 146. In support of this argument, Klein adduced evidence to show that Klein "suffers direct injury from Milwaukee's infringing sales." *Id.*

The record evidence shows that there are currently only two suppliers of Glow Fish Tape systems that charge in their case: Klein and Milwaukee. Tr. (Leos) at 178:13-15; Tr. (O'Flaherty) at 84:23-85:2; RX-0870C (Pearson Dep.) at 150:18-51:6; CX-1508C (Rose Dep.) at 190:25-92:7, 275:7-276:15, 341:19-42:2. Witness testimony establishes that Klein was the first seller in a new market segment for wire-pulling products that has grown steadily since 2020. Tr. (Leos) at 1104:12-13; CX-1508C (Rose Dep.) at 341:1-3. The evidence shows that, after Milwaukee entered the market in December 2023, Klein's sales of its Domestic Industry Glow Fish Tape Products declined for the first time even as the market segment grew, a decline that Klein attributes to Milwaukee's sales of Glow Fish Tape Accused Products. JPX-0063C (Klein sales); CX-1342C.0339 (Milwaukee sales); CX-1508C (Rose Dep.) at 295:4-296:14; *see* CIB at 146; CDX-0089C. Klein argues: "Given there are only two players in the G[low] F[ish] T[ape] market, every sale of a G[low] F[ish] T[ape] Accused Product during the Presidential Review Period will represent a lost sale to Klein. Tr. (Leos) at 178:6-79:4; CX-1508C (Rose Dep.) at 295:4-296:14; *see* CDX-0012C.0022.

Milwaukee argues that, "[b]ased on available pricing information, a 100% bond significantly overstates the bond amount necessary for the Accused Glow Fish Tape Products to protect Klein from injury during the Presidential Review Period." RRB at 77-78 (citing Tr. (Akers) at 944:24-945:20; RDX-0003C.0027; JX-0069C; RDX-0033C – RDX-0046C; JPX-0105C; JPX-0106C; JPX-0113C; JPX-0115C). Milwaukee further argues, "Klein's Glow Fish Tape [Domestic Industry] products are sold for less than or the same price Milwaukee's products, negating the need for a bond altogether." *Id.* at 78. In support of this argument, Milwaukee's economic expert Ms. Akers testified that Milwaukee's glow fish tape products cost, on average,

[redacted] more than Klein's glow fish tape products in 2024 and cost [redacted] more in 2025. Tr. (Akers) at 944:24-925:20.

Milwaukee also countered Klein's assertion that its sales of Domestic Industry Glow Fish Tape Products decreased because of Milwaukee's entry into the market. RRB 78 (citing CIB at 145-46). Milwaukee argued that Klein's argument "ignores the fact that Klein's non-D[omestic] I[ndustry] Glow Fish Tape Products decreased at the same time, indicating that other market factors beyond the presence of the Accused Glow Fish Tape affected Klein's sales." *Id.* (citing Tr. (Akers) at 930:5-931:14; CDX-0003C.0014-15; JPX-0063C; JPX-0069C). Milwaukee further argues that "Klein therefore cannot satisfy its burden of showing a need for a bond. Accordingly, no bond should issue with respect to the Glow Fish Tape." RRB at 78.

The law instructs that a bond should be set to protect Klein from *any* injury. 19 U.S.C. § 1337(j)(3) (emphasis added); 19 C.F.R. §§ 210.42(a)(1)(ii), 210.50(a)(3). I find Milwaukee's suggestion that a bond be set at 0% would not protect Milwaukee from injury. Milwaukee has not countered the evidence showing that there are only two suppliers of Glow Fish Tape systems on the market. Thus, the record supports an inference that any sale made by Milwaukee is a lost sale for Klein. And even though the evidence shows that Klein's products sell for less than Milwaukee's products, a bond rate of 0% would not protect Klein from injury due to sales lost to Klein during the presidential review period.

A price differential analysis here is not useful because Milwaukee's average price is higher than Klein's. Therefore, to protect Klein from any injury, I recommend a 100% bond for Glow Fish Tape Accused Products during the Presidential review period in the event the Commission finds a violation of section 337 and determines to issue a remedy.

2. Headwear Products

Klein's arguments advocating for a 100% bond for the Headwear Accused Products mirror the arguments it made for the Glow Fish Tape Accused Products: "Klein and Milwaukee compete head-to-head (pardon the pun) in the market for safety helmet systems." CIB at 146 (citing CX-1513C (Richman Dep.) at 349:20-350:8, 363:7-365:5, 369:12-371:24; JX-0132C.0009, .0015 (identifying Klein as "key" competitor and only competitor with headlamp mounts); RX-0869C (Behlmer Dep.) at 92:1-10). According to Klein, "[n]ot only does Klein lose out on selling a safety helmet when Milwaukee sells an accused one, but Klein will lose out on selling mated accessories for its safety helmet system to Milwaukee, multiplying its injury." *Id.* (citing Tr. (Leos) at 176:21-177:6); CX-1513C (Richman Dep.) at 74:22-75:5, 76:22-77:4; CX-1512C (Hyma Dep.) at 57:24-58:6.

Klein argues: "More fundamentally, it is difficult or impossible to calculate a bond based upon price differentials because the pricing and features of both Klein's and Milwaukee's safety helmet system products vary significantly. There are over 100 Milwaukee and over 200 Klein Safety Helmet System Products sold at widely different prices—which make apples-to-apples price comparisons impractical." CIB at 147 (citing Tr. (Leos) at 174:17-20, 175:16-25).

Nevertheless, at the hearing, Klein's expert Ms. Leos presented price comparisons of three competing products showing that Klein's pricing is, on average, [redacted] higher than Milwaukee's. Tr. (Leos) at 176:8-177:13; CDX-0012C.0020; CDX-0085C; JPX-0063C; CX-1342C.0341. Milwaukee argues that Ms. Leos's calculation is flawed because her "methodology [ ] does not account for the fact that Milwaukee's sales revenues of its Accused Safety Helmets are approximately [redacted] than its sales revenues of Accused Hard Hats." RRB at 78-79 (citing Tr. (Akers) at 945:21-946:25; RDX-0003C.0027; JX-0069C; RDX-0033C – RDX-0046C;

JPX-0105C; JPX-0106C; JPX-0113C; JPX-0115C. In addition, Milwaukee argues that Klein's bond calculations are flawed and unreliable because "none of the Accused Hard Hats or Safety Helmets in this Investigation are imported into the United States and Klein has failed to address the appropriateness of bond on products that are not imported." RRB at 78.

Milwaukee counters Klein's position that it is difficult to calculate an appropriate bond and argues that "[a] wide variety of products does not preclude a price comparison." RRB at 79 (citing Tr. (Akers) at 945:21-946:25). Indeed, the record shows that weighted average of the average sales prices ("ASPs") for Milwaukee's Accused Hard Hats and Safety Helmets was [redacted] lower in 2024 and [redacted] lower in 2025 than the ASPs for the Klein Domestic Industry Hard Hats and Safety Helmets. Tr. (Akers) at 945:21-946:25; RDX-0003C.0027; JX-0069C; RDX-0033C-RDX-0046C; JPX-0105C; JPX-0106C; JPX-0113C; JPX-0115C. Milwaukee thus argues that, "to the extent a bond is set on the domestically manufactured hard hats and safety helmets, it should be set between [redacted] and [redacted]." RRB at 79 (citing *Certain Icemaking Machines & Components Thereof*, Inv. No. 337-TA-1369, Comm'n Op. at 18 (Feb. 27, 2025) (the Commission has found the use of a weighted average sales price differential to be appropriate in calculating a bond)).

Milwaukee also disagrees with Klein's proposal that Klein's proposed bond amount for the Accused Hard Hats and Safety Helmets should also be applied to the Accused Accessory Devices. RRB at 79 (citing CIB at 146). According to Milwaukee, "these are entirely different products, and Klein has failed to show that Klein and Milwaukee offer such a different variety of accessories such that calculating a price differential for the accessories was impracticable. For example, Milwaukee and Klein offer similar accessories, including many headlamps. The percentage difference in the price of Milwaukee's Accused Accessory Devices was [redacted] higher than Klein's D[omestic] I[ndustry] Accessory Devices in 2024 and [redacted] lower in 2025." RRB at 79 (citing

Tr. (Akers) at 945:21-946:25); RDX-0003C.0027; JX-0069C; RDX-0033C-RDX-0046C; JPX-0105C; JPX-0106C; JPX-0113C; JPX-0115C. Milwaukee concludes: "Thus, a bond for the imported accessories should be in the range of 0 to [redacted]" RRB at 79.

Given the wide variety of Accused Headwear Products at issue, the demonstrated difficulty in reliably quantifying harm from sales of the imported Accused Headwear Products, and the statutory mandate to protect Klein from any injury, I recommend that during the Presidential review period bond for importation of the Accused Hard Hats, Accused Safety Helmets (including Non-stipulated Safety Helmets), and Accused Accessory Devices be set at 100%. To the extent that Milwaukee is correct that the numbers of imported Hard Hats and Accused Safety Helmets is minuscule or zero, it may never have to pay such a bond on those products.

XIII. INITIAL DETERMINATION ON VIOLATION

For the reasons set forth above, it is my initial determination that Klein has shown a violation of section 337 in the importation into the United States and the sale within the United States after importation of certain safety helmet systems and components thereof.

This initial determination is hereby certified to the Commission.

The Secretary is ordered to serve the confidential version of this initial determination upon counsel who are signatories to the Protective Order (Order No. 1) issued in this investigation. A public version will be served at a later date upon all parties of record.

Pursuant to 19 C.F.R. § 210.42(h), this initial determination will become the determination of the Commission unless a party files a petition for review pursuant to 19 C.F.R. § 210.43(a) or the Commission, pursuant to 19 C.F.R. § 210.44, orders on its own motion a review of the Initial Determination or certain issues therein.

XIV. ORDER

Within seven days of the date of this document, the parties must jointly submit a single proposed public version with any proposed redactions indicated in red. If the parties submit excessive redactions, they may be required to provide declarations from individuals with personal knowledge, justifying each proposed redaction and specifically explaining why the information sought to be redacted meets the definition for confidential business information set forth in 19 C.F.R. § 201.6(a). The proposed redactions should be made electronically, in a single PDF file using the "Redact Tool" within Adobe Acrobat. The proposed redactions should be submitted as "marked" but not yet "applied." The proposed redactions should be submitted via Box, with an email sent to Cheney1442@usitc.gov providing notice of the submission, and not filed on EDIS.

SO ORDERED.

Clark S. Cheney
Chief Administrative Law Judge