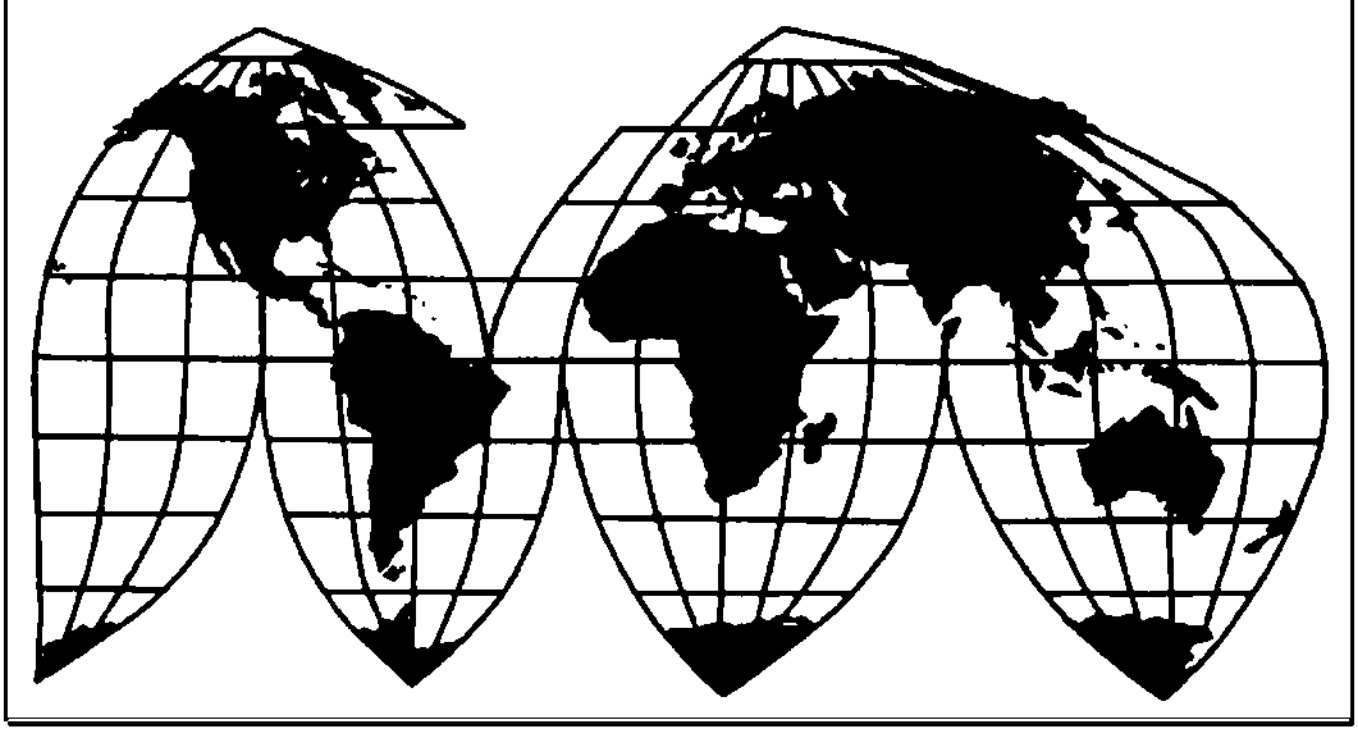
In the Matter of

CERTAIN COLLAPSIBLE AND PORTABLE FURNITURE

Investigation No. 337-TA-1178

Publication 5310 **March 2022**

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of **CERTAIN COLLAPSIBLE AND PORTABLE FURNITURE**	**Investigation No. 337-TA-1178**

NOTICE OF A COMMISSION DETERMINATION TO REVIEW IN PART A FINAL INITIAL DETERMINATION AND TO AFFIRM WITH MODIFICATIONS THE FINDING OF NO VIOLATION OF SECTION 337; TERMINATION OF THE INVESTIGATION

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission ("Commission") has determined to review in part the Administrative Law Judge's ("ALJ") final initial determination ("FID"), issued on February 18, 2021, and to affirm with modifications the FID's finding of no violation of section 337 in the above-referenced investigation. The investigation is terminated.

FOR FURTHER INFORMATION CONTACT: Benjamin S. Richards, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street S.W., Washington, D.C. 20436, telephone (202) 708-5453. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov*. For help accessing EDIS, please email EDIS3Help@usitc.gov. General information concerning the Commission may also be obtained by accessing its Internet server at *https://www.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on October 3, 2019. 84 FR 52896 (Oct. 3, 2019). The complaint, as amended, filed by GCI Outdoor, Inc., of Higganum, Connecticut ("GCI"), alleges violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain collapsible and portable furniture by reason of infringement of certain claims of U.S. Patent No. 9,282,824 ("the '824 patent") and U.S. Patent No. 9,060,611 ("the '611 patent"). *Id.* at 52896–97. The complaint further alleges that a domestic industry exists. *Id.* at 52897. The Commission's notice of investigation named the following respondents: Denovo Brands, LLC of Bentonville,

Akansas; Zhenli (Zhangzhou) Industrial Co., Ltd. of Zhangzhou, Fujian, China; Fujian Zenithen Consumer Products Co., Ltd. of Fuzhou, Fujian, China; Zenithen Hong Kong Ltd. of Hong Kong; Zenithen USA LLC of Upland, California; Westfield Outdoor, Inc., d/b/a Westfield Outdoors of Indianapolis, Indiana; MacSports Inc. of La Verne, California; Meike (Qingdao) Leisure Products Co., Ltd of Qing Dao, China. *Id*. The Office of Unfair Import Investigations is not participating in the investigation. *Id.*

During the course of the investigation, respondents Fujian Zenithen Consumer Products Co., Ltd., Zenithen Hong Kong Ltd., and Zenithen USA LLC were terminated from the investigation. The remaining respondents are Denovo Brands, LLC and Zhenli (Zhangzhou) Industrial Co., Ltd. (the "Denovo" respondents); Westfield Outdoor, Inc. ("Westfield"); and MacSports Inc. and Meike (Qingdao) Leisure Products Co., Ltd (the "MacSports" respondents) (collectively, "Respondents").

On February 18, 2021, the ALJ issued his FID in this investigation. The FID found no violation of section 337. For the '824 patent, the FID found that GCI established infringement by Denovo's products but failed to establish that GCI satisfied the technical prong of the domestic industry requirement. The FID also found that Denovo did not establish that any of the asserted claims of the '824 patent is invalid. For the '611 patent, the FID found that GCI failed to establish infringement by Westfield's and MacSports' products but did establish that GCI satisfied the technical prong of the domestic industry requirement. The FID also found that Westfield and MacSports did not establish that any of the asserted claims of the '611 patent is invalid. The FID additionally found that GCI established that it satisfied the economic prong of the domestic industry requirement for both asserted patents.

On March 2, 2021 the parties submitted petitions seeking review of the FID. On March 10, 2021, the parties submitted responses to the others' petitions.

Having examined the record of this investigation, including the FID, the petitions for review, and the responses thereto, the Commission has determined to review the FID with respect to (1) all of the FID's findings concerning the '824 patent; (2) infringement and validity of the '611 patent; and (3) the FID's findings concerning the economic prong of the domestic industry requirement. The Commission has determined not to review the remainder of the FID.

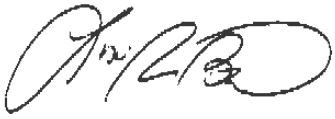
On review, the Commission has determined to affirm the FID's finding of no violation of section 337 with regard to the '824 patent and the '611 patent. In connection with that determination the Commission has also determined to modify and supplement certain of the FID's subsidiary findings. The Commission has also determined to take no position on certain portions of the FID. The Commission opinion is issued concurrently herewith.

The investigation is hereby terminated.

The Commission vote for this determination took place on May 6, 2021.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 CFR Part 210).

By order of the Commission.



Lisa R. Barton
Secretary to the Commission

Issued: May 6, 2021

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated, on **May 6, 2021.**



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PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
Washington, D.C.

In the Matter of **CERTAIN COLLAPSIBLE AND PORTABLE FURNITURE**	**Investigation No. 337-TA-1178**

COMMISSION OPINION

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I. INTRODUCTION

The Commission has determined to review in part the final initial determination ("ID") of the presiding Administrative Law Judge ("ALJ"), which issued on February 18, 2021. On review, the Commission has determined that there has been no violation of section 337 of the Tariff Act of 1930, 19 U.S.C. § 1337, as amended, based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain collapsible and portable furniture by reason of infringement of certain claims of U.S. Patent No. 9,282,824 ("the '824 patent") and U.S. Patent No. 9,060,611 ("the '611 patent"). The Commission has determined to review the ID in part and, on review, modify the ID in part, reverse the ID in part, and take no position on certain issues in the ID. This opinion sets forth the Commission's reasoning in support of its determinations. The Commission adopts the findings in the ID that are not inconsistent with this opinion.

II. BACKGROUND

A. Procedural History

The Commission instituted this investigation on October 3, 2019, based on a complaint, as amended, filed by GCI Outdoor, Inc. ("GCI") of Higganum, Connecticut. 84 Fed. Reg. 52896 (Oct. 3, 2019). The amended complaint alleged violations of section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain collapsible and portable furniture by reason of infringement of certain claims of the '824 patent and the '611 patent. *Id.* at 52896–97. The plain language description of the accused products or category of accused products, which defines the scope of the investigation, is "collapsible and portable rocking chairs." *Id.* at 52897.

The Commission's notice of investigation named eight respondents, which are grouped and defined as follows: Denovo Brands, LLC of Bentonville, Arkansas, and Zhenli (Zhangzhou) Industrial Co., Ltd. of Fujian, China (collectively, "Denovo"); Fujian Zenithen Consumer Products Co., Ltd. of Fujian, China, Zenithen Hong Kong Ltd. of Causeway Bay, Hong Kong, and Zenithen USA LLC of Upland, California (collectively, "Zenithen");[1] Westfield Outdoor, Inc. of Indianapolis, Indiana ("Westfield"); and MacSports Inc. of La Verne, California, and Meike (Qingdao) Leisure Products Co., Ltd of Qing Dao, China (collectively, "MacSports").[2] *Id.*

The ALJ presided over an evidentiary hearing for this investigation that began on December 2, 2020 and ended on December 4, 2020. ID at 4. Following the hearing, the parties submitted posthearing opening and reply briefs.[3] On February 18, 2021, the ALJ issued the ID and found that GCI did not establish a violation of section 337. ID at 295.

Concerning the '824 patent, the ID found that the asserted claims are not invalid and are infringed by Denovo's Rok-It Chair, which is the only chair accused of infringing that patent. ID at 294–95. However, the ID found that GCI's domestic industry chairs do not practice any claim of the '824 patent, and thus, GCI did not satisfy the technical prong of the domestic industry requirement for the '824 patent. ID at 92–94, 104, 294.

---

[1] The Zenithen respondents were terminated from the investigation pursuant to a settlement agreement and the issuance of a consent order. *See* Order No. 6 (Feb. 20, 2020), *reviewed and affirmed with modification by* Comm'n Notice (Mar. 13, 2020). Accordingly, Complainant GCI and Respondents Denovo, Westfield, and MacSports, are the only active parties to this investigation.

[2] The Office of Unfair Import Investigations is not a party to the investigation. *Id.*

[3] Initial Post-Hearing Brief of Complainant GCI Outdoor, Inc. (Dec. 16, 2020) ("GCI Br.") (EDIS Doc. Id. 728199); Respondents' Joint Post-Hearing Brief (Dec. 16, 2020) ("Resps. Br.") (EDIS Doc. Id. 728200); Reply Post-Hearing Brief of Complainant GCI Outdoor, Inc. (Dec. 23, 2020) ("GCI Reply Br.") (EDIS Doc. Id. 728887); Respondents' Joint Reply Post-Hearing Brief (Dec. 23, 2020) ("Resps. Reply Br.") (EDIS Doc. Id. 728880).

Concerning the ’611 patent, the ID found that the asserted claims are not invalid but are not infringed by MacSports’ MacRocker or Westfield’s Mulberry Bounce Chair, which are the only chairs accused of infringing this patent. ID at 294–95. Unlike the ’824 patent, the ID found that GCI’s own chairs practice at least one claim of the ’611 patent and thus GCI satisfies the technical prong of the domestic industry requirement for the ’611 patent. ID at 240–41, 295.

Concerning the economic prong of the domestic industry requirement, the ID found that GCI satisfied the economic prong for both the ’824 and ’611 patents under section 337 subsection (a)(3)(A) (significant investment in plant and equipment) and section 337 subsection (a)(3)(B) (significant investment in labor and capital). ID at 294. Accordingly, the ID’s ultimate finding of no violation rests on its finding that GCI’s chairs do not practice any claim of the ’824 patent and its finding that neither the MacRocker nor the Mulberry Bounce Chair infringe the ’611 patent.

GCI filed a petition for review of the ID on March 2, 2021.[4] On the same day, Denovo, Westfield, and MacSports, each filed contingent petitions for review.[5] GCI filed responses to

[4] Complainant GCI Outdoor, Inc.’s Petition for Commission Review (“GCI Pet.”) (EDIS Doc. Id. 735694).

[5] Respondents Denovo Brands LLC and Zhenli (Zhangzhou) Industrial Co., Ltd.’s Contingent Petition for Review of Final Initial Determination (“Denovo Pet.”) (EDIS Doc. Id. 735689); Westfield Outdoor Inc.’s Contingent Petition for Review of the Initial Determination (“Westfield Pet.”) (EDIS Doc. Id. 735680); Petition for Review of Initial Determination by Respondents MacSports Inc. and Meike (Qingdao) Leisure Products Co., Ltd. (“MacSports Pet.”) (EDIS Doc. Id. 735642).

those petitions on March 10, 2021,[6] and, on the same day, Denovo, Westfield, and MacSports, each filed responses to GCI's petition.[7]

GCI's petition seeks Commission review of the ID's findings on the technical prong of the domestic industry requirement for the '824 patent and the ID's noninfringement findings for the '611 patent, among other things. Denovo's contingent petition seeks Commission review of the ID's findings on infringement and the technical prong of the domestic industry requirement for the '824 patent, among other things. MacSports' and Westfield's contingent petitions seek Commission review of the ID's invalidity findings and the ID's findings on the economic prong of the domestic industry requirement, among other things.

B. The Asserted Patents

The '824 patent and the '611 patent both claim priority to the same provisional application, number 61/710,238, which was filed on October 5, 2012, and the '824 patent issued from a continuation of the application that issued as the '611 patent. *See* JX-1, at Cover; JX-2, at Cover. The '824 patent is titled "Collapsible and Portable Rocking Chair," and issued on March 15, 2016.[8]

---

[6] Complainant GCI Outdoor, Inc.'s Response to Contingent Petition for Review of Final Initial Determination by Respondents Denovo Brands, LLC and Zhenli (Zhangzhou) Industrial Co., Ltd. ("GCI Resp. to Denovo") (EDIS Doc. Id. 736542); Complainant GCI Outdoor, Inc.'s Response to Respondent Westfield Outdoor Inc.'s Contingent Petition for Review of the Initial Determination ("GCI Resp. to Westfield") (EDIS Doc. Id. 736545); Complainant GCI Outdoor, Inc.'s Response to Petition for Review of Initial Determination by Respondents Macsports Inc. and Meike (Qindao) Leisure Products Co., Ltd. ("GCI Resp. to MacSports") (EDIS Doc. Id. 736544).

[7] Respondents Denovo Brands, LLC and Zhenli (Zhangzhou) Industrial Co., Ltd.'s Response to Complainant GCI Outdoor, Inc.'s Petition for Commission Review ("Denovo Resp.") (EDIS Doc. Id. 736494); Respondent Westfield Outdoor Inc.'s Response to GCI's Petition for Review of the Initial Determination ("Westfield Resp.") (EDIS Doc. Id. 736534); Opposition of Macsports, Inc. and Meike (Qingdao) Leisure Products Co., Ltd. to GCI's Petition for Review ("MacSports Resp.) (EDIS Doc. Id. 736505).

[8] While the '611 patent preceded the '824 patent, the ID addresses the '824 patent first. This opinion adopts the same convention.

The ’611 patent has the same title and issued on June 23, 2015. The two patents share substantially the same specification and they describe three types of portable folding rocking chairs. The first type, shown in figure 1, is indicative of prior art chairs:

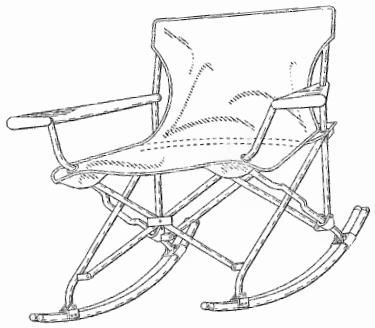


FIG. 1
Prior Art

JX-1, at Fig. 1; *see also id.* at 5:25–27 (“FIG. 1 is a perspective view of a prior art collapsible and portable rocking chair with the chair in a set-up condition for rocking by a seated user.”).

The second type of chair, shown in figures 2–7, is an embodiment of the claimed invention in which the chair collapses side-to-side:

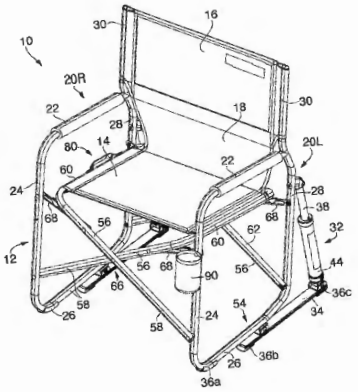


FIG. 2

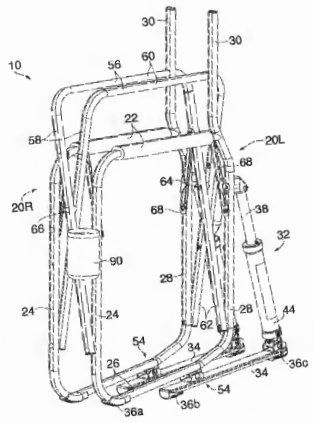


FIG. 7

JX-1, at Figs. 2, 7; *see also id.* at 5:28–31, 5:38–39 (“FIG. 2 is a perspective view of a collapsible and portable rocking chair in accordance with an embodiment of the present invention, with the chair in a set-up condition, and with the chair in a forward, stabilized position. … FIG. 7 is a perspective view of the rocking chair of FIG. 2 in a folded condition.”).

The third type of chair, shown in figure 9, is another embodiment of the claimed invention in which the chair collapses front-to-back:

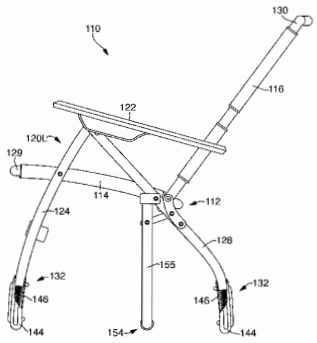


FIG. 9

JX-1, at Fig. 9; *see also id.* at 5:43–45 ("FIG. 9 is a planar side view of an alternate embodiment of a collapsible and portable rocking chair in accordance with the present invention, with the chair in a set-up condition.").

Each of the three types of portable rocking chairs described in the asserted patents utilizes a different mechanism to achieve rocking motion. The prior art chair utilizes curved runners that roll along the ground much like a traditional rocking chair. *See* JX-1, at Fig. 1. The chair in figure 2 rocks on a fulcrum (54), which rests on a support runner (34), in connection with a rocker mechanism (32), such as a spring (46), to provide resistance. *See* JX-1, at Figs. 3, 6; *see also id.* at 8:1–21 (describing how rocking motion is achieved with reference to figure 6). By contrast, the chair in figure 9 rocks on a fulcrum member (155), the end of which has a fulcrum point (154) that touches the ground surface on which the chair is setup. JX-1, at 11:50–56. Resistance to facilitate a rocking motion is provided by built-in rocker mechanisms on the front and/or rear chair legs. JX-1, at 11:57–12:2, 12:26–29.

C. The Products at Issue

The products at issue are portable rocking chairs made by Denovo, MacSports, Westfield, and GCI. Denovo's Kijaro Rok-It Chairs are accused of infringing claims 10, 11, 12, 15, 18, and

19 of the ’824 patent. MacSports’ MacRocker chairs are accused of infringing claims 1, 2, 8, 14, 15, and 19 of the ’611 patent and Westfield’s Mulberry Bounce Chairs are accused of infringing claims 1, 2, 10, and 11 of the ’611 patent.

To satisfy the technical prong of the domestic industry requirement, GCI asserts that its RoadTrip Rocker, Pod Rocker/Pod Rocker with Sunshade, and Kickback Rocker each practice claims 1–3, 9, and 10 of the ’824 patent. For the ’611 patent, GCI asserts that its Freestyle Rocker/Mesh Freestyle Rocker, FirePit Rocker, and Beach Rocker products each practice claims 1, 2, and 8 of the ’611 patent.

III. STANDARD OF REVIEW

“A petition will be granted and review will be ordered if it appears that an error or abuse of the type described in [Rule 210.43(b)(1)] is present or if the petition raises a policy matter connected with the initial determination, which the Commission thinks it necessary or appropriate to address.” 19 C.F.R. § 210.43(d)(2). With respect to the issues under review, “the Commission may affirm, reverse, modify, set aside or remand for further proceedings, in whole or in part, the initial determination of the administrative law judge.” 19 C.F.R. § 210.45(c). The Commission also “may take no position on specific issues or portions of the initial determination,” and “may make any finding or conclusions that in its judgment are proper based on the record in the proceeding.” *Id.*; *see also Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984).

IV. ANALYSIS

The Commission’s findings, conclusions, and supporting analysis follow. The Commission affirms and adopts the ID’s findings, conclusions, and supporting analysis that are not inconsistent with the Commission’s opinion.

A. The ’824 Patent

With regard to the ’824 patent, the Commission has determined to review the ID’s construction of the term “adapted for contacting the ground surface upon which the chair sits in a set-up condition,” and the ID’s findings on infringement, the technical prong and economic prong of the domestic industry requirement, and obviousness. The Commission has determined not to review any other issues.

1. Claim Construction: “adapted for contacting the ground surface upon which the chair sits in a set-up condition”

Before the ALJ, GCI and Denovo disputed the construction of the phrase, “adapted for contacting the ground surface upon which the chair sits in a set-up condition.” That phrase appears in independent claims 1 and 10 of the ’824 patent and is thus incorporated into the claims that depend therefrom. Claim 1, which is representative, reads:

> 1. A collapsible and portable rocking chair comprising:
>
> > an articulated chair frame defining a back support and a seat support, wherein said frame has a set-up condition and a collapsed condition;
> >
> > a seat panel mounted on the seat support of the frame;
> >
> > a backrest panel mounted on the back support of the frame;
> >
> > wherein said chair frame comprises a pair of side frame assemblies of opposite hand disposed in generally parallelly extending and transversely spaced apart opposing relation to each other, each of said side frame assemblies having a plurality of generally axially elongated frame members being interconnected for pivotal movement relative to one another about generally transversely extending pivot axes, said frame members including:
> >
> > > a front leg member;
> > >
> > > a rear leg member;
> > >
> > > a seat support member defining a respective side of the seat support;

> a back support member defining a respective side of the back support; and
>
> a fulcrum member defining a fulcrum point at a terminal end thereof **adapted for contacting the ground surface upon which the chair sits in the set-up condition** and for supporting the chair frame, and about which said chair frame can move between forward and rearward positions;
>
> at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions.

JX-1, at cl. 1 (emphasis added).

GCI and Denovo proposed the following competing constructions for the term:

Claim Term/Phrase	GCI's Construction	Denovo's Construction
adapted for contacting the ground surface upon which the chair sits in a set-up condition	Capable of touching and sitting on a surface when in a set-up condition.	Terminal end touches the ground surface (not a part of the chair) in the set-up condition.

ID at 41. The ID adopted Denovo's proposed construction and rejected GCI's construction as unduly broad and contrary to the plain language of the claim. Specifically, the ID explained:

> GCI's proposed construction, "capable of touching and sitting on a surface when in a set-up condition" is too broad and specifically allows the fulcrum point to sit on a support structure that is itself part of the chair, which conflicts with the plain language of the claim. GCI's expert opined that other structures can come between the fulcrum point and the ground surface. *See* CX-0464C (Smith RWS) at Q/A 91. This is in conflict with the plain language of the claim, which recites, "adapted for contacting the ground surface upon which the chair sits in a set-up condition."

ID at 42–43.

GCI argues that the ID "reads out 'adapted for' from the claim by requiring direct contact between the fulcrum point (or the component containing it) and the ground surface." GCI Pet. at

7. GCI argues that "the plain language of the claims requires the fulcrum point, which is at the terminal end of the fulcrum member, to be 'adapted for contacting the ground surface'; it does not require that the fulcrum point actually contact the ground surface." GCI Pet. at 8 (emphasis in original). GCI then argues that, not only should the word "adapted" be included in the construction of this phrase, but that "adapted" should itself be construed to mean that contact with the ground may occur "indirectly" through other components of the chair. GCI Pet. at 9–11.

As an initial matter, the Commission agrees with GCI that the ID's claim construction reads the words "adapted for" out of the disputed phrase. As used in the claim, the phrase "adapted for contacting the ground surface" places a structural limitation on a required fulcrum point, *i.e.*, the fulcrum point must be adapted for contacting the ground surface. JX-1, at cl. 1. The ID's claim construction, read literally, is not a structural limitation on the fulcrum point, but is rather a requirement for what the fulcrum point must do, *i.e.*, touch the ground surface.

Notwithstanding that flaw, the ID's analysis of GCI and Denovo's dispute over this term demonstrates that the ALJ correctly understood that the critical issue to be decided was whether the claim language encompasses a fulcrum point that not only is not designed to touch the ground surface, but instead is designed in a way that it only touches other parts of the chair. ID at 41–42. On that critical issue, the Commission sees no error in the ID's decision to reject GCI's attempt to construe this limitation to include fulcrum points designed only to "indirectly" contact the ground through intermediate structures. While the Commission finds that the ID correctly resolved the parties' actual dispute as to the scope of this limitation, *see O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement."), the

Commission also finds that this claim construction can be better tailored, through a clarifying modification, to better capture the ID's meaning. Thus, the Commission has determined to modify the wording of the ID's construction of the phrase, "adapted for contacting the ground surface upon which the chair sits in a set-up condition," to read: "suited by design for contacting the ground surface upon which the chair sits in a set-up condition." As seen in the portion of Denovo's argument reproduced in the ID, Denovo expressly characterized its construction in these terms, *see* ID at 42 (quoting Resps. Br. at 16), and GCI had an opportunity to challenge this definition but chose not to. In the Commission's view, this formulation of Denovo's position more naturally aligns with the plain language of the claims as applied in the ID. Specifically, in this modified construction, the words "adapted for" are given their plain and ordinary meaning, *i.e.*, suited by design for.[9]

Turning now to GCI's second point—that the word "adapted" should be read to expand the scope of this limitation to encompass fulcrum points that, by design, do not touch the ground—the Commission finds GCI's arguments in support of that point unpersuasive. First, GCI argues that "the plain language of the claims does not limit the way in which the fulcrum point at the terminal end of the fulcrum member can be 'adapted for contacting the ground surface.'" GCI Pet. at 8–9. While GCI's statement is true, the plain language of the claims is not limitless and does indeed limit the claimed fulcrum point to those that are "adapted for contacting the ground surface." Put simply: fulcrum points that ***are not*** adapted for contacting the ground surface are not within the scope of the claim. Accordingly, any construction that would expand the scope of this limitation

[9] The Commission notes that Denovo contended that the plain and ordinary meaning of "adapted" is "suited by nature, character, or design to a particular use, purpose, or situation" in its post-hearing brief before the ALJ, and GCI did not contest that assertion in its reply brief. *See* Resps. Br. at 16 (quoting *Merriam-Webster's Online Dictionary, available at* https://www.merriam-webster.com/dictionary/adapted); GCI Reply Br. at 4–5.

to cover any fulcrum point on the terminal end of a fulcrum member, regardless of its adaptation (or lack thereof) for contacting the ground surface, is in conflict with the plain language of the claims. But that is exactly what GCI's proposed construction would do, encompassing not just fulcrum points adapted to contact the ground surface, but also fulcrum points adapted to contact some other part of the chair that touches or eventually touches the ground. In application, GCI's construction would render the entire phrase "adapted for contacting the ground surface" superfluous. Reading the phrase "adapted for contacting the ground surface" as only requiring the ability to trace a path to the ground through other chair components, as GCI does, would render that limitation so broad as to be meaningless, which strongly indicates that GCI's interpretation of the limitation's meaning is incorrect. *See In re Power Integrations, Inc.*, 884 F.3d 1370, 1376 (Fed. Cir. 2018) (rejecting a construction that "renders claim language meaningless") (citing *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950–51 (Fed. Cir. 2006) (refusing to construe claim terms in a way that made other claim limitations meaningless); *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.")).

GCI next argues that the specification supports its proposed construction. GCI Pet. at 9. However, "fulcrum member" is a unique term in the written description appearing in only one place: the description of the "alternate embodiment of a collapsible and portable rocking chair" at line 11:35 through line 12:29. There, referencing the chair illustrated in figure 9, the written description explains:

> Each side frame assembly **120** further includes a fulcrum point **154** provided on a frame member **155** extending from an intermediate point on the rear leg **128** to the ground or support surface on which the set-up chair **110** rests. As shown, ***the fulcrum member 155 has a fulcrum pivot point 154 on its lowermost end that contacts the ground surface and aids rocking of the chair 110***.

JX-1, at 11:50–56 (emphasis added). The structure described in the emphasized portion of this excerpt naturally aligns with the claimed fulcrum member having a fulcrum point at a terminal end adapted for contacting the ground in claims 1 and 10. *Cf. Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) ("The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction."). The Commission finds that this portion of the written description, along with the illustration of figure 9, to be more probative of how a person of ordinary skill in the art would understand the phrase "adapted for contacting the ground surface" than the excerpts and figures GCI relies on in its petition. Moreover, nothing in the above excerpt or in figure 9 suggests that "adapted for contacting the ground surface" should encompass fulcrum points that are designed not to contact the ground but can trace an "indirect" path to the ground through other chair components. Instead, the above excerpt is entirely consistent with the ID's conclusion to the contrary.

GCI, however, disregards the embodiment of figure 9 and its associated description in the specification. Instead, GCI argues that the following portions of the specification, along with figures 2 through 7, "expressly show[] that the fulcrum point need not directly touch the ground, but can instead be 'adapted for' contacting the ground surface, for example, through a support runner and/or foot:"

Citation	Language
3:45–57	In preferred embodiments of the rocking chair, each frame side assembly is supported on a fulcrum point for rocking movement of the chair frame. Each side frame assembly preferably uses a static runner design wherein each side frame assembly generally maintains two or more contact points with the ground or support surface during use of the chair, either as a normal, fully stabilized chair, or during rocking of the chair back-and-forth.
7:3–9	The rocker mechanism 32 is preferably attached to a static runner design, such as illustrated, that presents a significant improvement over prior art rocking chair designs using arched rails, such as illustrated in FIG. 1, especially in regards to use on soft ground or sand, on which prior art rocking chair designs are ill suited.
8:1–5	Again referring to FIG. 6, a fulcrum 54 is provided on the forward end of the support runner 34.
9:52–54	The chair frame 12 is generally adapted to rest on a generally horizontally oriented supporting surface, such as a floor or the ground, in a setup condition.

GCI Pet. at 9.

These portions of the specification do not establish, "expressly" or otherwise, that a fulcrum point at a terminal end of a fulcrum member that is designed to contact another part of the chair frame, but not the ground surface, is nonetheless "adapted for contacting the ground surface." First, none of these citations describe a chair like the one claimed in claims 1 and 10 of the '824 patent. Those claims require a fulcrum member that defines a fulcrum point on its terminal end. JX-1, at cls. 1, 10. However, figures 2 through 7 and the portions of the written description reproduced above deal with a fulcrum point resting on a bracket between a support runner and the chair frame. Moreover, that fulcrum point in figures 2 through 7 and accompanying text is never described in the specification as being adapted for resting on the ground. At best, GCI's specification citations shed light on what it means for *the chair frame **12*** to be adapted to rest on

a generally horizontally oriented supporting surface. Given that chair frame **12** is a wholly different structure than a fulcrum point, and absent intrinsic evidence to the contrary, GCI has not established that both would be adapted to contact the ground in the same way.

Setting aside the fact that the portions of the specification on which GCI relies do not describe a fulcrum member defining a fulcrum point at a terminal end, and are thus of limited probative value, GCI also relies on these citations for the broader proposition that "the specification uses the term 'adapted' to show indirect contact between a component of the chair (such as the fulcrum point) and the ground surface." GCI Pet. at 10. This aspect of GCI's argument relies particularly on the portion of the specification that states: "The chair frame 12 is generally adapted to rest on a generally horizontally oriented supporting surface, such as a floor or the ground, in a setup condition." GCI Pet. at 9 (quoting JX-1, at 9:52–54). Pointing to figure 6, which "is a cross-sectional view of a rocker mechanism for use with the rocking chair of FIG. 2," JX-1, at 5:36–37, GCI argues that the chair frame does not directly contact the ground, but instead contacts it only through intermediate components. GCI Pet. at 9. GCI then concludes that the word "adapted" must therefore embrace "indirect" connection through intermediate components throughout the patent. GCI's conclusion is flawed, at least because it fails to recognize that figure 6 shows only a portion of the embodiment illustrated in figures 2 through 7. As seen in figure 3, when in a set up condition, the front portion of chair frame **12** rests directly on the ground via feet **36a**:

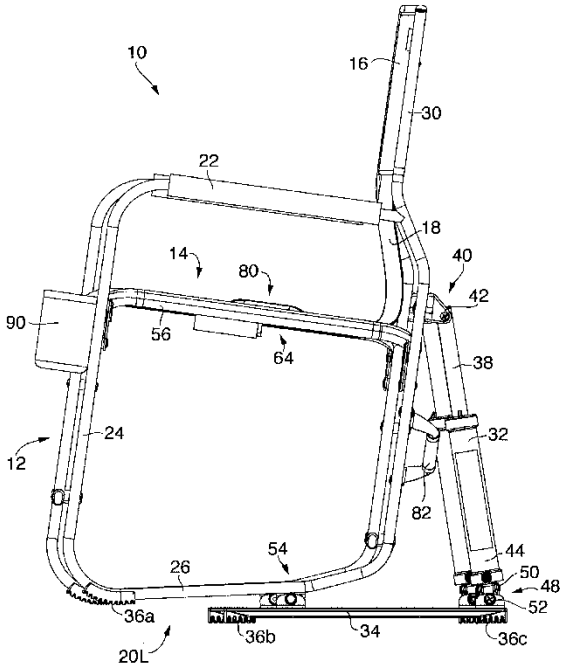


FIG. 3

JX-1, at Fig. 3. Indeed, the sentence immediately following the one GCI quotes explains that "chair **12** is generally stabilized on the supporting surface by the first, second and third feet **36*a***, **36*b*** and **36*c***, respectively." JX-1, at 9:54–56. Thus, it is not the case, as GCI argues, that this portion of the specification supports the conclusion that the word "adapted" expands the meaning of contact to include "indirect" contact. At best, figure 3 and the text on which GCI relies indicate that a chair component that is adapted to rest on the ground may have a protective covering, like foot **36*a***. Indeed, that conclusion finds support in figure 9 as well, which shows that fulcrum point **154** includes a hemispherical covering:

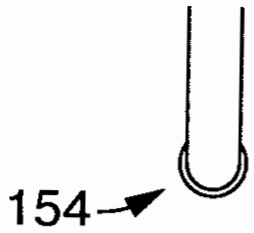


FIG. 9

JX-1, at Fig. 9. GCI's expansive reading of "adapted" as encompassing contact through any number of intermediate components other than feet lacks support in the intrinsic record.

GCI further notes that its expert opined that a person of ordinary skill in the art:

> would understand that (1) the fulcrum point needs to be near the ground surface for the chair to exhibit rocking motion, and (2) the term "adapted for" would permit the fulcrum point to contact the ground either directly or indirectly through a support structure, such as a foot or support runner, as shown throughout the '824 Patent's figures

GCI Pet. at 11 (citing CX-464C at Q/A 91). The ID considered this very testimony and found it to be "in conflict with the plain language of the claim." ID at 42. The Commission also finds GCI's expert's testimony unpersuasive. While expert testimony may be useful for some purposes in the context of claim construction, *e.g.*, "to provide background on the technology at issue, to explain how an invention works, to ensure that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field," *Phillips v. AWH Corp.*, 415 F.3d 1303, 1318 (Fed. Cir. 2005), the expert testimony on which GCI relies serves none of those purposes. Rather, GCI's expert's bare assertion that "a [person of ordinary skill in the art] reading the patent would understand that the terminal end of the fulcrum point does not have to contact the ground directly, but that it can contact the ground through a foot or a runner,"

CX-464C, at Q/A 91, is of the class of "conclusory, unsupported assertions by experts as to the definition of a claim term [that] are not useful to a court." *Phillips*, 415 F.3d at 1318. Here, where the technology is straightforward, and neither GCI nor Denovo contend that "adapted for contacting the ground surface" has a particular meaning in the '824 patent's field of art, the ID was correct to give GCI's expert's testimony no weight.

Turning now to GCI's argument that the ID added a negative limitation by adding the phrase "(not a part of the chair)" to its construction, the Commission finds that the argument is moot in light of the modified construction adopted above. Specifically, the Commission's modified construction, "suited by design for contacting the ground surface upon which the chair sits in a set-up condition," does not include the parenthetical "(not a part of the chair)" on which GCI's negative limitation argument is based. Moreover, even if not mooted by the modified construction, the Commission would find GCI's argument unpersuasive. The parenthetical "(not a part of the chair)" is not an additional negative limitation on the plain and ordinary meaning of "adapted for contacting the ground surface," but instead merely clarifies that the plain and ordinary meaning of "ground surface" does not include parts of the chair. GCI's characterization of the parenthetical as an additional limitation, and its concomitant reliance on precedents concerning constructions that depart from a claim's plain and ordinary meaning, would only be credible if GCI could establish that the plain and ordinary meaning of "ground surface" includes chair parts. *See* GCI Pet. at 11–12 (citing *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012); *Poly-Am., L.P. v. API Indus., Inc.*, 839 F.3d 1131, 1136 (Fed. Cir. 2017); *Linear Tech. Corp. v. Int'l Trade Comm'n*, 566 F.3d 1049, 1060 (Fed. Cir. 2009); *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003)). GCI has not established as much and thus

its negative limitation argument must fail.[10] Departing from the plain and ordinary meaning of "ground surface" to enlarge the scope of that limitation, as GCI's argument requires, is no more appropriate than would be departing from its plain and ordinary meaning to narrow the limitation's scope. *See, e.g.*, *Thorner*, 699 F.3d at 1365.

Finally, GCI argues that the Commission should adopt its proposed construction—"capable of touching and sitting on a surface"—because its construction "accurately reflects the specification's teachings, stays most faithful to the claims' plain language, and omits the ALJ's erroneous negative limitation." GCI Pet. at 12. GCI's proposed construction fails, on its face, because it re-writes the limitation to entirely remove the "ground surface" limitation. The very cases GCI cites throughout its petition explain why that approach to claim construction is inappropriate. *See, e.g.*, GCI Pet. at 8 (citing *ERBE Elektromedizin GmbH v. Canady Technology LLC*, 629 F.3d 1278, 1286 (Fed. Cir. 2010) ("[A]ll the limitations of a claim must be considered meaningful."); *Taurus IP, LLC v. DaimlerChrysler Corp.*, 726 F.3d 1306, 1321 (Fed. Cir. 2013) ("Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee."); GCI Pet. at 10 (citing *Phillips*, 415 F.3d at 1316). Moreover, in the absence of any credible argument that "surface" and "ground surface" share the same plain and ordinary meaning in the '824 patent, it is GCI that must meet the "exacting" standards required to justify its proposed departure from the plain and ordinary meaning of the phrase "adapted for contacting the ground surface." GCI, however, argues that this phrase should be construed according to its plain and ordinary meaning, and the Commission finds that GCI is correct in that assertion. GCI is incorrect, however, in its assertion that its proposed construction is consistent with the phrase's plain and ordinary meaning.

[10] Unlike the instant case, all of the cases GCI cites involved the improper imposition of additional limitations that narrowed the scope of a claim beyond the plain and ordinary meaning indicated by the intrinsic evidence.

Accordingly, the ID did not err in refusing to construe "adapted for contacting the ground surface" to mean "capable of touching and sitting on a surface."[11]

Although the Commission modifies the words used to define the disputed phrase, the Commission affirms the final ID's finding that a fulcrum point "adapted for contacting the ground surface upon which the chair sits in a set-up condition" is not so broad as to encompass a fulcrum point that is designed not to touch the ground, but can nonetheless trace a path to the ground through other intermediate support structures in the chair. *See* ID at 42. Accordingly, the Commission also affirms the final ID's infringement, anticipation, and domestic industry technical prong determinations that rely upon that finding.

2. Infringement Findings Concerning "Pivotally Interconnected" Chair Frame Members

Claim 10 of the '824 patent is the sole independent claim asserted against Denovo's Rok-It Chair. Among other limitations, claim 10 requires a pair of side frame assemblies comprised of the following parts: (1) a front leg member; (2) a rear leg member; (3) a back support member; and (4) a fulcrum member. JX-1, at cl. 10. Claim 10 further specifies that these parts of the side frame assembly are "pivotally interconnected for folding movement." *Id.* Figure 9 of the '824 patent illustrates the sole embodiment disclosed in the patent that meets these limitations:

[11] GCI argues that, under its proposed construction, its own portable rocking chairs would practice at least one claim of the '824 patent, and thus satisfy the technical prong of the domestic industry requirement. GCI Pet. at 13–14. GCI's argument flows from alternative findings the ID made concerning the technical prong of the domestic industry requirement, *i.e.*, that if GCI's proposed construction were adopted, GCI's chairs would practice the "adapted for contacting the ground surface" limitation. *See* ID at 91, 99. For the reasons detailed above, the Commission does not adopt GCI's proposed construction, thus the Commission need not and does not take a position on GCI's proposed construction as applied to GCI's chairs. *See* ID at 91, 99.

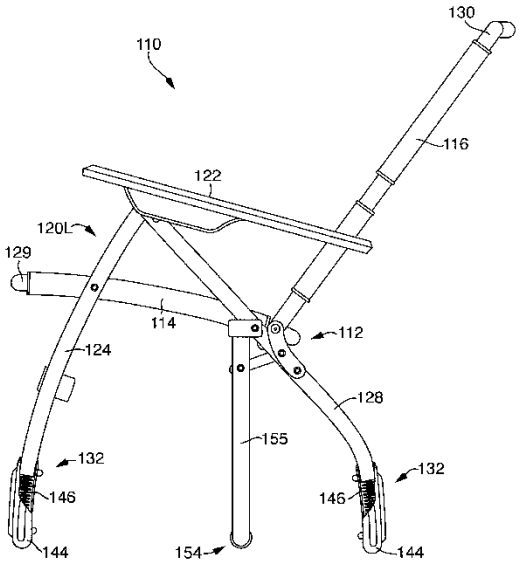


FIG. 9

JX-1, at Fig. 9. Element **124** is the front leg member. JX-1, at 11:46. Element **128** is the rear leg member. *Id.* Element **130** is the back support member. *Id.* at 11:47. And, element **155** is the fulcrum member. *Id.* at 11:53–54. As shown in figure 9 and described in the specification, these members are "interconnected by pivotal connections that facilitate folding of the chair **110**." *Id.* at Fig. 9, 11:47–48.

Denovo's Rok-It chair, which is accused of infringing claim 10, employs a substantially different frame structure than that shown in figure 9. The Rok-It chair is shown below:



CX-184, at 1. Notably, on each side of the Rok-It chair an elongated unitary main tube extends diagonally from the front feet to the top rear of the chair where the backrest is attached. *Id.*

GCI's position in this investigation is that these main tubes satisfy both the "back support member" and the "fulcrum member" limitations of claim 10. Specifically, GCI's expert provided the following annotated photographs identifying these main tubes as both the "back support member" and the "fulcrum member" of claim 10:



CX-2C, at Q/A 316, 323.

By contrast, Denovo's position in this investigation is that a single structure like the main tube in its Rok-It Chair cannot be both the claimed "back support member" and "fulcrum member." *See* Resps. Br. at 20–22.

In its infringement analysis, the ID rejected Denovo's position that "the back support member and the fulcrum member must be separate and distinct members of the side frame assembly that are pivotally connected to each other." ID at 56–57.[12] The ID reasoned that "the specification of the '824 patent discloses different elements of the chair frame as separate portions of a single tube." ID at 56 (citing JX-1, at 6:27–37, 6:38–45, 10:9–17; Tr. 293–94). The ID also found that claim 10 "does not include any language requiring a specific structural relationship between the back support member and the fulcrum member." *Id.* (citing Tr. 287). The ID rejected

[12] This portion of the ID dealt specifically with the "back support member" limitation. The ID addresses this same dispute in its analysis of the "fulcrum member" limitation and the "pivotally interconnected" limitation. *See* ID at 58–59, 75. The ID's reasoning and analysis is substantially the same in each instance, and the Commission's analysis here applies to all instances in the ID where this dispute is addressed.

Denovo's reliance on the sentence in the specification explaining that the front leg, rear leg, and backrest support members must all be pivotally interconnected because the "sentence does not refer to the fulcrum member and is included in a paragraph describing only the specific embodiment shown in Figure 9." ID at 57. Based on this reasoning, the ID found that Denovo's Rok-It Chair literally practices the back support member and fulcrum member limitations of claim 10. *Id.* Denovo petitioned for review of this aspect of the ID, and GCI opposed Denovo's petition in its response.

The Commission finds that the ID erred in finding that the unitary main tube on either side of the Rok-It Chair satisfies both the back support member and fulcrum member limitations of claim 10. "Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (quoting *Gaus v. Conair Corp.*, 363 F.3d 1284, 1288 (Fed. Cir. 2004)); *see also HTC Corp. v. Cellular Commc'ns Equip., LLC*, 701 F. App'x 978, 982 (Fed. Cir. 2017) ("The strongest evidence for this separation is the claim language itself, which plainly recites two different structures…. The separate naming of two structures in the claim strongly implies that the named entities are not one and the same structure."). The distinct nature of separately listed elements in a claim is even more clear when the claim includes language specifying that one element is physically connected to the other. *See Regents of the Univ. of Minn. v. AGA Medical Corp.*, 717 F.3d 929, 939 (Fed. Cir. 2013) ("[W]hen a physical object is described as having been 'affixed,' 'joined,' 'connected,' or 'conjoin[ed],' to another object, it means that those objects were previously physically separate.").[13] This is

[13] The body of precedent supporting this point is substantial. *See, e.g.*, *Comcast Cable Commc'ns, LLC v. Promptu Sys. Corp.*, 838 F. App'x 551, 553 (Fed. Cir. 2021) ("By listing the elements

because it would be "illogical" to regard a structure as connected or attached to itself. *See In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1280 (Fed. Cir. 2015) ("[I]t would 'be illogical to regard one unit to be 'attached' to itself.'").

Here, the relevant language from claim 10 provides:

> a pair of side frame assemblies including a **front leg member**, a **rear leg member**, a **back support member**, and a **fulcrum member** defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions, **said members** comprising each side frame assembly being **pivotally interconnected** for folding movement between the set-up condition of the chair and a collapsed condition of the chair

10 (emphasis added). Thus, claim 10 recites a pair of side frames, each of which includes four elements listed separately: (1) a front leg member; (2) a rear leg member; (3) a back support member; and (4) a fulcrum member. *Id.* Claim 10 also indicates that these "said members" are "pivotally interconnected." *Id.* Because each member is listed separately, *Becton*, *Gaus*, and *HTC* all indicate that each frame member should be treated as a separate structure. That conclusion is reinforced by the claim language indicating that the frame members are "pivotally interconnected."

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separately and by using the word 'coupled,' claim 14 strongly indicates the 'speech recognition system' is distinct from the 'wireline node.'"); *Cutsforth, Inc. v. Motivepower, Inc.*, 643 F. App'x. 1008, 1012 (Fed. Cir. 2016) (holding that the limitation "a brush catch coupled to the beam" requires the brush catch be a separate physical structure from the beam); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1280 (Fed. Cir. 2015) (holding that the limitation "a speedometer integrally attached to said colored display" required the speedometer and colored display to be "discrete parts physically joined together as a unit without each part losing its own separate identity"); *ICHL, LLC v. Sony Electronics, Inc.*, 455 F. App'x. 978, 981 (Fed. Cir. 2011) ("When one structure is bonded to a second structure, those structures are plainly separate."); *Becton*, 616 F.3d at 1255 ("If the hinged arm and the spring means are one and the same, then the hinged arm must be 'connected to' itself and must 'extend between' itself and a mounting means, a physical impossibility.").

As the Federal Circuit has explained, it would be illogical to interpret any one of these frame members as attached to itself. *Cuozzo*, 793 F.3d at 1280.

The specification also indicates that these frame members that form the side frame assemblies are separate structures. As noted above, there is only a single embodiment in the specification that describes a chair with side frame assemblies that include all four of the frame members recited in claim 10. That embodiment is illustrated in figure 9 and is described in columns 11 and 12 of the written description of the invention. JX-1, at Fig. 9; 11:35–12:29. Figure 9 clearly shows, and the specification also describes, that each frame member is a separate structure from the others, and that each frame member is pivotally connected to another. Nothing in figure 9 or in the description of the figure supports the ID's conclusion that these frame members need not be separate structures.

While the ID looked to the specification to support its finding that the frame members need not be separate structures, it reached the wrong conclusion by conflating distinct elements of another embodiment with the frame member elements actually claimed in claim 10. Specifically, the ID relied exclusively on the embodiment disclosed in figures 2 through 7 and the accompanying portions of the written description for the proposition that "the '824 patent discloses different elements of the chair frame as separate portions of a single tube." ID at 56. But that embodiment is of little probative value in interpreting claim 10 because that embodiment lacks the "pivotally interconnected" "front leg," "rear leg," "back support," and "fulcrum" members required by claim 10. Instead, that embodiment has a side frame assembly that includes "a generally closed frame loop constructed from axially-elongated tubular material that is bent to define an armrest portion **22**, a front leg portion **24**, a lower support portion **26**, and a rear leg

portion **28**" as well as "a backrest support member **30** rigidly attached to the closed frame loop." JX-1, at 6:28–35.

To be clear, the specification does not use the words "portion" and "member" interchangeably as the ID's reasoning suggests. The specification indicates as to the embodiments of figures 2 through 7 that a "portion," such as a "front leg portion," may be a region of singular tubular member or may itself be a separate member interconnected to other frame members. JX-1, at 6:27–32, 6:48–51. By contrast, however, the specification uses "member" exclusively to refer to separate structures that can be attached to one another in some manner. *See, e.g.*, JX-1, at 6:34–35 (describing a "backrest support member **30** rigidly attached to the closed frame loop"). Indeed, the specification expressly distinguishes frame portions from frame members:

> Further, each *portion* of the illustrated frame loop can be a separate *member*, with the various frame members being interconnected by rigid or flexible joints to collectively define the frame side assembly **20**.

JX-1, at 48–51 (emphasis added). This paragraph establishes that a frame side assembly made of a singular structure with various portions can be replaced by one made of separate interconnected members. The ID's implicit treatment of the words "portion" and "member" as interchangeable is incompatible with the usage of those terms in the specification. Accordingly, the ID's reliance on the specification's description of various frame "portions" on the closed loop frame illustrated in figures 2 through 7 to support its conclusion that the frame "members" recited in claim 10 need not be separate is misplaced. Moreover, to the extent the ID's reasoning implicitly suggests that claim 10 must be interpreted to cover all of the embodiments disclosed in the specification, the Federal Circuit has held otherwise. *See Baran v. Med. Device Techs., Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010) ("It is not necessary that each claim read on every embodiment.").

The Commission also disagrees with the ID's finding that "[c]laim 10 of the '824 patent does not include any language requiring a specific structural relationship between the back support member and the fulcrum member." ID at 56. The plain language of claim 10 requires that the "members comprising each side frame assembly," including the back support member and the fulcrum member, be "pivotally interconnected." JX-1, at cl. 10. Neither the ID itself, nor the expert testimony it cites, provides any explanation for how the "pivotally interconnected" limitation is anything but a specific structural relationship between the back support member and the fulcrum member. ID at 56 (citing Tr. at 287). To the extent GCI's expert testified that claim 10 does not require a specific structural relationship between the fulcrum and back support members, that testimony is flatly contradicted by the plain language of the claim and is accorded no weight. *Compare* Tr. at 287:15–21 *with* JX-1, at cl. 10; *see also Phillips*, 415 F.3d at 1318 ("[A] court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent." (internal quotation omitted)).[14] As explained above, the fact that the plain language of claim 10 requires the fulcrum member and back support member to be pivotally interconnected supports the conclusion that those elements are separate structures.

The cases GCI cites in its response to Denovo's petition for review are not inconsistent with the Commission's analysis of this issue. *See* GCI Resp. at 22–23. For example, *Rexnord Corp. v. Laitram Corp.*, supports the Commission's reasoning insomuch as the Federal Circuit explained that words indicating a connection of two components, "such as 'attachment,' 'mountable,' 'second piece,' or 'securable," "connote a quality of being 'separate.'" 274 F.3d

[14] The Commission further notes that the expert testimony on the page cited by the ID strays far from the type of topics on which expert testimony is useful. *See Phillips*, 415 F.3d at 1318.

1336, 1345 (Fed. Cir. 2001). And in *Retractable Technologies, Inc. v. Becton, Dickinson & Co*., the Court's determination that a "needle holder" and a "retainer member" need not be separate structures was based on the fact that the claims and specification included language embracing an integrally formed needle holder and retainer member. *See* 653 F.3d 1296, 1303 (Fed. Cir. 2011) (relying, for example, on claim language describing a needle holder with a head portion that "comprises … a continuous retainer member"). Neither the claim language nor the specification of the '824 patent indicate that either the "fulcrum member" or the "back support member" is comprised of the other.

In *Linear Tech. Corp. v. International Trade Commission*, the issue was whether the claimed "second circuit" and "third circuit" could include overlapping components, not whether a single circuit could be both the claimed second and third circuits, as is the issue in this investigation. *See* 566 F.3d 1049, 1055 (Fed. Cir. 2009). Likewise, *NTP, Inc. v. Research in Motion, Ltd*. dealt with whether a claimed "RF receiver" and a claimed "destination processor" could share the same physical housing. *See* 418 F.3d 1282, 1309–10 (Fed. Cir. 2005). The Court did not find that the same structure could be both the RF receiver and the destination processor; it found only that they could share a common housing. *See id.* at 1310. Finally, in *Powell v. Home Depot U.S.A., Inc*., the Court focused on the absence of any claim language indicating that a claimed "cutting box" and "dust collection structure" must be separate, in connection with language in the specification suggesting otherwise, to conclude that the cutting box could function as the dust collection structure. *See* 663 F.3d 1221, 1231–32 (Fed. Cir. 2011). As explained above, the intrinsic evidence here is meaningfully different because the claim language describes the fulcrum member and back support member as pivotally interconnected and the only embodiment

in the specification that includes both a fulcrum member and a back support member illustrates them as separate structures. *See* JX-1, at cl. 1, 10; *id.* at Fig. 9.

In the alternative to its finding that the Rok-It chair literally includes pivotally interconnected back support and fulcrum members, the ID found that if the back support and fulcrum members must be separate and distinct members of the side frame assembly, the Rok-It chair would infringe under the doctrine of equivalents. ID at 57. The ID found that the differences between the main tube in the Rok-It chair and the claimed pivotally interconnected back support member and fulcrum member "would be insubstantial to a person of skill in the art because the 'back support member' and the 'fulcrum member' would still be pivotally connected relative to the other members of the side frame assembly." *Id.* (citing CX-2C (Smith DWS), at Q/A 319–20). The ID also found that "the back support member performs substantially the same function, providing a back support, in substantially the same way, by providing a physical structure to support the user's back, achieving substantially the same result, support of the user's back." *Id.* And, the ID found that "Respondents did not adduce evidence to rebut GCI's argument for infringement of this claim limitation by the accused products under the doctrine of equivalents." *Id.* (citing Resps. Br. at 24–26). The Commission disagrees with the ID's finding that the Rok-It chair includes the equivalent of pivotally interconnected back support and fulcrum members.

First, as a matter of record, it is not correct that Denovo adduced no evidence to rebut GCI's doctrine of equivalents argument. Respondents' joint posthearing brief before the ALJ includes three pages specifically responding to and opposing GCI's equivalency argument. Resps. Br. at 24–26. Moreover, this portion of Respondents' brief includes citations to Respondents' expert's testimony rebutting GCI's expert's equivalence theory. *See id.* (citing RX-490C, at Q/A 23). The briefing also includes citations to precedent addressing the application of the doctrine of

equivalents. *See id.* Respondents' posthearing reply brief also similarly addresses GCI's doctrine of equivalents argument. Resps. Reply at 10–11. Whether the ID intended only to convey that the evidence adduced by Respondents was unpersuasive is unclear. However, to the extent that was the case, the Commission disagrees with the ID.

The Commission finds that the evidence on which the ID relies is insufficient to show, by a preponderance of the evidence, that the unitary main tubes of the Rok-It chair are insubstantially different from the claimed pivotally interconnected back support and fulcrum members. Specifically, the sole citation given by the ID in support of its equivalency finding amounts to two question-and-answer pairs from GCI's expert's direct witness statement, which read:

> Q.319: How, if at all, would it affect your opinions if the back support member and the fulcrum member were required to be separate, distinct structures?
>
> A.319: It would not affect my opinions on Denovo's infringement at all.
>
> Q.320: Why not?
>
> A.320: To the extent it may be argued that the back support member and the fulcrum member are not separate and distinct members of the side frame assembly, the patent clearly teaches that "the frame side assembly may be constructed from an open design... where the frame members are interconnected by rigid, pivotal, sliding, and/or telescopic joints" '842 Patent 6:51-58. The claim doesn't require these structures to be separate, and therefore Denovo's structure meets the limitation literally. **However, if the claims are somehow construed to require separate, distinct structures, the differences would be insubstantial to a POSITA because they would still be pivotally connected relative to the other members of the side frame assembly.**

CX-2C, at Q/A 319, 320 (emphasis added); *see also* ID at 57. Of the two answers GCI's expert gives, only the final sentence of the second answer arguably advances a doctrine of equivalents argument. But that sentence fails to explain why a single main tube is the equivalent of separate

fulcrum and back support members. Rather, that sentence addresses the separate dispute of whether every claimed frame member must be pivotally interconnected to every other member. *See* ID at 74–75. GCI's expert's testimony fails to explain why pivotal connection to other members establishes that a single unitary main tube is equivalent to the two separately claimed fulcrum and back support members that are pivotally connected to each other.

With respect to the ID's "function-way-result" analysis, the only evidence the ID cites in support of that finding is the testimony from GCI's expert reproduced above, which is silent on the function-way-result test. *See id.* (citing CX-2C, at Q/A 319, 320). Having reviewed GCI's expert's witness statement, the Commission can find no instance where he gave testimony that would support the ID's function-way-result finding for the back support member. *See generally* CX-2C. Similarly, after reviewing GCI's posthearing briefing before the ALJ, the Commission finds no instance where GCI employed the function-way-result test to establish equivalence between the claimed back support member and the Rok-It chair's main tube. *See generally* GCI Br.; GCI Reply.

Lack of evidence aside, as Denovo explains in its petition, finding that the unitary main tubes of the Rok-It chair are equivalent to the separately claimed pivotally interconnected back support and fulcrum members necessarily eliminates one of the "fulcrum member" or "back support member" limitations from the claim 10. Denovo Pet. at 33 (citing *Freedman Seating Co. v. American Seating Co.*, 420 F.3d 1350, 1358 (Fed. Cir. 2005)). In such a circumstance, the "all limitations" (or "all elements") rule precludes equivalence as a matter of law. *Freedman Seating*, 420 F.3d at 1358 ("[A]n element of an accused product or process is not, as a matter of law, equivalent to a limitation of the claimed invention if such a finding would entirely vitiate the limitation."); *see also Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997)

("It is important to ensure that the application of the doctrine, even as to an individual element, is not allowed such broad play as to effectively eliminate that element in its entirety."); *Lockheed Martin Corp. v. Space Sys./Loral, Inc.*, 324 F.3d 1308, 1321 (Fed. Cir. 2003) ("Under the all elements rule, there can be no infringement under the doctrine of equivalents if even one limitation of a claim or its equivalent is not present in the accused device.").

Infringement under the doctrine of equivalents, like literal infringement, is a question of fact on which the patentee bears the burden of establishing by a preponderance of the evidence. On the record of this investigation, the Commission finds that GCI has not met its burden with respect to showing equivalence between the separate back support and fulcrum members of claim 10 and the unitary main tube of the Rok-It chair. Accordingly, the Commission has determined to reverse the ID's finding that the Rok-It chair would satisfy the back support and fulcrum member limitations under the doctrine of equivalents. In so doing, and in combination with the Commission's determination that the Rok-It chair does not literally infringe those limitations, the Commission reverses the ID's finding that the Rok-It chair infringes the asserted claims of the '824 patent, all of which incorporate the back support and fulcrum member limitations of claim 10.

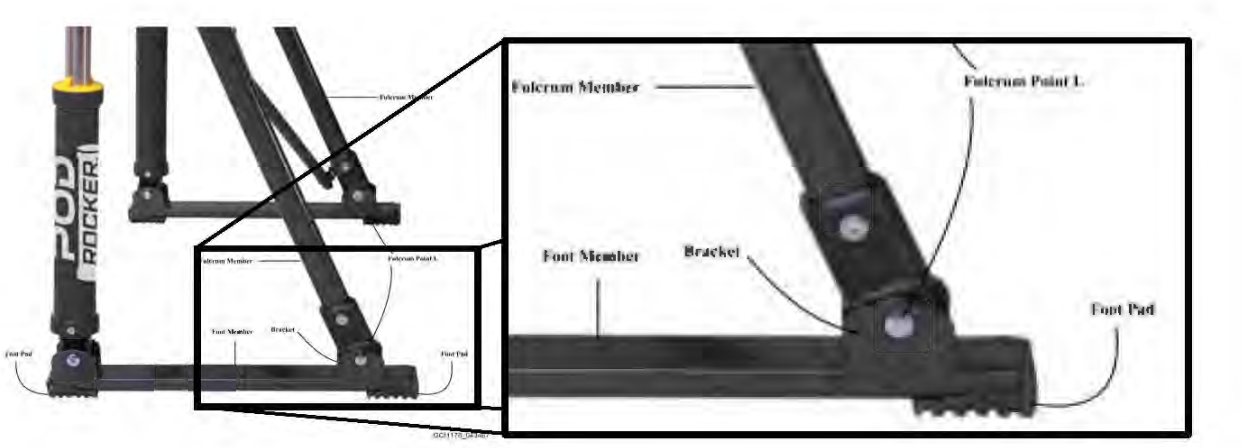
3. Domestic Industry Findings Concerning "Pivotally Interconnected" Chair Frame Members and a Fulcrum Point "Adapted for Contacting the Ground Surface"

The ID found that GCI's own chairs do not satisfy the technical prong of the domestic industry requirement because they do not include a fulcrum point adapted for contacting the ground surface, and thus do not practice any claim of the '824 patent. ID at 87–91. As explained in the ID:

> the fulcrum point of the '824 GCI products rests on a bracket, which itself rests on a foot member that also supports the rocker mechanism and the rear leg (and the foot member itself rests on foot

> pads adapted for contacting the ground surface). Such a configuration eliminates the need for the fulcrum point itself to be "adapted for contacting the ground surface," and to find that the fulcrum point itself is so adapted here would read the limitation out of the claim.

ID at 90. The Commission agrees with the ID's reasoning and finds that this reasoning remains correct under the Commission's modified construction of "adapted for contacting the ground surface." Specifically, the structure GCI identifies in its own chairs as a fulcrum point is not suited by design for contacting the ground surface on which the chair sits in a setup condition. To the contrary, the design of that fulcrum point ensures that it will never contact the ground surface:



RX-490C, at Q/A 55 (magnified portion added for readability). The fulcrum point in GCI's chairs is effectively the opposite of a structure that is adapted to contact the ground surface. The fulcrum point in GCI's chairs is designed to pivot within a bracket, which is attached to support runner (labeled "foot member" above), which in turn touches the ground through a rubber pad. *See, e.g.*, CX-188, at 3. By virtue of its positioning within the bracket, that fulcrum point will never contact the ground surface, *i.e.*, it is designed not to touch the ground. Moreover, no evidence indicates that the bracket itself is adapted to contact the ground surface. Accordingly, the ID correctly determined that GCI's chairs do not literally include the claimed fulcrum point adapted for

contacting the ground surface required by the claims on which GCI relies to satisfy the technical prong of the domestic industry requirement.

The Commission likewise affirms the ID's finding that the GCI chairs do not practice this limitation under the doctrine of equivalents. Here again, the Commission's modification of the construction of "adapted for contacting the ground surface" does not undermine the ID's reasoning. Particularly, the ID correctly noted that GCI's expert's equivalency analysis was marred by its focus on the substantiality of "any differences between directly touching the ground and touching the ground through a foot." CX-2C, at Q/A 754. In so doing, GCI's expert failed to address the actual structure of the fulcrum point in GCI's chairs, which "does not simply touch the ground through a foot." ID at 90 (internal quotation omitted). Given that it is GCI's burden to establish equivalence by a preponderance of the evidence, GCI's expert's failure to address the differences between the actual structure of GCI's chairs and the structure required by the claims is fatal to its equivalency argument.

The Commission adds, however, that GCI's equivalency argument fails for an additional reason. The doctrine of equivalents cannot be used to cover structures disclosed, but not claimed, in a patent because those structures are considered to have been dedicated to the public. *See Johnson & Johnston Assocs. Inc. v. R.E. Serv. Co.*, 285 F.3d 1046, 1054 (Fed. Cir. 2002) ("[W]hen a patent drafter discloses but declines to claim subject matter, as in this case, this action dedicates that unclaimed subject matter to the public. Application of the doctrine of equivalents to recapture subject matter deliberately left unclaimed would 'conflict with the primacy of the claims in defining the scope of the patentee's exclusive right.'"); *PSC Comput. Prod., Inc. v. Foxconn Int'l, Inc.*, 355 F.3d 1353, 1360 (Fed. Cir. 2004) ("The disclosure-dedication rule requires an inventor who discloses specific matter to claim it, and to submit the broader claim for examination.

Otherwise, that matter is dedicated to the public and may not be recaptured under the doctrine of equivalents."). Such is the case here. The specification of the '824 patent discloses fulcrum point embodiments that are not adapted to touch the ground but instead rest in a bracket on a foot member on a foot pad—exactly like those in GCI's chairs:

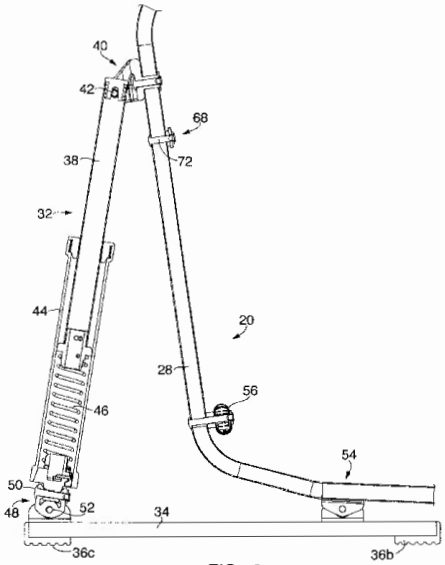


FIG. 6



Compare, *e.g.*, JX-1, at Fig. 6 *with* RX-490C, at Q/A 55. But the '824 patent does not claim those embodiments. Accordingly, those embodiments cannot be equivalents to the fulcrum points actually claimed in the '824 patent. *See Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1107 (Fed. Cir. 1996) ("A patentee may not narrowly claim his invention and then, in the course of an infringement suit, argue that the doctrine of equivalents should permit a finding of infringement because the specification discloses the equivalents."). Accordingly, the Commission affirms the ID's finding that GCI's chairs do not practice the "adapted for contacting the ground" limitation of the '824 patent.

The ID also found that GCI's domestic industry chairs practice the fulcrum member and back support member limitations of claims 1 and 10 the '824 patent. *See* ID at 84–87. As with the Rok-It chair, however, the ID based its finding on its subsidiary findings that the claimed

fulcrum back support members need not be separate, and that a unitary metal tube in GCI's chairs could be both the claimed back support member and fulcrum member. ID at 85. This aspect of the ID's reasoning is nearly identical to the reasoning it employed in the context of infringement. *See id.* Accordingly, the Commission has determined to reverse the ID's finding that the unitary metal tube in GCI's chairs satisfies the fulcrum member and back support member limitations of claims 1 and 10 for the same reasons it reversed the ID's finding that the unitary main tube of the Rok-It chair satisfies those limitations.

4. Findings on which the Commission Takes No Position

The Commission has determined to review the ID's findings with respect to the obviousness of the asserted claims of the '824 patent. ID at 113–46. The Commission has also determined to review the ID's finding that GCI satisfies the economic prong of the domestic industry requirement for the '824 patent. ID at 282–94. On review, the Commission takes no position on either of those issues. The Commission has determined not to review the ID's other validity findings.

B. The '611 Patent

With regard to the '611 patent, the Commission has determined to review the ID's determination on infringement, the ID's determination on obviousness based on the MacSports Directors Chair in view of Seng, the ID's findings concerning secondary considerations of nonobviousness, and the final ID's finding on economic prong. The Commission has determined not to review any other issues.

1. Infringement Findings Concerning "Fulcrum Point"

Before the ALJ, GCI argued that both the MacRocker and the Mulberry Bounce chairs practice the "fulcrum point" limitation of the '611 patent through the doctrine of equivalents. GCI Br. at 95. To support that argument, GCI relied on a novel legal framework for analyzing

equivalence. Rather than address the substantiality of the differences between the structure in the accused chairs and the "fulcrum point" limitation of the claims, GCI instead argued that the bending motion of compliant members in the accused chairs could be approximated with simplified models based on rigid bars connected by pivoting joints. *See id.* at 96–99. GCI, and its expert, refer to these models as pseudo-rigid-body models ("PRBM"). *Id.* at 96. GCI's approach effectively shifted the equivalence inquiry from a comparison of the accused chairs with the claimed "fulcrum point," to a comparison of the accused chairs with PRBMs. Thus, per GCI's theory, if it can show that the PRBM models are "equivalent" to the compliant members in the accused chairs, it will have also shown that the compliant members are equivalent to the claimed "fulcrum point" because the PRBM models include a pivot.

The ID rejected GCI's theory of equivalence based on GCI's expert's failure to provide necessary information about the PRBMs to show that they accurately modeled the compliant members of the accused chairs. FID at 190–91. The Commission sees no error in those findings, which indicate that GCI failed to provide sufficient evidence to establish the predicate of its doctrine of equivalence argument, *i.e.*, that the PRBMs it relied on were in fact equivalent to the compliant members in the accused chairs.

The Commission further notes that it is well-established that, regardless of the specific linguistic formulation of the test for equivalency, "[a] finding of infringement under the doctrine of equivalents requires a showing that the difference ***between the claimed invention and the accused product*** was insubstantial." *Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1312 (Fed. Cir. 2009) (emphasis added) (citing *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950)). Here, GCI's approach focuses instead on a comparison of the accused products to a simplified engineering model. The Commission is aware of no

precedent that endorses establishing equivalency, as that term is used in the context of the doctrine of equivalents, by substituting an entirely different structure, in this case PRBMs, for the structure of the accused products in the comparison with the claimed structure. Respondents raised this point in their posthearing briefing before the ALJ, but GCI's reply cited no precedent in rebuttal. *See* Resps. Br. at 70; GCI Reply at 34. Instead, GCI summarily asserted that the issue had been resolved in its favor by an earlier order denying summary judgment to MacSports. GCI Reply at 34 (citing Order No. 19 at 2–3). However, nothing in that order establishes support in the law for GCI's departure from the traditionally-required comparison of the differences between an accused product and a claimed structure in favor of a comparison between an approximating model and the claimed structure. *See generally* Order No. 19. Similarly, GCI's petition for review of the ALJ's "fulcrum point" findings lacks any citation to precedent that would support its novel approach to the doctrine of equivalents. *See* GCI Pet. at 20–47.

The absence of supporting precedent is not merely an academic concern here. By focusing its analysis of the PRBMs instead of the actual structures in the chair, GCI avoids addressing the fact that the MacRocker and the Mulberry Bounce chairs achieve rocking motion without the need for a fulcrum point at all. Under a conventional doctrine of equivalents analysis, that fact would be fatal to GCI's position. *See Conopco, Inc. v. May Dep't Stores Co.*, 46 F.3d 1556, 1562 (Fed. Cir. 1994) ("The doctrine of equivalents cannot be used to erase meaningful structural and functional limitations of the claim on which the public is entitled to rely in avoiding infringement." (internal quotations omitted)). Accordingly, the Commission declines to endorse GCI's comparison of the differences between a model that approximates the behavior of the accused chairs and the claimed "fulcrum point" in the '611 patent for the purpose of establishing infringement under the doctrine of equivalents. GCI's approach both lacks support in the law and

reduces the "fulcrum point" limitation to a nullity. *See also*, RX-451C, at Q/A 26–41 (testifying that a simplified model is not necessarily equivalent to the system it models).

The Commission additionally notes that the ID's rejection of GCI's doctrine of equivalents argument is not based solely on GCI's failure to show that the PRBMs it relies on are actually equivalent to the accused products. For both the MacRocker and the Westfield chair, the ID also cited with approval testimony from MacSports' and Westfield's expert witnesses applying proper function-way-result analyses to determine whether differences between the accused chairs and the claimed "fulcrum point" are substantial. *See, e.g.* ID at 179 (citing RX-392C, at Q/A 91–100); *id.* at 193 (citing RX-451C, at Q/A 53–61). In addition to the citations in the ID, the Commission finds the following portions of those experts' testimony further supports the ID's finding of no equivalence based on the application of a function-way-result analysis: RX-392C, at Q/A 101–110; RX-451C, at Q/A 62–67.

Consistent with the supplemented reasoning above, the Commission has determined to affirm the ID's ultimate finding of no infringement based on the ID's finding that the accused chairs lack the "fulcrum point" required by the asserted claims. ID at 179–204, 220–24.

2. Findings on which the Commission Takes No Position

The Commission has also determined to review the following findings in the ID: (1) the findings that the MacRocker and Mulberry Bounce chairs accused of infringing the '611 patent do not practice the "rocker mechanism" limitation of the asserted claims, ID at 204–14, 231–33; (2) the findings with respect to the obviousness of the asserted claims of the '611 patent based on the MacSports Directors Chair in view of Seng, ID at 267–71; (3) the findings concerning secondary considerations of nonobviousness in connection with the '611 patent,[15] ID at 277–82;

[15] Although the Commission takes no position as to the ID's secondary considerations findings,

and (4) the finding that GCI satisfies the economic prong of the domestic industry requirement for the '611 patent, ID at 282–94. On review, the Commission takes no position on those issues.

V. CONCLUSION

The Commission has determined that there has been no violation of section 337 by the remaining respondents in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain collapsible and portable furniture by reason of infringement of certain claims of the '824 or '611 patent. Consistent with the reasoning laid out above, the Commission has determined to review the final ID in part and, on review, modify the ID in part, reverse the ID in part, and take no position on certain issues in the ID. The Commission has determined not to review the remainder of the ID. Accordingly, the investigation is terminated with a finding of no violation of Section 337.

By order of the Commission.



Lisa R. Barton
Secretary to the Commission

Issued: May 18, 2021

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the Commission does not disturb the ID's findings of fact as to the obviousness of prior art combinations other than the MacSports Directors Chair in view of Seng.

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **COMMISSION OPINION** has been served upon the following parties as indicated, on **May 18, 2021.**



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PUBLIC VERSION

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C. 20436

In the Matter of **CERTAIN COLLAPSIBLE AND PORTABLE FURNITURE**	**Inv. No. 337-TA-1178**

INITIAL DETERMINATION

Administrative Law Judge David P. Shaw

Pursuant to the notice of investigation, 84 Fed. Reg. 52896 (Oct. 3, 2019), this is the initial determination in *Certain Collapsible and Portable Furniture*, United States International Trade Commission Investigation No. 337-TA-1178.

It is held that no violation of section 337 of the Tariff Act, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain collapsible and portable furniture, with respect to asserted claims 10, 11, 12, 15, 18 and 19 of U.S. Patent No. 9,282,824, and asserted claims 1, 2, 8, 10, 11, 14, 15 and 19 of U.S. Patent No. 9,060,611.

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C. Infringement 48

1. Claim 10 48

a. A collapsible and portable rocking chair comprising: 48

b. a pair of side frame assemblies including; 48

c. a front leg member; 48

d. a rear leg member; 53

e. a back support member; 53

f. a fulcrum member; 58

g. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof; 60

h. about which the chair can move between forward and rearward rocking positions; 64

i. said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair; 68

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j. at least one rocker mechanism attached to each side frame assembly for supporting the chair during movement between said forward and rearward positions; 77

k. a flexible seat and a flexible backrest secured to and extending between the side frame assemblies. 77

2. Claim 11 77

a. The collapsible and portable rocking chair according to claim 10 77

b. wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly. 77

3. Claim 12 78

a. The collapsible and portable rocking chair according to claim 11 78

b. wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected. 78

4. Claim 15 79

a. The collapsible and portable rocking chair according to claim 10 79

b. wherein each side frame assembly further comprises a seat support member pivotally interconnected with other members of said side frame assembly defining a seat support for supporting the flexible seat. 79

5. Claim 18 79

a. The collapsible and portable rocking chair according to claim 10 80

b. wherein the side frame assemblies are interconnected by at least one transversely extending connector mechanism. 80

6. Claim 19 80

a. The collapsible and portable rocking chair according to claim 18 80

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b. wherein the connector mechanism comprises a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies. 81

D. Domestic Industry (Technical Prong) 81

1. Claim 1 81

a. A collapsible and portable rocking chair comprising: 81

b. an articulated chair frame defining a back support and a seat support, wherein said frame has a set-up condition and a collapsed condition; 82

c. a seat panel mounted on the seat support of the frame; 82

d. a backrest panel mounted on the back support of the frame; 82

e. wherein said chair frame comprises a pair of side frame assemblies of opposite hand disposed in generally parallelly extending and transversely spaced apart opposing relation to each other, ...82

f. each of said side frame assemblies having a plurality of generally axially elongated frame members being interconnected for pivotal movement relative to one another about generally transversely extending pivot axes, said frame members including: 83

g. a front leg member; 86

h. a rear leg member; 87

i. a seat support member defining a respective side of the seat support; 87

j. a back support member defining a respective side of the back support; 87

k. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, ...87

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l. and about which said chair frame can move between forward and rearward positions; 92

m. at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions. 92

2. Claim 2 92

a. The collapsible and portable rocking chair according to claim 1 ..92

b. wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly. 92

3. Claim 3 93

a. The collapsible and portable rocking chair according to claim 2 ..93

b. wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected. 93

4. Claim 9 94

a. The collapsible and portable rocking chair according to claim 1 ..94

b. wherein the seat panel and the backrest panel are made of a flexible material. 94

5. Claim 10 94

a. A collapsible and portable rocking chair comprising: 95

b. a pair of side frame assemblies including 95

c. a front leg member, ...95

d. a rear leg member, ...95

e. a back support member, ...95

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f. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof, ...95

g. and about which the chair can move between forward and rearward rocking positions; 100

h. said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair; 100

i. at least one rocker mechanism attached to each side frame assembly for supporting the chair during movement between said forward and rearward positions; 104

j. a flexible seat and a flexible backrest secured to and extending between the side frame assemblies. 104

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a. front leg member 106

b. rear leg member 106

c. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits 107

d. at least one rocker mechanism attached to the chair frame (claim 1) / at least one rocker mechanism attached to each side frame assembly (claim 10) 108

e. members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair (claim 10) 109

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e. "wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame" (claim 14).....169

f. "a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points" (claim 14).....170

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1. Claim 1 172

   a. A collapsible and portable rocking chair comprising: 172

   b. a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another, ... 172

   c. each frame side assembly including a front leg portion and a rear leg portion; 173

   d. a pair of generally U-shaped cross members pivotally connected to one another 173

   e. for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another, 174

   f. said cross members collectively defining a seat support when in the open condition, ... 177

   g. each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies; 178

   h. a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition; 178

   i. a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions; 179

   j. at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions; 204

   k. wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair 214

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2. Claim 2 215

   a. The collapsible and portable rocking chair according to claim 1 215

   b. wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up. 215

3. Claim 8 216

   a. The collapsible and portable rocking chair according to claim 1 216

   b. wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly. 216

4. Claim 10 217

   a. The collapsible and portable rocking chair according to claim 1 217

   b. wherein each cross member includes a front portion, a central front-back portion, and a rear portion, such that the front portions of the pair of cross members are pivotally connected at a front pivot point, the rear portions of the pair of cross members are pivotally connected at a rear pivot point, and the central front-back portions collectively define the seat support of the chair and receive the flexible seat panel therebetween for supported a seated user. 217

5. Claim 11 218

   a. The collapsible and portable rocking chair according to claim 10, further comprising: 218

   b. a forward support brace connected between the front portion of each cross member and the front leg portion of the frame side assembly to which the cross member is not pivotally connected at the terminal end thereof; and a rear support brace connected between the rear portion of each cross member and the rear leg portion of said frame side assembly. 218

6. Claim 14 219

   a. A collapsible and portable rocking chair comprising: 219

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b. a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another,.....219

c. each frame side assembly including a front leg portion and a rear leg portion;.....219

d. a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions.....220

e. whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points;.....224

f. a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between.....224

g. an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another,.....224

h. said cross members collectively defining a seat support when in the open condition,.....225

i. each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies;.....225

j. a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition;.....225

k. a first foot associated with the front leg portion of each frame side assembly;.....225

l. a second foot associated with the rear leg portion of each frame side assembly;.....226

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m. a third foot associated with the fulcrum point of each frame side assembly;....226

n. wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame. 228

7. Claim 15....230

a. The collapsible and portable rocking chair according to claim 14 231

b. further comprising at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between the forward and rearward positions....231

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a. The collapsible and portable rocking chair according to claim 15 233

b. wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly. 233

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1. Claim 1....234

a. A collapsible and portable rocking chair comprising: 234

b. a chair frame comprising a pair of frame side assemblies having substantially mirrored construction....234

c. being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another, ...234

d. each frame side assembly including a front leg portion and a rear leg portion;....235

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e. a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement 235

f. between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another, ...235

g. said cross members collectively defining a seat support when in the open condition, ...238

h. each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies; 239

i. a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition; 239

j. a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions; 239

k. at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions; 239

l. wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair 240

2. Claim 2 240

a. The collapsible and portable rocking chair according to claim 1, ...240

b. wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up. 240

3. Claim 8 241

a. The collapsible and portable rocking chair according to claim 1, ...241

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b. wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly. 241

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The following abbreviations may be used in this Initial Determination:

ALJ	-	Administrative Law Judge
CDX	-	Complainant's Demonstrative Exhibit
CPX	-	Complainant's Physical Exhibit
CX	-	Complainant's Exhibit
Dep.	-	Deposition
EDIS	-	Electronic Document Imaging System
JPX	-	Joint Physical Exhibit
JX	-	Joint Exhibit
MPEP	-	Manual of Patent Examining Procedure
P.H.	-	Prehearing
PTO	-	U.S. Patent and Trademark Office
RDX	-	Respondents' Demonstrative Exhibit
Rog	-	Interrogatory
RPX	-	Respondents' Physical Exhibit
RWS	-	Rebuttal Witness Statement
RX	-	Respondents' Exhibit
Tr.	-	Transcript
WS	-	Witness Statement

I. Background

A. Institution of the Investigation; Procedural History

By publication of a notice in the *Federal Register* on October 3, 2019, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, the Commission instituted this investigation 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, 6, 8-12, 15, 16, and 18-20 of the '824 patent [U.S. Patent No. 9,282,824] and claims 1-3, 8, 10, 11, 13-15, and 19 of the '611 patent [U.S. Patent No. 9,060,611]; and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

84 Fed. Reg. 52897 (Oct. 3, 2019).

The Commission named as complainant GCI Outdoor, Inc. of Higganum, Connecticut ("GCI" or "complainant"). *Id.*

The Commission named as respondents Denovo Brands, LLC ("Denovo") of Bentonville, Arkansas; Zhenli (Zhangzhou) Industrial Co., Ltd. ("Zhenli") of Fujian, China; Fujian Zenithen Consumer Products Co., Ltd. of Fujian, China; Zenithen Hong Kong Ltd. of Causeway Bay, Hong Kong; Meike (Qingdao) Leisure Products Co., Ltd. ("Meike") of Qing Dao, China; Zenithen USA, LLC of Upland, California; Westfield Outdoor, Inc. d/b/a Westfield Outdoors ("Westfield") of Indianapolis, Indiana; and MacSports Inc. ("MacSports") of La Verne, California (collectively, "respondents"). *Id.*

The Office of Unfair Import Investigations was not named as a party to this investigation. *Id.*

The target date for completion of this investigation was originally set at 15 months, *i.e.*, January 4, 2021, with an evidentiary hearing scheduled to commence on May 19, 2020. Order No. 3 (Oct. 11, 2019).

GCI and respondents Fujian Zenithen Consumer Products Co., Ltd.; Zenithen Hong Kong Ltd.; and Zenithen USA LLC (collectively, the "Zenithen Respondents") filed a joint motion to terminate the investigation as to the Zenithen Respondents based on a settlement agreement and a consent order. The administrative law judge granted the motion in an initial determination. Order No. 6 (Feb. 20, 2020). The Commission affirmed the initial determination with modified reasoning. Commission Determination to Review an Initial Determination Terminating the Investigation as to the Zenithen Respondents Based on Consent Order and Settlement Agreement and on Review Affirm with Modified Reasoning; Issuance of Consent Order (Mar. 13, 2020) (EDIS Doc. No. 704921).

On March 31, 2020, GCI filed a motion "to partially terminate this investigation with respect to claims 3 and 13 of asserted U.S. Patent No. 9,060,611 [] and claims 6, 8, 16, and 20 of asserted U.S. Patent No. 9,282,824 [] based on a partial withdrawal of the amended complaint." The administrative law judge granted the motion in an initial determination. Order No. 15 (Apr. 22, 2020), *aff'd*, Commission Determination Not to Review an Initial Determination Partially Terminating the Investigation Based on the Withdrawal of Certain Claims (May 19, 2020) (EDIS Doc. No. 710611).

On April 15, 2020, the administrative law judge issued Order No. 14, indicating that on that date, the Commission Chairman informed agency personnel that in view of the COVID-19 pandemic, the Commission ordered the administrative law judges to postpone any hearings until after June 10, 2020. Order No. 14 at 1. Accordingly, the administrative law judge postponed the

evidentiary hearing scheduled to commence on May 19, 2020, and suspended the remainder of the procedural schedule. *Id.*

On July 17, 2020, the administrative law judge held a telephone conference with all parties. *See* Conf. Tr. (EDIS Doc. No. 715663). During the conference, the administrative law judge, among other things, informed the parties that the Commission had selected a video platform for taking hearing testimony, and also heard assent, objection and other comments relating to various hearing procedures (including video testimony, hearing on the papers, and the receipt of deposition testimony in lieu of other testimony). In addition, the administrative law judge requested that the parties confer, and then file a report with a proposal for completing the rest of the procedural schedule, including a possible video hearing. Conf. Tr. 12, 25, 42-43.

On July 24, 2020, the parties filed their Joint Report Regarding Evidentiary Hearing (EDIS Doc. ID No. 715588), which contains, among other things, preferences and objections with respect to procedures for an evidentiary hearing (indicating the lack of unanimity among the parties), and a proposed joint procedural schedule based on the parties' availability for a hearing either on December 2-4, 2020, or on December 8-10, 2020.[1]

On August 20, 2020, the administrative law judge issued Order No. 17, amending the procedural schedule generally in the manner proposed in the Joint Report with a hearing to begin on December 2, 2020, although one additional hearing day was added (December 7, 2020) with the expectation that it might be necessary to discuss evidentiary and other matters after the conclusion of testimony. Order No. 17 at 1-2 & n.1.

[1] On August 10, 2020, the office of the administrative law judge was informed that not all parties were available on the proposed hearing dates of December 8-10, 2020.

On August 24, 2020, in accordance with Order No. 17, the administrative law judge issued an initial determination setting the target date at approximately 20 and one-half (20.5) months, *i.e.*, June 18, 2021, which makes the deadline for this initial determination February 18, 2021. Order No. 18 (Aug. 24, 2020), *aff'd*, Notice of a Commission Determination Not to Review an Initial Determination Extending the Target Date (Sept. 15, 2020) (EDIS Doc. No. 719700).

A prehearing conference was held on December 2, 2020, with the evidentiary hearing in this investigation commencing immediately thereafter. Complainant GCI and respondents Denovo, Zhenli, Meike, Westfield and MacSports participated in the hearing. The hearing concluded on December 4, 2020. *See* Order No. 17 (Aug. 20, 2020); P.H. Tr. 1–25; Tr. 1-827. The parties were requested to file posthearing briefs not to exceed 180 pages in length, and to file reply briefs not to exceed 65 pages in length. Tr. 822-824.

On December 16, 2020, GCI filed its post-hearing brief, which asserts the following claims against the following parties:

- claims 10, 11, 12, 15, 18 and 19 of the '824 patent against Denovo and Zhenli (Compl. Br. at 24);
- claims 1, 2, 8, 14, 15 and 19 of the '611 patent against MacSports and Meike (*id.* at 95); and
- claims 1, 2, 10, and 11 of the '611 patent against Westfield (*id.*).

Pursuant to Order No. 2 (Ground Rules), the parties also submitted a joint outline of the issues to be decided in the Final Initial Determination. *See* Comprehensive Joint Outline of Issues (EDIS Doc. ID No. 728207) ("Joint Outline").

B. The Parties

The complainant is GCI Outdoor, Inc. of Higganum, Connecticut. GCI is a corporation organized and existing under the laws of Connecticut. *See* Amended Complaint, ¶ 9. GCI was founded in 1996 for the purpose of researching, developing, and manufacturing outdoor furniture, such as chairs, tables and other equipment. *See id.*, ¶ 11.

Respondent Denovo Brands, LLC is a limited liability company established under the laws of Arkansas. *See id.*, ¶ 14; Denovo Resp. to Compl. at 14. Respondent Zhenli (Zhangzhou) Industrial Co., Ltd. is a company organized under the laws of China or Hong Kong. *See id.*, ¶ 15; Zhenli Resp. to Compl. at 7. Denovo imports into and sells within the United States a collapsible, portable, lightweight outdoor rocking chair manufactured by Zhenli. *See id.*, ¶ 19; CX-0216C (Denovo's 5th Supp. Rog Resps.) at 5.

MacSports Inc. is a company organized under the laws of California. *See* Amended Complaint, ¶ 29; MacSports and Meike Resp. to Compl. at 5. Meike (Qingdao) Leisure Products Co., Ltd. is a corporation organized under the laws of China. *See id.*, ¶ 30; MacSports and Meike Resp. to Compl. at 5. MacSports imports into and sells within the United States a collapsible, portable, lightweight outdoor rocking chair manufactured by Meike. RX-0117C (Wei DWS) at Q/A 30-31.

Westfield Outdoor, Inc. d/b/a Westfield Outdoors is a company organized under the laws of Nevada. *See* Amended Complaint, ¶ 26; Westfield Resp. to Compl. at 8. Westfield sells within the United States after importation a collapsible, portable, lightweight outdoor rocking chair called the Mulberry Bounce Chair, which is manufactured in China by Westfield's contract manufacturer, [redacted] CX-0255C (Westfield 5th Supp. Rog Resps.) at 3.

C. The Accused Products

The accused products in this investigation are listed in a joint filing required by the procedural schedule. *See* Order No. 5 (requiring a "file joint statement identifying accused products"). By listing a product in the joint filing, respondents have not admitted infringement. Nevertheless, the joint filing indicates the final extent of GCI's accusations in this investigation. *See* Joint Statement Regarding Identification of Accused Products (EDIS Doc. No. 694839).

GCI accuses Denovo and Zhenli's Kijaro Rok-It Chair of infringing claims 10, 11, 12, 15, 18, and 19 of the '824 patent. *See* Compl. Br. at 24-46. These products are stock numbers 99012 and 99009. *See* Joint Identification of Accused Products at 1.

GCI accuses MacSports and Meike's MacRocker of infringing claims 1, 2, 8, 14, 15, and 19 of the '611 patent. *See* Compl. Br. at 95-117. These products are product numbers C2163A, C2161A, 1324440. *See* Joint Identification of Accused Products at 1.

GCI accuses Westfield's Mulberry Bounce Chair of infringing claims 1, 2, 10, and 11 of the '611 patent. *See* Compl. Br. at 117-30.

D. The Domestic Industry Products

GCI identifies the domestic industry products for the '824 patent, as follows:

> GCI's RoadTrip Rocker, Pod Rocker / Pod Rocker with Sunshade, and Kickback Rocker (the "'824 Covered Rockers") each meet all of the limitations of at least claims 1-3, 9, and 10 of the '824 Patent, either literally or under the doctrine of equivalents.

Id. at 46.

GCI identifies the domestic industry products for the '611 patent, as follows:

> GCI's Freestyle Rocker / Mesh Freestyle Rocker, FirePit Rocker, and Beach Rocker products ("'611 Covered Rockers") each meet all of the limitations of at

least claims 1, 2, and 8 of the '611 Patent, either literally or under the doctrine of equivalents.

Id. at 136.

II. Jurisdiction

No party has contested the Commission's personal jurisdiction over it. *See, e.g.*, Compl. Br. at 9-10. Indeed, all parties appeared at the evidentiary hearing and presented evidence. It is found that the Commission has personal jurisdiction over all parties. *See, e.g.*, *Certain Liquid Crystal Display Modules, Products Containing Same, and Methods for Using the Same*, Inv. No. 337-TA-634, Final Initial and Recommended Determinations at 3 (June 12, 2009) (not reviewed).

GCI has filed a complaint alleging a violation of section 337, and the Commission, therefore, has subject matter jurisdiction. *See Amgen, Inc. v. United States Int'l Trade Comm'n*, 902 F.2d 1532, 1535-37 (Fed. Cir. 1990).

The Commission also has *in rem* jurisdiction, as the respondents have admitted to importing the accused products. *See* CX-0216C (Denovo's 5th Supp. Rog Resps.) at 5; CX-0239C (MacSports's 2d Supp. Rog Resps.) at 3; CX-0255C (Westfield's 5th Supp. Rog Resps.) at 4-7; *Sealed Air Corp. v. Int'l Trade Comm'n*, 645 F.2d 976, 985–86 (C.C.P.A. 1981) (noting that the Commission has jurisdiction over imported goods).

III. Importation

As indicated in the notice of investigation, quoted above, this investigation was instituted to determine whether a violation of section 337 has occurred in "the importation into the United States, the sale for importation, or the sale within the United States after importation" of certain products. *See* 84 Fed. Reg. 52896 (Oct. 3, 2019); 19 U.S.C. § 1337(a)(1)(B) (making unlawful, in certain circumstances, the "importation into the United States, the sale for importation, or the

sale within the United States after importation by the owner, importer, or consignee, of articles that . . . infringe a valid and enforceable United States patent . . . ."). It has long been recognized that an importation of even one accused product can satisfy the importation requirement of section 337. *See Certain Trolley Wheel Assemblies*, Inv. No. 337-TA-161, Comm'n Op. at 7-8, USITC Pub. No. 1605 (Nov. 1984) (deeming the importation requirement satisfied by the importation of a single product of no commercial value).

In this investigation, it is uncontested that the importation requirement is satisfied with respect to the products alleged to infringe the asserted claims of the '824 and '611 patents. Each respondent has sold for importation, imported, or sold after importation accused products. *See* Compl. Br. at 9-10 (citing CX-0216C (Denovo's 5th Supp. Rog Resps.); CX-0239C (MacSports's 2d Supp. Rog Resps.); CX-0255C (Westfield's 5th Supp. Rog Resps.)).

IV. General Principles of Law

A. Claim Construction

Claim construction begins with the plain language of the claim.[2] Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art, viewing the claim terms in the context of the entire patent.[3] *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

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[2] Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vanderlande Indus. Nederland BV v. Int'l Trade Comm.*, 366 F.3d 1311, 1323 (Fed. Cir. 2004); *Vivid Tech., Inc. v. American Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

[3] Factors that may be considered when determining the level of ordinary skill in the art include: "(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984).

In some instances, claim terms do not have particular meaning in a field of art, and claim construction involves little more than the application of the widely accepted meaning of commonly understood words. *Phillips*, 415 F.3d at 1314. "In such circumstances, general purpose dictionaries may be helpful." *Id.*

In many cases, claim terms have a specialized meaning, and it is necessary to determine what a person of skill in the art would have understood the disputed claim language to mean. "Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" *Id.* (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). The public sources identified in *Phillips* include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id.*

In cases in which the meaning of a claim term is uncertain, the specification usually is the best guide to the meaning of the term. *Phillips*, 415 F.3d at 1315. As a general rule, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996). The specification is, however, always highly relevant to the claim construction analysis, and is usually dispositive. *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Moreover, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316.

Claims are not necessarily, and are not usually, limited in scope to the preferred embodiment. *RF Delaware, Inc. v. Pacific Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003); *Decisioning.com, Inc. v. Federated Dep't Stores, Inc.*, 527 F.3d 1300, 1314 (Fed. Cir. 2008) ("[The] description of a preferred embodiment, in the absence of a clear intention to limit claim scope, is an insufficient basis on which to narrow the claims."). Nevertheless, claim constructions that exclude the preferred embodiment are "rarely, if ever, correct and require highly persuasive evidentiary support." *Vitronics*, 90 F.3d at 1583. Such a conclusion can be mandated in rare instances by clear intrinsic evidence, such as unambiguous claim language or a clear disclaimer by the patentees during patent prosecution. *Elekta Instrument S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319 (Fed. Cir. 2002).

If the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence may be considered. Extrinsic evidence consists of all evidence external to the patent and the prosecution history, and includes inventor testimony, expert testimony, and learned treatises. *Phillips*, 415 F.3d at 1317. Inventor testimony can be useful to shed light on the relevant art. In evaluating expert testimony, a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent. *Id.* at 1318. Extrinsic evidence may be considered if a court deems it helpful in determining the true meaning of language used in the patent claims. *Id.*

B. Infringement

GCI accuses Denovo and Zhenli of direct infringement of claims 10, 11, 12, 15, 18, and 19 of the '824 patent. *See* Compl. Br. at 24. GCI accuses MacSports and Meike of direct

infringement of claims 1, 2, 8, 14, 15, and 19 of the '611 patent, and Westfield of direct infringement of claims 1, 2, 10, and 11 of the '611 patent. *See id.* at 95. There is no allegation of indirect infringement. *See id.* at 24, 95.

Under 35 U.S.C. §271(a), direct infringement consists of making, using, offering to sell, or selling a patented invention without consent of the patent owner. The complainant in a section 337 investigation bears the burden of proving infringement of the asserted patent claims by a "preponderance of the evidence." *Certain Flooring Products*, Inv. No. 337-TA-443, Comm'n Notice of Final Determination of No Violation of Section 337, 2002 WL 448690, at *59, (Mar. 22, 2002); *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d 1376 (Fed. Cir. 1998).

Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, *i.e.*, when the properly construed claim reads on the accused device exactly.[4] *Amhil Enters., Ltd. v. Wawa, Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995).

If the accused product does not literally infringe the patent claim, infringement might be found under the doctrine of equivalents. "Under this doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 21 (1997) (citing *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605,

[4] Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). If an accused device lacks a limitation of an independent claim, the device cannot infringe a dependent claim. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989).

609 (1950)). "The determination of equivalence should be applied as an objective inquiry on an element-by-element basis."[5] *Id.* at 40.

"An element in the accused product is equivalent to a claim limitation if the differences between the two are insubstantial. The analysis focuses on whether the element in the accused device 'performs substantially the same function in substantially the same way to obtain the same result' as the claim limitation." *AquaTex Indus. v. Techniche Solutions*, 419 F.3d 1374, 1382 (Fed. Cir. 2005) (quoting *Graver Tank*, 339 U.S. at 608); *accord Absolute Software*, 659 F.3d at 1139-40.[6]

Prosecution history estoppel can prevent a patentee from relying on the doctrine of equivalents when the patentee relinquished subject matter during the prosecution of the patent, either by amendment or argument. *AquaTex*, 419 F.3d at 1382. In particular, "[t]he doctrine of prosecution history estoppel limits the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner." *Id.* (quoting *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005)).

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[5] "Infringement, whether literal or under the doctrine of equivalents, is a question of fact." *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1130 (Fed. Cir. 2011).

[6] "The known interchangeability of substitutes for an element of a patent is one of the express objective factors noted by *Graver Tank* as bearing upon whether the accused device is substantially the same as the patented invention. Independent experimentation by the alleged infringer would not always reflect upon the objective question whether a person skilled in the art would have known of the interchangeability between two elements, but in many cases it would likely be probative of such knowledge." *Warner-Jenkinson*, 520 U.S. at 36.

C. Validity

One cannot be held liable for practicing an invalid patent claim. *See Pandrol USA, LP v. AirBoss Railway Prods., Inc.*, 320 F.3d 1354, 1365 (Fed. Cir. 2003). Nevertheless, each claim of a patent is presumed to be valid, even if it depends from a claim found to be invalid. 35 U.S.C. § 282; *DMI Inc. v. Deere & Co.*, 802 F.2d 421 (Fed. Cir. 1986).

A respondent that has raised patent invalidity as an affirmative defense must overcome the presumption by "clear and convincing" evidence of invalidity. *Checkpoint Systems, Inc. v. United States Int'l Trade Comm'n*, 54 F.3d 756, 761 (Fed. Cir. 1995).

1. Anticipation

Anticipation under 35 U.S.C. § 102 is a question of fact. *z4 Techs., Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1347 (Fed. Cir. 2007). Section 102 provides that, depending on the circumstances, a claimed invention may be anticipated by variety of prior art, including publications, earlier-sold products, and patents. *See* 35 U.S.C. § 102 (*e.g.*, section 102(b) provides that one is not entitled to a patent if the claimed invention "was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States").

The general law of anticipation may be summarized, as follows:

> A reference is anticipatory under § 102(b) when it satisfies particular requirements. First, the reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently. *Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed. Cir. 2006). While those elements must be "arranged or combined in the same way as in the claim," *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008), the reference need not satisfy an *ipsissimis verbis* test, *In re Bond*, 910 F.2d 831, 832-33 (Fed.Cir.1990). Second, the reference must "enable one of ordinary skill in the art to make the invention without undue experimentation." *Impax Labs., Inc. v. Aventis Pharms. Inc.*, 545 F.3d 1312, 1314 (Fed. Cir. 2008); *see In re LeGrice*, 49 C.C.P.A. 1124, 301 F.2d 929, 940-44 (1962). As long as the reference discloses all of the

> claim limitations and enables the "subject matter that falls within the scope of the claims at issue," the reference anticipates -- no "actual creation or reduction to practice" is required. *Schering Corp. v. Geneva Pharms., Inc.*, 339 F.3d 1373, 1380-81 (Fed. Cir. 2003); *see In re Donohue*, 766 F.2d 531, 533 (Fed.Cir.1985). This is so despite the fact that the description provided in the anticipating reference might not otherwise entitle its author to a patent. *See Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed. Cir. 1991) (discussing the "distinction between a written description adequate to support a claim under § 112 and a written description sufficient to anticipate its subject matter under § 102(b)").

In re Gleave, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

2. Obviousness

Under section 103 of the Patent Act, a patent claim is invalid "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."[7] 35 U.S.C. § 103. While the ultimate determination of whether an invention would have been obvious is a legal conclusion, it is based on "underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness." *Eli Lilly and Co. v. Teva Pharmaceuticals USA, Inc.*, 619 F.3d 1329 (Fed. Cir. 2010).

The objective evidence, also known as "secondary considerations," includes commercial success, long felt need, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 13-17 (1966); *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). "[E]vidence arising out of the so-called 'secondary considerations' must always when present be

[7] The standard for determining whether a patent or publication is prior art under section 103 is the same as under 35 U.S.C. § 102, which is a legal question. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1568 (Fed. Cir. 1987).

considered en route to a determination of obviousness." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1538 (Fed. Cir. 1983). Secondary considerations, such as commercial success, will not always dislodge a determination of obviousness based on analysis of the prior art. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007) (commercial success did not alter conclusion of obviousness).

"One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." *KSR*, 550 U.S. at 419-20. "[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.*

Specific teachings, suggestions, or motivations to combine prior art may provide helpful insights into the state of the art at the time of the alleged invention. *Id.* at 420. Nevertheless, "an obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents. The diversity of inventive pursuits and of modern technology counsels against limiting the analysis in this way." *Id.* "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* A "person of ordinary skill is also a person of ordinary creativity." *Id.* at 421.

Nevertheless, "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); *see KSR*, 550 U.S. at 416 (a combination of elements must do more than yield a predictable result; combining elements that work together in an unexpected and fruitful manner would not have been obvious).[8]

3. Written Description

The issue of whether a patent is invalid for failure to meet the written description requirement of 35 U.S.C. § 112, ¶ 1 is a question of fact. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 670 F.3d 1171, 1188 (Fed. Cir. 2012). A patent's written description must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed. The test for sufficiency of a written description is "whether the disclosure of the application relied upon reasonable conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Id.* (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*)).

4. Enablement

The Patent Act requires that "[t]he full scope of the claimed invention . . . be enabled." *Sitrick v. Dreamworks, LLC*, 516 F.3d 993, 999 (Fed. Cir. 2008); *see also Northpoint Tech. Ltd. v. MDS America Inc.*, 413 F.3d 1301, 1308-10 (Fed. Cir. 2005) (affirming a finding of invalidity for lack of enablement due to the patent's failure to disclose an embodiment with an antenna that met the "directional reception range" limitation of each claim). Namely, "[a] patentee who chooses broad claim language must make sure the broad claims are fully enabled. 'The scope of the claims must be less than or equal to the scope of enablement' to 'ensure[] that the public

[8] Further, "when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious." *KSR*, 550 U.S. at 416 (citing *United States v. Adams*, 383 U.S. 39, 52 (1966)).

knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims.'" *Sitrick*, 516 F.3d at 999 (quoting *Nat'l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc.*, 166 F.3d 1190, 1195-96 (Fed. Cir. 1999)). The enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation. *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1244 (Fed. Cir. 2003), citing *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

> The question of undue experimentation is a matter of degree, and what is required is that the amount of experimentation not be "unduly extensive." *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1253 (Fed. Cir. 2004) (quoting *PPG Indus., Inc. v. Guardian Indus., Corp.*, 75 F.3d 1558, 1564 (Fed. Cir. 1996)). For example, the fact that a clinician's involvement may be necessary to determine effective amounts of the single compound effervescent agent and its corresponding soluble acid source does not itself constitute undue experimentation. *See Ortho–McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1365–66 (Fed. Cir. 2008) ("[E]ven if clinical trials informed the anticonvulsively effective amount, this record does not show that extensive or 'undue' tests would be required to practice the invention."). In addition, extensive experimentation does not necessarily render the experiments unduly extensive where the experiments involve repetition of known or commonly used techniques. *See Johns Hopkins Univ. v. CellPro, Inc.*, 152 F.3d 1342, 1360 (Fed. Cir. 1998) (finding that the difficulty in producing certain antibodies could not be attributed to the shortcomings in the disclosure of the patent at issue, but rather, the difficulty was attributed to the technique commonly used during experimentation that generally required repetition). Thus, the focus "is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance . . . ." *PPG Indus., Inc.*, 75 F.3d at 1564 (citation and quotation omitted).

Cephalon, Inc. v. Watson Pharms., Inc., 70 F.3d 1330, 1338-39 (Fed. Cir. 2013).

Enablement is determined from the viewpoint of persons of ordinary skill in the field of the invention at the time the patent application was filed. *Ajinomoto Co., Inc. v. Archer-Daniels-Midland Co.*, 228 F.3d 1338, 1345 (Fed. Cir. 2000). Thus, a claim in an issued patent can be rendered invalid due to lack of enablement if its scope is not fully enabled. *Id.*

D. Domestic Industry

A violation of section 337(a)(1)(B), (C), (D), or (E) can be found "only if an industry in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established." 19 U.S.C. § 1337(a)(2). Section 337(a) further provides:

> (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).

These statutory requirements consist of an economic prong (which requires certain activities)[9] and a technical prong (which requires that these activities relate to the intellectual property being protected). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 13 (May 16, 2008) ("*Stringed Musical Instruments*"). The

[9] The Commission practice is usually to assess the facts relating to the economic prong at the time that the complaint was filed. *See Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same*, Inv. No. 337-TA-560, Comm'n Op. at 39 n.17 (Apr. 14, 2010) ("We note that only activities that occurred before the filing of a complaint with the Commission are relevant to whether a domestic industry exists or is in the process of being established under sections 337(a)(2)-(3).") (citing *Bally/Midway Mfg. Co. v. U.S. Int'l Trade Comm'n*, 714 F.2d 1117, 1121 (Fed. Cir. 1983)). In some cases, however, the Commission will consider later developments in the alleged industry, such as "when a significant and unusual development occurred after the complaint has been filed." *See Certain Video Game Systems and Controllers*, Inv. No. 337-TA-743, Comm'n Op., at 5-6 (Jan. 20, 2012) ("[I]n appropriate situations based on the specific facts and circumstances of an investigation, the Commission may consider activities and investments beyond the filing of the complaint.").

burden is on the complainant to show by a preponderance of the evidence that the domestic industry requirement is satisfied. *Certain Multimedia Display and Navigation Devices and Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Comm'n Op. at 5 (July 22, 2011) ("*Navigation Devices*").

"With respect to section 337(a)(3)(A) and (B), the technical prong is the requirement that the investments in plant or equipment and employment in labor or capital are actually related to 'articles protected by' the intellectual property right which forms the basis of the complaint." *Stringed Musical Instruments* at 13-14. "The test for satisfying the 'technical prong' of the industry requirement is essentially 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). "With respect to section 337(a)(3)(C), the technical prong is the requirement that the activities of engineering, research and development, and licensing are actually related to the asserted intellectual property right." *Stringed Musical Instruments* at 13.

With respect to the economic prong, and whether or not section 337(a)(3)(A) or (B) is satisfied, the Commission has held that "whether a complainant has established that its investment and/or employment activities are significant with respect to the articles protected by the intellectual property right concerned is not evaluated according to any rigid mathematical formula." *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 27 (Feb. 17, 2011) ("*Printing and Imaging Devices*") (citing *Certain Male Prophylactic Devices*, Inv. No. 337 TA-546, Comm'n Op. at 39 (Aug. 1, 2007) ("*Male Prophylactic Devices*"). Rather, the Commission examines "the facts in each investigation, the article of commerce, and the realities of the marketplace." *Id.* "The determination takes into account the nature of the investment and/or employment activities, 'the

industry in question, and the complainant's relative size.'" *Id.* (citing *Stringed Musical Instruments* at 26). Moreover, "[t]here is no Commission precedent supporting the proposition that a comparison of domestic and foreign producers' assets must be performed." *Male Prophylactic Devices* at 43 n.15. There is no minimum monetary expenditure that a complainant must demonstrate, and there is no need to define or quantify an industry in absolute mathematical terms. *See id.* at 39 ("[T]here is no mathematical threshold test."). When a complainant conducts operations abroad, a comparative analysis of a complainant's domestic expenditures versus its foreign expenditures, or an analysis of the value added by the domestic activities, is conducted to determine the significance of the domestic activities. *See, e.g.*, *Certain Carburetors and Prod. Containing Such Carburetors* ("*Carburetors*"), Inv. No. 337-TA-1123, Comm'n Op. at 8–9, 19 (Oct. 28, 2019).

V. The '824 Patent

A. Overview of the '824 Patent

Asserted U.S. Patent No. 9,282,824 ("the '824 patent") is titled, "Collapsible and Portable Rocking Chair." JX-0001 ('824 patent). The '824 patent issued on March 15, 2016, and the named inventor is Daniel Grace. *Id.*

GCI asserts independent claim 10 and dependent claims 11, 12, 15, 18 and 19 of the '824 patent. These claims read as follows:

> 10. A collapsible and portable rocking chair comprising:
>
> > a pair of side frame assemblies including a front leg member, a rear leg member, a back support member, and a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions, said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair;

at least one rocker mechanism attached to each side frame assembly for supporting the chair during movement between said forward and rearward positions; and

a flexible seat and a flexible backrest secured to and extending between the side frame assemblies.

11. The collapsible and portable rocking chair according to claim 10, wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly.

12. The collapsible and portable rocking chair according to claim 11, wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected.

15. The collapsible and portable rocking chair according to claim 10, wherein each side frame assembly further comprises a seat support member pivotally interconnected with other members of said side frame assembly defining a seat support for supporting the flexible seat.

18. The collapsible and portable rocking chair according to claim 10, wherein the side frame assemblies are interconnected by at least one transversely extending connector mechanism.

19. The collapsible and portable rocking chair according to claim 18, wherein the connector mechanism comprises a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies.

Id. at col. 14, ln. 54 – col. 15, ln. 11; col. 15, lns. 20-24; col. 16, lns. 5-14.

GCI relies on claims 1, 2, 3, 9 and 10 of the '824 patent to satisfy the technical prong of the domestic industry requirement. Claims 1, 2, 3 and 9 read as follows:

1. A collapsible and portable rocking chair comprising:

an articulated chair frame defining a back support and a seat support, wherein said frame has a set-up condition and a collapsed condition;

a seat panel mounted on the seat support of the frame;

a backrest panel mounted on the back support of the frame;

wherein said chair frame comprises a pair of side frame assemblies of opposite hand disposed in generally parallelly extending and transversely spaced apart opposing relation to each other, each of said side frame assemblies having a plurality of generally axially elongated frame members being interconnected for pivotal movement relative to one another about generally transversely extending pivot axes, said frame members including:

a front leg member;

a rear leg member;

a seat support member defining a respective side of the seat support;

a back support member defining a respective side of the back support; and

a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, and about which said chair frame can move between forward and rearward positions;

at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions.

2. The collapsible and portable rocking chair according to claim 1, wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly.

3. The collapsible and portable rocking chair according to claim 2, wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected.

9. The collapsible and portable rocking chair according to claim 1 wherein the seat panel and the backrest panel are made of a flexible material.

Id. at col. 13, ln. 53 – col. 14, ln. 24; col. 14, lns. 51-53.

B. Claim Construction

1. Level of Ordinary Skill in the Art

GCI contends a person of ordinary skill in the art for both the '824 and the '611 patents has a bachelor's degree in mechanical engineering or a similar field, along with at least two years of experience in the furniture industry, though additional education could substitute for less experience, and vice versa. *See* Compl. Br. at 8-9. Denovo contends a person of ordinary skill in the art with respect to the '824 patent has a bachelor's degree in mechanics or mechanical engineering (or similar discipline) with two years of experience in the field or three to five years of experience in the field if the individual does not have such a degree. *See* Resps. Br. at 36.

The administrative law judge adopts GCI's proposal, which is that a person of ordinary skill in the art for the '824 patent has a bachelor's degree in mechanical engineering or a similar field, along with at least two years of experience in the furniture industry, though additional education could substitute for less experience, and vice versa. This is in accordance with the education level of the inventor, Mr. Daniel Grace, as well as others of ordinary skill in this art. *See* CX-0002C (Smith DWS) at Q/A 232. Denovo's proposal does not differ greatly, and its expert did not provide substantive explanation justifying his proposal. *See* RX-0489C (Babcock DWS) at Q/A 13.

2. Disputed Constructions[10]

a. "fulcrum member" (claims 1 and 10)

Below is a chart showing the parties' proposed claim constructions.

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[10] This initial determination addresses only the disputed claim terms identified by the parties as needing construction. *See* Comprehensive Joint Outline of Issues (EDIS Doc. No. 728207) ("GR11 Filing"). The parties identified the claim terms for construction in a joint filing required by Ground Rule 11, which provides: "On the same day the initial posthearing briefs are due, the parties shall file a comprehensive joint outline of all of the issues, including sub-issues, to be

Claim Term/Phrase	GCI's Construction	Denovo's Construction
fulcrum member	A chair frame member providing a fulcrum point for the chair frame.	Elongated frame member attached to the side frame assembly to help support the chair and has a terminal end with a fulcrum point.

The claim term "fulcrum member" appears in independent claims 1 and 10 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15; col. 14, ln. 54 – col. 15, ln. 2.

The word "fulcrum" is not itself a disputed term. With respect to the term "fulcrum member," GCI argues, in part:

> The parties' primary dispute is whether the fulcrum member is a part of the chair frame, as GCI proposes, or a separate structure "attached to" the chair frame, as Denovo proposes. In the course of this proceeding, Denovo has expanded upon its construction to restrict the "fulcrum member" from being rigidly connected to the back support member. In this regard, GCI contends that the '824 Patent is not so limiting.
>
> The claim language shows that GCI is correct. For example, claim 1 states: "each of said side frame assemblies having a plurality of generally axially elongated frame members ..., said frame members including: ... a fulcrum member." (emphasis added). Claim 10 similarly recites "a pair of side frame assemblies including . . . a fulcrum member." (emphasis added). *See also* JX-0001 ('824 Patent), at 11:50-53 ("Each side frame assembly 120 further includes a fulcrum point 154 provided on a frame member 155...." (emphasis added)). As confirmed by GCI's expert, David Smith, a POSITA would understand from this language that the fulcrum member is part of the chair frame, not attached to it. CX-0464C (Smith RWS) at Q/A 85. Indeed, Denovo's own expert, Mr. Babcock, makes this clear: "the fulcrum member is claimed to be one of the plurality of generally elongated frame members that make up the side frame assemblies and help support the chair." RX-0489C (Babcock RWS) at Q/A 29.
>
> Moreover, the claims specifically recite that there must be "at least one rocker mechanism attached to the chair frame." JX-0001 ('824 Patent) at cl. 1, cl. 10 ("at least one rocker mechanism attached to each side frame assembly"). Thus, the claim language specifically denotes the structures that are attached to, rather than a part of, the chair frame. The fulcrum member is not one of those structures,

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decided in the final Initial Determination. Exemplary issues and sub-issues include . . . disputed claim terms (The claim terms briefed by the parties must be identical. . .)." Ground Rule 11 (emphasis original) (attached to Order No. 2 (Ground Rules)).

and Denovo's proposed construction must be rejected.

Additionally, there is no disclosure in the '824 Patent that would restrict individual members of a side frame assembly from being rigidly connected, as Denovo asserts. Indeed, the '824 Patent describes a variety of embodiments for the side frame assemblies, including a closed frame loop and an open frame construction with defined front and rear legs. *See* JX-0001 ('824 Patent), 6:27-38 & 48-58. As to whether the back support member can be rigidly connected to another frame member (such as the fulcrum member), the specification provides specific examples of alternate designs covered by the invention. *See id.* at 6:32-35 & 38-45 (describing a backrest support member that can be rigidly attached or removably attached to the frame), 10:9-17 (describing a backrest support member that can be rigidly attached, removably attached or pivotally attached to other frame members).

Still further, the '824 Patent provides direct support for a fulcrum member that is a separate member, part of an existing member, or an extension of another member. For example, as shown in the embodiment of FIG. 9, "[e]ach side frame assembly 120 further includes a fulcrum point 154 provided on a frame member 155 extending from an intermediate point on the rear leg 128 to the ground or support surface on which the set-up chair 110 rests." *Id.* at 11:50-53. "In alternate designs of the chair of the present invention, such as designs that do not use a closed frame loop as shown [in FIG. 2], the fulcrum 54 can be connected to a rear leg member or at least a horizontal extension thereof, and still assist the rocking movement of the chair in combination with a rocker mechanism 32...." *Id.* at 8:33-38. The key is that there is no requirement that the fulcrum member be a separate and distinct member.

Compl. Br. at 10-12.[11]

Denovo argues, in part:

Denovo's proposed construction is supported by the intrinsic evidence, whereas GCI's proposed construction ignores the specification, is taken out of context with the rest of the claim, and is far too broad. Both Claims 1 and 10 of the '824 patent require "a fulcrum member defining a fulcrum point at a terminal end thereof." *See* JX-0001, claim 1, 10. With regard to the claimed side frame assembly of the '824 patent, JX-0001 at 11:45-56, discloses:

> Each side frame assembly 120 includes an armrest 122, a front leg 124, a rear leg 128, a seat support member 129, and a backrest support member

[11] Emphasis in original unless noted otherwise.

> 130, all interconnected by pivotal connections that facilitate folding of the chair 110 between a set-up condition, as shown, and a folded condition.
>
> Each side frame assembly 120 further includes **a fulcrum point 154 provided on a frame member 155** extending from an intermediate point on the rear leg 128 to the ground or support surface on which the set-up chair 110 rests. As shown, the fulcrum member 155 has a fulcrum pivot point 154 on its lowermost end that contacts the ground surface and aids rocking of the chair 110.

This disclosure, describing Fig. 9, makes it clear that the fulcrum member, as recited in claims 1 and 10, is an elongated frame member attached to the side frame assembly to help support the chair and has a fulcrum point at the terminal end. *See* JX-0001, claim 10, Fig. 9. However, GCI's interpretation is merely a functional definition of the claimed "fulcrum member" but does not structurally define the fulcrum member in a way that allows the fact finder to compare the accused device and the prior art to the claims. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of ... clarify[ing] and ... explain[ing] what the patentee covered by the claims...."). GCI also does not acknowledge in its construction that the fulcrum member must include a fulcrum point at a terminal end as the claims require.

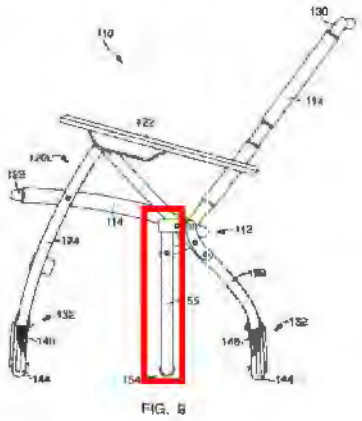


FIG. 8

Resps. Br. at 8-9.

As proposed by GCI, the term "fulcrum member" is construed to mean "a chair frame member providing a fulcrum point for the chair frame." The intrinsic evidence demonstrates that the claimed fulcrum member is "a chair frame member providing a fulcrum point for the chair frame." *See* JX-0001 ('824 patent) at col. 11, lns. 50-53 ("Each side frame assembly 120 further includes a fulcrum point 154 provided on a frame member 155 . . . ."). In particular, as acknowledged by Denovo's expert, the fulcrum member is one of the plurality of generally elongated frame members that make up the side frame assemblies and help support the chair. *See* RX-0489C (Babcock DWS) at Q/A 29.

By contrast, Denovo's proposed construction for this claim limitation introduces unnecessary language that creates ambiguity. For example, Denovo's proposed construction includes the phrase "attached to the side frame assembly." Denovo has not demonstrated that the fulcrum member must be attached to the side frame assembly. *See* JX-0001 ('824 patent) at col. 8, lns. 33-38 ("In alternate designs of the chair of the present invention, such as designs that do not use a closed frame loop as shown, the fulcrum 54 can be connected to a rear leg member or at least a horizontal extension thereof, and still assist the rocking movement of the chair in combination with a rocker mechanism 32."). Further, Denovo's proposed construction includes the phrase "has a terminal end with a fulcrum point", which is redundant.

In addition, a person of ordinary skill in the art would understand that the fulcrum member is part of the chair frame, not attached to it. *See* CX-0464C (Smith RWS) at Q/A 85. Denovo's proposed construction is not adopted.

b. "front leg member" (claims 1 and 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
front leg member	A chair frame member for supporting a forward portion of a chair.	A generally axially elongated frame member at the front of the chair that engages the ground directly or with a rocker mechanism at all times to support the chair.

The claim term "front leg member" appears in independent claims 1 and 10 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15; col. 14, ln. 54 – col. 15, ln. 2.

GCI argues, in part:

> The parties agree that the front leg member must support a forward portion of the chair. The primary dispute is whether, in doing so, the "front leg member" must <u>at all times</u> remain in contact with the ground. Both the claim language and specification show it does not.
>
> No claim language requires the front leg to maintain constant contact with

the ground: the claim simply recites "a front leg member." *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) ("[T]he words of a claim 'are generally given their ordinary and customary meaning.'"). In arguing to the contrary, Respondents rely solely on one embodiment of Figure 9 of the '824 Patent. Tr. (Babcock) at 635:11-17. But the disclosure describing Figure 9 makes clear that designing the legs to maintain constant contact with the ground is just one possible design choice: "Referring again to FIG. 9… [a]s so designed, the sleeves 144 on each of the front and rear legs 124 and 128 maintain contact with the ground surface at all times during use of the chair 110." JX-0001 ('824 Patent) at 11:57-12:25.

In fact, the specification expressly discloses embodiments of Figure 9 in which the front leg does not stay grounded. CX-0464C (Smith RWS) at Q/A 83. In these "alternate designs of the chair shown in FIG. 9, a rocker mechanism 132 can be provide[d] on the front leg or the rear leg without departing from the intended operation of the chair 112 as a rocking chair." *Id.* at 12:26-29; *see id.* at 4:4-8 ("In an alternate embodiment of the rocking chair, a rocker mechanism may be provided in connection with a front leg member or forward portion of the frame side assemblies, either in combination with or in lieu of the rear rocker mechanism."). If the rocker mechanism was only on the rear leg member, a POSITA would understand that the front leg member would lift off the ground when the chair rocks backwards around the fulcrum point. CX-0464C (Smith RWS) at Q/A 83.

Similarly, the '824 Patent contemplates alternate designs that "utilize an open frame construction whereby the side frame assemblies are formed of interconnected frame members to define independent front and rear legs," and wherein further, the frame is "connected to a fulcrum pivot point that facilitates rocking of the chair back and forth – for example, the rear legs, or extensions thereof, can be mounted to a fulcrum point," such as illustrated in FIG. 9. *Id.* at 11:1-13. Instructively, "in such alternate designs, each side frame assembly, regardless of construction, maintains at least two contact points with the support surface to ensure sufficient safety and structural integrity during use of the chair." *Id.* 11:14-17 (emphasis added). Of note, the FIG. 9 embodiment shows three such contact points, and thus the patent clearly appreciates that the leg members could be lifted off the ground without departing from the focus of the claimed invention.

Additional embodiments, features of which are readily applicable to the claimed invention, also describe front and rear leg portions of a chair frame that lift off the ground during rocking motion of the chair without departing from the spirit and principles of the invention. *See, e.g., id.* at 7:36-39 ("When the chair 10 is rocked backwards, the first foot 36a lifts away from the ground such that the second and third feet 36b and 36c support the chair 10."); 7:41-44 ("[I]n alternate designs, the third foot 36c can be designed to lift off the ground which the chair is in a forward position without departing from the spirit and principles of the present invention."); 7:60-67 ("In a still further alternate design, the tubular member 38 and sleeve 44 of the rocker mechanism 32 can be designed to move with the rocking

movement of the chair 10 such that the lower end of the sleeve 44 (i.e., the third foot 36c) lifts off the ground when the chair 10 is in a forward position and contacts the ground as the chair 10 rocks backwards to support the chair 10 in a rearward position."); 8:29-32 ("In alternate designs, the lower end of the rocker mechanism 32 can move with the frame loop and contact the ground or support surface with movement of the chair 10."); 9:64 to 10:2 ("As the chair 10 pivots backwards, the first foot 36a lifts off the ground, but the chair remains stabilized by the second and third feet 36b and 36c maintaining contact with the support surface. As the chair 10 pivots forwards, the first foot 36a moves into contact with the support surface.").

In light of these express disclosures, a POSITA would readily understand that a chair with a rocker mechanism on its rear legs only would indeed rock, and the front legs would simply lift off the ground as the chair rocked back around the fulcrum point. *See* CX-0464C (Smith RWS) at Q/A 83, 109. Indeed, obviating "the need to keep all the legs of [multi-directional foldable] chairs grounded . . . during use" is an express goal of the patent. *Id.*; JX-0001 ('824 Patent) at 2:52-57. Put simply, Denovo's claim construction that the front leg must always remain on the ground contradicts the express teachings of the patent and cannot be correct. CX-0464C (Smith RWS) at Q/A 107-09.

Denovo seeks to use one specific embodiment to limit the claims, and in doing so proposes a construction that impermissibly excludes several preferred embodiments. *See Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) ("The patentee is entitled to the full scope of his claims, and we will not limit him to his preferred embodiment or import a limitation from the specification into the claims."); *ScriptPro LLC v. Innovation Assocs.*, 833 F.3d 1336, 1341 (Fed. Cir. 2016) ("[A] specification's focus on one particular embodiment or purpose cannot limit the described invention where that specification expressly contemplates other embodiments or purposes."); *Oatey Co. v. IPS Corp.*, 514 F.3d 1271, 1276 (Fed. Cir. 2008) ("We normally do not interpret claim terms in a way that excludes embodiments...."). Thus, Denovo's selective analysis of the '824 Patent is wholly improper.

Compl. Br. at 12-15 (footnote omitted).

Denovo argues, in part:

As Mr. Babcock testified, Denovo's construction is supported by the specification: "the sleeves 144 on each of the **front** and rear legs 124 and 128 maintain contact with the ground surface **at all times during use of the chair 110**." *See* RX-0490C, Q&A 30-32; *see also* JX-0001 at 12:22-25 (emphasis added); Fig. 9. This is the only place in the specification where "front leg member" is described. As this is the only disclosure related to the legs, a POSA would understand the claimed front leg member like any "leg," must touch the ground in normal use.

GCI's proposed construction is unhelpful and confusing. Guided by it, Mr.

Grace (the named inventor) testified that several elements on the Rok-It Chair could be front leg members. *See* RX-0036C, at 43:6-46:24. Highlighting this, GCI had initially identified the "front leg member" as the same element that it identified as the "fulcrum member" on the Rok-It Chair. *See* RX-0333C. GCI later changed positions and identified, instead, the Rok-It Chair's armrest support as the claimed front leg member. *See* RX-0335C; CX-0002C, at ¶¶ 299-314; RPX-0014.

Initial Identification of Front Leg Member	**Final Identification of Front Leg Member**
	

Finally, GCI's interpretation is too broad and divorced from the intrinsic evidence. It fails to comport with the only description of "front leg member" in the specification, lacks written support, and is entirely divorced from the plain and ordinary meaning of the word "leg." Indeed, just looking at the evidence provided, a POSA would not view the arm rest support tube to be the claimed "front leg member." *See* RX-0490C, Q&A 30-32.

Resps. Br. at 9-10.

As proposed by GCI, the claim term "front leg member" is construed to mean "a chair frame member for supporting a forward portion of a chair." This construction is consistent with the claim language, and is supported by the patent specification.

This interpretation is consistent with the specification of the '824 patent. For example, the specification describes an embodiment in which front portions of a chair frame lift off the ground during rocking motion of the chair. *See* JX-0001 ('824 patent) at col. 7, lns. 36-39 ("When the chair 10 is rocked backwards, the first foot 36a lifts away from the ground such that

the second and third feet 36b and 36c support the chair 10."); col. 12, lns. 26-29 ("In alternate designs of the chair shown in FIG. 9, a rocker mechanism 132 can be provide[d] on the front leg or the rear leg without departing from the intended operation of the chair 112 as a rocking chair.").

The dispute between the parties appears to center on whether or not the front leg member must remain in contact with the ground. *See* Compl. Br. at 12-15; Resps. Br. at 9-10. Contrary to Denovo's arguments, however, the intrinsic evidence does not support so limiting the claimed "front leg member." The intrinsic evidence does not preclude the configuration in which the claimed front leg member lifts off the ground when the rocker pivots backwards. *See* JX-0001 ('824 patent) at col. 9, ln. 64 to col. 10, ln. 2 ("As the chair 10 pivots backwards, the first foot 36a lifts off the ground, but the chair remains stabilized by the second and third feet 36b and 36c maintaining contact with the support surface. As the chair 10 pivots forwards, the first foot 36a moves into contact with the support surface.").

Accordingly, the term "front leg member" is construed to mean "a chair frame member for supporting a forward portion of a chair."

c. "rear leg member" (claims 1 and 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
rear leg member	A chair frame member for supporting a rearward portion of a chair.	A generally axially elongated frame member at the rear of the chair that engages the ground directly or with a rocker mechanism at all times to support the chair.

The claim term "rear leg member" appears in independent claims 1 and 10 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15; col. 14, ln. 54 – col. 15, ln. 2.

GCI argues, in part:

> The parties' proposals track their constructions of "a front leg member." The only difference (the leg member's location relative to a rearward, as opposed to a forward, portion of the chair) has no bearing on the parties' disputes. Accordingly, GCI's proposed construction of "rear leg member" is correct for the same reasons as is its construction for "a front leg member."

Compl. Br. at 15.

Denovo argues, in part:

> The term should be interpreted in a similar manner as "front leg member" for the very same reason. As discussed above, Denovo's construction is directly supported by the specification. *See* RX-0490C, Q&A 30-32; *see also* JX-0001, at 12:22-25; *see also* Fig. 9, above. Given this disclosure, a POSA would understand that the claimed rear leg member is required to touch the ground at all times in normal use. Accordingly, GCI's construction, which is too broad, ignores the specification and the plain meaning of the word "leg," should be rejected.

See Resps. Br. at 10-11.

As proposed by GCI, it is determined that the meaning of the claim term "rear leg member" means "a chair frame member for supporting a rearward portion of a chair." The specification of the '824 patent describes configurations where the rear leg portions of the chair frame lift off the ground during rocking motion of the chair. *See, e.g.*, JX-0001 ('824 patent) at col. 7, lns. 41-44 ("[I]n altemate designs, the third foot 36c can be designed to lift off the ground which the chair is in a forward position without departing from the spirit and principles of the present invention."); col. 7, lns. 60-67 ("In a still further alternate design, the tubular member 38 and sleeve 44 of the rocker mechanism 32 can be designed to move with the rocking movement of the chair 10 such that the lower end of the sleeve 44 (i.e., the third foot 36c) lifts off the ground when the chair 10 is in a forward position and contacts the ground as the chair 10 rocks backwards to support the chair 10 in a rearward position."). As noted above in the discussion regarding "front leg member", Denovo's proposed construction is not supported by the intrinsic

evidence. Therefore, Denovo has not demonstrated that its proposed construction of this claim limitation should be adopted.

d. "about which said chair frame can move between forward and rearward positions" (claim 1) / "about which the chair can move between forward and rearward rocking positions" (claim 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
about which said chair frame can move between forward and rearward positions / about which the chair can move between forward and rearward rocking positions	Rocking motion between forward and backward directions.	Forward position is when a portion of the chair moves farther right to left (in Fig. 9) and across a vertical plane extending upward from the fulcrum point than at the set-up condition and rearwards is when a portion of the chair moves farther left to right in Fig. 9 and across the vertical plane extending upward from the fulcrum point than at the set-up condition.

The claim term "about which said chair frame can move between forward and rearward positions" appears in independent claim 1 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15. The claim term "about which the chair can move between forward and rearward rocking positions" appears in independent claim 10 of the '824 patent. *Id.* at col. 14, ln. 54 – col. 15, ln. 2.

GCI argues, in part:

> Despite the complexity of Denovo's 66-word construction, the parties' dispute is simple: must the claimed chair, when rocking, move both forward and rearward of a set-up position? The answer is no. The claim language and specification teach that any back-and-forth rocking motion suffices (even if a "set-up" position is the farthest forward or backward the chair can rock). The claim simply recites "forward and rearward positions." It does not define them in terms of any "set-up position," which in and of itself, is not a term used in the '824 Patent, let alone the asserted claims. Nor does the specification define specific locations or angles for forward and rearward positions. CX-0464C (Smith RWS) at Q/A 93. Instead, the patent discloses embodiments in which a "set-up position" can be the forward-most position. *Id.*; JX-0001 ('824 Patent) at 5:11-13 ("[T]he chair can be

used as a normal, stabilized chair in its forward position and will only rock when the user chooses to rock."), 5:28-31 ("FIG. 2 is a perspective view of a collapsible and portable rocking chair ... with the chair in a forward, stabilized position."). However, though disclosed as an embodiment, this is not required. Instead, the clear focus of the claim language at issue is that when the claimed rocking chair is rocked, it moves about the fulcrum point between relative forward and rearward positions.

Not only is Denovo proposing a construction that improperly imports limitations into the claims, Denovo's asserted construction creates new limitations that make no sense in light of the actual description provided. Indeed, Denovo appears to conflate their created "set-up position" for rocking motion relative to which any "forward" or "rearward" position must be measured with the set-up condition of the chair itself. This is an incorrect reading of the '824 Patent. Notably, the same language is recited in the '611 Patent, and neither Westfield nor MacSports has adopted or leant any credence to Denovo's construction.

The '824 Patent is directed to a collapsible and portable rocking chair that is readily foldable and unfoldable between a set-up condition – for use – and a collapsed condition – for transportation and/or storage. *See* JX-0001 ('824 Patent) at 1:15-19; 3:20-25. The chair remains in a set-up condition during rocking motion, so it is "set-up" regardless of whether the chair frame is in a forward position, a rearward position, or any position in between. *See id.* 9:15-19 ("The cross members 56 also provide support for the chair frame 12 in the open, set-up condition by balancing and redistributing the forces exerted on the chair frame 12 by a person seated on the seat panel 14 and leaning back on the backrest panel 16."); 10:60-62 ("The lateral dimension of the slot 70 acts to lock the seat support in an open, set-up condition – especially when the weight of the seated user is applied to the chair 10."); 13:20-23 ("In the set-up condition of the chair, the seat panel 14 and the backrest panel 16 extend between the side assemblies 20 and are generally taut for supporting a seated user."). There is no support in the specification that would require the set-up condition to impart any restriction on the rocking movement of the chair frame or any positions to which the chair can rocked during such movement.

Further, the '824 Patent does not define, let alone require, specific forward and rearward positions that must be met in order for the claims to be infringed. CX-0464C (Smith RWS) at Q/A 93. Instead, the patent describes a clear back-and-forth rocking motion for an open, set-up chair, which, by definition, has relative positions reflective of forward and rearward motions as the chair is rocked by any seated user. *Id.* Indeed, the rocking motion, and the resultant positions to which the chair frame rocks in forward and rearward directions, understandably will vary based on a number of factors, including the weight, height and girth of the seated user, the position of the seated user on the chair, and the speed and force with which the seated user is moving the chair. *Id.*; *see also* JX-0001 ('824 Patent) at 7:54-57 and 11:62-12:22.

As a result, the clear language of the claims fully informs the POSITA of the intended scope of the claim with regards to there being forward and rearward positions when the chair is rocked. CX-0464C (Smith RWS) at Q/A 93. If the chair is rocking back-and-forth about a fulcrum point, it will automatically have relative forward and rearward positions. *Id.*

Accordingly, there is no basis for Denovo's attempt to limit the scope of the claims to the illustration shown in Figure 9. *Id.* The specification discloses embodiments in which the forward position is forward of a hypothetical set-up position, and embodiments in which it is not. The claim language does not distinguish between the two. Denovo's narrowing construction is therefore improper. *See ScriptPro*, 833 F.3d at 1341 ("[A] specification's focus on one particular embodiment or purpose cannot limit the described invention where that specification expressly contemplates other embodiments or purposes."); *Oatey*, 514 F.3d at 1276 ("We normally do not interpret claim terms in a way that excludes embodiments...."); *see also SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.*, 242 F.3d 1337, 1340 (Fed. Cir. 2001) (stating that "reading a limitation from the written description into the claims" is "one of the cardinal sins of patent law").

Compl. Br. at 16-18 (footnote omitted).

Denovo argues, in part:

Denovo's proposed construction properly recognizes that the chair begins in the set-up condition, as explained in the claims and as illustrated in Fig. 9 of the '824 patent, shown above in §II.A.1, *supra*. *See* JX-0001, 5-43-45, 11:45-49, Fig. 9; RX-0490C, Q&A 42. The forward position would be when the chair (and person) moves to the left in Fig. 9 of the set-up position, and a rearward position would be when the chair (and person) moves to the right of the set-up position to another place. RX-0490C, Q&A 42. This interpretation is consistent with the plain meaning of the term "forward and rearward ... **positions**" read in the context of the words "about" in relation to the "set up condition" as set forth in the remainder of the claim, and what a POSA would understand from the language in the '824 patent. RX-0490C, Q&A 42.

GCI's interpretation of this claim element is unreasonable and contrary to the plain meaning of the words in the claim. GCI's proposed construction changes the plain language of this claim from "forward and rearward ... **positions**" to "forward and backward **directions**." (emphasis added). RX-0490C, Q&A 42. In trying to support the claim construction in his Rebuttal Witness Statement, CX-0464C, Mr. Smith fails to note that the portion of the disclosure he relies on describes a structure not covered by the '824 claims. For example, Mr. Smith asserts that the '824 Patent refers to "'all positions between the forward and rearward positions of the chair frame,'" a passage in the summary clearly referring to the unclaimed embodiment shown in Figs. 2-7, from the reference to a "third"

foot. JX-0001 at 5:9-10; CX-0464C, Q&A 93. He also describes "examples of when and where the forward and rearward positions might be achieved," and discussing Fig. 2 referencing a further passage in the summary and the brief description of Fig. 2. CX-0464C, Q&A 93 (citing JX-0001 at 5:11-13, 28-31). Mr. Smith extrapolates from these passages the unsupported theory that the "set-up condition" of the disclosed chair can simultaneously be the "forward position." This is wrong for at least two reasons. First, Mr. Smith's theory would effectively write the requirement that the chair moves "**about**" the set-up condition "between forward and rearward rocking positions" out of the claim. JX-0001, at claim 10. Second, Mr. Smith's quoted passages describe the chair in Figs. 2-7 which he concedes does not disclose or include any of the required pivotal interconnections required in the '824 patent claims, and is therefore not covered by those claims. Hrg. Tr. (Smith) at 222:9-223:17. Indeed, Mr. Smith acknowledged that this embodiment was a "rectangular loop" or "closed frame loop," an embodiment not covered by the '824 patent claims. *Id.* at 130:14-22; 221:2-222:13.

It is inappropriate for GCI to rely to on an embodiment that is not claimed, during claim construction. At best this embodiment relates only to the very different '611 patent claims. It is axiomatic that "the meaning of a claim term was not limited by its specific usage in the written description of a preferred embodiment." *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp.*, Inc., 262 F.3d 1258, 1270 (Fed. Cir. 2001); *see also Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 992 (Fed. Cir. 1999) ("[J]ust as the preferred embodiment itself does not limit claim terms, mere inferences drawn from the description of an embodiment of the invention cannot serve to limit claim terms…."). GCI's arguments are particularly misleading when the embodiment GCI relied upon here, in Figs. 2-7, is plainly not covered by the '824 patent claims. The embodiment shown in Fig. 9 is the only disclosure that relates to the claims of the '824 patent. The '824 claims require the members of the side frame assembly to be pivotally interconnected to one another. Figs. 2-7 depict a chair having a closed frame loop, with no pivotal interconnections between any frame "members." Hrg. Tr. (Smith) at 222:9-223:17. Indeed, Figs. 2-7 do not disclose any frame "members" to speak of. Rather, the specification describes all of the features of the closed frame loop of Figs. 2-7 as "portions" – e.g., "front leg portion." By contrast, every time the specification discusses a frame "member" – e.g., front leg member or fulcrum member – it is describing Fig. 9. This is not by accident; there is a clear difference between a "member" and a "portion." A "member" is understood to be a separate and distinct thing, whereas a "portion" is understood to be a part or segment of a thing. *See 180s, Inc. v. Gordini U.S.A., Inc.*, 699 F. Supp. 2d 714, 720 (D. Md. 2010) (construing each claimed "member" as "separate and distinct from each other."). Because Figs. 2-7 are not covered by the claims, a POSA would not look to Figs. 2-7, or the portions of the specification describing Figs. 2-7, and that are plainly inconsistent with the '824 claims, to construe those claims. *See* RX-0490C, Q&A 22-23; JX-0001 at Figs. 3 and 9.

> Further, upon review of Mr. Smith's ill-considered analysis of this unclaimed embodiment, Mr. Babcock notes that "it is the set-up condition that is shown in Figs. 2 and 3, not the forward position." The detailed description establishes this view of Figs. 2 and 3. *See* JX-0001 at 8:63-64 ("the chair 10 is opened to the **set-up condition**, as shown in FIG. 2"); 9:56-59 ("In a forward position of the chair 10, the chair 10 acts as a normal, fully stabilized chair..."); 10:1-2 ("As the chair 10 pivots forwards, the first foot 36a moves into contact with the support surface."); RX-0490C, Q&A 42. In Fig. 3, "it is easily seen that the first foot 36a is not [moving into or] touching the support surface" and therefore "is not in a forward position." *Id.* (see annotated image therein).
>
> In contrast to Mr. Smith's unmoored construction theories, Mr. Babcock follows the plain meaning of the terms, within the context of the words of the '824 claims, and provides reference to the only relevant disclosure in the '824 Patent. RX-0490C, Q&A 42; *see also* RDX-0058. For example, in Fig. 9, the chair is in the set-up condition (JX-0001 at 5:45) and the description of the rocking motion of the chair is at 11:62 to 12:2. The rocking motion is when the chair moves to a forward position from set-up when the front leg member 124 presses down on the springs and then to a rearward position when the rear leg member presses down on the spring 146. RX-0490C, Q&A 42. This movement requires that the chair move as in Denovo's proposed construction. Indeed, when he reviews the appropriate disclosure in the '824 patent, Mr. Smith agrees, acknowledging that, "in the embodiment of Figure 9, the forward position of the chair frame may be forward of the set-up position and the rearward position of the chair frame may be behind the set-up position." *See* CX-0464C, Q&A 93. Additionally, as explained, the embodiments of Figs. 2-7 cannot meet, and are inconsistent with, the '824 patent claims (e.g. the pivotally interconnected side frame requirement) and provide no help interpreting these unrelated claims.
>
> Finally, changing the claim term "position" to "direction" fundamentally alters the meaning of the claim, and is without any intrinsic evidence support. Therefore, GCI's proposed construction should be rejected. *See* RX-0490C, Q&A 42.

Resps. Br. at 11-14.

As proposed by GCI, the terms "about which said chair frame can move between forward and rearward positions" and "about which the chair can move between forward and rearward rocking positions" are construed to mean "rocking motion between forward and backward directions." The intrinsic evidence demonstrates that the "set-up position" can be the forward-most position. *See* JX-0001 ('824 patent) at col. 5, lns. 11-13 ("[T]he chair can be used as a

normal, stabilized chair in its forward position and will only rock when the user chooses to rock."); *id.* at col. 5, lns. 28-31 ("FIG. 2 is a perspective view of a collapsible and portable rocking chair … with the chair in a forward, stabilized position.").

The intrinsic evidence does not support Denovo's proposed construction of "about which said chair frame can move between forward and rearward positions" and "about which the chair can move between forward and rearward rocking positions." The claim language simply states: "a fulcrum point . . . about which said chair frame can move between forward and rearward positions" (claim 1), and "a fulcrum point . . . about which the chair can move between forward and rearward rocking positions" (claim 10). Contrary to Denovo's argument, the claim language does not preclude the "set-up condition" from being either the forward or rearward rocking positions.

e. "fulcrum point" (claims 1 and 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
fulcrum point	A point on which a chair frame is supported and about which the chair frame pivots.	This claim term is indefinite or, in the alternative is construed as "the point on the terminal end of the fulcrum member that touches the ground surface and about which the chair rocks between a forward and rearward position.

The claim term "fulcrum point" appears in independent claims 1 and 10 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15; col. 14, ln. 54 – col. 15, ln. 2.

GCI argues, in part:

> GCI's construction is consistent with both the claim language and specification, and it should be adopted. For example, both the claims and specification state that the fulcrum point is "a point on which a chair frame is supported." *See, e.g.*, JX-0001 ('824 Patent) at cl. 1 ("a fulcrum point at a terminal end thereof ... for supporting the chair frame"), 3:45-47 ("In preferred embodiments of the rocking chair, each frame side assembly is supported on a fulcrum point ...."),

> 4:38-40 ("The chair further comprises a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions ...."). The patent also states that the frame's movement about a fulcrum point is a pivoting motion. *See id.* at 11:10-13 ("fulcrum pivot point"), 8:1-32 ("pivoting is what causes the chair 10 to rock"). Denovo's expert Dr. Babcock confirmed that "the plain and ordinary meaning of 'fulcrum point' to an engineer is the point about which something pivots." Tr. (Babcock) at 639:16-19.
>
> . . . [S]eeking to use Figure 9 to improperly limit the scope of the claims, Denovo would require the fulcrum point to contact the ground surface. *See* Tr. (Babcock) at 641:7-9 (confirming that he is "limiting the scope of fulcrum point to what's shown in [element] 154 in Figure 9"). But the specification explicitly discloses embodiments in which the fulcrum point does not touch the ground. For example, Figure 6 teaches that support runner 34 can be between the fulcrum 54 and the ground surface. JX-0001 ('824 Patent) at Fig. 6, 8:1-2; *see also* CX-0464C (Smith RWS) at Q/A 87 ("[T]he '824 Patent teaches that support runner 34 can be between the fulcrum 54 and the ground surface, as shown in Figure 6...."). Nor does the claim language require the fulcrum point to touch the ground surface, as GCI's expert confirms. CX-0464C (Smith RWS) at Q/A 91.

Compl. Br. at 19-20.

Denovo argues, in part:

> According to the plain claim language, a fulcrum point located "at the terminal end" of a fulcrum member and "adapted for contacting the ground surface upon which the chair sits in the set up condition" is required in claims 1 and 10. *See* JX-0001, at claims 1, 10. There is, however, no description of an adapted fulcrum point in the '824 patent specification. The disclosure of this element is limited to what may be divined from Fig. 9 and the following description:
>
> > Each side frame assembly 120 includes a fulcrum point 154 provided on a frame member 155 extending from an intermediate point on the rear leg 128 to the ground or support surface on which the set-up chair 110 rests. As shown, the fulcrum member 155 has a fulcrum pivot point 154 on the lowermost end that contacts the ground surface and aids rocking of the chair.
>
> *Id.*, at 11:50-56. Thus, to the extent it can be construed, the claimed fulcrum point is the point at the end of the fulcrum member that touches the ground, supports the chair frame, and about which the chair frame pivots. *Id.*; *see also* RX-0490C, Q&A 38. The fulcrum point 154 as illustrated in Fig. 9 is a circular piece. Other than this illustration, there is no other description of the "fulcrum point" in the patent. *See* JX-0001 at 11:18-12:29.

> GCI's interpretation is too broad and there is no explanation of what a "point" is in the patent. Additionally, GCI's interpretation is divorced from the plain language and the context of the words in the claims. It does not include, for example, that the point must be on the very end (i.e. the "terminal end") of the fulcrum member. Denovo's proposed construction is supported by the disclosure in the '824 patent and the context of the plain language of the claims.

Resps. Br. at 15.

> "Fulcrum point" appears in the following portion of claim 1:
>
> a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, and about which said chair frame can move between forward and rearward positions. . .

JX-0001 at col. 14, lns. 6-12.

> "Fulcrum point" appears in the following portion of claim 10:
>
> a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions . . .

Id. at col. 14, lns. 57-61.

In view of the surrounding claim language, the administrative law judge finds Denovo's proposed construction redundant. It is determined that the meaning of the claim term "fulcrum point" is "a point on which a chair frame is supported and about which the chair frame pivots." This is in accordance with the plain language of the claim, and consistent with the intrinsic evidence. Both the claims and specification state that the fulcrum point is "a point on which a chair frame is supported." *See, e.g.*, JX-0001 ('824 patent) at col. 14, lns. 6-12 ("a fulcrum point at a terminal end thereof ... for supporting the chair frame"), col. 3, lns. 45-47 ("In preferred embodiments of the rocking chair, each frame side assembly is supported on a fulcrum point ...."), col. 4, lns. 38-40 ("The chair further comprises a fulcrum point supporting the chair frame

and about which said chair frame can move between forward and rearward positions ...."). The meaning of these words is clear, and no further construction is needed.

f. "adapted for contacting the ground surface upon which the chair sits in a set-up condition" (claims 1 and 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
adapted for contacting the ground surface upon which the chair sits in a set-up condition	Capable of touching and sitting on a surface when in a set-up condition.	Terminal end touches the ground surface (not a part of the chair) in the set-up condition.

The claim term "adapted for contacting the ground surface upon which the chair sits in the set-up condition" appears in independent claim 1 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln. 53 – col. 14, ln. 15. The claim term "adapted for contacting the ground surface upon which the chair sits in a set-up condition" appears in independent claim 10 of the '824 patent. *Id.* at col. 14, ln. 54 – col. 15, ln. 2.

GCI argues, in part:

> This term is part of the longer phrase "a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits." Once again, Denovo argues that the terminal end of the fulcrum point must directly touch the ground. As discussed with respect to the terms "fulcrum point" and "terminal end," Denovo's position lacks merit. The specification expressly teaches that the terminal end of the fulcrum point need not physically touch the ground, but can instead sit on top of a support runner. JX-0001 ('824 Patent), Fig. 6, 8:1-2. GCI's expert confirms that a POSITA would understand "adapted for" to permit the terminal end of the fulcrum point to contact the ground either directly or indirectly through a support structure. CX-0464C (Smith RWS) at Q/A 91. GCI's construction, allowing the terminal end to be "capable of touching and sitting on a surface," accurately reflects the specification's teachings.
>
> Denovo, meanwhile, cannot even agree with its own expert on the proper construction of this term. Rather than endorse Denovo's construction, Mr. Babcock opined that the term lacks written description. *See* RX-0489C (Babcock DWS) at Q/A 59. While that is not Denovo's position (nor can it be, as it has argued at length that the claims clearly require the terminal end to touch the ground), that its own expert could not find the direct-contact requirement in the claim language speaks

> volumes. Denovo's construction finds no support in the '824 Patent and should be rejected.

Compl. Br. at 21.

Denovo argues, in part:

> Denovo's proposed construction is supported by the intrinsic evidence: "the fulcrum member 155 has a fulcrum point 154 on its **lowermost** end that contacts the ground surface and aids rocking of the chair 110." JX-0001, at 11-54-56 (emphasis added); *see also* RX-0490C, Q&A 38, 55. Denovo's construction is also supported by the plain and ordinary meaning of the term "adapted," i.e., "suited by nature, character, or design to a particular use, purpose, or situation—used with *to* or *for.*" *Merriam-Webster's Online Dictionary, available at* https://www.merriam-webster.com/dictionary/adapted. *In other words, the terminal end of the fulcrum member is suited by design for* contacting the ground surface—i.e., it touches the ground.
>
> GCI's proposed construction, "capable of touching and sitting on a surface when in a set-up condition" (RX-0305, ¶ 14), is too broad and ignores the specification. Specifically, GCI does not explain the meaning of "capable of touching" – an ambiguous phrase. And Mr. Smith, erroneously explains that other structures can come between the fulcrum point and the ground surface. CX-0464C, Q&A 87. GCI's interpretation is not supported by the specification, which only discloses that the fulcrum point itself actually touches the ground surface. *See* JX-0001, at 11:54-56. The specification does not disclose any structure between a fulcrum member and the ground. Indeed, the specification clearly states that the fulcrum point is "on the lowermost end that contacts the ground surface." *Id.* GCI's interpretation is contrary to the patent's teaching.

Resps. Br. at 16.

It is determined that the claim term "adapted for contacting the ground surface upon which the chair sits in a set-up condition" is construed so that the "terminal end touches the ground surface (not a part of the chair) in the set-up condition." GCI's proposed construction, "capable of touching and sitting on a surface when in a set-up condition" is too broad and specifically allows the fulcrum point to sit on a support structure that is itself part of the chair, which conflicts with the plain language of the claim. GCI's expert opined that other structures can come between the fulcrum point and the ground surface. *See* CX-0464C (Smith RWS) at

Q/A 91. This is in conflict with the plain language of the claim, which recites, "adapted for contacting the ground surface upon which the chair sits in a set-up condition."

g. "terminal end" (claims 1 and 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
terminal end	The end of a member.	End of the fulcrum member that directly engages the ground surface at the fulcrum point.

The claim term "terminal end" appears in independent claims 1 and 10 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15; col. 14, ln. 54 – col. 15, ln. 2.

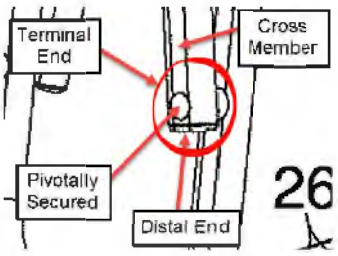
GCI argues, in part:

> Denovo's argument that the specification does not describe the term "fulcrum point at a terminal end" is difficult to understand. The '824 Patent repeatedly and consistently uses and describes the term "terminal end." JX-0001 ('824 Patent) at 4:32-33 and 4:64-65; *see also* CX-0464C (Smith RWS) at Q/A 299; '824 Patent at 3:45-47, 3:52-57, 4:8-14, 4:38-43, 4:52-58, 5:3-7, 11:3-13, 11:23-27, 11:45-56, Figs. 2-7 and 9 (*e.g.*, item numbers 54 and 154).
>
> From those disclosures, a POSITA reading the specification would understand that a terminal end is simply at the end of a member, and that the specification consistently uses that term in accordance with that plain and ordinary meaning. *See* CX-0464C (Smith RWS) at Q/A 299; CX-0438 (MacMillan dictionary defining "terminal" as "at the end of something"); *see also Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1344 (Fed. Cir. 2016) (holding that the written description "must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed").
>
> As with "fulcrum point," Denovo attempts to read in a requirement that the terminal end "directly engages the ground surface," despite no such language appearing in the claim. Denovo once again looks solely to Figure 9, in which a fulcrum pivot point 154 is described as being at the "lowermost end" of the fulcrum member 155. *See* JX-0001 ('824 Patent) at 11:53-56. But a description of one embodiment cannot limit claims. *See Kara Tech.*, 582 F.3d at 1348. When viewed in full, the specification supports GCI's proposal. *See SanDisk Corp. v. Memorex Prod., Inc.*, 415 F.3d 1278, 1285 (Fed. Cir. 2005) ("The court must always read the claims in view of the full specification."); *Pfizer, Inc. v. Teva Pharms. USA, Inc.*, 429 F.3d 1364, 1373 (Fed. Cir. 2005) ("It is necessary to consider the specification as a whole, and to read all portions of the written description."). Moreover, it is clear that "lowermost end" is being used to distinguish from an uppermost end or

intermediate portion of the fulcrum member 155 depicted in FIG. 9. In any event, use of the terms "terminal" or "lowermost" do not restrict the claim language to mean the absolute end of the member.

The '824 Patent's specification discloses numerous examples of a cross member having a "terminal end" that is not the absolute, distal end of the member—in other words, not the "lowermost end" of the member. For example, the specification discloses an embodiment in which "each cross member has its terminal ends pivotally secured to the front and rear leg portions of one of the frame side assemblies." JX-0001 ('824 Patent) at 4:32-34, 4:64-66 (emphasis added). In that embodiment, a portion of the cross member is shown after (*i.e.*, closer to the end) the pivotal attachments to the front leg portions, as shown in CDX-0355. Thus, the patent's use of the term "end" is clearly identifying a region or portion, providing relative distinction from other ends, regions or portions, and should not be interpreted to a literal extreme.

Thus, cross members 56 are not pivotally attached at their lowermost ends to leg portions, just as the claimed "terminal end" need not be the lowermost end of the fulcrum member. CX-0464C (Smith RWS) at Q/A 87. Indeed, as detailed during the discussion of "fulcrum point," the specification discloses an embodiment in which no part of the fulcrum (terminal end or otherwise) directly touches the ground. *See, e.g.* JX-0001 ('824 Patent) at Fig. 6, 8:1-2; *see also* CX-0464C (Smith RWS) at Q/A 91. In short, Denovo's attempt to require "terminal end" to "directly engage the ground surface" finds no support in the intrinsic evidence. The ALJ should accordingly reject it.



CDX-0355

Compl. Br. at 21-23.

Denovo argues, in part:

Denovo's construction is supported by the intrinsic evidence: "the fulcrum member 155 has a fulcrum point 154 on its **lowermost** end that contacts the ground surface and aids rocking of the chair 110." JX-0001, at 11:54-56 (emphasis added); *see also* RX-0490C, Q&A 38.

GCI's reliance in the specification to unrelated uses of the word "terminal" is without merit given that GCI again relies on an unclaimed embodiment. *See* §II.A.4., *supra*. GCI's interpretation that the terminal end must merely be near the end of a member is simply unsupportable and divorced from the words of the claim

and the specification. As Mr. Babcock testified, the fulcrum point identified by GCI in the Rok-It Chair is not at the lowermost end of the fulcrum member. RX-0490C, Q&A 38. GCI points to an area that encompasses about 3 inches of the fulcrum member as being the terminal end. *See* CX-0037C in CX-0002C at Q&A 331. A POSA would find that GCI's construction for "the terminal end" is too broad, ignores the words of the claim and the teaching in the specification. GCI's proposal should be rejected.



GCI1178_043234 (annotations added)

Resps. Br. at 17.

As proposed by GCI, it is determined that the claim term "terminal end" means "the end of a member." One of ordinary skill in the art would understand that a terminal end is simply at the end of a member, and the '824 patent consistently uses that term in accordance with that plain and ordinary meaning. *See* CX-0464C (Smith RWS) at Q/A 299; CX-0438 (MacMillan dictionary defining "terminal" as "at the end of something").

h. "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, and about which said chair frame can move between forward and rearward positions" (claim 1) / "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions" (claim 10)

Claim Term/Phrase	GCI's Construction	Denovo's Construction
fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, and about which said chair frame can move between forward and	A chair frame member with an end defining a point that can touch the surface on which the chair sits when set-up, and on which a chair frame is supported and about which the chair frame pivots during rocking motion in	An elongated frame member attached to the side frame assembly that has a fulcrum point at the terminal end to engage the ground surface (no part of the chair) in the set-up condition and around which the chair rocks between a forward position (a portion of

rearward positions / fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions	forward and backward directions.	the chair moves farther right to left (in Fig. 9) and across a vertical plane extending upward from the fulcrum point than at the set-up condition) and a rearward position (when a portion of the chair moves farther left to right (in Fig. 9) and across the vertical plane extending upward from the fulcrum point than at the set-up condition).

The claim term "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, and about which said chair frame can move between forward and rearward positions" appears in independent claim 1 of the '824 patent. JX-0001 ('824 patent) at col. 13, ln 53 – col. 14, ln. 15. The claim term "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions" appears in independent claim 10 of the '824 patent. *Id.* at col. 14, ln. 54 – col. 15, ln. 2.

GCI argues, in part:

> The parties' constructions of this term incorporate their constructions of several shorter, constituent terms, which are addressed in order above.

Compl. Br. at 24.

Denovo argues, in part:

> This claim term is a combination of a number of other disputed claim terms. When viewed as a whole, in context, this claim term becomes clearer. Denovo's proposed construction is supported by the plain language of the claims and the intrinsic evidence. The claim construction suggested by GCI, in contrast, lacks support and ignores the plain claim language.

> Denovo's claim construction has support, as noted above, with each of the particular claim elements. This includes "fulcrum member" (§ II.A.1, *supra*), "fulcrum point" (§ II.A.5, *supra*); "terminal end" (§ II.A.7, *supra*); and "forward and rearward positions" (§ II.A.4, *supra*).
>
> GCI's construction becomes unmoored immediately with "a point that **can** touch the surface." Rather, the '824 specification explicitly informs a POSA that the point does touch the ground and the '824 claims specifically require that it must be on the terminal end. *See* JX-0001, at 11:54-56, claims 1, 10; RX-0490C, Q&A 38, 55. Contrary to this clear language, GCI asserts that other structures can come between the fulcrum point and the ground surface. CX-0464C, Q&A 87. And, as noted above, GCI has changed the claim language by arguing that "position" be changed to "direction." Such an interpretation is unsupported and should be rejected.

Resps. Br. at 18.

It is determined that the meaning of the claim term "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame, and about which said chair frame can move between forward and rearward positions" is "a chair frame member with a point on the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported and about which the chair can move between forward and rearward rocking positions." As noted by the parties, this claim term is a composite of other claim terms, each of which has been construed above.

Similarly, the claim term "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions" means "a chair frame member with a point on the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported and about which the chair can move between forward and rearward rocking positions."

C. Infringement

1. Claim 10

The Rok-It Chair is accused of infringing independent claim 10 of the '824 patent.

a. A collapsible and portable rocking chair comprising:

The Rok-It Chair constitutes "a collapsible and portable rocking chair." CX-0002C (Smith DWS) at Q/A 284-86, 290-91; CX-0383 (Denovo v. GCI Compl. (W.D. Ark.)), ¶ 8. Denovo does not contest that the Rok-It Chair satisfies this limitation. *See* Resps. Br. at 18-34.

b. a pair of side frame assemblies including;

The Rok-It Chair includes "a pair of side frame assemblies." CX-0002C (Smith DWS) at Q/A 295-97. Denovo does not contest that the Rok-It Chair satisfies this limitation. *See* Resps. Br. at 18-34.

c. a front leg member;

The record evidence demonstrates that the Rok-It Chair includes a front leg member. CX-0002C (Smith DWS) at Q/A 299-309.

GCI argues, in part:

> The ROK-IT chair satisfies the claim element **"a front leg member,"** as recited by claim 10 of the '824 Patent. CX-0002C (Smith DWS) at Q/A 299. As shown in CDX-0028, the ROK-IT chair's side frame assemblies have a front leg member supporting a forward portion of the ROK-IT chair. CX-0002C (Smith DWS) at Q/A 300, 303. Specifically, the front of the armrest on the ROK-IT chair is supported by the front leg member, and the front of the armrest is a forward portion of the chair. *Id.* at Q/A 305-306, 309; Tr. (Penn) at 573:2-13; CX-0273C (Penn Dep.) at 44:20-46:13; CX-0307C at .0004 (showing "front arm support tube" (item 9) on Hard Arm Dual Lock).
>
> Denovo believes that the front leg member of the ROK-IT chair can be removed and that the seat of the chair would still be "supported." RX-0490C (Babcock RWS) at Q/A 33. But with the front leg member removed, there would be no support for at least the forward portion of the armrest, and the armrest is indisputably part of the ROK-IT chair. CX-0002C (Smith DWS) at Q/A 305-06, 309; Tr. (Oliphant) at 518:16-24. Indeed, Denovo has never sold a version of the

ROK-IT chair without the armrest and front leg member shown in CDX-0028, and such a hypothetical chair is not the focus of this proceeding. Tr. (Oliphant) at 518:16-24; CX-0258C (Oliphant Dep.) at 59:17-19.

While supporting the front portion of the armrest is an independently sufficient basis to find that the front leg member supports a forward portion of the chair, the front leg member also supports at least the torque applied to the seat support at a forward portion by the connector member and bracket. CX-0002C (Smith DWS) at Q/A 304. The connector member is attached to the front leg member and the seat support by a bracket and hardware. *Id.* In the set-up condition, the force from the connector member is underneath the force on the seat support from the user seated on the flexible seat. *Id.* The distance between the two forces causes a moment (a rotational force) or a torque. *Id.*; CX-0468 (Smith DWS Errata); CX-0192; CDX-0029 (showing forces creating torque). This torque is supported by the front leg member through the bolt that connects the front leg member and the seat support. CX-0002C (Smith DWS) at Q/A 304; CDX-0029.

In portable and collapsible chairs, the actual support for the seated user's weight is provided by all of the interconnected members working together; there are generally no superfluous parts of the chair frame owing to the desire to keep the frame lightweight and collapsible without compromising sturdiness and integrity. CX-0002C (Smith DWS) at Q/A 302. As a result, no single "member" exclusively supports the chair; each member's interaction with other members helps to stabilize the chair frame under the seated user's weight and during rocking. *Id.* This includes the support member Mr. Smith has identified as the front leg member of the ROK-IT chair.

Denovo argues that the front leg member on the ROK-IT chair does not satisfy GCI's claim construction and does not support a forward portion of the chair because a user can still sit in the ROK-IT chair even if the front leg member has been removed. RX-0490C (Babcock RWS) at Q/A 33. In so arguing, Denovo implies that the "front leg member" must be the only means for supporting the front portion of the chair. Denovo improperly interprets GCI's claim construction to require that the front leg member fully or exclusively supports a forward portion of the chair. In reality, as discussed above, GCI's construction of "front leg member" is not so limited. A POSITA would recognize that multiple frame members work together to support the chair vertically, laterally and torsionally, especially in the field of collapsible and portable furniture. CX-0002C (Smith DWS) at Q/A 302.

As described, the front leg member supports a forward portion of the chair in combination with other frame members. Without the front leg member, the unsupported moment between the force from the connector member and the force on the seat support from a seated user would act to rotate the top of the seat support inward toward the seat panel, increasing stress in other components. CX-0002C (Smith DWS) at Q/A 304. This unsupported moment at the forward portion of the seat support increases stresses at other locations and is much more likely to lead to

failure, especially under the weight of a seated user and more so during rocking due to the dynamic loads and the fatigue from the high cyclical loads expected in a rocking chair. *Id.* at Q/A 309. The unsupported moment was great enough to permanently deform the bolts that connect the seat support, front leg member, and cross member bracket. *Id.*; CX-0468 (Smith DWS Errata); CX-0191 (bent bolts); CDX-0030 (same). Mr. Smith explained that he sat in the chair without the front leg member, and it did not have the same support. CX-0002C (Smith DWS) at Q/A 310. Thus, the front leg member on the ROK-IT chair plainly performs the function of supporting a forward portion of the chair and chair frame, especially under the weight of a seated user. *Id.* at Q/A 305.

Compl. Br. at 25-27.

Respondents argue, in part:

Claim 10 requires side frame assemblies including a front leg member. *See* JX-0001. The structure on the Rok-It Chair identified by GCI as the front leg member is really a front arm rest support tube. *See* RDX-0021C (below left); CX-0002C, Q&A 300; CDX-0028 (below right).

As is clear, the alleged front leg member on the Rok-It Chair would never touch the ground in normal use. Thus, GCI's identified structure is **not** a front leg member. Under GCI's construction, the alleged front leg member must support the front of the chair. GCI argues that the arm rest support tube accomplishes this through connections with other chair members. CX-0002C, Q&A 302. But the purpose of this arm rest support tube is to support the hard arm rest, not the front of the chair. *See* RX-0490C, Q&A 25, 33-34; *see also* Hrg. Tr. (Oliphant), at 523:10-20. In fact, the Rok-It Chair is fully supported and can sustain the weight of an adult even after the arm rest support tube is removed. *See* RX-0490C, Q&A 25, 33-34; *see also* Hrg. Tr. (Oliphant), at 525:6-11. Thus, under GCI's own construction, the Rok-It Chair does not infringe because the element GCI itself identifies as the "front leg member" does not support the front portion of the chair in normal use. *See* RX-0490C, Q&A 25, 33-34; Hrg. Tr. (Oliphant), at 523:10-20; *see also* Hrg. Tr. (Babcock), at 667:22-668:19.

As noted above, GCI initially identified the lower end of the main tube as the alleged front leg member, the same element it identifies as the back support member and fulcrum member. *See* RX-0333C at 66-70 (Exhibit A of RX-0333C at 28-32). Realizing this would render one or both elements insufficient to meet claim 10, it later changed its theory of infringement, instead identifying the Rok-It Chair's front arm rest support tube was the front leg member. *See* §II.A.2, *supra.*; *see also* RX-0335C, at 88-90 (Exhibit A to RX-0335C, at 39-41). GCI now alleges, upon realizing again that the Rok-It Chair does not literally infringe under GCI's own theory, that the front arm rest support tube of the Rok-It Chair meets the "front leg member" element under the DOE. GCI alleges that the function of the front leg member is to support "a forward portion of a chair." RX-0305, at 10, Term 17.

However, with the arm rest support tube removed, the chair still supports a user's weight. *See* RX-0490C, Q&A 33-34; RPX-0014; RPX-0015; *see also* Hrg. Tr. (Oliphant), at 523:10-20; Hrg. Tr. (Babcock), at 667:22-668:19. The cross members that are connected to the seat members sufficiently supported a user's weight with no change in the seating experience. *See* RX-0490C, Q&A 33, 34. The primary function of the alleged "front leg member" is merely to support the armrest. *See* Hrg. Tr. (Oliphant), at 523:10-20. When that member is removed, the chair still supports at least 260 lbs., demonstrating that GCI is wrong. *Id.* at 525:6-11; Hrg. Tr. (Babcock), at 667:22-668:19; *see also* RX-0490C, Q&A 31-34, RPX-0015.

The alleged way the front leg member carries out the alleged function also is different. *Id.* As GCI contends, the alleged front leg member supports the front portion of the chair by distributing forces and stress on the chair to other chair members. *See* CX-0002C, Q&A 311. Yet, Denovo witnesses testified and demonstrated that the chair would fully support the weight of an adult male even after the purported "front leg member" was removed. *See* RX-0490C, Q&A 33-34; RPX-0014; RPX-0015; *see also* Hrg. Tr. (Oliphant), at 523:10-20; Hrg. Tr. (Babcock), at 667:22-668:19. Finally, the result also is different. Under GCI's own allegations, the alleged front leg member must support the armrest, yet under any interpretation the claimed front leg member must instead support the chair. Similarly, claim 10 does not include an armrest and must be read broadly enough to cover chairs that do not include armrests yet have front leg members. Thus, the claimed front leg member must be capable of supporting a chair that has no armrest. The purported front leg member identified by GCI on the Rok-It Chair cannot perform this function. In addition, GCI's theory that the front arm support tube of the Rok-It Chair is equivalent to the claimed front leg member would ensnare the prior art DL Hard Arm chair, the Lougee chair, and the Chen chair. For at least the above reasons, GCI's assertion of doctrine of equivalents must be rejected.

The Rok-It Chair does not have the claimed front leg member and, therefore, does not infringe. *See* RX-0490C, Q&A 25-34.

Resps. Br. at 26-29.

The construction of this claim term was discussed above; the claim term "front leg member" is construed to mean "a chair frame member for supporting a forward portion of a chair."

Under the adopted construction, the evidence adduced by GCI shows that the accused products include a front leg member because the alleged front leg member is a chair frame member that at least supports the arm rest, which is a forward portion of the chair. *See*

CX-0002C (Smith DWS) at Q/A 305-06, 309; Penn Tr. 573; CX-0273C (Penn Dep.) at 44:20-46:13; CX-0307C at 4 (showing "front arm support tube" (item 9) on Hard Arm Dual Lock). Respondents argue that "the Rok-It Chair is fully supported and can sustain the weight of an adult even after the arm rest support tube is removed." Resps. Br. at 27. However, with the front leg member removed, there would be no support for at least the forward portion of the armrest, and the armrest is indisputably part of the Rok-It chair. CX-0002C (Smith DWS) at Q/A 305-06, 309; Oliphant Tr. 518.

Even if Denovo's proposed construction for this claim limitation were adopted, GCI adduced evidence showing that all accused products would nevertheless satisfy this claim limitation under the doctrine of equivalents. Specifically, the front leg member achieves substantially the same function, in substantially the same way, to achieve substantially the same result whether or not the front leg member directly engages the ground at all times to support the chair. *See* CX-0002C (Smith DWS) at Q/A 311. For example, the function of the front leg member is to provide support to a forward portion of the chair and the user seated therein. *Id.* The way it does this is by distributing force and stress from a forward portion of the chair. *Id.* The result is a chair that does not break under expected loads. *Id.* The differences between a front leg member directly engaging the ground and one that engages other members are insubstantial. *Id.*

Accordingly, it is determined that the accused products satisfy this claim limitation under the adopted claim constructions. Alternatively, it is determined that the accused products satisfy this claim limitation under the doctrine of equivalents even if Denovo's proposed claim construction were adopted.

d. a rear leg member;

The construction of this claim term was discussed above; the claim term "rear leg member" is construed to mean "a chair frame member for supporting a rearward portion of a chair." Under the claim construction adopted above, the record evidence demonstrates that the Rok-It Chair includes a rear leg member. CX-0002C (Smith DWS) at Q/A 312-14. Denovo does not contest with particularity that the accused products satisfy this limitation, especially under GCI's proposed claim construction which has been adopted. *See* Resps. Br. at 18-34.

Even if Denovo's proposed construction for this claim limitation were adopted, GCI adduced evidence showing that all accused products would nevertheless satisfy this claim limitation under respondents' proposed construction. Specifically, the Rok-It Chair's side frame assemblies include a generally axially elongated frame member at the rear of the chair that engages the ground directly or with a rocker mechanism at all times to support the chair. *See* CX-0002C (Smith DWS) at Q/A 313-14.

Accordingly, it is determined that the Rok-It Chair includes a rear leg member.

e. a back support member;

The term "a back support member" was not a disputed term proposed by the parties for construction. Nevertheless, the parties dispute whether or not the Rok-It Chair satisfies the limitation. The administrative law judge finds that the Rok-It Chair includes a back support member. Each side frame assembly in the accused chair has a portion that supports the back. *See* CX-0002C (Smith DWS) at Q/A 315, 318.

GCI argues, in part:

> The ROK-IT satisfies the claim element **"a back support member"** as recited by claim 10 of the '824 Patent. CX-0002C (Smith DWS) at Q/A 315, 318. As shown in CDX-0033, the ROK-IT's side frame assemblies have a back support

member that supports the back. *Id.* at Q/A 316; Tr. (Penn) at 572:7-10. The back support member on the ROK-IT chair extends upwardly from the seat support member to the top of the chair and is separate from (*i.e.*, does not overlap with) the fulcrum member. Tr. (Smith) at 286:15-287:4; CX-0002C (Smith DWS) at Q/A 316, 320. The back support member is pivotally connected to at least the seat support member, and there is also a bracket on the back support member that has pivotal attachments with the armrest and the rear leg member. Tr. (Smith) at 290:19-25; CX-0002C (Smith DWS) at Q/A 348.

. . .

[T]he identified structure on the ROK-IT chair meets the "back support member" limitation literally. CX-0464C (Smith RWS) at Q/A 320, 348; *see Powell*, 663 F.3d at 1231-32 (upholding infringement whereby two claim elements were satisfied by two halves of the same stmcture). Denovo's erroneous reading of the claim language requiring the back support member and the fulcrum member to be "separate and distinct" members is incorrect and contrary to the plain and ordinary meaning of the claim.

Not only does Denovo's argument fail on the merits, it also should be rejected as untimely. Denovo did not raise the argument that all members of the side frame assembly must be separate and distinct members that are pivotally interconnected (and only pivotally interconnected) during the exchange of claim construction positions, thus waiving it. *See Certain Printing and Imaging Devices & Components Thereof*, Inv. No. 337-TA-690, Order No. 29, at 21 (May 4, 2010) (holding that respondents waived claim construction arguments by failing to offer a proposed construction in Joint Claim Construction Statement).

Compl. Br. at 28-31 (footnotes omitted).

Respondents argue, in part:

The claims require separate fulcrum members and back support members, and that the fulcrum member and back support members are pivotally interconnected with each other and with the other frame members. The back support members in the Rok-It Chair are not pivotally interconnected with any of the other chair frame members, including the fulcrum member.

Specifically, the '824 patent (JX-0001), claim 10 (emphasis added) requires:

> a pair of side frame assemblies including a front leg **member**, a rear leg **member**, a back support **member**, and a fulcrum **member** ..., said **members comprising each side frame assembly** being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair ...

The Rok-It Chair does not satisfy these elements for at least three reasons. First, the feature that GCI identifies as the back support member is not pivotally connected to any other member of the side frame assembly. Second, these back support and fulcrum members form a single unitary element whereas the claims require that these be separate elements. Third, a unitary rod cannot be the equivalent of two interconnected members. *See* RX-0490C, Q&A 17-24.

First, the members of the side frame assemblies are recited in claim 10 as separate elements. *See* JX-0001, at claim 10 ("side frame assemblies including a front leg member, a rear leg member, a back support member, and a fulcrum member ..."). The '824 patent clearly indicates that each of the side frame assembly members are separate elements:

> Each side frame assembly 120 includes an armrest 122, a front leg 124, a rear leg 128, a seat support member 129, and a backrest support member 130, **all interconnected by pivotal connections** that facilitate folding of the chair 110 between a set-up condition, as shown, and a folded condition.

JX-0001 at 11:45-49 (emphasis added). . . .

The element of the Rok-It Chair that GCI identifies as both the back support member and the fulcrum member runs from the very top to the very bottom of the chair. . . . But this purported back support member/fulcrum member are not separate in the Rok-It Chair (RX-0490C, Q&A 21) – they are the **same member** and GCI has admitted as much. *See* Hrg. Tr. (Smith), at 227:21-23 (discussing CDX-0033 and -0034 and acknowledging that the Main Tube identified in both exhibits "is the same physical piece"). . . .

Further, the plain language of claim 10 requires interconnection between the members of the frame side assembly. The detailed description GCI itself relies on discloses that the members are interconnected by joints, thus the members must be separate elements. *See* RX-0490C, Q&A 22-23. . . .

Second, claim 10 requires that all side frame assembly members be interconnected for pivotal movement or pivotally interconnected. JX-0001 at claim 10 ("said members comprising each side frame assembly being pivotally interconnected ..."). However, the Rok-It Chair's purported back support members are **not** pivotally interconnected with any other members of the side frame assembly. . . .

Third, a single, unitary member cannot be an equivalent of two separate, pivotally connected members. In the Rok-It Chair there is no pivotal interconnection at all between the back support member and the fulcrum member or any other side frame assembly member, much less one that is equivalent to this element in the claims. *See* RX-0490C, Q&A 22.

> In any case, a "rigid" connection is the exact opposite of a pivotal interconnection and cannot be an equivalent, at least because it, by definition, cannot perform the function or achieve the result of the claimed invention in the same way. *Advanced Steel Recovery*, 808 F.3d at 1320. Specifically, the elongated rod **will not** fold at the location of the seat, where the alleged fulcrum and back support member meet. If there was a pivotal interconnection between the alleged back support and fulcrum members, it would be possible to fold the chair into a smaller configuration, allowing for greater ease of storage. Since this unitary member cannot be folded at the location of the seat, this results in a much longer configuration, which in itself is a substantially different way to fold the Rok-It Chair and substantially different result.

Resps. Br. at 19-26.

Denovo argues that the back support member and the fulcrum member must be separate and distinct members of the side frame assembly that are pivotally connected to each other. *See id.* However, the specification of the '824 patent discloses different elements of the chair frame as separate portions of a single tube. *See, e.g.,* JX-0001 ('824 patent) at col. 6, lns. 27-37 (discussing portions of the side frame assembly 20 including the armrest portion 22, front leg portion 24, a lower support portion 26, a rear leg portion 28, and a backrest support member 30 and stating "[t]hough illustrated as being formed from a singular tubular member, the side frame assembly 20 may be constructed from multiple tubular members with departing from the spirit and principles of the present invention"); col. 6, lns. 38-45 (describing a backrest support member that can be rigidly attached or removably attached to the frame); col. 10, lns. 9-17 (describing a backrest support member that can be rigidly attached, removably attached, or pivotally attached to other frame members); Smith Tr. 293-294. Claim 10 of the '824 patent does not include any language requiring a specific structural relationship between the back support member and the fulcrum member. Smith Tr. 287.

Denovo cites the following portion of the specification: "[e]ach side frame assembly 120

includes an armrest 122, a front leg 124, a rear leg 128, a seat support member 129, and a backrest support member 130, all interconnected by pivotal connections that facilitate folding of the chair 110 between a set-up condition, as shown, and a folded condition." JX-0001 ('824 patent) at col. 11, lns. 45-49. However, this sentence does not refer to the fulcrum member and is included in a paragraph describing only the specific embodiment shown in Figure 9.

Even if Denovo's proposed construction that the back support member and the fulcrum member must be separate and distinct members of the side frame assembly that are pivotally connected to each other were adopted, GCI adduced evidence showing that all accused products would nevertheless satisfy this claim limitation under the doctrine of equivalents. The differences would be insubstantial to a person of skill in the art because the "back support member" and the "fulcrum member" would still be pivotally connected relative to the other members of the side frame assembly, and thus the identified structure on the Rok-It Chair meets these limitations under the doctrine of equivalents. *See* CX-0002C (Smith DWS) at Q/A 319-20. For example, the back support member performs substantially the same function, providing a back support, in substantially the same way, by providing a physical structure to support the user's back, achieving substantially the same result, support of the user's back. *See id.* Respondents did not adduce evidence to rebut GCI's argument for infringement of this claim limitation by the accused products under the doctrine of equivalents. *See* Resps. Br. at 24-26.

Accordingly, it is determined that the Rok-It Chair includes a back support member under the adopted claim constructions. Alternatively, it is determined that the Rok-It Chair satisfies this claim limitation under the doctrine of equivalents even if Denovo's proposed claim constructions were adopted.

f. a fulcrum member;

The administrative law judge finds that Denovo's Rok-It Chair includes this feature of claim 10. *See* CX-0002C (Smith DWS) at Q/A 322.

GCI argues, in part:

> The ROK-IT chair satisfies the claim element **"a fulcrum member,"** as recited by claim 10. CX-0002C (Smith DWS) at Q/A 322. As shown in CDX-0034, the ROK-IT has a fulcrum member in the form of an elongated member attached as part of the side frame assembly to help support the chair, which has a fulcrum point at its terminal end. *Id.* at Q/A 323-24. The fulcrum point further comprises a foot on the end of the fulcrum member for directly engaging the ground surface. *Id.* The fulcrum member on the ROK-IT chair extends downwardly from just below the seat support member to the fulcrum point and is separate from (*i.e.*, does not overlap with) the back support member. Tr. (Smith) at 286:15-287:4; RX-0337C at Ex. A, p. 44. The fulcrum member has both a pivotal and sliding connection to at least the front leg member, which is part of the side frame assembly, as well as the cross member. Tr. (Smith) at 291:1-7.
>
> Denovo argues that the fulcrum member and the back support member are not separate and distinct members of the side frame assembly that are pivotally connected to each other. But as discussed above with respect to the back support member, claim 10 of the '824 Patent does not require that the fulcrum member and the back support member be separate components pivotally connected to each other. Tr. (Smith) at 290:5-15; CX-0002C (Smith DWS) at Q/A 320, 347-48; CX-0464C (Smith RWS) at Q/A 96. Indeed, claim 10 of the '824 Patent does not include any language requiring a specific structural relationship between the fulcrum member and the back support member. Tr. (Smith) at 287:15-21.

Compl. Br. at 31-32.

The construction of this claim term was discussed above; the claim term "fulcrum member" is construed to mean "a chair frame member providing a fulcrum point for the chair frame."

The evidence adduced by GCI shows that the Rok-It Chair includes a fulcrum member because the Rok-It Chair includes an elongated member attached as part of the side frame assembly to help support the chair, which has a fulcrum point at its terminal end. *See* CX-0002C (Smith DWS) at Q/A at Q/A 323-24. As noted above, Denovo argues that the back support

member and the fulcrum member must be separate and distinct members of the side frame assembly that are pivotally connected to each other. *See* Resps. Br. at 19-26. However, as previously discussed, the specification of the '824 patent discloses different elements of the chair frame as separate portions of a single tube. *See, e.g.,* JX-0001 ('824 patent) at col. 6, lns. 27-37.

Even if Denovo's proposed construction that the back support member and the fulcrum member must be separate and distinct members of the side frame assembly that are pivotally connected to each other were adopted, GCI adduced evidence showing that all accused products would nevertheless satisfy this claim limitation under the doctrine of equivalents. The differences would be insubstantial to a person of skill in the art because the "back support member" and the "fulcrum member" would still be pivotally connected relative to the other members of the side frame assembly, and thus the identified structure on the Rok-It Chair meets these limitations under the doctrine of equivalents. *See* CX-0002C (Smith DWS) at Q/A 329. For example, the fulcrum member performs substantially the same function, allowing motion of the frame side assemblies, in substantially the same way, by providing a pivot, achieving substantially the same result, rocking motion of the Rok-It Chair. *See id.*

Accordingly, it is determined that the Rok-It Chair satisfies this claim limitation under the adopted claim construction. Alternatively, it is determined that the Rok-It Chair satisfies this claim limitation under the doctrine of equivalents even if Denovo's proposed claim construction were adopted.

g. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof;

The construction of this claim term was discussed above; "a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof" is "a chair frame member with a point on the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported." Under the adopted construction, the record evidence demonstrates that the Rok-It Chair satisfies this limitation of asserted independent claim 10. CX-0002C (Smith DWS) at Q/A 299-309.

GCI argued, in part:

> The ROK-IT chair satisfies the claim element **"a fulcrum member defining a fulcrum point,"** as recited by claim 10. CX-0002C (Smith DWS) at Q/A 325; Tr. (Babcock) at 639:16-25. As shown in CDX-0035 and CDX-0036, the ROK-IT has a fulcrum member defining a fulcrum point at its terminal end in association with the fulcrum member's foot that is in direct contact with the ground surface and supports the chair in the setup position and as it rocks between forward and rearward positions. CX-0002C (Smith DWS) at Q/A 326-27; Tr. (Babcock) at 639:20-640:6 (testifying that the ROK-IT chair pivots around the rivets in the front foot).
>
> . . .
>
> The ROK-IT chair has a literal fulcrum member defining a literal fulcrum point at the terminal end thereof, as shown in CDX-0001. CX-0002C (Smith DWS) at Q/A 633. According to the '824 Patent, the fulcrum member is a "generally axially elongated frame member." *Id.* at Q/A 634; JX-0001 ('824 Patent) at cl. 1. The claim language permits more than just a steel tube component. CX-0002C (Smith DWS) at Q/A 635. The inclusion of a fulcrum point and a foot at the terminal end of the fulcrum member does not change the generally axially elongate nature of this frame member. *Id.*
>
> . . .
>
> Denovo's argument also fails on the merits. Denovo again relies exclusively on the Figure 9 embodiment, even though the claim language imposes no

restrictions on the shape of the fulcrum point. *See* CX-0464C (Smith RWS) at Q/A 87; Tr. (Babcock) at 640:21-641:9 ("Q. Are you limiting the scope of fulcrum point to what's shown in 154 in Figure 9? Yes or no? A. Yes"). By doing so, Denovo again violates basic tenets of claim construction. *See, e.g., Kara Tech.,* 582 F.3d at 1348 ("The patentee is entitled to the full scope of his claims, and we will not limit him to his preferred embodiment or import a limitation from the specification into the claims."); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) ("[W]e have repeatedly warned against confining the claims to those embodiments."); *see also* Tr. (Smith) at 294:24-295:2 ("Q. And would one of ordinary skill in the art limit the scope of the claims to that particular embodiment? A. My understanding is that claims are not usually limited to a particular embodiment.").

In addition to meeting the "fulcrum member defining a fulcrum point" limitation literally, Mr. Smith explained that the ROK-IT also meets this limitation under the doctrine of equivalents because the differences (if any) are insubstantial. CX-0002C (Smith DWS) at Q/A 329. For example, the fulcrum member defining a fulcrum point performs substantially the same function (allowing motion of the frame side assemblies), in substantially the same way (by providing a pivot), to achieve substantially the same result (rocking motion of the chair). *Id.*

The ROK-IT chair satisfies the claim language that the fulcrum point be **"at a terminal end thereof [of the fulcrum member],"** as recited by claim 10 of the '824 Patent. CX-0002C (Smith DWS) at Q/A 330. As shown in CDX-0037, the ROK-IT has a fulcrum member defining a fulcrum point with a foot that directly engages the ground at a terminal end thereof, and therefore would meet this limitation under any party's claim construction. *Id.* at Q/A 331-32. As used in the'824 Patent, "terminal end" is not limited to the distal or lowermost end, and claim 10 does not require that the fulcrum point be on the "lowermost end" of the fulcrum member. Tr. (Smith) at 297:21-298:10, 298:24-299:1. Denovo's expert agrees that the foot is at the end towards the ground of the fulcrum member. Tr. (Babcock) at 640:16-20. The ROK-IT also meets this limitation under the doctrine of equivalents as the differences between the area at the end of the member and the distal end of the member are insubstantial. CX-0002C (Smith DWS) at Q/A 329; CX-0464C (Smith RWS) at Q/A 87.

The ROK-IT chair satisfies the claim element "**adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof,**" as recited by claim 10 of the '824 Patent. CX-0002C (Smith DWS) at Q/A 333. As shown in CDX-0035 and CDX-0036, the ROK-IT has a fulcrum member with a fulcrum point adapted for contacting the ground surface upon which it sits in the setup position through the foot, which is part of the fulcrum member. CX-0002C (Smith DWS) at Q/A 334-35. The fulcrum point supports the chair frame, and the contact of the fulcrum member with the support surface, whether direct or indirect, helps movement of the chair frame between forward and rearward positions. *Id.* A POSITA would understand that "ground surface" refers to the surface on which the chair sits when set up. *Id.* at Q/A 338; Tr. (Babcock) at 639:12-15; JX-0001 ('824

Patent) at 11:53-56, 12:20-25.

Denovo argues that the fulcrum point itself needs to "engage the ground surface" or "touch the ground or support surface" (*see* RX-0490C (Babcock RWS) at Q/A 43). In so arguing, Denovo effectively reads out of the claim the requirement that the fulcrum point be "adapted for contacting the ground surface," JX-0001 ('824 Patent) 14:57-58 (emphasis added), and would rewrite the claims to mean "directly contacting the ground surface." But the claim includes the specific words "adapted for," and it would be improper to simply ignore those words. *See ERBE Elektromedizin GmbH v. Canady Technology LLC*, 629 F.3d 1278, 1286 (Fed. Cir. 2010) ("[A]ll the limitations of a claim must be considered meaningful.") (internal citations omitted). The ROK-IT chair has a fulcrum member defining a fulcrum point at its terminal end that is adapted for contacting the ground surface through the fulcrum member's foot, which in turn directly contacts the ground surface. CX-0002C (Smith DWS) at Q/A 323, 326, 331, 334; *see* JX-0001 ('824 Patent) at 9:52-54 ("The chair frame 12 is generally adapted to rest on a generally horizontally oriented supporting surface, such as a floor or the ground, in a set-up condition.").

Compl. Br. at 32-36.

Denovo argues, in part:

Claim 10 requires "a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof and about which the chair can move between forward and rearward rocking positions." JX-0001, at claim 10. This element corresponds to elements 154 and 155 in the '824 patent: "the fulcrum member 155 has a fulcrum point 154 on its **lowermost** end that contacts the ground surface and aids rocking of the chair 110." *Id.* (emphasis added).

As is detailed above, GCI construes this claim element to mean: "a chair frame member with an end defining a point that **can** touch the surface on which the chair sits when set-up, and on which the chair frame is supported and about which the chair frame pivots during the rocking motion in forward and backward directions." RX-0305 (emphasis added). GCI first identified the part of the foot that actually touches the ground as the terminal end. . . .

Further, GCI identified as the claimed fulcrum point the rivet that connects an upper part of a foot to a lower part of a foot and about which the two parts rotate relative to one another. *Id.* The upper part of the foot connects to the main tube (GCI's "fulcrum member"), and the lower part of the foot engages the ground. *See* CDX-0001 (reproduced above). Thus, the terminal end, as GCI initially identified, is properly considered the bottom of the foot.

. . .

> GCI also argues that a fulcrum point that is off the ground is an equivalent of the claimed fulcrum point that is "adapted for contacting the ground surface." JX-0001, at claim 10; *see also* CX-0002C, Q&A 329. Yet again, Mr. Smith's testimony "is broad and scant." *Akzo Nobel Coatings*, 811 F.3d at 1343. GCI has failed to "provide particularized testimony and linking argument" necessary to establish the doctrine of equivalents. *Advanced Steel Recovery*, 808 F.3d at 1319. First, the front leg, which GCI identified as the fulcrum member, does not function as a fulcrum and thus cannot have a fulcrum point; it is a support member. *See* RX-0490C, Q&A 36-37. Second, the purported fulcrum point is not part of the GCI identified fulcrum member but is part of and interior to an entirely different design element, called a foot. *Id.* Q&A 36, 38. Third, the purported fulcrum point is not a point about which the Rok-It Chair can move between a forward and a rearward position, as required by Claim 10. *Id.* Q&A 36, 39-42. Finally, the purported fulcrum point is not adapted for contacting the ground. *Id.* Q&A 36, 43. Mr. Smith does not even attempt to address these differences much less support his claim that they are insubstantial.
>
> Furthermore, GCI has repeatedly argued that the prior art lodged against the '824 patent (e.g., Dual Lock, Chen, Loungee) is not applicable because there is no pivot point about which the chair rocks and contacts the ground. *See* CX-0464C, Q&A 219, 240, 254. By presenting this argument, GCI is admitting that the design of the foot in the Rok-It Chair is substantially different than the claimed invention. It is so different, in fact, that GCI cannot accept an element of a prior art device that actually does touch and pivot upon the ground as an equivalent to the Rok-It pivot above the ground. By its own distinctions from the prior art, GCI points out why Denovo's raised pivot point, above the ground, is not equivalent to the prior art feet that contacted and pivoted on the ground. *See* RX-0490C, Q&A 43.

Resps. Br. at 31-34.

The evidence adduced by GCI shows that the accused products include this limitation because the Rok-It Chair has a fulcrum member defining a fulcrum point at the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported. *See* CX-0002C (Smith DWS) at Q/A at Q/A 633.

Denovo argues that "the alleged fulcrum point of the Rok-It Chair does not contact the ground; it is within the foot, well above the ground, and a substantial amount of plastic material is below it that contacts the ground." Resps. Br. at 32. However, the Rok-It Chair has a fulcrum member defining a fulcrum point within a foot that directly engages the ground at a terminal end

thereof, and therefore meets the adopted claim construction. *See* CX-0002C (Smith DWS) at Q/A 331-32. Denovo's expert agreed that the foot is at the end towards the ground of the fulcrum member. Babcock Tr. 640.

Furthermore, inasmuch as Denovo admits the alleged fulcrum point is "within the foot," Resps. Br. at 32, the Rok-It Chair satisfies the claim element "adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof." The Rok-It Chair has a fulcrum member defining a fulcrum point at its terminal end that is adapted for contacting the ground surface through the fulcrum member's foot, which in turn directly contacts the ground surface. *See* CX-0002C (Smith DWS) at Q/A 323, 326, 331, 334; JX-0001 ('824 patent) at col. 9, lns. 52-54 ("The chair frame 12 is generally adapted to rest on a generally horizontally oriented supporting surface, such as a floor or the ground, in a set-up condition.").

Accordingly, it is determined that the Rok-It Chair satisfies this claim limitation under the adopted claim constructions. Inasmuch as GCI's proposed construction is "capable of touching and sitting on a surface when in a set-up condition", Denovo's accused products would also infringe under GCI's construction.

h. about which the chair can move between forward and rearward rocking positions;

The record evidence demonstrates that the Rok-It Chair satisfies this limitation of asserted independent claim 10. *See* CX-0002C (Smith DWS) at Q/A 339.

GCI argues, in part:

> The ROK-IT satisfies the claim element **"about which the chair can move between forward and rearward rocking positions,"** as recited by claim 10, under each party's proposed construction. CX-0002C (Smith DWS) at Q/A 339. As shown in CDX-0038, CDX-0039, and CDX-0040C, the ROK-IT moves about the fulcrum point between forward and rearward positions under GCI's proposed construction. *Id.* at Q/A 340-41; Tr. (Smith) at 291:3-15; Tr. (Penn) at 558:24-

560:18; Tr. (Babcock) at 635:22-637:16. The forward and rearward positions are further shown in CX-0150 (video of ROK-IT chair rocking); CX-0141C at .0015 (showing the initial (forward) and final (rearward) positions of the ROK-IT chair); CX-0279C at .0008.

. . .

Denovo argues that the ROK-IT chair does not move between forward and rearward positions about the fulcrum member because the ROK-IT chair cannot move forward from "an initial, or set up position," as defined by Denovo apart from the patent description. RX-0490C (Babcock RWS) at Q/A 40. Initially, Denovo is attempting to incorrectly equate the new term "initial, or set up position" with the actual term used in the '824 Patent, the "set-up condition." As described in Section V.A.4, *supra*, the '824 Patent does not even use the terms "initial position" or "set up position" but instead uses the term "set-up condition" throughout the patent to describe simply the unfolded state of the chair as compared to the folded state of the chair. JX-0001 ('824 Patent) at 1:15-19 (explaining that the invention relates to "rocking chairs that are foldable and unfoldable between a set-up condition for use and a substantially collapsed condition for transportation and/or storage."); *id.* at 14:58-59 ("the ground surface upon which the chair sits in a set-up condition thereof"); *id.* at 14:61-64 ("said members being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair."). The chair remains in a set-up condition during rocking motion. JX-0001 ('824 Patent) at 9:15-19 and 10:60-62. Moreover, the '824 Patent only describes the forward and rearward positions relative to each other and not relative to some "initial or set-up position," terms that are completely absent from the '824 Patent. *Id.* at 38-43.

Claim 10 of the '824 Patent does not include any language requiring that the forward position of the chair be forward of the initial position. JX-0001 ('824 Patent) 14:57-61; Tr. (Smith) at 295:13-24. Indeed, the '824 Patent does not require any specific location for the forward and rearward positions and does not specify the amount of forward or rearward movement that is necessary for a rocking motion. CX-0002C (Smith DWS) at Q/A 343; Tr. (Cameron) 338:8-11; Tr. (Smith) at 295:24-296:7. As the location of the forward position would change based on, for example, the size of the user and how forcefully the user is rocking, a POSITA would understand that the forward position is simply the location where the rocking motion changes from moving in a forward direction to moving in a rearward direction. Tr. (Smith) at 296:3-9; CX-0002C (Smith DWS) at Q/A 343; CX-0464C (Smith RWS) at Q/A 93. Thus, the ROK-IT moves about the fulcrum point between forward and rearward positions under GCI's proposed construction. *Id.* at Q/A 340-41; Tr. (Penn) at 558:24-560:18.

Compl. Br. at 36-38.

Denovo argues, in part:

Claim 10 requires that the chair frame "move between forward and rearward rocking positions" about the fulcrum member and about the "setup condition." JX-0001, at claim 10. GCI's proposed construction for this element is a "rocking motion in a forward and rearward direction." RX-0305, at 10, Term 16. Denovo believes that a "forward position is when a portion of the chair moves farther right to left (in Fig. 9) and across a vertical plane extending upward from the fulcrum point than at the set-up condition and rearwards is when a portion of the chair moves farther left to right (in Fig. 9) and across the vertical plane extending upward from the fulcrum point than at the set-up condition." *Id.* Denovo's position is illustrated in an annotated Fig. 9 (above). RDX-0058. As discussed above in Section II.A., GCI's construction of this limitation is contrary to the plain meaning of the claim, ignores that it must move "about" the setup condition.

Contrary to the claimed requirement, the Rok-It Chair does not move to a forward position from the set-up. Indeed, the Rok-It Chair cannot move in a forward direction from the set-up condition either (per GCI's construction), it would tip forward, lift the rocker mechanism off the ground, and fail the requirement for a rocker mechanism to "support[] the chair during movement of the chair frame between said forward and rearward positions." *See* RX-0490C, Q&A 41. Further, when a user is seated in the Rok-It Chair in normal use, the chair never even returns to the set-up condition. Hrg. Tr. (Penn), at 559:25-560:11; Hrg. Tr. (Babcock), at 664:2-11.

When the Rok-It Chair is opened and placed on the ground, it is in the set-up position. *See* CX-0002C at p. 40; CDX-0020. In that position, the spring mechanism in the Rok-It Chair is physically incapable of moving any higher in the sleeve. The two rollers are at their highest position when the chair is in the set-up condition. *See* RX-0490C, Q&A 40; RX-0076 (reproduced at right). As Mr. Smith conceded in cross-examination, the Rok-It Chair cannot move from the set-up position in a forward direction to a forward position. *See* Hrg. Tr. (Smith) at 232:22-24. If the chair were to move any farther to the right in RX-0076, the chair would tip over, removing any support of the chair by the rocker mechanisms, as required by the claims. *Id.* at 233:5-14; RX-0490C, Q&A 40. Indeed, the Rok-It Chair was specifically designed so that it would move only in a rearward direction to a final rearward position and then return towards the set-up (or initial) position. *See* RX-0481C, Q&A 17-22; RX-0176C; RX-0375C, Q&A 32. That is illustrated in Denovo's product development direction, dated June 26, 2014. *See* RX-0220C, at DENOVO 02047; *see also* RX-490C, Q&A 40.

Mr. Babcock demonstrated this concept in the picture illustrated below in RDX-0057 where it is shown that the Rok-It Chair cannot move to a forward position. *See also* RX-0285; RX-0220C, at DENOVO 02047; RX-0490C, Q&A 40 ("At the initial or set-up condition, the springs in the housing are preloaded so that they hold the Rok-It Chair at the initial position with rear legs as high as possible."). Since the Rok-It Chair cannot move between the claimed forward and rearward position, about the setup condition, the Rok-It Chair does not infringe the claims of

> the '824 patent. Additionally, if the Rok-It Chair were to move in a forward direction from the set-up position, the spring mechanisms would be lifted off the ground and would not be supporting the chair in that forward position as required by claim 10. Thus, the Rok-It Chair does not infringe for this additional reason. *See* RX-0490C, Q&A 40-42.

Resps. Br. at 29-31.

The construction of this claim term was discussed above; the claim term "about which the chair can move between forward and rearward rocking positions" is construed to mean "rocking motion between forward and backward directions."

Under the adopted construction, the evidence adduced by GCI shows that the Rok-It Chair includes a fulcrum point about which the chair can move between forward and rearward rocking positions because the Rok-It Chair moves about the fulcrum point between forward and rearward positions under the adopted construction. *See* CX-0002C (Smith DWS) at Q/A 339. The intrinsic evidence demonstrates that the "set-up position" can be the forward-most position. *See* JX-0001 ('824 patent) at col. 5, lns. 11-13 ("[T]he chair can be used as a normal, stabilized chair in its forward position and will only rock when the user chooses to rock."); *id.* at col. 5, lns. 28-31 ("FIG. 2 is a perspective view of a collapsible and portable rocking chair ... with the chair in a forward, stabilized position."). The claim language simply states: "a fulcrum point . . . about which the chair can move between forward and rearward rocking positions." Contrary to Denovo's argument, the claim language does not preclude the "set-up condition" from being either the forward or rearward rocking positions.

Even under Denovo's proposed construction that forward position is when a portion of the chair moves farther right to left (in Fig. 9) and across a vertical plane extending upward from the fulcrum point than at the set-up condition and rearwards is when a portion of the chair moves farther left to right in Fig. 9 and across the vertical plane extending upward from the fulcrum

point than at the set-up condition, GCI adduced evidence showing that the Rok-It Chair would nevertheless satisfy this claim limitation under the doctrine of equivalents. CX-0002C (Smith DWS) at Q/A 344-45. The function of a fulcrum point about which the chair can move between forward and rearward positions is to allow motion of the chair frame. *Id.* The way is by the use of a pivot, and the result is rocking motion of the chair. *Id.* The differences between a forward position being the same as the set up position, being slightly rearward of the setup position, or being at some further forward position, are insubstantial. *Id.*

Accordingly, it is determined that the Rok-It Chair satisfies this claim limitation under the adopted claim construction. Alternatively, it is determined that the Rok-It Chair satisfies this claim limitation under the doctrine of equivalents even if Denovo's proposed claim construction were adopted.

i. said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair;

The administrative law judge finds that the Rok-It Chair includes this limitation of claim 10. *See* CX-0002C (Smith DWS) at Q/A 322.

GCI argues, in part:

> The ROK-IT satisfies the claim element **"said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair,"** as recited by claim 10. CX-0002C (Smith DWS) at Q/A 346. As shown in CDX-0046 and CDX-0047, the members comprising each side frame assembly of the ROK-IT chair are pivotally interconnected for folding movement between the setup and collapsed condition of the chair. *Id.* at Q/A 348-49.
>
> Denovo's expert, Mr. Babcock, agrees that the members of each side frame assembly of the ROK-IT chair are pivotally interconnected for folding movement between the setup and collapsed condition of the chair. Tr. (Babcock) at 641:10-642:5:

Q. Okay. Let me talk to you about how the components in the Rok-It are connected. You would agree with me that the Denovo chair has a number of interconnected members, correct?
A. Yes, the Denovo chair has a number of interconnected members.
Q. Okay. And the Denovo -- the Rok-It Chair, Denovo chair has a setup condition; is that correct?
A. Yes, the Rok-It Chair has a setup condition.
Q. And it has a collapsed condition, correct?
A. Yes, that's true.
Q. And it has two side frame assemblies, correct?
A. Yes, it has two side frame assemblies.
Q. Okay. And each side frame assembly includes some members that are pivotally interconnected, correct?
A. Yes, it includes some members that are pivotally interconnected.
Q. And those connections enable the Rok-It to move between a setup condition and a collapsed condition, correct?
A. That is certainly one of their functions, yes.

During the exchange of proposed claim constructions, no party contended that "being pivotally interconnected for folding movement" needed construction. *See* Joint Claim Construction Statement (EDIS Doc. ID 695324). Nonetheless, Denovo belatedly seeks a *de facto* narrowing construction of this limitation. *See* RPreHB at § II.B.1. It argues that this language requires that every interconnection between the members of the side frame assembly must be pivotal (and only pivotal), and that every frame member must be pivotally connected to other frame members. *See* RX-0490C (Babcock RWS) at Q/A 4. The ALJ should reject that argument. Because Denovo did not raise its argument during claim construction, it cannot do so now, and the plain and ordinary meaning of the term controls. *See Printing & Imaging Devices*, Inv. No. 337-TA-690, Order No. 29, at 21.

Denovo's argument also fails on its merits. Denovo relies on narrow constructions of this phrase, purportedly based solely on a single embodiment illustrated in FIG. 9, to assert that the recited back support member and fulcrum member must be separate and distinct members and cannot be different parts of the same rigid member. RPreHB, at 6-8. But the claim language is not as narrow as Denovo contends. Rather than defining specific locations for the pivotal connections between specific frame members, claim 10 recites only that "said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair." JX-0001 ('824 Patent) at 6:61-64.

* * *

Moreover, Denovo's interpretation ignores clear disclosures of alternate embodiments in the '824 Patent which are readily applicable to a POSITA's interpretation of the claim language at issue, let alone the embodiment in FIG. 9,

which Denovo purports to be using to advance its narrow construction. Indeed, in FIG. 9, the fulcrum member 154 is not pivotally connected to the back support member 130, and thus Denovo's proposed construction deviates even from the FIG. 9 embodiment. *See* JX-0001 ('824 Patent) at Fig. 9.

In support of its interpretation, Denovo implores the ALJ to ignore the '824 Patent for all that it teaches, including the embodiment shown in FIGS. 2-7 and the associated description. But to restrict the analysis of the claims at issue to a single embodiment is improper. *ScriptPro*, 833 F.3d at 1341 ("[A] specification's focus on one particular embodiment or purpose cannot limit the described invention where that specification expressly contemplates other embodiments or purposes."). Indeed, the various disclosed embodiments share salient features of the claimed invention, and thus the disclosure of alternate embodiments is instructive to the POSITA's understanding of the claimed invention.

Compl. Br. at 38-42 (footnotes omitted).

Denovo argues:

The claims require . . . that the fulcrum member and back support members are pivotally interconnected with each other and with the other frame members. The back support members in the Rok-It Chair are not pivotally interconnected with any of the other chair frame members, including the fulcrum member.

Specifically, the '824 patent (JX-0001), claim 10 (emphasis added) requires:

> a pair of side frame assemblies including a front leg **member**, a rear leg **member**, a back support **member**, and a fulcrum **member** ..., said **members comprising each side frame assembly** being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair ...

The Rok-It Chair does not satisfy these elements for at least three reasons. First, the feature that GCI identifies as the back support member is not pivotally connected to any other member of the side frame assembly. Second, these back support and fulcrum members form a single unitary element whereas the claims require that these be separate elements. Third, a unitary rod cannot be the equivalent of two interconnected members. *See* RX-0490C, Q&A 17-24.

First, the members of the side frame assemblies are recited in claim 10 as separate elements. *See* JX-0001, at claim 10 ("side frame assemblies including a front leg member, a rear leg member, a back support member, and a fulcrum member ..."). The '824 patent clearly indicates that each of the side frame assembly members are separate elements:

> Each side frame assembly 120 includes an armrest 122, a front leg 124, a rear leg 128, a seat support member 129, and a backrest support member 130, **all interconnected by pivotal connections** that facilitate folding of the chair 110 between a set-up condition, as shown, and a folded condition.

JX-0001 at 11:45-49 (emphasis added). "Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention." *Becton, Dickinson & Co. v. Tyco Healthcare Grp.*, 616 F.3d 1249, 1254 (Fed. Cir. 2010). The use of the term "member" connotes that each is separate and distinct from the other claimed members and Courts have consistently construed this term accordingly. *See 180s, Inc.*, 699 F. Supp. 2d at 720 (construing each claimed "member" as "separate and distinct from each other."). As noted, claim 10 requires each member of the side frame assemblies to be separate.

The element of the Rok-It Chair that GCI identifies as both the back support member and the fulcrum member runs from the very top to the very bottom of the chair. *See* CDX-0033 (above left); CDX-0034 (above right); *see also* CX-0002C at Q&A 316, 323. But this purported back support member/fulcrum member are not separate in the Rok-It Chair (RX-0490C, Q&A 21) – they are the **same member** and GCI has admitted as much. *See* Hrg. Tr. (Smith), at 227:21-23 (discussing CDX-0033 and -0034 and acknowledging that the Main Tube identified in both exhibits "is the same physical piece"); *see also* RPX-0014; RX-0281 (reproduced below left); RDX-0021C; RX-0161C (reproduced below right).

Further, the plain language of claim 10 requires interconnection between the members of the frame side assembly. The detailed description GCI itself relies on discloses that the members are interconnected by joints, thus the members must be separate elements. *See* RX-0490C, Q&A 22-23. It is the claims and the specification that control claim construction and, by extension, infringement analysis, not the cleverness of a patentee's purported identification of allegedly infringing elements. *See Regents of the Univ. of Minnesota v. AGA Medical Corp.*, 717 F.3d 929, 939 (Fed. Cir. 2013) (because the claims "consistently use the terms affixed and conjoint in the sense of their ordinary meanings" and the specification "comports with the plain language of the claims, fully supporting the conclusion that the disks are separate"). Hence the Rok-It Chair does not infringe claim 10 for at least this reason.

Second, claim 10 requires that all side frame assembly members be interconnected for pivotal movement or pivotally interconnected. JX-0001 at claim 10 ("said members comprising each side frame assembly being pivotally interconnected ..."). However, the Rok-It Chair's purported back support members are **not** pivotally interconnected with any other members of the side frame assembly. As shown in CDX-0046 (reproduced above), the Rok-It Chair's pivotal interconnections identified by GCI do not encompass the identified back support

member (identified in CDX-0034, reproduced above), meaning that there is no pivotal interconnection at all with the back support member and any other member. Rather, the so-called "back support member" is attached to the "rear leg member" with a slidable attachment. *See* RDX-0101. Similarly, the alleged "front leg member" and "fulcrum member" are connected together with a slidable attachment. *See Id.* Mr. Smith admitted that these are slidable connections, not pivotal connections. Hrg. Tr. (Smith) at 310:1-4; 310:24-311:7. This is contrary to the plain language of the claims and explicit disclosure in the '824 patent specification that the members are "all interconnected by pivotal connections." JX-0001 at 11:46-48. Further, although the center of the unitary rod is connected to the seat support (as shown in CDX-46), GCI had never alleged – prior to Mr. Smith's ambiguous hearing testimony – that the portion of the rod connected to the seat support member is actually part of the back support member. In fact, GCI previously identified the center of that rod, where it connects to the seat, as the "fulcrum member end." *See* RX-0337C at Ex. A, p. 14 (reproduced below). Remarkably, on cross-examination, Mr. Smith attempted to change this narrative, but still could not be certain whether the section of the unitary rod that connects to the seat support member is part of the alleged back support member; he merely testified that the back support member "***probably*** includes the connection to the seat support member." Hrg. Tr. (Smith) at 225:22-226:4. GCI cannot now change its position, in support of its nebulous allegation that the Rok-It chair includes these elements, and allege that the back support member is somehow fortuitously now connected to the seat support member at the middle of the unitary rod. And, notably, if the back support member is connected to the seat support member at the center of the rod, that necessarily means that the fulcrum member is now not connected to the seat support member at the center of the rod, because Mr. Smith confirmed that the back support member and fulcrum member do not occupy the same space on that rod—i.e., they do not overlap. Hrg. Tr. (Smith) at 226:5-11. Thus, if the back support member is connected to the seat support member, then the fulcrum member is necessarily not pivotally interconnected to any other frame member because its connection to the alleged front leg member is a slidable connection. Mr. Smith fails to address any of the above issues with regard the plain language in the claims or the explicit disclosure of pivotal interconnection in his conclusory assertion of infringement. *See* CX-0002C, Q&A 320, 347. For this additional reason, the Rok-It Chair does not infringe claim 10.

Third, a single, unitary member cannot be an equivalent of two separate, pivotally connected members. In the Rok-It Chair there is no pivotal interconnection at all between the back support member and the fulcrum member or any other side frame assembly member, much less one that is equivalent to this element in the claims. *See* RX-0490C, Q&A 22.

To establish equivalence, GCI must, for each function, way, result prong, "provide particularized testimony and linking argument … with respect to the function, way, result test when such evidence is presented to support a finding of

infringement under the doctrine of equivalents." *Advanced Steel Recovery*, 808 F.3d at 1319. Mr. Smith alleges that the claims do not require the two members to be separate elements, and the difference between a singular element and two separate pieces are insubstantial. CX-0002C, Q&A 320. He is wrong for at least four reasons.

First, as noted above, the claims and the specification require the back support member and the fulcrum member to be separate elements. *See* RX-0490C, Q&A 21-23. Second, Mr. Smith asserts that the differences between a singular element and distinct separate elements is insubstantial. Mr. Smith is attempting to shoehorn his unmoored infringement theory into a DOE theory. However, under DOE, "an infringement theory … fails if it renders a claim limitation inconsequential or ineffective." *Akzo Nobel Coatings*, 811 F.3d at 1342. Each claim element must be applied to the accused product and cannot simply be disregarded because GCI arbitrarily decides that certain claim elements are somehow "insubstantial." Third, to the extent GCI is attempting to use the '824 patent's disclosure of unclaimed alternative types of connections beyond pivotal joints, it is seeking to reclaim "specifically-disclosed-but-unclaimed matter under the [DOE]" which "would eviscerate the public notice function of patents and create uncertainty in the law." *PSC Computer Prod., Inc. v. Foxconn Int'l, Inc.*, 355 F.3d 1353, 1360 (Fed. Cir. 2004) ("[T]he public would have no way of knowing which disclosed matter infringed and which did not."). Fourth, "[a DOE] theory cannot be asserted if it will encompass or 'ensnare' the prior art." *Jang v. Bos. Sci. Corp.*, 872 F.3d 1275, 1285 (Fed. Cir. 2017). Here, GCI's DOE theory that the same unitary metal rod is equivalent to the claimed back support and fulcrum members in the Rok-It Chair would ensnare the prior art Dual Lock Hard Arm chair, and the Lougee chair. *See* RX-0489C, Q&A 44-45; RX-0490C, Q&A 58; Hrg. Tr. (Smith) at 781:20-782:4.

In any case, a "rigid" connection is the exact opposite of a pivotal interconnection and cannot be an equivalent, at least because it, by definition, cannot perform the function or achieve the result of the claimed invention in the same way. *Advanced Steel Recovery*, 808 F.3d at 1320. Specifically, the elongated rod **will not** fold at the location of the seat, where the alleged fulcrum and back support member meet. If there was a pivotal interconnection between the alleged back support and fulcrum members, it would be possible to fold the chair into a smaller configuration, allowing for greater ease of storage. Since this unitary member cannot be folded at the location of the seat, this results in a much longer configuration, which in itself is a substantially different way to fold the Rok-It Chair and substantially different result.

GCI's DOE theory would also improperly vitiate multiple claim limitations, including "said members … being pivotally interconnected for folding movement", thereby violating the "all elements" rule. *See* RX-0490, Q&A 23. As in *Akzo Nobel Coatings*, Mr. Smith's testimony "is broad and scant" and is insufficient to support GCI's assertion of the doctrine of equivalents. 811 F.3d at 1343. All Mr. Smith

> can muster to support his DOE theory is that the fulcrum member and back support member "would still be pivotally connected relative to the other members of the side frame assembly." CX-0002C, Q&A 320. But, as noted above, the back support member is not pivotally connected to anything and the identified fulcrum and back support members of the Rok-It Chair cannot be pivotally connected to each other because they are the **same member**. *See* RX-0490C, Q&A 23. Further, as explained above, GCI has admitted that the "back support member" and "rear leg member" are slidably connected as are the "front leg member" and "fulcrum member". *See* Hrg. Tr. (Smith) at 310:1-4; 310:24-311:7; RDX-0101. Although GCI made no DOE argument regarding the Rok-It's sliding connections, and has no evidentiary support for such an argument, neither these slidable connections, nor the rigid unitary rod identified as the back support/fulcrum member, are equivalent to the claimed pivotal interconnections because they do not allow for the explicitly claimed "folding movement" function. *See* JX-0001, at claim 10. Moreover, these sliding connections are unavailable as equivalents because they are unclaimed alternatives that are dedicated to the public. *See PSC Computer Prod.*, 355 F.3d at 1360. For these additional reasons, the Rok-It Chair cannot infringe clairu 10.
>
> In sum, the Rok-It Chair does not infringe independent claim 10 and, accordingly, dependent claims 11-12, 15, and 18-19 are also not infringed. *Monsanto*, 503 F.3d at 1359.

Resps. Br. at 19-26.

As an initial matter, the administrative law judge finds that one of ordinary skill in the art would not understand this claim limitation to require that each and every frame member has to be pivotally connected to other frame members. Rather, one of ordinary skill in the art would understand that members of the side frame assembly pivot relative to other members of the side frame assembly to permit folding movement between the set-up condition and a collapsed condition of the chair. Smith Tr. 290; CX-0002C (Smith DWS) at Q/A 347; CX-0464C (Smith RWS) at Q/A 96. Requiring pivotal interconnections between each and every member of the side frame assembly would read limitations into the claim that are not necessary and are not suggested by the plain and ordinary meaning of the claim language.

Moreover, the specification teaches that the frame members are sufficiently pivotally interconnected so long as the chair frame can fold into a collapsed condition for easy storage and

transportation. *See* JX-0001 ('824 patent) at col. 6, lns. 51-58 ("[T]he frame side assembly 20 may be constructed from an open design instead of a closed frame loop, including the set-up of a front and rear leg generally associated with standard folding chair designs, such as shown in FIG. 9, where the frame members are interconnected by rigid, pivotal, sliding and/or telescopic joints to effect easy folding and unfolding of the chair between a set-up and collapsed condition."); *id.* at col. 5, ln. 66 – col. 6, ln. 3; Smith Tr. 293-294. The specification does not state that every frame member must be pivotally connected to other frame members to fold or unfold the chair.

Denovo argues that the alleged back support member and fulcrum member in the accused chair are not separate elements, as required by claim 10. Resps. Br. at 19-22. However, the specification of the '824 patent discloses elements of the chair frame being separate portions of a single tube. *See, e.g.,* JX-0001 ('824 patent) at col. 6, lns. 27-37 ("Though illustrated as being formed from a singular tubular member, the side frame assembly 20 may be constructed from multiple tubular members with departing from the spirit and principles of the present invention."); col. 6, lns. 38-45; col. 10, lns. 9-17. Claim 10 of the '824 patent does not include any language requiring a specific structural relationship between the back support member and the fulcrum member. Thus, the administrative law judge finds that the back support member and fulcrum member could be integrally formed. *See Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1232 (Fed. Cir. 2011) ("[The specification] does not suggest that the claim terms require separate structures.").

Denovo further argues that claim 10 requires that all side frame assembly members be interconnected for pivotal movement or pivotally interconnected. *See* Resps. Br. at 22-24. As noted above, the administrative law judge does not find that the claim language is so limiting. The specification of the '824 patent allows for "rigid, pivotal, sliding and/or telescopic joints,"

regarding the embodiment of FIG. 9. *See* JX-0001 ('824 patent) at col. 6, lns. 51-58. FIG. 2 illustrates a chair frame 12 that is "comprised of several frame members rigidly and/or pivotally connected together to define the chair frame 12 and permit folding and collapsing of the frame 12 to a condition suitable for easy transportation and storage." *Id.* at col. 5, ln. 66 – col. 6, ln. 3. Additionally, "the frame side assembly 20 may be constructed from an open design instead of a closed frame loop, including the set-up of a front and rear leg generally associated with standard folding chair designs, such as shown in FIG. 9, where the frame members are interconnected by rigid, pivotal, sliding and/or telescopic joints to effect easy folding and unfolding of the chair between a set-up and collapsed condition." *Id.* at col. 6, lns. 51-58.

Denovo's third argument is that GCI's doctrine of equivalents argument fails because "a single, unitary member cannot be an equivalent of two separate, pivotally connected members." Resps. Br. at 24. Inasmuch as Denovo did not propose this term for construction, the administrative law judge finds that it cannot do so now, and the plain and ordinary meaning of the term controls. Moreover, as noted above, GCI has adduced evidence demonstrating that one of ordinary skill in the art would understand that the back support member and the fulcrum member may be formed of a single rod, and still be pivotally interconnected with other members of the side frame assembly for folding movement between the set-up condition of the chair and a collapsed condition of the chair. *See* Smith Tr. 290; CX-0002C (Smith DWS) at Q/A 347; CX-0464C (Smith RWS) at Q/A 96.

Accordingly, it is determined that the Rok-It Chair literally satisfies this claim limitation.

j. at least one rocker mechanism attached to each side frame assembly for supporting the chair during movement between said forward and rearward positions;

The Rok-It Chair includes at least one rocker mechanism attached to each side frame assembly for supporting the chair during movement between said forward and rearward positions. *See* CX-0002C (Smith DWS) at Q/A 350-59. Denovo does not contest that the Rok-It Chair includes this limitation. *See* Resps. Br. at 18-34.

k. a flexible seat and a flexible backrest secured to and extending between the side frame assemblies.

The Rok-It Chair includes a flexible seat and a flexible backrest secured to and extending between the side frame assemblies. CX-0002C (Smith DWS) at Q/A 360. Denovo does not contest that the Rok-It Chair includes this limitation. *See* Resps. Br. at 18-34.

* * *

It is therefore determined that the accused Rok-It Chair infringes asserted independent claim 10 of the '824 patent.

2. Claim 11

The Rok-It Chair is accused of infringing dependent claim 11 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 10

As discussed above, the accused Rok-It Chair satisfies all limitations of independent claim 10.

b. wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly.

The evidence adduced by GCI demonstrates that the accused Rok-It Chair satisfies the additional claim 11 limitation "wherein said rocker mechanism is attached to at least one of the

front leg member and the rear leg member of each side frame assembly." *See* CX-0002C (Smith DWS) at Q/A 365.

Denovo does not contest that the Rok-It Chair satisfies this claim limitation. *See* Resps. Br. at 18-34.

* * *

It is therefore determined that the accused Rok-It Chair infringes asserted dependent claim 11 of the '824 patent.

3. Claim 12

The Rok-It Chair is accused of infringing dependent claim 12 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 11

As discussed above, the accused Rok-It Chair satisfies all limitations of dependent claim 11, as well as those of independent claim 10, upon which claim 11 depends.

b. wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected.

The evidence adduced by GCI demonstrates that the accused Rok-It Chair satisfies the additional claim 12 limitation "wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected." *See* CX-0002C (Smith DWS) at Q/A 369.

Denovo does not contest that the Rok-It Chair satisfies this claim limitation. *See* Resps. Br. at 18-34.

* * *

It is therefore determined that the accused Rok-It Chair infringes asserted dependent claim 12 of the '824 patent.

4. Claim 15

The Rok-It Chair is accused of infringing dependent claim 15 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 10

As discussed above, the accused Rok-It Chair satisfies all limitations of independent claim 10.

b. wherein each side frame assembly further comprises a seat support member pivotally interconnected with other members of said side frame assembly defining a seat support for supporting the flexible seat.

The evidence adduced by GCI demonstrates that the accused Rok-It Chair satisfies the additional claim 15 limitation "wherein each side frame assembly further comprises a seat support member pivotally interconnected with other members of said side frame assembly defining a seat support for supporting the flexible seat." *See* CX-0002C (Smith DWS) at Q/A 373.

Denovo does not contest that the Rok-It Chair satisfies this claim limitation. *See* Resps. Br. at 18-34.

* * *

It is therefore determined that the accused Rok-It Chair infringes asserted dependent claim 15 of the '824 patent.

5. Claim 18

The Rok-It Chair is accused of infringing dependent claim 18 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 10

As discussed above, the accused Rok-It Chair satisfies all limitations of independent claim 10.

b. wherein the side frame assemblies are interconnected by at least one transversely extending connector mechanism.

The evidence adduced by GCI demonstrates that the accused Rok-It Chair satisfies the additional claim 18 limitation "wherein the side frame assemblies are interconnected by at least one transversely extending connector mechanism." *See* CX-0002C (Smith DWS) at Q/A 378.

Denovo does not contest that the accused Rok-It Chair satisfies this claim limitation. *See* Resps. Br. at 18-34.

* * *

It is therefore determined that the accused Rok-It Chair infringes asserted dependent claim 18 of the '824 patent.

6. Claim 19

The Rok-It Chair is accused of infringing dependent claim 19 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 18

As discussed above, the accused Rok-It Chair satisfies all limitations of dependent claim 18, as well as those of independent claim 10, upon which claim 18 depends.

h. wherein the connector mechanism comprises a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies.

The evidence adduced by GCI demonstrates that the accused Rok-It Chair satisfies the additional claim 18 limitation "wherein the connector mechanism comprises a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies." *See* CX-0002C (Smith DWS) at Q/A 383.

Denovo does not contest that the Rok-It Chair satisfies this claim limitation. *See* Resps. Br. at 18-34.

* * *

It is therefore determined that the accused Rok-It Chair infringes asserted dependent claim 19 of the '824 patent.

D. Domestic Industry (Technical Prong)

GCI alleges that its RoadTrip Rocker, Pod Rocker / Pod Rocker with Sunshade, and Kickback Rocker (the "'824 GCI products") satisfy all limitations of independent claim 1 of the '824 patent.

1. Claim 1

a. A collapsible and portable rocking chair comprising:

The '824 GCI products all satisfy the claim 1 limitation "[a] collapsible and portable rocking chair." *See* CX-0002C (Smith DWS) at Q/A 696-99, 701. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

b. an articulated chair frame defining a back support and a seat support, wherein said frame has a set-up condition and a collapsed condition;

The evidence adduced at the hearing demonstrates that the '824 GCI products satisfy the claim 1 limitation "an articulated chair frame defining a back support and a seat support, wherein said frame has a set-up condition and a collapsed condition." *See* CX-0002C (Smith DWS) at Q/A 702-05. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

c. a seat panel mounted on the seat support of the frame;

The record evidence shows that the '824 GCI products satisfy the claim 1 limitation "a seat panel mounted on the seat support of the frame." *See* CX-0002C (Smith DWS) at Q/A 707-10. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

d. a backrest panel mounted on the back support of the frame;

The record evidence demonstrates that the '824 GCI products satisfy this claim limitation. *See* CX-0002C (Smith DWS) at Q/A 712-15. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

e. wherein said chair frame comprises a pair of side frame assemblies of opposite hand disposed in generally parallelly extending and transversely spaced apart opposing relation to each other,

GCI adduced evidence showing that each of the '824 GCI products satisfies this limitation of claim 1. *See* CX-0002C (Smith DWS) at Q/A 717-20. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

f. each of said side frame assemblies having a plurality of generally axially elongated frame members being interconnected for pivotal movement relative to one another about generally transversely extending pivot axes, said frame members including:

Each of the '824 GCI products includes this feature of claim 1. *See* CX-0002C (Smith DWS) at Q/A 722-26.

GCI argues, in part:

> The '824 Covered Rockers' chair frames comprise side frame assemblies, each having a plurality of generally axially elongated frame members interconnected for pivotal movement relative to one another about generally transversely extending pivot axes. CX-0002C (Smith DWS) at Q/A 347, 723, 827. Denovo argues that this language requires that every interconnection between the members of the side frame assembly must be pivotal (and only pivotal), and that every frame member must be pivotally connected to other frame members. *See* RX-0490C (Babcock RWS) at Q/A 4. But as discussed in detail above, the plain meaning of this language to a POSITA is that "members of the side frame assembly pivot relative to other members of the side frame assembly" so that the chair frame can fold from the set-up condition into a collapsed position, not that every interconnection between the members of the side frame assembly must be pivotal or that every frame member must be pivotally connected to other frame members. *See* Section V.B.1, *supra*; CX-0464C (Smith RWS) at Q/A 96; Tr. (Smith) at 289:2-11, 290:5-15.

Compl. Br. at 48.

Denovo argues, in part:

> As noted above, claims 1 and 10 require ***separate*** fulcrum members and back support members and that all of the frame members are pivotally interconnected. That is not the case with GCI's '824 DI Chairs. First, the back support member and the fulcrum member are a single, unitary element. CDX-0180 and CDX-0183 (reproduced below) show that the back support member and the fulcrum member of the RoadTrip Rocker are a unitary element. GCI's own expert admitted as much. *See* Hrg. Tr., at 233:23-234:1 ("They are the same piece of metal, yes."). This fact is also confirmed by GCI's assembly drawings of this chair. *See* RDX-0020C; RX-0296C. The Pod and Kickback Rockers have the same frame configuration as the RoadTrip Rocker. Therefore, GCI's '824 DI Chairs do not practice claims 1-3, 9, and 10. *See* RX-0490C at Q&A 52.
>
> Second, **all** of the side frame assembly members are required by the claims to be pivotally interconnected. *Id.* GCI's '824 DI Chairs do not have a pivotal

> interconnection at all between the back support member and the fulcrum member – they are a single element. Thus, GCI's '824 DI Chairs are not covered for this reason as well. *See id.*; *see also* Hrg. Tr., at 234:2-5 ("Those two components are not pivotally connected to one another, no.").
>
> Third, GCI's '824 DI Chairs do not fall within the scope of equivalents of the '824 claims because such an equivalence would vitiate the claim requirement that all the members of the side frame assembly are "pivotally interconnected," and that the fulcrum member has a fulcrum point as claimed. *See* RX-0490C, Q&A 44-58; *see also* §II.B.1, *supra*. Additionally, the inability to fold the elongated single rod means the chair will fold in a different way – not at the seat or middle – and provides a substantially different result - a much larger/longer collapsed condition. Further, such an argument would ensare the prior art. For example. The same single metal rod that GCI argues is an equivalent to the claimed back support and fulcrum members in the GCI's '824 DI chairs is also found in the prior art Dual Lock chair, DL Hard Arm chair, and Lougee chair. *See* RX-0489C, Q&A 58; RX-0490C at Q&A 58; Hrg. Tr. (Smith) at 781:20-782:4.

Resps. Br. at 165-67.

As an initial matter, the administrative law judge finds that one of ordinary skill in the art would not understand this claim limitation to require that each and every frame member has to be pivotally connected to other frame members. Rather, one of ordinary skill in the art would understand that members of the side frame assembly pivot relative to other members of the side frame assembly to permit folding movement between the set-up condition and a collapsed condition of the chair. *See* Smith Tr. 290; CX-0002C (Smith DWS) at Q/A 347; CX-0464C (Smith RWS) at Q/A 96. Requiring pivotal interconnections between each and every member of the side frame assembly would read limitations into the claim that are not necessary and are not suggested by the plain and ordinary meaning of the claim language.

Moreover, the specification teaches that the frame members are sufficiently pivotally interconnected as long as the chair frame can fold into a collapsed condition for easy storage and transportation. *See* JX-0001 ('824 patent) at col. 6, lns. 51-58 ("[T]he frame side assembly 20 may be constructed from an open design instead of a closed frame loop, including the set-up of a

front and rear leg generally associated with standard folding chair designs, such as shown in FIG. 9, where the frame members are interconnected by rigid, pivotal, sliding and/or telescopic joints to effect easy folding and unfolding of the chair between a set-up and collapsed condition."); *id.* at col. 5, ln. 66 – col. 6, ln. 3; Smith Tr. 293-294. The specification does not state that every frame member must be pivotally connected to other frame members to fold or unfold the chair.

Denovo argues that "claims 1 and 10 require ***separate*** fulcrum members and back support members and that all of the frame members are pivotally interconnected." Resps. Br. at 165. However, the specification of the '824 patent discloses elements of the chair frame being separate portions of a single tube. *See, e.g.,* JX-0001 ('824 patent) at col. 6, lns. 27-37 ("Though illustrated as being formed from a singular tubular member, the side frame assembly 20 may be constructed from multiple tubular members with departing from the spirit and principles of the present invention."); col. 6, lns. 38-45; col. 10, lns. 9-17. Claim 10 of the '824 patent does not include any language requiring a specific structural relationship between the back support member and the fulcrum member. Thus, the administrative law judge finds that the back support member and fulcrum member could be integrally formed. *See Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1232 (Fed. Cir. 2011) ("[The specification] does not suggest that the claim terms require separate structures.").

Denovo further argues that "**all** of the side frame assembly members are required by the claims to be pivotally interconnected." Resps. Br. at 166 (emphasis in original). As noted above, the administrative law judge does not find that the claim language is so limiting. The specification of the '824 patent allows for "rigid, pivotal, sliding and/or telescopic joints," regarding the embodiment of FIG. 9. *See* JX-0001 ('824 patent) at col. 6, lns. 51-58. FIG. 2 illustrates a chair frame 12 that is "comprised of several frame members rigidly and/or pivotally

connected together to define the chair frame 12 and permit folding and collapsing of the frame 12 to a condition suitable for easy transportation and storage." *Id.* at col. 5, ln. 66 – col. 6, ln. 3. Additionally, "the frame side assembly 20 may be constructed from an open design instead of a closed frame loop, including the set-up of a front and rear leg generally associated with standard folding chair designs, such as shown in FIG. 9, where the frame members are interconnected by rigid, pivotal, sliding and/or telescopic joints to effect easy folding and unfolding of the chair between a set-up and collapsed condition." *Id.* at col. 6, lns. 51-58.

Denovo's third argument is that GCI's doctrine of equivalents argument fails because "a single, unitary member cannot be an equivalent of two separate, pivotally connected members." Resps. Br. at 166. Inasmuch as Denovo never argued that this term required construction, the administrative law judge finds that it cannot do so now, and the plain and ordinary meaning of the term controls. As noted above, GCI has adduced evidence demonstrating that one of ordinary skill in the art would understand that the back support member and the fulcrum member may be formed of a single rod, and still be pivotally interconnected with other members of the side frame assembly for folding movement between the set-up condition of the chair and a collapsed condition of the chair. *See* CX-0464C (Smith RWS) at Q/A 96; Smith Tr. 289, 290.

Accordingly, it is determined that the '824 GCI products literally satisfy this claim limitation.

g. a front leg member;

Each of the '824 GCI products includes this feature of claim 1. *See* CX-0002C (Smith DWS) at Q/A 728-31. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

h. a rear leg member;

The record evidence demonstrates that the '824 GCI products satisfy the claim 1 limitation "a rear leg member." *See* CX-0002C (Smith DWS) at Q/A 734-37. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

i. a seat support member defining a respective side of the seat support;

GCI adduced evidence showing that the '824 GCI products satisfy the claim 1 limitation "a seat support member defining a respective side of the seat support." *See* CX-0002C (Smith DWS) at Q/A 738-41. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

j. a back support member defining a respective side of the back support;

Each of the '824 GCI products includes this feature of claim 1. *See* CX-0002C (Smith DWS) at 743-46. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

k. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame,

The evidence adduced at the hearing demonstrates that the '824 GCI products do not include this feature of claim 1. *See* RX-0490C (Babcock RWS) at Q/A 56.

GCI argues, in part:

> The '824 Covered Rockers' side frame assemblies include a fulcrum member that defines a fulcrum point at a terminal end thereof adapted to contact the ground surface upon which the chair sits in the set-up condition through the foot member. *Id.*; CDX-0183; CDX-0184; CDX-0185. The fulcrum member on the '824 Covered Rockers extends downwardly from just below the seat support member to the fulcrum point and is separate from (*i.e.*, does not overlap with) the back support member. Tr. (Smith) at 291:8-22. The contact of the fulcrum member with the

ground surface, whether directly or indirectly through the foot, helps movement of the chair frame between forward and rearward positions. *Id.*

While Denovo argues that the fulcrum member does not touch or engage the ground surface directly, the '824 Patent teaches that "there is a need for a chair that can be rocked by a seated user…on all types of surfaces, including soft ground and sand." JX-0001 ('824 Patent) at 2:58-3:1. A POSITA would understand that when used on soft ground, for example sand, the foot member may sink into the soft ground providing direct contact between the fulcrum member and the ground surface. CX-0002C (Smith DWS) at Q/A 753, 819.

This element is met by the '824 Covered Rockers under either party's proposed constructions, at least through the doctrine of equivalents. Any differences between directly touching the ground and touching the ground through a foot are insubstantial. CX-0002C (Smith DWS) at Q/A 754, 819. For example, the "fulcrum member adapted for contacting the ground surface upon which the chair sits" performs substantially the same function of allowing motion of the chair, in substantially the same way (by rotating about a point whether directly on the ground or on a stationary foot that sits on the ground), with substantially the same result (rocking motion of the chair frame). *Id.* at Q/A 755, 819.

Compl. Br. at 50-52.

Denovo argues, in part:

Above, Denovo showed that claims 1 and 10 require a fulcrum member with the fulcrum point at a terminal end—the lowermost end of the fulcrum member. GCI points to CDX-0183 (above) to explain that fulcrum point L is at a terminal end of the fulcrum member K. CX-0002C, Q&A 816. However, the fulcrum point L identified by GCI in its chairs is a rivet that connects the fulcrum member K to a bracket on a foot. *See* RX-0490C, Q&A 55-56. This alleged fulcrum point is not at a terminal end of anything and does not touch the ground. *See Id.* GCI's own expert agreed. *See* Hrg. Tr. (Smith), at 234:6-8 ("The fulcrum point does not touch the ground, no."). GCI's '824 DI Chairs do not satisfy this element. *See* RX-0490C, Q&A 53-55, RX-0287.

* * *

GCI's '824 DI Chairs have a fulcrum point L that is separated from the ground by at least four items – the material around the rivet in the end of the fulcrum member, a bracket, a static runner, and then two foot pads. RX-0490C, Q&A 56. GCI apparently realizes that the fulcrum point does not meet this claim term literally as its expert, Mr. Smith, performs only a DOE analysis. *See* CX-0002C, Q&A 819; RX-0490C,Q&A 56. However, the analysis lacks substance, is conclusory, and baldly posits that the differences between the claimed fulcrum point and the four different components between the rivet and the ground are

> insubstantial. Such "broad and scant" analysis is plainly insufficient to support a DOE infringement theory. *Akzo Nobel Coatings*, 811 F.3d at 1343 (Fed. Cir. 2001) ("Broad conclusory statements offered by Telemac's expert are not evidence and are not sufficient to establish a genuine issue of material fact."). Clearly adding a substantial number of components to the fulcrum member K is a substantial difference. GCI's '824 DI Chairs do not meet this claim limitation. *See* RX-0490C, Q&A 56.

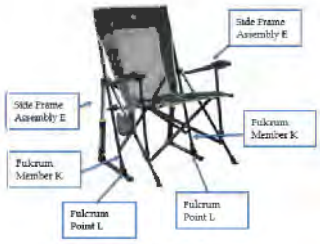
Resps. Br. at 167-68.

The construction of this claim term was discussed above; "a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof" is "a chair frame member with a point on the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported."

GCI argues that "[t]he contact of the fulcrum member with the ground surface, whether directly or indirectly through the foot, helps movement of the chair frame between forward and rearward positions." Compl. Br. at 51. However, as shown in the figures below, GCI's fulcrum point rests on the foot member (which is a part of the chair) in the set-up condition, and this foot member itself rests on two foot pads. *See* RX-0490C (Babcock RWS) at Q/A 56.



Pod Rocker (from RX-0287)



CDX-0183



CDX-0184



CDX-0185

GCI argues that this element is met by the '824 GCI products under Denovo's construction at least through the doctrine of equivalents. GCI relies on the following analysis from Mr. Smith:

> This element would still be met by the '824 Covered Rocker Products under either party's proposed constructions, at least through the doctrine of equivalents as any differences between directly touching the ground and touching the ground through a foot are insubstantial.
>
> . . .
>
> For example, the "fulcrum member adapted for contacting the ground surface upon which the chair sits" performs substantially the same function of allowing motion of the chair, in substantially the same way, by rotating about a point whether directly on the ground or on a stationary foot that sits on the ground, with substantially the same result, rocking motion of the chair frame.

CX-0002C (Smith DWS) at Q/A 754-55.

As an initial matter, the administrative law judge finds that the fulcrum point of the '824 GCI products does not simply "touch[] the ground through a foot." *Id.* Instead, the fulcrum point of the '824 GCI products rests on a bracket, which itself rests on a foot member that also supports the rocker mechanism and the rear leg (and the foot member itself rests on foot pads adapted for contacting the ground surface). Such a configuration eliminates the need for the fulcrum point itself to be "adapted for contacting the ground surface," and to find that the fulcrum point itself is so adapted here would read the limitation out of the claim. Hence the '824 GCI products do not include "a fulcrum member defining a fulcrum point at a terminal end

thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof" because the fulcrum point is not adapted for contacting the ground surface, but instead rests on the foot member, a completely separate element of the chair.

If GCI's proposed construction for this claim limitation were adopted, however, the administrative law judge finds the '824 GCI products would satisfy this limitation. As noted above, GCI argues that "adapted for contacting the ground surface upon which the chair sits in a set-up condition" means "capable of touching and sitting on a surface when in a set-up condition." GCI argues that the contact of the fulcrum member with the ground surface, whether directly or indirectly through the foot, helps movement of the chair frame between forward and rearward positions. *See* Compl. Br. at 51 (citing Smith Tr. at 291).



CDX-0183



CDX-0184



CDX-0185

The administrative law judge finds that the fulcrum point is capable of touching and sitting on a surface when in a set-up condition, because the fulcrum point touches and sits on the foot member of the chair when in a set-up condition.

It is therefore determined that the '824 GCI products do not satisfy this claim limitation. Alternatively, it is determined that the '824 GCI products satisfy this claim limitation if GCI's proposed claim construction were adopted.

l. and about which said chair frame can move between forward and rearward positions;

Each of the '824 GCI products includes this feature of claim 1. CX-0002C (Smith DWS) at Q/A 756-59. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

m. at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions.

Each of the '824 GCI products includes this feature of claim 1. CX-0002C (Smith DWS) at Q/A 762-66. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

* * *

It is therefore determined that the '824 GCI products do not practice independent claim 1 of the '824 patent.

2. Claim 2

GCI alleges that its '824 GCI products satisfy all limitations of dependent claim 2 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 1

As discussed above, the '824 GCI products do not satisfy all limitations of independent claim 1.

b. wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly.

The evidence adduced by GCI demonstrates that the '824 GCI products satisfy the additional claim 2 limitation "wherein said rocker mechanism is attached to at least one of the

front leg member and the rear leg member of each side frame assembly." *See* CX-0002C (Smith DWS) at Q/A 770-72.

Denovo does not contest that the '824 GCI products satisfy this claim limitation. *See* Resps. Br. at 165-68.

* * *

It is therefore determined that the '824 GCI products do not practice dependent claim 2 of the '824 patent.

3. Claim 3

GCI alleges that its '824 GCI products satisfy the limitations of dependent claim 3 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 2

As discussed above, the '824 GCI products do not satisfy all limitations of independent claim 1, upon which claim 2 depends.

b. wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected.

The evidence adduced by GCI demonstrates that the '824 GCI products satisfy the additional claim 3 limitation "wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member, said sleeve further housing a spring to which said leg member is connected." *See* CX-0002C (Smith DWS) at Q/A 775-81.

Denovo does not contest that the '824 GCI products satisfy this claim limitation. *See* Resps. Br. at 165-68.

* * *

It is therefore determined that the '824 GCI products do not practice dependent claim 3 of the '824 patent.

4. Claim 9

GCI alleges that its '824 GCI products satisfy the limitations of dependent claim 9 of the '824 patent.

a. The collapsible and portable rocking chair according to claim 1

As discussed above, the '824 GCI products do not satisfy all limitations of independent claim 1.

b. wherein the seat panel and the backrest panel are made of a flexible material.

The evidence adduced by GCI demonstrates that the '824 GCI products satisfy the additional claim 9 limitation "wherein the seat panel and the backrest panel are made of a flexible material." *See* CX-0002C (Smith DWS) at Q/A 784-86.

Denovo does not contest that the '824 GCI products satisfy this claim limitation. *See* Resps. Br. at 165-68.

* * *

It is therefore determined that the '824 GCI products do not practice dependent claim 9 of the '824 patent.

5. Claim 10

GCI alleges that the '824 GCI products satisfy all limitations of independent claim 10 of the '824 patent.

a. A collapsible and portable rocking chair comprising:

The '824 GCI products all satisfy the claim 10 limitation "[a] collapsible and portable rocking chair." *See* CX-0002C (Smith DWS) at Q/A 789-92. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

b. a pair of side frame assemblies including

GCI adduced evidence showing that each of the '824 GCI products satisfies this limitation of claim 10. *See* CX-0002C (Smith DWS) at Q/A 794-97. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

c. a front leg member,

Each of the '824 GCI products includes this feature of claim 10. *See* CX-0002C (Smith DWS) at Q/A 799-802. Denovo does not contest that this claim limitation is satisfied. *See* Resps. Br. at 165-68.

d. a rear leg member,

The record evidence demonstrates that the '824 GCI products satisfy the claim 10 limitation "a rear leg member." *See* CX-0002C (Smith DWS) at Q/A 805-08. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

e. a back support member,

Each of the '824 GCI products includes this feature of claim 10. *See* CX-0002C (Smith DWS) at 809-12. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

f. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof,

The evidence adduced at the hearing demonstrates that the '824 GCI products do not

include this feature of claim 10. *See* RX-0490C (Babcock RWS) at Q/A 56.

GCI argues, in part:

> The '824 Covered Rockers' side frame assemblies include a fulcrum member that defines a fulcrum point at a terminal end thereof adapted to contact the ground surface upon which the chair sits in the set-up condition through the foot member. *Id.*; CDX-0183; CDX-0184; CDX-0185. The fulcrum member on the '824 Covered Rockers extends downwardly from just below the seat support member to the fulcrum point and is separate from (*i.e.*, does not overlap with) the back support member. Tr. (Smith) at 291:8-22. The contact of the fulcrum member with the ground surface, whether directly or indirectly through the foot, helps movement of the chair frame between forward and rearward positions. *Id.*
>
> While Denovo argues that the fulcrum member does not touch or engage the ground surface directly, the '824 Patent teaches that "there is a need for a chair that can be rocked by a seated user…on all types of surfaces, including soft ground and sand." JX-0001 ('824 Patent) at 2:58-3:1. A POSITA would understand that when used on soft ground, for example sand, the foot member may sink into the soft ground providing direct contact between the fulcrum member and the ground surface. CX-0002C (Smith DWS) at Q/A 753, 819.
>
> This element is met by the '824 Covered Rockers under either party's proposed constructions, at least through the doctrine of equivalents. Any differences between directly touching the ground and touching the ground through a foot are insubstantial. CX-0002C (Smith DWS) at Q/A 754, 819. For example, the "fulcrum member adapted for contacting the ground surface upon which the chair sits" performs substantially the same function of allowing motion of the chair, in substantially the same way (by rotating about a point whether directly on the ground or on a stationary foot that sits on the ground), with substantially the same result (rocking motion of the chair frame). *Id.* at Q/A 755, 819.

Compl. Br. at 50-52.

Denovo argues, in part:

> Above, Denovo showed that claims 1 and 10 require a fulcrum member with the fulcrum point at a terminal end—the lowermost end of the fulcrum member. GCI points to CDX-0183 (above) to explain that fulcrum point L is at a terminal end of the fulcrum member K. CX-0002C, Q&A 816. However, the fulcrum point L identified by GCI in its chairs is a rivet that connects the fulcrum member K to a bracket on a foot. *See* RX-0490C, Q&A 55-56. This alleged fulcrum point is not at a terminal end of anything and does not touch the ground. *See Id.* GCI's own expert agreed. *See* Hrg. Tr. (Smith), at 234:6-8 ("The fulcrum point does not touch the ground, no."). GCI's '824 DI Chairs do not satisfy this element. *See* RX-0490C, Q&A 53-55, RX-0287.

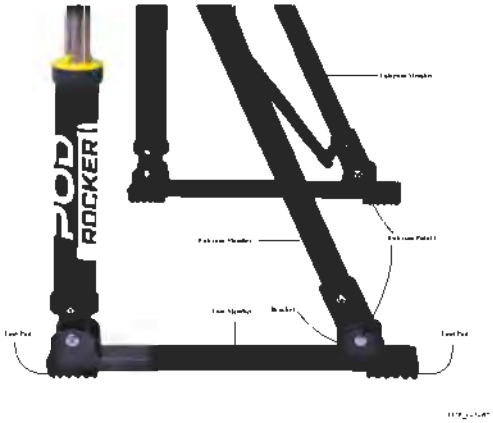
* * *

> GCI's '824 DI Chairs have a fulcrum point L that is separated from the ground by at least four items – the material around the rivet in the end of the fulcrum member, a bracket, a static runner, and then two foot pads. RX-0490C, Q&A 56. GCI apparently realizes that the fulcrum point does not meet this claim term literally as its expert, Mr. Smith, performs only a DOE analysis. *See* CX-0002C, Q&A 819; RX-0490C,Q&A 56. However, the analysis lacks substance, is conclusory, and baldly posits that the differences between the claimed fulcrum point and the four different components between the rivet and the ground are insubstantial. Such "broad and scant" analysis is plainly insufficient to support a DOE infringement theory. *Akzo Nobel Coatings*, 811 F.3d at 1343 (Fed. Cir. 2001) ("Broad conclusory statements offered by Telemac's expert are not evidence and are not sufficient to establish a genuine issue of material fact."). Clearly adding a substantial number of components to the fulcrum member K is a substantial difference. GCI's '824 DI Chairs do not meet this claim limitation. *See* RX-0490C, Q&A 56.

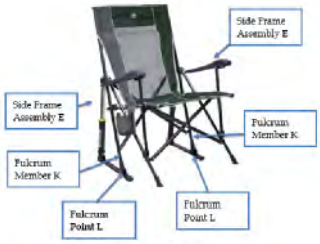
Resps. Br. at 167-68.

The construction of this claim term was discussed above; "a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof" is "a chair frame member with a point on the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported."

GCI argues that "[t]he contact of the fulcrum member with the ground surface, whether directly or indirectly through the foot, helps movement of the chair frame between forward and rearward positions." Compl. Br. at 51. However, as shown in the figures below, GCI's fulcrum point rests on the foot member (which is a part of the chair) in the set-up condition, and this foot member itself rests on two foot pads. *See* RX-0490C (Babcock RWS) at Q/A 56.



Pod Rocker (from RX-0287)



CDX-0183



CDX-0184



CDX-0185

GCI argues that this element is met by the '824 GCI products under Denovo's construction at least through the doctrine of equivalents. GCI relies on the following analysis from Mr. Smith:

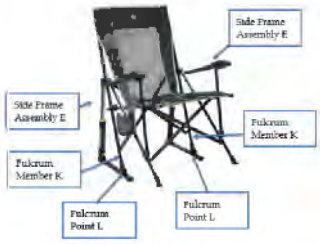
> To the extent that it might be argued that the terminal end of the fulcrum member does not touch or engage the ground surface directly, the '824 patent teaches that "there is a need for a chair that can be rocked by a seated user…on all types of surfaces, including soft ground and sand." '824 Patent, 2:58- 3:1. A POSITA would understand that when used on soft ground or sand, the foot member may sink in providing direct contact between the fulcrum member and the ground surface.
>
> Further, this element would still be found in the '824 Patent Covered Rocker Products under either party's proposed constructions at least through the doctrine of equivalents as any differences between directly touching the ground and touching the ground through a foot are insubstantial. For example, the "fulcrum member adapted for contacting the ground surface upon which the chair sits" performs substantially the same function of allowing motion of the chair, in substantially the same way, by rotating about a point whether directly on the ground

> or on a stationary foot that sits on the ground, with substantially the same result, rocking motion of the chair frame.

CX-0002C (Smith DWS) at Q/A 819.

As an initial matter, the administrative law judge finds that the fulcrum point of the '824 GCI products does not simply "touch[] the ground through a foot." *Id.* Instead, the fulcrum point of the '824 GCI products rests on a bracket, which itself rests on a foot member that also supports the rocker mechanism and the rear leg (and the foot member itself rests on foot pads adapted for contacting the ground surface). Such a configuration eliminates the need for the fulcrum point itself to be "adapted for contacting the ground surface," and to find that the fulcrum point itself is so adapted here would read the limitation out of the claim. Hence the '824 GCI products do not include "a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in a set-up condition thereof" because the fulcrum point is not adapted for contacting the ground surface, but instead rests on the foot member, a completely separate element of the chair.

If GCI's proposed construction for this claim limitation were adopted, however, the administrative law judge finds the '824 GCI products would satisfy this limitation. As noted above, GCI argues that "adapted for contacting the ground surface upon which the chair sits in a set-up condition" means "capable of touching and sitting on a surface when in a set-up condition." GCI argues that the contact of the fulcrum member with the ground surface, whether directly or indirectly through the foot, helps movement of the chair frame between forward and rearward positions. *See* Compl. Br. at 51 (citing Smith Tr. at 291).



CDX-0183



CDX-0184



CDX-0185

The administrative law judge finds that the fulcrum point is capable of touching and sitting on a surface when in a set-up condition, because the fulcrum point touches and sits on the foot member of the chair when in a set-up condition.

It is therefore determined that the '824 GCI products do not satisfy this claim limitation. Alternatively, it is determined that the '824 GCI products satisfy this claim limitation if GCI's proposed claim construction were adopted.

g. and about which the chair can move between forward and rearward rocking positions;

Each of the '824 GCI products includes this feature of claim 10. *See* CX-0002C (Smith DWS) at Q/A 820-23. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

h. said members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair;

Each of the '824 GCI products includes this feature of claim 10. *See* CX-0002C (Smith DWS) at Q/A 826-30.

GCI argues, in part:

> The '824 Covered Rockers' chair frames comprise side frame assemblies, each having a plurality of generally axially elongated frame members interconnected for pivotal movement relative to one another about generally transversely extending pivot axes. CX-0002C (Smith DWS) at Q/A 347, 723, 827. Denovo argues that this language requires that every interconnection between the

members of the side frame assembly must be pivotal (and only pivotal), and that every frame member must be pivotally connected to other frame members. *See* RX-0490C (Babcock RWS) at Q/A 4. But as discussed in detail above, the plain meaning of this language to a POSITA is that "members of the side frame assembly pivot relative to other members of the side frame assembly" so that the chair frame can fold from the set-up condition into a collapsed position, not that every interconnection between the members of the side frame assembly must be pivotal or that every frame member must be pivotally connected to other frame members. *See* Section V.B.1, *supra*; CX-0464C (Smith RWS) at Q/A 96; Tr. (Smith) at 289:2-11, 290:5-15.

Compl. Br. at 48.

Denovo argues, in part:

As noted above, claims 1 and 10 require ***separate*** fulcrum members and back support members and that all of the frame members are pivotally interconnected. That is not the case with GCI's '824 DI Chairs. First, the back support member and the fulcrum member are a single, unitary element. CDX-0180 and CDX-0183 (reproduced below) show that the back support member and the fulcrum member of the RoadTrip Rocker are a unitary element. GCI's own expert admitted as much. *See* Hrg. Tr., at 233:23-234:1 ("They are the same piece of metal, yes."). This fact is also confirmed by GCI's assembly drawings of this chair. *See* RDX-0020C; RX-0296C. The Pod and Kickback Rockers have the same frame configuration as the RoadTrip Rocker. Therefore, GCI's '824 DI Chairs do not practice claims 1-3, 9, and 10. *See* RX-0490C at Q&A 52.

Second, **all** of the side frame assembly members are required by the claims to be pivotally interconnected. *Id.* GCI's '824 DI Chairs do not have a pivotal interconnection at all between the back support member and the fulcrum member – they are a single element. Thus, GCI's '824 DI Chairs are not covered for this reason as well. *See id.*; *see also* Hrg. Tr., at 234:2-5 ("Those two components are not pivotally connected to one another, no.").

Third, GCI's '824 DI Chairs do not fall within the scope of equivalents of the '824 claims because such an equivalence would vitiate the claim requirement that all the members of the side frame assembly are "pivotally interconnected," and that the fulcrum member has a fulcrum point as claimed. *See* RX-0490C, Q&A 44-58; *see also* §II.B.1, *supra*. Additionally, the inability to fold the elongated single rod means the chair will fold in a different way – not at the seat or middle – and provides a substantially different result - a much larger/longer collapsed condition. Further, such an argument would ensare the prior art. For example. The same single metal rod that GCI argues is an equivalent to the claimed back support and fulcrum members in the GCI's '824 DI chairs is also found in the prior art Dual Lock chair, DL Hard Arm chair, and Lougee chair. *See* RX-0489C, Q&A 58; RX-0490C at Q&A 58; Hrg. Tr. (Smith) at 781:20-782:4.

Resps. Br. at 165-67.

As an initial matter, the administrative law judge finds that one of ordinary skill in the art would not understand this claim limitation to require that each and every frame member has to be pivotally connected to other frame members. Rather, one of ordinary skill in the art would understand that members of the side frame assembly pivot relative to other members of the side frame assembly to permit folding movement between the set-up condition and a collapsed condition of the chair. *See* Smith Tr. 290; CX-0002C (Smith DWS) at Q/A 347; CX-0464C (Smith RWS) at Q/A 96. Requiring pivotal interconnections between each and every member of the side frame assembly would be reading extra limitations into the claim that are not suggested by the plain and ordinary meaning of the claim language.

Moreover, the specification teaches that the frame members are sufficiently pivotally interconnected so long as the chair frame can fold into a collapsed condition for easy storage and transportation. *See* JX-0001 ('824 patent) at col. 6, lns. 51-58 ("[T]he frame side assembly 20 may be constructed from an open design instead of a closed frame loop, including the set-up of a front and rear leg generally associated with standard folding chair designs, such as shown in FIG. 9, where the frame members are interconnected by rigid, pivotal, sliding and/or telescopic joints to effect easy folding and unfolding of the chair between a set-up and collapsed condition."); *id.* at col. 5, ln. 66 – col. 6, ln. 3; Smith Tr. 293-294. The specification does not state that every frame member must be pivotally connected to other frame members to fold or unfold the chair.

Denovo argues that "claims 1 and 10 require ***separate*** fulcrum members and back support members and that all of the frame members are pivotally interconnected." Resps. Br. at 165. However, the specification of the '824 patent discloses elements of the chair frame being separate portions of a single tube. *See, e.g.,* JX-0001 ('824 patent) at col. 6, lns. 27-37 ("Though

illustrated as being formed from a singular tubular member, the side frame assembly 20 may be constructed from multiple tubular members with departing from the spirit and principles of the present invention."); col. 6, lns. 38-45; col. 10, lns. 9-17. Claim 10 of the '824 patent does not include any language requiring a specific structural relationship between the back support member and the fulcrum member. As such, the administrative law judge finds that the back support member and fulcrum member could be integrally formed. *See Powell v. Home Depot U.S.A., Inc.*, 663 F.3d 1221, 1232 (Fed. Cir. 2011) ("[The specification] does not suggest that the claim terms require separate structures.").

Denovo further argues that "**all** of the side frame assembly members are required by the claims to be pivotally interconnected." Resps. Br. at 166 (emphasis in original). As noted above, the administrative law judge does not find that the claim language is so limiting. The specification of the '824 patent allows for "rigid, pivotal, sliding and/or telescopic joints," regarding the embodiment of FIG. 9. *See* JX-0001 ('824 patent) at col. 6, lns. 51-58. FIG. 2 illustrates a chair frame 12 that is "comprised of several frame members rigidly and/or pivotally connected together to define the chair frame 12 and permit folding and collapsing of the frame 12 to a condition suitable for easy transportation and storage." *Id.* at col. 5, ln. 66 – col. 6, ln. 3. Additionally, "the frame side assembly 20 may be constructed from an open design instead of a closed frame loop, including the set-up of a front and rear leg generally associated with standard folding chair designs, such as shown in FIG. 9, where the frame members are interconnected by rigid, pivotal, sliding and/or telescopic joints to effect easy folding and unfolding of the chair between a set-up and collapsed condition." *Id.* at col. 6, lns. 51-58.

Denovo's third argument is that GCI's doctrine of equivalents argument fails because "a single, unitary member cannot be an equivalent of two separate, pivotally connected members."

Resps. Br. at 166. Inasmuch as Denovo did not offer this term for construction, the administrative law judge finds that it cannot do so now, and the plain and ordinary meaning of the term controls. Moreover, as noted above, GCI has adduced evidence demonstrating that one of ordinary skill in the art would understand that the back support member and the fulcrum member may be formed of a single rod, and still be pivotally interconnected with other members of the side frame assembly for folding movement between the set-up condition of the chair and a collapsed condition of the chair. *See* CX-0464C (Smith RWS) at Q/A 96; Smith Tr. 289, 290.

Accordingly, it is determined that the '824 GCI products literally satisfy this claim limitation.

i. at least one rocker mechanism attached to each side frame assembly for supporting the chair during movement between said forward and rearward positions;

Each of the '824 GCI products includes this feature of claim 10. CX-0002C (Smith DWS) at Q/A 831-34. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

j. a flexible seat and a flexible backrest secured to and extending between the side frame assemblies.

GCI adduced evidence showing that the '824 GCI products satisfy the claim 10 limitation "a flexible seat and a flexible backrest secured to and extending between the side frame assemblies." *See* CX-0002C (Smith DWS) at Q/A 838-41. Denovo does not contest that this limitation is satisfied. *See* Resps. Br. at 165-68.

* * *

It is therefore determined that the '824 GCI products do not practice independent claim 10 of the '824 patent.

E. Anticipation – Fowler

Denovo argues, in part:

> Claims 1-3, 9-12, 15, and 18, as applied by GCI to the accused product, are disclosed in a single prior art reference, U.S. Patent No. 4,772,067 to Fowler (RX-0049), and thus are invalid as anticipated under 35 U.S.C. § 102. Fowler issued on September 20, 1988 and is therefore prior art to the '824 patent. Fowler discloses a portable, collapsible rocking chair that has a set up condition and a collapsed condition. RX-0049, Figs. 1 and 7. *See* RX-0489C (Babcock DWS) Q&A 50. *Cf.* '824 patent (JX-0001) at 6:24-26. Fowler also has side frame assemblies that include a front leg member, rear leg member, fulcrum member, and rocker mechanism. As Mr. Babcock explained, Fowler anticipates these claims because it discloses each and every element. RX-0489C, Q&A 35-39 and RX-0049; RDX-0059 (portion reproduced below):
>
> * * *
>
> In this claim chart for claim 10, Mr. Babcock used ***GCI's*** identification of the '824 patent's claim elements in the Rok-It Chair and '824 DI Chairs (defined below in Section V.A.1.a) and applied them to Fowler. *See* Hrg. Tr. (Babcock) at 666:6-14; RX-0369C (GCI's infringement claim chart for the Rok-It Chair) and RX-0370 (GCI's DI technical prong claim chart for the '824 DI Chairs). In addition, using GCI's claim analysis (RX-0369C, RX-0370), Fowler has a seat support member as disclosed in claims 1 and 15, a rocker mechanism attached to a front leg member and/or rear leg member as disclosed in claims 2 and 11, a rocker mechanism within a sleeve as disclosed in claims 3 and 12, and a connector mechanism as disclosed in claim 18. *See* RX-0489C, Q&A 39.

Resps. Br. at 34-35.

GCI argues, in part:

> U.S. Patent No. 4,772,067 ("Fowler") describes a full-size platform rocker that does not have a fulcrum member defining a fulcrum point at its terminal end and that is not foldable without disassembly of portions of the chair. CX-0464C (Smith RWS) at Q/A 159; RX-0049 (Fowler); Tr. (Babcock) at 650:20-21. Fowler alone fails to teach or disclose certain claim limitations of, and thus does not anticipate, claims 1-3, 9-12, 15, and 18 of the '824 Patent. CX-0464C (Smith RWS) at Q/A 162, 174. In addition, Denovo's treatment of this reference in Respondents' Prehearing Brief is limited to a single paragraph and small screen captures of claim charts that are nearly unreadable. RPreHB at 27. This approach fails to comply with Ground Rule 7.c's mandate that the prehearing brief not incorporate material by reference to circumvent the page limit. Order No. 2 (Ground Rules) at 11 ("Any contentions not set forth in detail as required therein shall be deemed abandoned.").

Compl. Br. at 55.

1. Claims 1 and 10

GCI disputes whether Fowler discloses the following limitations: "front leg member"; "rear leg member"; "a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits"; "at least one rocker mechanism attached to the chair frame" (claim 1) or "at least one rocker mechanism attached to each side frame assembly" (claim 10); and "members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair". *See* Compl. Br. at 55-57.

a. front leg member

GCI argues, in part:

> Fowler does not have a **"front leg member"** as defined by Denovo in its proposed claim construction. *Id.* at Q/A 165; Tr. (Babcock) at 648:5-8. The alleged front leg member in Fowler (front leg 22) does not engage the ground directly (as shown in Fig. 1, it is attached to rocker 12) and does not engage with the supposed rocker mechanism (support means 14).

Compl. Br. at 56.

As noted above, the claim term "front leg member" is construed to mean "a chair frame member for supporting a forward portion of a chair," as proposed by GCI.

The evidence shows that Fowler discloses a chair frame member for supporting a forward portion of a chair. *See* RX-0489C (Babcock DWS) at Q/A 39; RX-0049, Fig. 1.

b. rear leg member

GCI similarly argues that Fowler does not disclose a "rear leg member" under Denovo's proposed claim construction. Compl. Br. at 56.

However, as noted above, the claim term "rear leg member" is construed to mean "a chair frame member for supporting a rearward portion of a chair," as proposed by GCI.

The evidence shows that Fowler discloses a chair frame member for supporting a rearward portion of a chair. *See* RX-0489C (Babcock DWS) at Q/A 39; RX-0049, Fig. 1.

c. a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits

GCI argues:

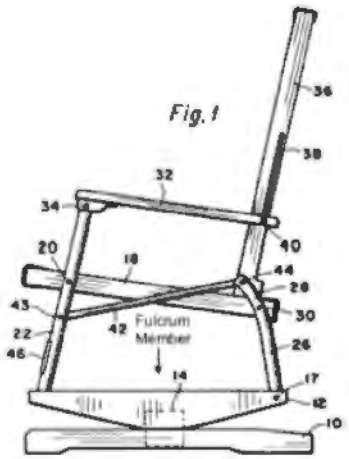
> Fowler does not disclose **"a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits,"** as recited by claims 1 and 10 of the '824 Patent, under any party's claim construction. CX-0464C (Smith RWS) at Q/A 167. Mr. Babcock has identified rocker 12 as the alleged fulcrum member. *Id.* But rocker 12 is not part of the chair frame, and Mr. Babcock has not identified where rocker 12 defines a fulcrum point at the terminal end that is "adapted for contacting the ground surface upon which the chair sits in the set-up condition." *Id.* Rocker 12 also appears to be similar in shape to the rails of prior art rockers, as shown in Fig. 1 of the '824 Patent, which the patent expressly distinguishes, JX-0001 ('824 Patent), 2:27-40, 2:41-44; 7:3-9, 7:17-22; *see also id.*, 2:50-57; 5:11-16, although Fowler does not teach how rocking actually occurs. CX-0464C (Smith RWS) at Q/A 167. Rocker 12 may rock on base 10, or the chair may rock solely on the springs (support means 14) similar to the spring rockers often found at children's playgrounds. *Id.* In either case, there is no fulcrum point on the fulcrum member that is "adapted for contacting the ground surface upon which the chair sits in the set-up condition." *Id.*; Tr. (Babcock) at 649:11-21.

Compl. Br. at 56.

As noted above, the claim term "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits" is construed to mean "a chair frame member with a point on the terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported."

The administrative law judge has determined that Denovo has not shown, through clear and convincing evidence, that Fowler discloses a chair frame member with a point on the

terminal end thereof that touches the ground surface (not a part of the chair) in the set-up condition, and on which a chair frame is supported. In particular, Fowler does not disclose a fulcrum point on the fulcrum member that is "adapted for contacting the ground surface upon which the chair sits in the set-up condition." *See* RX-0489C (Babcock DWS) at Q/A 39; RX-0049, Fig. 1. As shown in Q/A 39 of Mr. Babcock's witness statement, reproduced below, the identified fulcrum member does not include such a fulcrum point adapted for contacting the ground surface.



RX-0489C (Babcock DWS) at Q/A 39

d. at least one rocker mechanism attached to the chair frame (claim 1) / at least one rocker mechanism attached to each side frame assembly (claim 10)

GCI argues, in part:

> Fowler does not disclose **"at least one rocker mechanism attached to the chair frame"** (claim 1) or **"at least one rocker mechanism attached to each side frame assembly"** (claim 10) under any party's claim construction. CX-0464C (Smith RWS) at Q/A 168. The alleged "rocker mechanism" identified by Mr. Babcock in Fowler (support means 14 and support means 15) is not "attached to the chair frame" or "attached to each side frame assembly," as the claims plainly require. *Id.* The alleged "rocker mechanism" (support means 14 and support means 15) is only attached to the base 10 and rocker 12, which are not part of the chair frame or side frame assembly. *Id.*

Compl. Br. at 56.

The evidence shows that Fowler discloses "at least one rocker mechanism attached to the chair frame" (claim 1) or "at least one rocker mechanism attached to each side frame assembly" (claim 10). *See* RX-0489C (Babcock DWS) at Q/A 39; RX-0049, Fig. 2. As shown in FIG. 1 of Fowler, reproduced below, the rocker mechanism 14 is attached to the chair frame or the side frame assembly at least via rocker 12, which is a part of the chair frame or the side frame assembly.

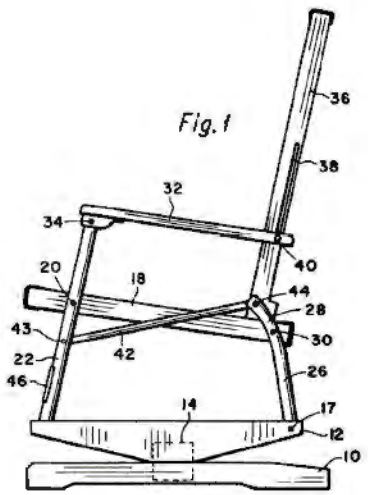


FIG. 1 of Fowler

e. members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair (claim 10)

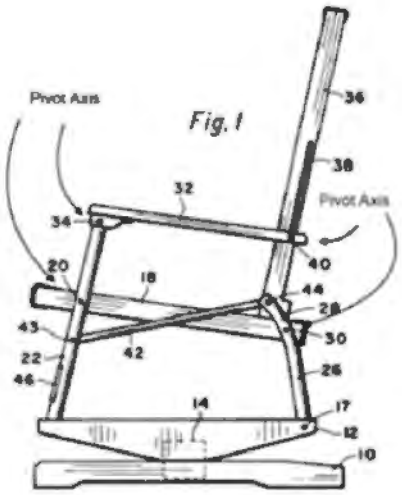
GCI argues, in part:

> Fowler does not disclose **"members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair"** as recited by claim 10 of the '824 Patent. CX-0464C (Smith RWS) at Q/A 169. The front legs of the Fowler chair need to be disconnected in order to "fold" the chair. *Id.*; RX-0049 (Fowler) at Figs. 3-6; Tr. (Babcock) at 650:20-21. A POSITA would not interpret "pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair" to include chairs with frame members that must

be disconnected. CX-0464C (Smith RWS) at Q/A 169.

Compl. Br. at 56.

Yet, the evidence shows that Fowler discloses "members comprising each side frame assembly being pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair" (claim 10). *See* RX-0489C (Babcock DWS) at Q/A 39; RX-0049, Fig. 2. As shown in Q/A 39 of Mr. Babcock's witness statement, reproduced below, members of the side frame assembly are pivotally interconnected for folding movement between the set-up condition of the chair and a collapsed condition of the chair.



RX-0489C (Babcock DWS) at Q/A 39

Moreover, GCI argues, with respect to claim construction:

> As confirmed by GCI's expert, a POSITA would understand this language to mean that members of the side frame assembly pivot relative to other members of the side frame assembly to permit folding movement between the set-up condition and a collapsed condition of the chair. Tr. (Smith) at 290:5-15; CX-0002C (Smith DWS) at Q/A 347; CX-0464C (Smith RWS) at Q/A 96. Moreover, a POSITA would not understand this claim language to mean that each and every interconnection must be pivotal or that each and every frame member has to be pivotally connected to other frame members. *See id.* Such an interpretation, as advanced by Denovo's expert (Mr. Babcock), would be reading extra limitations into the claim that are not suggested by the plain and ordinary meaning of the claim language.

Compl. Br. at 39-40. Inasmuch as GCI argues that "a POSITA would not understand this claim language to mean that each and every interconnection must be pivotal or that each and every frame member has to be pivotally connected to other frame members," it is unclear why this limitation would exclude chairs where folding or unfolding would require partial disconnection.

* * *

It is therefore determined that Fowler does not anticipate either independent claim 1 or independent claim 10 of the '824 patent.

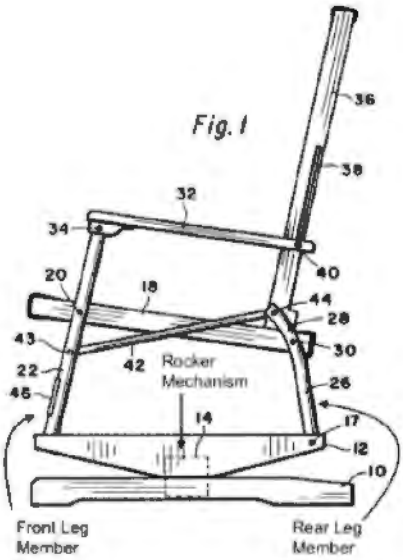
2. Claims 2 and 11

GCI argues, in part:

> Fowler does not disclose **"wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly,"** as recited by claims 2 and 11 of the '824 Patent. *Id.* at Q/A 171. The alleged "rocker mechanism" identified by Mr. Babcock in Fowler (support means 14) is not attached to the front leg member or the rear leg member; it is only attached to the base 10 and rocker 12. *Id.*; Tr. (Babcock) at 654:3-10.

Compl. Br. at 56.

The administrative law judge has determined that Denovo has not shown, through clear and convincing evidence, that Fowler discloses "wherein said rocker mechanism is attached to at least one of the front leg member and the rear leg member of each side frame assembly." As shown in Q/A 39 of Mr. Babcock's witness statement, reproduced below, the identified rocker mechanism is attached to rocker 12 and not to the front leg member or the rear leg member.



RX-0489C (Babcock DWS) at Q/A 39

Moreover, as noted above, Denovo has not shown that Fowler anticipates either independent claim 1 or independent claim 10 of the '824 patent.

* * *

It is therefore determined that Fowler does not anticipate either dependent claim 2 or dependent claim 11 of the '824 patent.

3. Claims 3 and 12

GCI argues, in part:

> Fowler does not disclose **"wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member,"** as recited by claims 3 and 12. CX-0464C (Smith RWS) at Q/A 172; Tr. (Babcock) at 650:10-12. As can be seen in Figure 2 of Fowler, there is no sleeve on the spring. CX-0464C (Smith RWS) at Q/A 172. The dotted line box that Mr. Babcock identifies as a sleeve in Fowler is just an outline of where support means 14 is located on the opposite side of rocker 12 and base 10; it does not identify any actual structural component of the chair. *Id.* Fowler does not describe support means 14 being encased in a sleeve. *Id.*

Compl. Br. at 57.

The administrative law judge has determined that Denovo has not shown, through clear and convincing evidence, that Fowler discloses "wherein the rocker mechanism comprises a sleeve associated with at least one of the front leg member and the rear leg member." Mr. Babcock identifies box 14 of FIG. 1 as a sleeve in Fowler, but this is just an outline of where support means 14 is located between rocker 12 and base 10. No actual structural component of the chair is depicted. *See* CX-0464C (Smith RWS) at Q/A 172. Furthermore, as noted above, the rocker mechanism of Fowler is not attached to the front leg member or the rear leg member, further attenuating any connection between the alleged sleeve and the front leg member or the rear leg member.

Moreover, as noted above, Denovo has not shown that Fowler anticipates either independent claim 1 or independent claim 10 of the '824 patent.

* * *

It is therefore determined that Fowler does not anticipate either dependent claim 3 or dependent claim 12 of the '824 patent.

4. Claims 9, 15 and 18

GCI does not dispute whether Fowler discloses these claim limitations. *See generally* Compl. Br. at 55-57. However, as noted above, Denovo has not shown that Fowler anticipates either independent claim 1 or independent claim 10 of the '824 patent. It is therefore determined that Fowler does not anticipate dependent claims 9, 15 and 18 of the '824 patent.

F. Obviousness –Dual Lock Hard Arm Chair + Prior Art Spring Mechanisms

Denovo argues that Denovo's Dual Lock Hard Arm ("DLHA") chair, in combination with prior art spring mechanisms, renders obvious claims 1-3, 9-12, 15, and 18-19 of the '824

patent. Resps. Br. at 37-61. The DLHA chair was offered for sale and on sale by June 2011. *See* RX-0375C (Oliphant DWS) at Q/A 8-9, 12-15; RX-0380C (Boehmler DWS) at Q/A 7-19 and RX-0209C - RX-0217C; RX-0244C. Thus, under section 102(b), it is prior art to the '824 patent, which claims priority to October 5, 2012.

GCI argues that adding springs to a collapsible chair was not obvious at the time of the invention of the '824 patent because Denovo's own development of the accused Rok-It Chair began in 2013 and did not conclude until 2018. Compl. Br. at 60. GCI argues that Denovo's lengthy development evidences the non-obviousness of the claimed invention. *See id.* at 60-63; CX-0075C at 6 ("Why it doesn't work"); Penn Tr. 566-568; Smith Tr. 798; CX-0463C (Boehmler Dep.) at 41:8-42:13 (testifying that it was "very difficult" to add motion to the Hard Arm Dual Lock chair). It is argued that RJ Penn (the "primary developer" of the Rok-It Chair) testified to the difficulties Denovo faced in designing this rocker. *See* Compl. Br. at 60; CX-0273C (Penn Dep.) at 16:17-17:15, 20:15-21:5, 24:17-25, 37:23-38:16, 46:14-47:21, 59:4-18, 81:14-86:20; *see* CX-0464C (Smith RWS) at Q/A 114; Smith Tr. 794.

GCI also argues that its own development process provides further evidence of non-obviousness, as it involved multiple prototypes and redesigns and extensive testing. *See* Compl. Br at 65; CX-418C (Grace RWS) at Q/A 6-7, 14-25, 40-93; CX-0464C (Smith RWS) at Q/A 135.

Denovo argues that the modifications it made to the DLHA frame to create the Rok-It Chair were within the skill level of a POSA and were easily implemented. *See* Resps. Br. at 39-41; Penn Tr. 590 (testifying that "Making the modifications to the chair were pretty, pretty simple and straightforward" and that "There wasn't anything that was just terribly complicated with it."); *see also id.* (Smith) at 774:4-17 (acknowledging that a POSA would know to shorten

the length of the cross members and the back leg tube to accommodate the addition of a spring to the rear legs); RX-0376C (Perry DWS) at Q/A 16; RX-0480C (Oliphant RWS) at Q/A 6. Denovo argues that the amount of time between Mr. Penn's initial work on a Denovo chair with motion (December 2013) and the launch of the Rok-It Chair (June 2018) has no bearing on the obviousness inquiry. *See* Resps. Br at 44-45.

The DLHA chair is a stationary chair that can be collapsed. CX-0464C (Smith RWS) at Q/A 183. Denovo argues that the DLHA chair teaches all the limitations of the asserted claims, with the exception of the rocker mechanism, which is taught by various secondary references (Frajdenrajch, JP 3036662, Smith, Seng, Colbridge, Hartman, Wekerle, Koshimizu, and Kielhorn). *See* Resps. Br. at 44-56; RX-0489C (Babcock DWS) at Q/A 45.

GCI contends that the DLHA chair lacks a "fulcrum member" and a "fulcrum point" in addition to the missing rocker mechanism. Compl. Br. at 59.

GCI argues, in part:

> [T]he Hard Arm Dual Lock chair does not disclose a "fulcrum member" or a "fulcrum point" as recited by claims 1 and 10 of the '824 Patent, under any party's claim construction. CX-0464C (Smith RWS) at Q/A 219. The foot on the front leg of the Dual Lock Hard Arm chair is a stationary chair foot. *Id.* The foot is not "a point on which a chair frame is supported and about which the chair frame pivots" as defined by GCI, nor is it "the point on the terminal end of the fulcrum member that touches the ground surface and about which the chair rocks between a forward and rearward position" as defined by Denovo. *Id.* Without a fulcrum point, there is no fulcrum member. *Id.*
>
> Simply adding springs to the Hard Arm Dual Lock chair does not transform the stationary front member and foot into a functioning "fulcrum member defining a fulcrum point." CX-0464C (Smith RWS) at Q/A 112, 220; Tr. (Smith) at 793:19-794:7. The front foot in the Hard Arm Dual Lock chair is one piece that is connected to the main tubes. *Id.* With a frame that is essentially rigid in the set up condition with two points touching the ground, decreasing the length of one of the frame members by compressing a straight or linear spring requires that the two points touching the ground must necessarily move towards each other. *Id.* When the front foot moves linearly toward the back foot, there is no fulcrum point. CX-0464C

(Smith RWS) at Q/A 220; Tr. (Smith) 787:23-789:3, 800:1-10.

See id. at 67-68.

Denovo argues, in part:

> In a further attempt to attack the DLHA as a primary reference, GCI contends that the DLHA lacks certain elements of the claims: a "fulcrum member" and a "fulcrum point" that gives the chair the ability to "move between forward and rearward rocking positions" as required by claim 10. *See* GCI's Prehearing Brief (hereafter GCI Pre.Br.) at 55-56. In support of its argument, GCI asserts that the stationary front feet of the DLHA would not act as a fulcrum point if springs were added to the rear legs. *Id.* at 56. This is simply not true. The evidence shows that before Denovo changed the stationary front foot to a pivoting front foot during the development process, the stationary front foot served as a fulcrum point about which the chair pivoted. Hrg. Tr. (Penn) at 593:9-19 (testifying that the Denovo sample chair pivoted on the stationary front foot); *see also id.* (Babcock) at 655:7-13 (testifying that adding springs to the back leg transforms a stationary foot into a fulcrum member with a fulcrum point); *id.* (Smith) at 773:22 - 774:2 (testifying that, when you put springs on the back of the Dual Lock chair, the chair "might move around the back lower-most portion of the front foot"); *id.* (Smith) at 805:23 - 806:6 (testifying that the intent of the springs shown in Denovo's provisional application, RX-0074, "was that it would pivot around the back edge of the front foot"); RX-0484C (video of Denovo's sample showing rotation about the stationary front foot); RX-0480C, Q&A 6, 9-10; RX-0481C, Q&A 11-12, 16.
>
> Relatedly, Mr. Smith's opinion that the Rok-It Chair satisfies the claim limitation "a fulcrum member defining a fulcrum point" is based upon several documents that relate to Denovo's Dual Lock chairs with the old stationary foot design, including CX-0075C, which states: "the front feet are the fulcrum about which the system (whole chair) rotates." *See* CX-0002C (Smith Direct WS), Q&A 325-327. *See also* CX-0076C - CX-0078C; CX-0082C; CX-0103; CX-0133 (upon which Mr. Smith relies). Thus, Mr. Smith's opinion that the Rok-It Chair includes a "fulcrum member defining a fulcrum point" is based upon his review of Denovo's Dual Lock chairs with the ***old foot design*** – an admission that the Dual Lock, with the old foot design and with a spring attached to the rear legs has a fulcrum point at the bottom of the old foot, as he also admitted on cross examination.

Resps. Br. at 42–44.

As discussed below, Denovo has failed to demonstrate that the DLHA chair, in combination with the cited prior art spring mechanisms, renders obvious certain claim limitations of the asserted claims of the '824 patent.

1. DLHA Chair + Frajdenrajch

French patent FR 1.232.555 to Frajdenrajch, entitled "Telescopic Suspension Seat," issued on October 10, 1960, and is therefore prior art to the '824 patent. RX-0247; RX-0274; RX-0495; RX-0496.

Denovo argues, in part:

> Frajdenrajch discloses that springs can be added to the back legs of any style chair, can be adapted to be used with old chairs, and may also be added to all types of seats, arm chairs, stools, etc. *See* RX-0247 and RX-0495 ("The invention is applicable to all kinds of seats, chairs, stools, etc."). Thus, the motivation to combine the springs of Frajdenrajch with any chair – including the DLHA – is explicitly stated in the reference itself. This motivation to combine would have been bolstered by many other Spring Mechanism References that teach adding compression springs to chair legs to form rocking chairs. RX-0121C (Cameron Direct WS), Q&A 54.
>
> Notably, the Frajdenrajch chair legs are similar to the DLHA's legs. And the combination of the spring mechanism with the Dual Lock chair is similar to one of Mr. Penn's first samples[.]
>
> * * *
>
> [W]hen springs (such as the Frajdenrajch spring mechanism) are attached to the back legs of the DLHA, the front leg of the chair becomes the fulcrum member and the armrest support tube becomes the front leg member, pursuant to GCI's infringement analysis of the Rok-It Chair. *See* RX-0369C." The addition of the Frajdenrajch spring further allows the chair to move between forward and rearward rocking positions, according to GCI's interpretation of that claim requirement. Hence, the elements of the independent claims that GCI alleges are "missing" from the DLHA (i.e., the fulcrum member with a fulcrum point at its terminal end, and the ability to rock between forward and rearward positions about the fulcrum point) are present once the Frajdenrajch spring is attached to the back legs of the chair. Hrg. Tr. (Penn) at 593:9-19; *id.* (Babcock) at 655:7-13; *id.* (Smith) at 773:22 - 774:2; RX-0484C. Thus, the DLHA + Frajdenrajch combination renders obvious claims 1-3, 9-12, 15, and 18-19.

Resps. Br. at 46-48.

GCI argues, in part:

> Frajdenrajch discloses a telescopic suspension seat and does not even mention the word "rock." RX-0495 (Frajdenrajch). In Frajdenrajch, the

> compression of the springs can vary from one leg to the other depending on how the person is sitting on the chair. *Id.* at p. 3 ("This compression can vary from one leg to another depending on whether one is sitting in the middle or on the side").
>
> It would not have been obvious to add the straight spring mechanism of Frajdenrajch to the Denovo Hard Arm Dual Lock chair as alleged by Mr. Babcock in RDX-0034. CX-0464C (Smith RWS) at Q/A 234. Indeed, the straight spring mechanism of Frajdenrajch looks very similar to some of Mr. Penn's initial prototype spring mechanisms for the ROK-IT chair, the very same arrangement that Mr. Penn tried but ultimately failed to get to work. *Id.*; RX-0375C (Oliphant DWS) at Q/A 24 (discussing RDX-0034 and stating that "the top two pages are very similar to some of the first embodiments that Mr. Penn constructed right from the very beginning."). Mr. Babcock even acknowledges the similarity between prototype #4 of the ROK-IT's spring mechanism and the spring in Frajdenrajch. RX-0489C (Babcock DWS) at Q/A 48.

Compl. Br. at 70.

The evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4 ("Standard front foot; notice chair creeps as it is rocking…Hinged front foot; notice chai[r] no longer creeps"); RX-0484C (showing the front foot of the prototype Rok-It Chair moving back and forth as the chair rocked). Mr. Penn testified that the chairs did not work when the prototype Rok-It Chairs had stationary front feet. CX-0075C at 6 ("Leverage the design and seating experience of the Kijaro dual lock chair, with modification to incorporate spring actuated mechanisms on the rear legs…Why it doesn't work – Difficult to locate the fulcrum reasonably behind the center of gravity, without the chair wanted to tip forward"); CX-0464C (Smith RWS) at Q/A 221.

This translating front foot problem, which also created a tipping hazard, was not obvious or easy for Denovo to solve. Although Denovo eventually replaced the stationary front foot with a pivotable front foot (Penn Tr. 553), Denovo did not even consider making this change until over three years into the Rok-It Chair's development process. CX-0084C (May 4, 2017 Rok-It

Product Development Direction) at 6. Even after Denovo first incorporated a pivoting front foot, the Rok-It Chair still did not work as intended, and Denovo made additional modifications to the front foot to make the chair safe. CX-0283C at 3 ("New Front Foot Design, Adjustments to the Front Foot…Moved the forward edge (A) of socket to effectively reduce amount of negative rotation. The design intent is to reduce amount chair can rotate forward and minimize tipping hazard."). Thus, simply adding a spring to the back legs of the DLHA chair did not transform the stationary front member and foot into a functioning "fulcrum member defining a fulcrum point" as required by the claims. CX-0464C (Smith RWS) at Q/A 220-21.

The administrative law judge finds that the combination of the DLHA chair with Frajdenrajch would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 234; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Frajdenrajch would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 234. Accordingly, adding the spring mechanism of Frajdenrajch to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

2. DLHA Chair + JP 3036662

Japanese patent JP 3036662 was published on May 2, 1997, and is therefore prior art to the '824 patent. *See* RX-0248, RX-0494; RX-0496.

Denovo argues, in part:

JP 3036662 shows the use of a spring within a sleeve that is attached to the front

feet of the chair. Rocking in this chair would cause the chair to pivot about the back feet. The spring mechanism in this reference has a similar configuration to the first embodiment in Mr. Penn's provisional patent application filed on March 6, 2014. RX-0489C at Q&A 47; *compare* RX-0248 at DENOVO-02585, 02587 *with* RX-0074 at p. 18.

This similarity indicates that adding Mr. Penn's spring mechanism to a chair not only was not difficult, but the combination of the chair with the spring mechanism was obvious to a POSA. Adding the spring mechanism of JP 3036662 to the DLHA would not be difficult and a POSA would be motivated to do so[.]

* * *

Since the Rok-It Chair allegedly infringes claims 10-12, 15 and 18-19, those claims must, by the same logic, be obvious over the combination of the DLHA and the JP 3036662 rocker mechanism. RX-0489C, Q&A 48; *see also* Hrg. Tr. (Smith) at 781:20 - 782:4; 782:22 - 783:19; RDX-0034 at p. 8; RX-0161C; RX-0248; RDX-0099. The DLHA + JP 3036662 combination renders obvious claims 1-3, 9-12, 15, and 18-19 for the same reasons discussed above regarding DLHA + Frajdenrajch.

Resps. Br. at 48-49.

GCI argues, in part:

JP 3036662 discloses a toddler chair with a shock absorber, the dimensions of which would be considerably different from those of the Hard Arm Dual Lock chair, and does not even mention the word "rock." RX-0494 (JP 3036662). Indeed, JP 3036662 teaches a POSITA not to attach the spring mechanism to the rear legs of a chair. *Id.* at p. 10 ("Since the shock-absorbing mechanism 11 is provided only on the front leg 1 and not on the rear leg 2, unlike the case where the chair tilts forward when the spiral spring 15 is compressed, it is safer and less likely for a child seated in the chair to fall backwards, unlike the case where the chair tilts forward when the spiral spring 15 is compressed.").

It would not have been obvious to add the straight spring mechanism of JP 3036662 to the Denovo Hard Arm Dual Lock chair as alleged by Mr. Babcock in RDX-0034. CX-0464C (Smith RWS) at Q/A 234. Indeed, the straight spring mechanism of JP 3036662 looks very similar to some of Mr. Penn's initial prototype spring mechanisms for the ROK-IT chair, which, again, did not work. *Id.*; RX-0375C (Oliphant DWS) at Q/A 24 (discussing RDX-0034 and stating that "the top two pages are very similar to some of the first embodiments that Mr. Penn constructed right from the very beginning."). Mr. Babcock even acknowledges the similarity between prototype #3 of the ROK-IT's spring mechanism and the spring in JP 3036662. RX-0489C (Babcock DWS) at Q/A 47.

Compl. Br. at 71-72.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with JP 3036662 would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 234; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of JP 3036662 would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 234. Accordingly, adding the spring mechanism of JP 3036662 to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *See id.*

3. DLHA Chair + Colbridge

U.S. Patent No. 2,056,957 to Colbridge issued on October 13, 1936, and is therefore prior art to the '824 patent. *See* RX-0057.

Denovo argues, in part:

> Colbridge discloses a "chair attachment and more particularly to attachments which may be readily applied to feet of legs of articles of furniture, such for example, as chairs, . . . , so that such articles of furniture may be rocked or tilted. . . ." *See also* Hrg. Tr. (Smith) at 780:8-11 (acknowledging that the Colbridge chair attachment may be readily attached to the feet of chair legs). Thus, the motivation to combine the Colbridge chair spring with any chair – including the DLHA – is explicitly provided in Colbridge itself. This motivation to combine would have been bolstered by many other Spring Mechanism References that teach adding compression springs to chair legs to form rocking chairs. RX-0121C, Q&A 54. *See also infra,* Section III.B.2.

Colbridge's "chair attachment" comprises a conically coiled spring (C), a flexible rubber cover (7), and a screw or other fastener for attaching the spring to the chair (5). RX-0121C, Q&A 52; RX-0057 at 2:34-48 & Fig. 2. These components are shown in Colbridge Figure 2, pictured below. Once the chair attachment is affixed to the chair, the user may then rock in the chair by tilting the chair and shifting the user's weight. RX-0121C, Q&A 52. Colbridge allows for rocking or tilting, without the risks of falling and injuring oneself by tilting on the back legs of a chair. *See* Hrg. Tr. (Smith) at 778:10 - 780:1 (acknowledging that Colbridge does not say "that the chair of Colbridge is in an unstable condition" or "that his springs cause it to become unbalanced"). The compression springs of Colbridge meet GCI's definition of "rocker mechanism" and enable the chair to rock between forward and rearward positions. *See* Hrg. Tr. (Smith) at 778:2-5; 780:2-11.

Adding the Colbridge spring mechanism to the DLHA would not be difficult and a POSA would, from the disclosure of the reference and the practice in the industry of using other prior chairs to make a new chair, add the Colbridge spring mechanism to those chairs. Indeed, Mr. Oliphant envisioned a combination like the DLHA+ Colbridge combination shown in his Direct Witness Statement when he instructed Mr. Penn to add motion to a Denovo Dual Lock chair:

Since the accused Rok-It Chair allegedly infringes claims 10-12, 15, and 18-19, then applying that same logic, those same claims must be obvious over the DLHA + Colbridge combination. *See, e.g.,* Hrg. Tr. (Smith) at 785:15-19; 786:13-17 (testifying about RDX-100 and acknowledging that the fulcrum member identified in the image of the DLHA with the Colbridge spring mechanism attached to the back legs is "substantially similar" to the fulcrum member identified on the Rok-It Chair shown in CDX-0034); *see also* RDX-100 (right); RX-0057; RX-0272; CDX-0034; CX-0149.

Accordingly, the DLHA + Colbridge combination renders obvious claims 1-3, 9-12, 15, and 18-19 for the same reasons discussed above regarding DLHA + Frajdenrajch.

Resps. Br. at 49-51.

GCI argues, in part:

It would not have been obvious to add the spring mechanism of Colbirdge to the Denovo Hard Arm Dual Lock chair. CX-0464C (Smith RWS) at Q/A 234. Colbridge itself noted that its chair attachment created a tipping hazard when added to a stationary chair. *Id.* at Q/A 151, 201, 234. Specifically, Colbridge notes that when leaning a chair back "under such circumstances, the chair occupant must necessarily be mindful of his unbalanced position...as otherwise he might suffer a fall and injury." *Id.*; RX-0057 (Colbridge) at 1:11-15. Accordingly, adding the spring mechanism of Colbridge to the Denovo Hard Arm Dual Lock chair would

> not create a workable collapsible and portable rocking chair. CX-0464C (Smith RWS) at Q/A 234. Rather, it would create an unsafe tipping hazard. A POSITA would not be motivated to combine these references. *Id.*; *see also* Section V.D.2(ii)(c), *supra.*

Compl. Br. at 71-72.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with Colbridge would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 234; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Colbridge would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 234. Accordingly, adding the spring mechanism of Colbridge to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

4. DLHA Chair + Hartman

U.S. Patent No. 114,812 to Hartman, entitled "Chair Spring," issued on May 16, 1871, and is therefore prior art to the '824 patent. *See* RX-0222.

Denovo argues, in part:

> Hartman describes a sleeve for spiral springs attached to the legs of furniture, including bedsteads, chairs, sofas, and settees and similar items. It does not limit the application to any particular type of chair. Hartman discloses: "This invention relates to a new and useful improvement in constructing and arranging a suitable

> casing or guard for spiral springs, designed for the legs of ... chairs, ... etc.; and consists in a hollow tubular casing for containing the spring, and in a socket or box to work inside the casing for receiving the end of the chair or bedstead-leg..." RX-0222 at 1:9-15. Accordingly, the motivation to combine the Hartman spring mechanism with any kind of chair – including the DLHA – is explicitly provided by the Hartman reference. Indeed, even Hartman's title – "Chair Spring" – would provide the motivation to attach a spring to a chair. This motivation to combine would have been bolstered by many other Spring Mechanism References that teach adding compression springs to chair legs to form rocking chairs. RX-0121C, Q&A 54.
>
> Adding the Hartman spring mechanism to the DLHA would be as simple to a POSA as adding the spring mechanisms of Frajdenrajch, JP 3036662, and Colbridge, discussed above. RX-0489C, Q&A 48. And since the accused Rok-It Chair allegedly infringes claims 10-12, 15, and 18-19, then applying that same logic, those same claims must be obvious over the DLHA + Hartman combination. The DLHA + Hartman combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed in above regarding DLHA + Frajdenrajch.

Resps. Br. at 51-52.

GCI argues, in part:

> U.S. Patent No. 114,812 ("Hartman") describes improved leg guards for furniture that is not collapsible. CX-0464C (Smith RWS) at Q/A 199. Hartman is a straight "shock absorber"-style spring intended for linear, not rocking motion. RX-0222 at 2:8-9 ("The socket is designed to fit inside the case, so that it will readily play up and down."). For the same reasons as Frajdenrajch and JP 3036662, it would not have been obvious to add the straight spring arrangement of Hartman to the Hard Arm Dual Lock chair as alleged by Mr. Babcock. CX-0464C (Smith RWS) at Q/A 215-17, 226, 235.

Compl. Br. at 72.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with Hartman would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when

attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 226; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Hartman would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 235. Accordingly, adding the spring mechanism of Hartman to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

5. DLHA Chair + Smith

U.S. Patent No. 92,758 ("Smith"), entitled "Chair Spring," issued on July 20, 1869, making it prior art to the '824 patent. RX-0321.

Denovo argues, in part:

> Smith discloses that a chair may easily and quickly be changed from a stationary chair to a rocker or oscillating chair by attaching hinged springs to the chair's front legs. RX-0321, at col. 1, lines 18-21. The patent does not limit the type of chair to which the springs can be attached. Accordingly, the motivation to combine the Smith chair spring mechanism with any type of chair – including the DLHA – is explicitly taught in the Smith reference. Indeed, even Smith's title – "Chair Spring" – would provide the requisite motivation to attach a spring to a chair. This motivation to combine would have been bolstered by many other Spring Mechanism References that teach adding compression springs to chair legs to form rocking chairs. RX-0121C, Q&A 54.
>
> The DLHA + Smith combination renders obvious claims 1, 2, 9-11, 15, 18, and 19 of the '824 patent. Claims 3 and 12, requiring a sleeve for the spring, are obvious if this combination were further combined with any of the references cited above that disclose a spring within a sleeve, such as Frajdenrajch, JP 3036662, Colbridge, or Hartman. *See* Hrg. Tr. (Lee) at 489:25 - 490:17.

Resps. Br. at 52-53.

GCI argues, in part:

> U.S. Patent No. 92,758 ("Smith") describes a rigid chair that is not collapsible with a spring on each of the front legs. CX-0464C (Smith RWS) at Q/A 189. The springs urge the chair to an unstable position where the likelihood of tipping is increased. *Id.* In addition, Smith does not disclose that the purported rocker mechanism has a sleeve, as required by claims 3 and 12 of the '824 Patent.

> CX-0464C (Smith RWS) at Q/A 224, 243, 257. For the same reasons as Frajdenrajch and JP 3036662, it would not have been obvious to add the straight spring of Smith to the Hard Arm Dual Lock chair as alleged by Mr. Babcock. *Id.* at Q/A 215-17, 226, 235.

Compl. Br. at 73.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with Smith would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 226; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Smith would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 235. Accordingly, adding the spring mechanism of Smith to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

6. DLHA Chair + Seng

U.S. Patent No. 490,366 ("Seng") issued on January 24, 1893, and is therefore prior art to the '824 patent. *See* RX-0316.

Denovo argues, in part:

> Seng's invention provides the elements that allow an ordinary chair to operate as a rocking chair. A spring J is attached to the front leg, a rear leg B is attached to the seat and has a spring mechanism D, and a fulcrum is disposed between the front and rear legs. The user tilts the chair backward to compress the spring in spring mechanism D. RX-0316, at p. 1, line 76 – p. 2, l. 3; *see also* RX-0119C (Lee Direct WS), Q&A 135 and 151 (discussing the fulcrum point of Seng); Hrg. Tr. (Smith)

> at 763:24 - 765:1 (admitting that Seng discloses a "fulcrum point" under GCI's definition of that term). The chair has a back support, a seat support, a seat panel, a back panel, a pair of side frame assemblies, a fulcrum contacting the support surface, and at least one rocker mechanism. Seng also discloses that springs can be used on both sides of the chair. RX-0316, at p. 1, ll. 26-29. For the same reasons discussed above regarding the DLHA + Frajdenrajch combination, adding the springs of Seng to the DLHA renders obvious claims 1, 2, 9-11, 15, 18, and 19. Indeed, Mr. Smith admitted that a POSA could develop a way to attach the spring attachment from Seng to the back of a normal chair, and that Mr. Smith himself could probably accomplish it in less than a day. Hrg. Tr. (Smith) at 765:16-24. Claims 3 and 12, requiring a sleeve for the spring, are obvious if this combination were further combined with any of the references cited above that disclose a spring within a sleeve, such as Frajdenrajch, JP 3036662, Colbridge, or Hartman. *See* Hrg. Tr. (Lee) at 480:25 - 481:6; 489:25 - 490:17. *See also infra,* Section III.C.4.a-b.

Resps. Br. at 53-54.

GCI argues, in part:

> U.S. Patent No. 490,366 ("Seng") describes a supplementary leg B that is attached to the seat of a rigid chair that is not collapsible or portable. CX-0464C (Smith RWS) at Q/A 191. In addition, Seng does not disclose a rocker mechanism with a sleeve, as required by claims 3 and 12 of the '824 Patent. CX-0464C (Smith RWS) at Q/A 224, 243, 257. For the same reasons as Frajdenrajch and JP 3036662, it would not have been obvious to add the straight spring mechanism of Seng to the Hard Arm Dual Lock chair as alleged by Mr. Babcock. *Id.* at Q/A 215-17, 226, 235.

Compl. Br. at 73.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with Seng would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 226;

Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Seng would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 235. Accordingly, adding the spring mechanism of Seng to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

7. DLHA Chair + Wekerle

German Publication No. DE 1554179 ("Wekerle"), entitled "Rocking Chair," was published on May 27, 1970, and is therefore prior art to the '824 patent. *See* RX-0324; RX-0269.

Denovo argues, in part:

> The rocking chair of Wekerle has a fulcrum 6 about which the chair frame moves in a forward and a backward motion as per arrow 10. (RX-0269, at p. 15). There are spring mechanisms 2 and 3 attached to legs (*see id.* at Fig. 2). The springs of Wekerle can be encased in a sleeve. *See* RX-0269 at DENOVO-03141 ("The springs can be protected also to prevent any garments being caught in the springs and being clamped on the springs."). Combining Wekerle with the DLHA would be obvious to a POSA for the same reasons stated above with respect to DLHA + Frajdenrajch. Thus, the DLHA + Wekerle combination render obvious claims 1-3, 9-12, 15, 18, and 19.

Resps. Br. at 55.

GCI argues, in part:

> German Publication No. DE 1554179 ("Wekerle") describes a rigid rocking chair that is not collapsible or portable. CX-0464C (Smith RWS) at Q/A 203. In addition, Wekerle also does not disclose a rocker mechanism with a sleeve, as required by claims 3 and 12 of the '824 Patent. CX-0464C (Smith RWS) at Q/A 224, 243, 257. For the same reasons as Frajdenrajch and JP 3036662, it would not have been obvious to add the straight spring mechanism of Wekerle to the Hard Arm Dual Lock chair as alleged by Mr. Babcock. *Id.* at Q/A 215-17, 226, 235.

Compl. Br. at 73.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with Wekerle would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 226; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Wekerle would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 235. Accordingly, adding the spring mechanism of Wekerle to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

8. DLHA Chair + Koshimizu

JP H11-318627 ("Koshimizu") was published on November 24, 1999, so it is prior art to the '824 patent. *See* RX-0317 and RX-0270.

Denovo argues, in part:

> The Koshimizu chair has a fulcrum member and three legs that have springs disposed between the seat and the bottom of the legs. The chair allows a rocking motion using springs on each of the legs to rock around the point of contact of the fulcrum member on the support surface. Adding Koshimizu's springs and fulcrum to the DLHA renders obvious claims 1-2, 9-11, 15, 18, and 19.. Claims 3 and 12 are obvious if this combination were further modified by any of the references cited above that have a spring in a sleeve, such as Frajdenrajch, JP 3036662, Colbridge, and Hartman. *See* Hrg. Tr. (Lee) at 489:25 - 490:17.

Resps. Br. at 55.

GCI argues, in part:

> Koshimizu describes a chair with supplementary legs that, in a manner similar to exercises for back pain, reinforces muscles surrounding the lower back while they try to maintain equilibrium (i.e., try not to tip over). CX-0464C (Smith RWS) at Q/A 207. . . .
>
> * * *
>
> Stability is a core concern in a standard front-to-back folding chair, particularly if the front-to-back folding chair is tipped back from the set up position. CX-0464C (Smith RWS) at Q/A 274. In contrast, instability is a core feature of the invention in Koshimizu, which strengthens muscles surrounding the lower back while the user tries to maintain equilibrium. *Id.*; RX-0270 (Koshimizu) at DENOVO-03157. Indeed, Koshimizu teaches away from a combination with the stable front-to-back folding chair, and thus there would be no reason to modify it as suggested by Mr. Babcock. CX-0464C (Smith RWS) at Q/A 274.
>
> Finally, Koshimizu does not disclose a rocker mechanism with a sleeve, as required by claims 3 and 12 of the '824 Patent. CX-0464C (Smith RWS) at Q/A 271.
>
> For the same reasons as Frajdenrajch and JP 3036662, it would not have been obvious to add the straight spring arrangement of Koshimizu to the Hard Arm Dual Lock chair as alleged by Mr. Babcock. *Id.* at Q/A 215-17, 226, 235.

Compl. Br. at 73-74.

The administrative law judge finds that one of ordinary skill in the art would not combine the Denovo DLHA chair with Koshimizu to arrive at a combination where the support leg is part of each side frame assembly, as required by claims 1 and 10. *See* CX-0464C (Smith RWS) at 269. Koshimizu distinguishes his invention from rocking chairs when describing the prior art. *See id.*; RX-0270 (Koshimizu) at DENOVO-03156. Koshimizu discloses only one Support Leg 1 for the entire chair, located in the center of the seat. CX-0464C (Smith RWS) at Q/A 269.

In addition, inasmuch as the purpose of the spring coils on the supplementary legs is to help the user with balance and to hold the chair upright and floating when a person is not sitting in the chair, the administrative law judge finds that Koshimizu does not disclose to one of ordinary skill "at least one rocker mechanism attached to the chair frame for supporting the chair

during movement of the chair frame between said forward and rearward positions," as required by claims 1 and 10. CX-0464C (Smith RWS) at Q/A 270.

9. DLHA Chair + Kielhorn

U.S. Patent Publication No. 2001/0028187 ("Kielhorn"), entitled "Seating Furniture with Rocking Seat," was published on October 11, 2001 and is therefore prior art to the '824 patent. *See* RX-0323.

Denovo argues, in part:

> Kielhorn discloses a number of seating arrangements in its more than 25 figures. Particularly in Fig. 5 and the accompanying text, Kielhorn discloses that seat 12 has two fulcrums, 22 and 24, and two legs, 28 and 30, with springs attached to the ends to dampen the touching of the floor. RX-0323, at p. 42. The reference also describes that the furniture can have a foldable construction to facilitate transportation. *Id.* at p. 17; *see also id.* at Figs. 24a-24c. And, the chair may have a backrest. *See id.* at p. 18. Combining Keilhorn with the DLHA renders obvious claims 1-2, 9-11, 15, 18, and 19. Claims 3 and 12 are obvious if DLHA + Kielhorn were then combined with any of the references cited above that disclose a spring within a sleeve, such as Frajdenrajch, JP 3036662, Colbridge, and Hartman. *See* Hrg. Tr. (Lee) at 489:25 - 490:17.

Resps. Br. at 56.

GCI argues, in part:

> Kielhorn describes seating furniture with a rocking seat. CX-0464C (Smith RWS) at Q/A 209. Kielhorn briefly mentions that the furniture can have a "foldable construction" (RX-0075 at DENOVO-02386) but does not actually disclose or teach a POSITA how to make the furniture foldable, particularly for one of its "rocking" embodiments. Kielhorn also does not disclose a rocker mechanism with a sleeve, as required by claims 3 and 12 of the '824 Patent. CX-0464C (Smith RWS) at Q/A 224, 243, 257. For the same reasons as Frajdenrajch and JP 3036662, it would not have been obvious to add the straight spring arrangement of Kielhorn to the Hard Arm Dual Lock chair as alleged by Mr. Babcock. *Id.* at Q/A 215-17, 226, 235.

Compl. Br. at 74-75.

As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of the DLHA chair with Kielhorn would not result in a chair with a working "fulcrum member" and "fulcrum point" because even the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 226; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Kielhorn would experience similar issues when added to the DLHA chair. *See* CX-0464C (Smith RWS) at Q/A 235. Accordingly, adding the spring mechanism of Kielhorn to the Denovo DLHA chair would not create a workable collapsible and portable rocking chair. *Id.*

G. Obviousness – Chen or Lougee + Prior Art Spring Mechanisms

Denovo further contends the asserted claims of the '824 patent are invalid in view of either of two additional primary prior art references, U.S. Patent No. 6,926,356 ("Chen") and U.S. Patent No. 8,100,469 ("Lougee"), in view of the prior art spring mechanisms. *See* Resps. Br. at 56. Chen issued on August 9, 2005, and is therefore prior art to the '824 patent. *See* RX-0236. Lougee was published on January 13, 2011, and is therefore prior art to the '824 patent. *See* RX-0231.

Denovo argues, in part:

> Chen is directed to a portable folding chair that is suitable for travel and leisure and can be used in a variety of environments, including outdoors. RX-0236 at 1:5-9. The Chen chair has all of the chair frame members required in independent claims 1 and 10 of the '824 patent, according to GCI's reading of the claims. *See* RX-0369C, RX-0370, RDX-0060, and RX-0489C, Q&A 53. Notably, unlike the

accused Rok-It Chair and the DLHA, the Chen chair has a back support member that is separate and distinct from the fulcrum member – i.e., they are two separate pieces in the Chen chair. Thus, Chen includes a "back support member" and "fulcrum member" under both GCI's and Denovo/Zhenli's understandings of the claims.

. . . Lougee is directed to a portable and collapsible chair. RX-0231 at 1:22-23; 2:34-36. The Lougee chair frame is nearly identical to Denovo's DLHA and Rok-It Chair frames. Lougee has all of the chair frame members required in claims 1 and 10 of the '824 patent, according to GCI's reading of the claims. *See* RX-0369C, RX-0370, RDX-0061, and RX-0489C, Q&A 54.

Because the frames of the Chen and Lougee chairs correspond to the claimed chair frame members under GCI's constructions, as do the chair frame members of Denovo's DLHA, then the combinations of the Spring Mechanism References with Chen and/or Lougee render the claims obvious for the same reasons discussed above with respect to the DLHA. *See* Hrg. Tr. (Babcock) at 666:15-24 (testifying that he labeled the frame members of Lougee in his claim chart according to GCI's constructions and infringement contentions). Adding any of the Spring Mechanism References to either the Chen or Lougee chair invalidates claims 1 and 10, the two independent claims of the '824 patent. RX-0489C, Q&A 45.

As illustrated in the following demonstratives, the combination of Chen and Lougee with Frajdenrajch, Colbridge, or JP 3036662 is not complicated, and the combination would be obvious to a POSA, particularly in light of the explicit language in each of these secondary references providing a motivation to combine a spring with a chair leg in order to impart motion to the chair. Attaching the spring mechanisms of Frajdenrajch, Colbridge, or JP 3036662 to the rear legs of either the Chen or the Lougee chair would satisfy claims 1, 2, 10, and 11, as well as the sleeve requirements of claims 3 and 12. In addition, the Chen and Lougee chairs have seat support members according to claim 15, backrests and seat rests made from flexible material according to claim 9, and the connector mechanisms of claims 18 and 19. Mr. Babcock's claim charts at RDX-0060 and RDX-0061 show where each element of these claims is disclosed by combinations of the Spring Mechanism References with the chair frames disclosed by Chen and Lougee. These combinations are obvious to a POSA and, thus, render claims 1-3, 9-12, 15, 18, and 19 invalid. RX-0489C, Q&A 45, 53, 54.

Resps. Br. at 56-58.

GCI argues, in part:

Chen does not disclose a "fulcrum member" or a "fulcrum point" as recited by claims 1 and 10 of the '824 Patent, under any party's claim construction. CX-0464C (Smith RWS) at Q/A 240. The alleged "fulcrum point" (plastic shoe 18) is

just a stationary chair foot. *Id.* Plastic shoe 18 is not "a point on which a chair frame is supported and about which the chair frame pivots" per GCI's proposed construction, nor is it "the point on the terminal end of the fulcrum member that touches the ground surface and about which the chair rocks between a forward and rearward position" as interpreted by Denovo. *Id.* Without a fulcrum point, there is no fulcrum member. *Id.*

Adding springs to the Chen chair would not transform the stationary front member and foot into a "fulcrum member defining a fulcrum point." CX-0464C (Smith RWS) at Q/A 241. The modification to Chen, as suggested by Mr. Babcock, would encounter the same development issues, problems, and time delays that plagued Denovo's own development process for the ROK-IT chair. *Id.*; *see* Sections V.D.2(ii)(a), V.D.2(iii), *supra* (discussing Denovo's difficulties).

* * *

Lougee does not disclose a "fulcrum member" or a "fulcrum point" as recited by claims 1 and 10 of the '824 Patent, under any party's claim construction. CX-0464C (Smith RWS) at Q/A 254. The alleged "fulcrum point" is just a stationary chair foot. *Id.* The foot is not "a point on which a chair frame is supported and about which the chair frame pivots" per GCI's proposed construction, nor is it "the point on the terminal end of the fulcrum member that touches the ground surface and about which the chair rocks between a forward and rearward position" as defined by Denovo. *Id.* at Q/A 254. Without a fulcrum point, there is no fulcrum member. *Id.*

Adding springs to the Lougee chair would not transform the stationary front member and foot into a "fulcrum member defining a fulcrum point." CX-0464C (Smith RWS) at Q/A 255. The modification to Lougee, as suggested, would encounter the same development issues, problems, and time delays discussed in Sections V.D.2(ii)(a) and V.D.2(iii), *supra*, that Denovo endured with respect to modifying the Hard Arm Dual Lock chair. *Id.*

Compl. Br. at 75-76, 77.

As discussed below, Denovo has failed to demonstrate that Chen or Lougee, in combination with the cited prior art spring mechanisms, renders obvious certain claim limitations of the asserted claims of the '824 patent.

1. Chen + Frajdenrajch

Denovo argues, in part:

Because Chen's chair frame is nearly identical to the DLHA's frame, the

> Chen + Frajdenrajch combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed above with respect to DLHA+ Frajdenrajch. The illustration (RDX-0034, at 10), prepared by Mr. Babcock and discussed in his testimony (RX-0489C, Q&A 45, 53), show that these claims are obvious in light of Chen + Frajdenrajch. *See also* RX-0236; RX-0318.

Resps. Br. at 58.

GCI argues, in part:

> The addition of the straight spring from Frajdenrajch to Chen would not be obvious, as discussed in Sections V.D.2(ii)(a) and V.D.2(ii)(b), *supra*. CX-0464C (Smith RWS) at Q/A 245. A POSITA would not have been motivated to modify or combine Chen with Frajdenrajch, as discussed in Section V.D.2(ii)(c), *supra*, nor does Mr. Babcock explain how this combination would actually be accomplished. *Id.* at Q/A 247. For the same reasons discussed in Section V.D.2(iii), *supra*, it would not have been obvious to add the straight spring arrangement of Frajdenrajch to Chen as shown by Mr. Babcock in RDX-0034. *Id.* at Q/A 249.

Compl. Br. at 76.

Chen describes a collapsible chair that does not rock. *See* CX-0464C (Smith RWS) at Q/A 185. As noted above, the evidence shows that the front feet of the DLHA chair, a similarly collapsible stationary chair, exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of Chen with Frajdenrajch would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. The straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 245; Penn Tr. 546-547; CX-0075C at 6 (difficulties in adding a spring mechanism). The spring mechanism of Frajdenrajch would experience similar issues when added to Chen. *See* CX-0464C (Smith RWS) at Q/A 249. Accordingly, adding the spring mechanism of Frajdenrajch to Chen would not

create a workable collapsible and portable rocking chair. *Id.*

2. Chen + JP 3036662

Denovo argues, in part:

> Because Chen's chair frame is nearly identical to the DLHA's frame, the Chen + JP 3036662 combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed above with respect to the DLHA + JP 3036662 combination. The illustration (RDX-0034, at 6), and Mr. Babcock's testimony (RX-0489C, Q&A 45, 53), show that these claims are obvious in view of Chen + JP 3036662. *See also* RX-0236; RX-0248.

Resps. Br. at 59.

GCI argues, in part:

> The addition of the straight spring from JP 3036662 to Chen would not be obvious, as discussed in Sections V.D.2(ii)(a) and V.D.2(ii)(b), *supra*. CX-0464C (Smith RWS) at Q/A 245. A POSITA would not have been motivated to modify or combine Chen with JP 3036662, as discussed in Section V.D.2(ii)(c), *supra*, nor does Mr. Babcock explain how this combination would actually be accomplished. *Id.* at Q/A 247. For the same reasons discussed in Section V.D.2(iii), *supra*, it would not have been obvious to add the straight spring arrangement of JP 3036662 to Chen as shown by Mr. Babcock in RDX-0034. *Id.* at Q/A 249.

Compl. Br. at 76.

As noted above, the evidence shows that the front feet of the DLHA chair, a collapsible stationary chair, exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of Chen with JP 3036662 would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. In particular, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Sruith RWS) at Q/A 245; Penn Tr. 546-547; CX-0075C at 6. The spring mechanism of JP 3036662 would

experience similar issues when added to Chen. *See* CX-0464C (Smith RWS) at Q/A 249. Accordingly, adding the spring mechanism of JP 3036662 to Chen would not create a workable collapsible and portable rocking chair. *Id.*

3. Chen + Colbridge

Denovo argues, in part:

> Because Chen's chair frame is nearly identical to the DLHA's frame, the Chen + Colbridge combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed above with respect to the DLHA + Colbridge combination. The illustration (shown in RX-0375C, Q&A 24) shows that these claims are obvious in view of Chen + Colbridge. *See also* RX-0236; RX-0057.

Resps. Br. at 59-60.

GCI argues, in part:

> The addition of the spring from Colbridge to Chen would not be obvious, as discussed in Sections V.D.2(ii)(a) and V.D.2(ii)(b), *supra*. CX-0464C (Smith RWS) at Q/A 245. A POSITA would not have been motivated to modify or combine Chen with Colbridge, as discussed in Section V.D.2(ii)(c), *supra*, nor does Mr. Babcock explain how this combination would actually be accomplished. *Id.* at Q/A 247. For the same reasons discussed in Section V.D.2(iii), *supra*, it would not have been obvious to add the spring attachment of Colbridge to Chen. *Id.* at Q/A 249.

Compl. Br. at 76-77.

As noted above, the evidence shows that the front feet of the DLHA chair, a collapsible stationary chair, exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of Chen with Colbridge would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. That is, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 245;

Penn Tr. 546-547; CX-0075C at 6 (difficulties in adding a spring mechanism). The spring mechanism of Colbridge would experience similar issues when added to Chen. *See* CX-0464C (Smith RWS) at Q/A 249. Accordingly, adding the spring mechanism of Colbridge to Chen would not create a workable collapsible and portable rocking chair. *Id.*

4. Lougee + Frajdenrajch

Denovo argues, in part:

> Because Lougee's chair frame is nearly identical to the DLHA's frame, the Lougee + Frajdenrajch combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed above with respect to DLHA + Frajdenrajch. The illustration (RDX-0034, at 9) and Mr. Babcock's testimony (RX-0489C, Q&A 45, 54), show that these claims are obvious in view of Lougee + Frajdenrajch. *See also* RX-0231; RX-00318.

Resps. Br. at 58-59.

GCI argues, in part:

> The addition of the straight spring from Frajdenrajch to Lougee would not be obvious, as discussed in Sections V.D.2(ii)(a) and V.D.2(ii)(b), *supra*. CX-0464C (Smith RWS) at Q/A 259. A POSITA would not have been motivated to modify or combine Lougee with Frajdenrajch, as discussed in Section V.D.2(ii)(c), *supra*, and, again, Mr. Babcock fails to explain how this combination would actually be accomplished. More is required than just adding springs to the legs of a stationary chair such as Lougee. *Id.* at Q/A 261. For the same reasons discussed in Section V.D.2(iii), *supra*, it would not have been obvious to add the straight spring arrangement of Frajdenrajch to Lougee as shown by Mr. Babcock in RDX-0034. *Id.* at Q/A 263.

Compl. Br. at 77-78.

Lougee describes a collapsible chair with a curved back support that does not rock. *See* CX-0464C (Smith RWS) at Q/A 187. As noted above, the evidence shows that the front feet of the DLHA chair, a similarly collapsible stationary chair, exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of Lougee with Frajdenrajch would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. As noted above, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 259; Penn Tr. 546-547; CX-0075C at 6. The spring mechanism of Frajdenrajch would experience similar issues when added to Lougee. *See* CX-0464C (Smith RWS) at Q/A 263. Accordingly, adding the spring mechanism of Frajdenrajch to Lougee would not create a workable collapsible and portable rocking chair. *Id.*

5. Lougee + JP 3036662

Denovo argues, in part:

> Because Lougee's chair frame is nearly identical to the DLHA's frame, the Lougee + JP 3036662 combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed above with respect to the DLHA + JP 3036662 combination. The illustration (RDX-0034, at 5) and Mr. Babcock's testimony (RX-0489C, Q&A 45, 54), show that these claims are obvious in view of Lougee + JP 3036662. *See also* RX-0231; RX-0248.

Resps. Br. at 59.

GCI argues, in part:

> The addition of the straight spring from JP 3036662 to Lougee would not be obvious, as discussed in Sections V.D.2(ii)(a) and V.D.2(ii)(b), *supra*. CX-0464C (Smith RWS) at Q/A 259. A POSITA would not have been motivated to modify or combine Lougee with JP 3036662, as discussed in Section V.D.2(ii)(c), *supra*, and, again, Mr. Babcock fails to explain how this combination would actually be accomplished. *Id.* at Q/A 261. For the same reasons discussed in Section V.D.2(iii), *supra*, it would not have been obvious to add the straight spring mechanism of JP 3036662 to Lougee as shown by Mr. Babcock in RDX-0034. *Id.* at Q/A 263.

Compl. Br. at 78.

As noted above, the evidence shows that the front feet of the DLHA chair, a collapsible stationary chair, exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of Lougee with JP 3036662 would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. The straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 259; Penn Tr. 546-547; CX-0075C at 6. The spring mechanism of JP 3036662 would experience similar issues when added to Lougee. *See* CX-0464C (Smith RWS) at Q/A 263. Accordingly, adding the spring mechanism of JP 3036662 to Lougee would not create a workable collapsible and portable rocking chair. *Id.*

6. Lougee + Colbridge

Denovo argues, in part:

> Because Lougee's chair frame is nearly identical to the DLHA's frame, the Lougee + Colbridge combination renders obvious claims 1-3, 9-12, 15, 18, and 19 for the same reasons discussed above with respect to DLHA + Colbridge. The illustration (RX-0375C, Q&A 24) shows that these claims are obvious in view of Lougee + Colbridge. *See also* RX-0231; RX-0057.

Resps. Br. at 60.

GCI argues, in part:

> The addition of the spring from Colbridge to Lougee would not be obvious, as discussed in Sections V.D.2(ii)(a) and V.D.2(ii)(b), *supra*. CX-0464C (Smith RWS) at Q/A 259. A POSITA would not have been motivated to modify or combine Lougee with Colbridge, as discussed in Section V.D.2(ii)(c), *supra*, nor does Mr. Babcock explain how this combination would actually be accomplished. *Id.* at Q/A 261. For the same reasons discussed in Section V.D.2(iii), *supra*, it would

> not have been obvious to add the spring attachment of Colbridge to Lougee. *Id.* at Q/A 263.

Compl. Br. at 78.

As noted above, the evidence shows that the front feet of the DLHA chair, a collapsible stationary chair, exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that the combination of Lougee with Colbridge would not result in a chair with a working "fulcrum member" and "fulcrum point" because the prototype straight spring mechanisms for the Rok-It Chair did not work when attached to the DLHA chair. For example, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Sruith RWS) at Q/A 259; Penn Tr. 546-547; CX-0075C at 6. The spring mechanism of Colbridge would experience similar issues when added to Lougee. *See* CX-0464C (Smith RWS) at Q/A 255 ("Modifications to Lougee, as suggested, would encounter the same development issues, problems, and time delays that Denovo and Zhenli endured with respect to modifying the Hard Arm Dual Lock chair"), 263. Accordingly, adding the spring mechanism of Colbridge to Lougee would not create a workable collapsible and portable rocking chair. *Id.*

H. Obviousness – Secondary Considerations

The objective evidence, also known as "secondary considerations," includes commercial success, long felt need, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 13-17 (1966); *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). "[E]vidence 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). Secondary considerations, such as commercial success, will not always dislodge a determination of obviousness based on analysis of the prior art. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007) (commercial success did not alter conclusion of obviousness).

GCI argues there is substantial evidence of secondary indicia of non-obviousness of the invention in the '824 patent. *See* Compl. Br. at 79-85. GCI argues several factors weigh in favor of a finding of non-obviousness:

- the claimed invention of the '824 patent is a commercial success
- the claimed invention of the '824 patent addresses a long-felt but unresolved need
- there is substantial recognition in the industry of the claimed invention of the '824 patent
- there has been copying of the claimed invention of the '824 patent

As noted above, GCI has not demonstrated that the '824 patent is implemented in the '824 GCI products. Therefore, GCI has not established a nexus between the '824 GCI products and the '824 patent, and the secondary considerations do not support a finding of non-obviousness.

1. Commercial Success

GCI argues that the '824 GCI products (RoadTrip Rocker, Pod Rocker / Pod Rocker with Sunshade, and Kickback Rocker) practice the '824 patent, and have been commercially successful. *See* Compl. Br. at 80-81. For the reasons discussed above in the domestic industry section concerning "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame," GCI has not demonstrated that the '824 patent is implemented in the '824 GCI products. GCI has adduced evidence demonstrating that the '824 GCI products are

commercially successful. *See id.* Furthermore, GCI adduced evidence showing that that the ability of the '824 GCI products to safely rock in a portable, collapsible chair drove the success of these products. *See* CX-0419C (Polke RWS) at Q/A 58-60, 68, 78-80, 84-89, 94-95, 103-05, 131-33; CX-0464C (Smith RWS) at Q/A 284. However, as the administrative law judge finds that '824 GCI products do not practice the '824 patent, GCI has not established a nexus between the '824 GCI products and the '824 patent.

2. Long-Felt But Unresolved Need

GCI argues that was a long-felt but unresolved need for portable and collapsible rocker chairs embodying the claims of the '824 patent, and that respondents have identified no portable rocking chairs that are collapsible in the manner described by the '824 patent. *See* Compl. Br. at 81-82. For the reasons discussed above in the domestic industry section concerning "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which the chair sits in the set-up condition and for supporting the chair frame," GCI has not demonstrated that the '824 patent is implemented in the '824 GCI products. Moreover, GCI mainly relies on the testimony of its expert, Mr. Smith, who cites the asserted patent for support. *See id.* (citing CX-0464C (Smith RWS) at Q/A 285). GCI cites the following passages of the '824 patent:

- [T]here is a desire for a rocking chair that is likewise foldable and portable, so that a user at a picnic or an outdoor event can rock in their chair or recline as desired.

JX-0001 ('824 patent) at col. 2, lns. 21-24.

- Prior art foldable and portable chairs, such as those described above, have not been capable of rocking due to the design and construction of such chairs.

Id. at col. 2, lns. 24-27.

The administrative law judge finds that these statements are of little probative value because the patent does not explain how the need arose or describe how long it was felt. *See Certain Strontium-Rubidium Infusions Systems, and Components Thereof Including Generators*, 337-TA-1110, Final Initial Determination (Aug. 1, 2019) at 120, *aff'd in pertinent part*, Comm'n Opinion (Dec. 11, 2019) (Public Version) (EDIS Doc. ID 696920) at 38. GCI's other evidence does not demonstrate any long-felt unresolved need for the claimed invention of the '824 patent. *See* CX-0258C (Oliphant Dep.) at 26:17-27:8; 34:1-12, 36:6-37:4. Viewing the evidence as a whole, this factor does not support a conclusion of non-obviousness.

3. Praise by Others

GCI argues that the invention of the '824 patent "has[s] received contemporaneous praise by others and professional approval, which shows that those with ordinary skill in the art consider GCI's inventions to be new and nonobvious." Compl. Br. at 82. GCI has adduced articles and awards that praise the rocking features (such as the "rocker mechanism" and "fulcrum point" / "fulcrum member") of the '824 GCI products. *See* CX-0419C (Polke RWS) at Q/A 138-61; CX-0418C (Grace RWS) at Q/A 94-95; CX-0421 (Dream Guides: "Best Portable Fishing Chair in 2019"); CX-0422 (Gear Junkie: "Best Camping Chairs (That Rock)"); CX-0423 (Gear Patrol: "The 11 Best Camp Chairs of 2019"); CX-0424 (Men's Health: "Best Camping Chairs 2019"); CX-0425 (Popular Mechanics: "Best Camping Chairs 2019"); CX-0426 (The Manual: "Best Camp Chairs on Amazon for Chilling Around the Campfire"); CX-0428 (Business Insider: "The best folding chair in 2019"); CDX-0386 (Photo of 2013 Tailgater Magazine Best in Show at the National Hardware Show for GCI's Freestyle Rocker). For the reasons discussed above in the domestic industry section concerning "fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface upon which

the chair sits in the set-up condition and for supporting the chair frame," GCI has not demonstrated that the '824 patent is implemented in the '824 GCI products. As the administrative law judge finds that '824 GCI products do not practice the '824 patent, GCI has not established a nexus between the '824 GCI products and the '824 patent.

4. Copying

GCI argues that Denovo's copying is further objective evidence of the non-obviousness of the invention of the '824 patent. *See* Compl. Br. at 83-85. GCI argues that Denovo was aware of the '824 GCI products at least as early as March 2014 and made efforts to copy those designs. *See id.* (citing CX-0464C (Smith RWS) at Q/A 287; RX-0376C (Perry DWS) at Q/A 28; CX-0079C at 4 (Product Development Direction dated June 26, 2014 showing GCI Freestyle Rocker)).

Denovo argues that it only became aware of any GCI chair with a spring mechanism in March 2014, after Mr. Penn had already built three different samples of a chair with springs attached to the back feet and filed a provisional application. *See* Resps. Br. at 163 (citing RX-0377C (Penn DWS) at Q/A 10-12; RX-0074). Denovo further argues that it expressly avoided copying GCI's chair. *See id.* (citing Penn Tr. 583-584).

The administrative law judge finds that GCI has not adduced evidence demonstrating that Denovo copied the invention of the '824 patent. GCI cites CX-0079C at 4, reproduced below.



CX-0079C at 4

The administrative law judge finds that this evidence shows that Denovo was aware of the GCI Freestyle Rocker, but the Freestyle Rocker is not one of the '824 GCI products. Hence, even if Denovo had copied the Freestyle Rocker, GCI has not even contended that a nexus exists between the GCI Freestyle Rocker and the claims of the '824 patent.

* * *

Accordingly, the administrative law judge finds that there is no evidence of secondary considerations that tends to support non-obviousness of the claims of the '824 patent.

I. Invalidity Under 35 U.S.C. § 112

Denovo contends the asserted claims of the '824 patent are invalid for failure to comply with the requirements under 35 U.S.C. § 112. *See* Resps. Br. at 61.[12] Denovo argues the

[12] Although respondents mentioned possible indefiniteness or lack of enablement in their main posthearing brief, only alleged lack of written description is presented in any detail as an

following limitations lack sufficient written description: "adapted for contacting the ground surface" (claims 1 and 10); "at least one transversely extending connector mechanism" (claim 18); and "a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies" (claim 19). *See id.*

1. "adapted for contacting the ground surface" (claims 1 and 10)

Denovo argues, in part:

> Claims 1 and 10 are invalid for lack of written description. 35 U.S.C. § 112. These claims require that the terminal end of the fulcrum member "be adapted for contacting the ground surface." The fulcrum point 154 illustrated in Figure 9 appears to be a circular piece. No other description of this fulcrum point appears anywhere in the patent. Because there is no written description for the full scope of this term, as asserted by GCI to somehow cover a two-piece foot member having a flat bottom, where the alleged fulcrum point does not come in contact with the ground, if GCI's assertion is accepted, the patent fails to inform a POSA, with reasonable certainty, about such a scope of the invention, nor enable it. RX-0489C, Q&A 59 & 60.

Resps. Br. at 61.

GCI argues, in part:

> The specification plainly describes what it means to be "adapted for contacting the ground surface." JX-0001 ('824 Patent) at 9:52-54 ("The chair frame 12 is generally adapted to rest on a generally horizontally oriented supporting surface, such as a floor or the ground, in a set-up condition."). Further, as explained by Mr. Smith, the specification discloses embodiments in which the terminal end touches the ground directly, and others in which it does so indirectly through a foot or runner. CX-0464C (Smith RWS) at Q/A 297; JX-0001 ('824 Patent) at 8:1-2, 11:50-56. Thus, a POSITA would understand that the terminal end must be near the ground surface, so it can contact it either directly or indirectly through a support structure. CX-0464C (Smith RWS) at Q/A 297.
>
> * * *
>
> [A] POSITA would understand that the "ground surface" is simply the surface on

affirmative defense. *See* Resps. Br. at 61-63 ("Claims 1 and 10 are invalid for lack of written description. 35 U.S.C. § 112.").

> which a chair sits when set-up. CX-0464C (Smith RWS) at Q/A 89. Indeed, Denovo's own expert admits as much. *See* Tr. (Babcock) at 639:12-15. Accordingly, no antecedent basis is required. *See Bose Corp. v. JBL, Inc.*, 274 F.3d 1354, 1359 (Fed. Cir. 2001) ("[T]he failure to provide explicit antecedent basis for terms does not always render a claim indefinite. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite." (quotation omitted)).

Compl. Br. at 85-86 (footnote omitted).

The administrative law judge finds that there is adequate written description support for the term "adapted for contacting the ground surface."

Denovo's argument conflates grounds of possible invalidity. For example, Denovo argues, "Because there is no ***written description*** for the full scope of this term, as asserted by GCI to somehow cover a two-piece foot member having a flat bottom, where the alleged fulcrum point does not come in contact with the ground, if GCI's assertion is accepted, the patent fails to inform a POSA, with ***reasonable certainty***, about such ***a scope of the invention***, nor ***enable it***." Resps. Br. at 61 (emphasis added).

The test for sufficiency of a written description is "whether the disclosure of the application relied upon reasonable conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 670 F.3d 1171, 1188 (Fed. Cir. 2012) (quoting *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*)). The enablement requirement is satisfied when one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation. *AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1244 (Fed. Cir. 2003), citing *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

As an initial matter, both experts opining on the '824 patent agree on the plain and ordinary meaning of "ground surface": the surface on which the chair would sit. *See* CX-0464C

(Smith RWS) at Q/A 297; Babcock Tr. 639 ("Q. Can you answer, would you agree that the plain and ordinary meaning of 'ground surface' is the surface on which the chair would sit? Yes or no? A. Yes."). One of ordinary skill in the art would understand that the "ground surface" is the surface on which the chair sits. *See* CX-0464C (Smith RWS) at Q/A 89.

The specification provides multiple examples demonstrating that the chair frame, including a fulcrum member defining a fulcrum point at a terminal end thereof adapted for contacting the ground surface, is designed to stably rest on the ground surface below the chair. *See* JX-0001 ('824 patent) at col. 9, lns. 52-54 ("The chair frame 12 is generally adapted to rest on a generally horizontally oriented supporting surface, such as a floor or the ground, in a set-up condition."); *id.* at col. 11, lns. 50-53 ("Each side frame assembly 120 further includes a fulcrum point 154 provided on a frame member 155 extending from an intermediate point on the rear leg 128 to the ground or support surface on which the set-up chair 110 rests.").

As noted above, the claim term "adapted for contacting the ground surface upon which the chair sits in a set-up condition" means "terminal end touches the ground surface (not a part of the chair) in the set-up condition." Inasmuch as the claim term lends itself to this construction, one of ordinary skill in the art would understand the scope of "adapted for contacting the ground surface" with reasonable certainty.

2. "at least one transversely extending connector mechanism" (claim 18)

Denovo argues, in part:

> Claim 18 requires that the side frame assemblies be connected by "at least one transversely extending connector mechanism." This term is found nowhere in the '824 patent other than in claim 18. RX-0489C, Q&A 61. Claim 18 is not an originally filed claim (*compare* JX-0001 at claim 18 *with* JX-0003 at JX-0003.0026-0030) and thus cannot, itself, provide written description support. *Turbocare Division of Demag Delaval Turbomachinery Corp. v. General Electric*

> *Co.*, 264 F.3d 1111, 1118 (Fed. Cir. 2001); *Mentor Graphics Corp. v. EVE-USA, Inc.*, 851 F.3d 1275, 1297 (Fed. Cir. 2017). Accordingly, it does not reasonably convey to a POSA that the inventor had possession of the claimed subject matter as of the filing date. *See* RX-0489C, Q&A 59.

Resps. Br. at 62.

GCI argues, in part:

> The disclosure of the '824 Patent clearly conveys to a POSITA the meaning of "at least one transversely extending connector mechanism" (claim 18). *See* CX-0464C (Smith RWS) at Q/A 301. Denovo does not genuinely dispute this fact. Instead, it argues that this term does not appear verbatim outside of the claims in the '824 Patent. RPreHB at 50.

Compl. Br. at 86-87.

The specification of the '824 patent describes transversely extending members that connect the side frame assemblies. *See, e.g.,* JX-0001 ('824 patent) at col. 3, lns. 29-34, col. 8, ln. 39 -col. 9, ln. 14, col. 9, lns. 43-48; Figures 1, 2-7.

The administrative law judge finds that the specification of the '824 patent provides sufficient written description for the term "at least one transversely extending connector mechanism." *See Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1345 (Fed. Cir. 2016) ("[W]hen examining the written description for support for the claimed invention, we have held that the exact terms appearing in the claim 'need not be used *in haec verba.*'"); *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682 (Fed. Cir. 2015) ("The test for the sufficiency of the written description is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.").

Transversely extending members that connect the side frame assemblies are described in the specification of the '824 patent. For example, the specification recites: "[T]he chair also

includes cross members that connect the left and right frame side assemblies." JX-0001 ('824 patent) at col. 3, lns. 29-31. The specification further recites: "The cross members are pivotally connected to one another as well as to the left and right frame side assemblies." *Id.* at col. 3, lns. 32-34.

3. "a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies" (claim 19)

Denovo argues, in part:

> Claim 19 depends from claim 18 and further limits the claim term "connector mechanism" to being "a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies." It is not clear from the '824 patent or its prosecution history whether the "connector mechanism" in claim 19 refers back to the "at least one transversely extending connector mechanism" in claim 18 or if there is some other "connector mechanism" to which it is referring. RX-0489C, Q&A 61. On their face, they are two different claim terms. The specification does not support this claim term, rendering claim 19 invalid.
>
> Further, there is no support for "a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies." This element is only present in the claims of the '824 patent. In addition, the chair in Figs. 2-7 and its description are not relevant to informing or disclosing an embodiment of claims 10, 18, and 19. Hence, there is no written description in the specification that supports claim 19. RX-0489C, Q&A 61.

Resps. Br. at 62-63.

GCI argues, in part:

> Denovo asserts that the term "connector mechanism" in claim 19 does not appear in claim 18 (the claim from which claim 19 depends), claim 10 (the claim from which claim 18 depends), or the specification. That is plainly false. Claim 18 reads: "The collapsible and portable rocking chair according to claim 10, wherein the side frame assemblies are interconnected by at least one transversely extending connector mechanism." JX-0001 ('824 Patent) at 16:5-9 (emphasis added). Claim 19 reads: "The collapsible and portable rocking chair according to claim 18, wherein the connector mechanism comprises a pair of connector members pivotally

> connected to each other...." *Id.* at 16:9-12 (emphasis added). There is no ambiguity in that language: "the connector mechanism" recited in claim 19 is the same "connector mechanism" recited in claim 18. CX-0464C (Smith RWS) at Q/A 303. A POSITA would understand that claim 19 simply adds limitations to the connector mechanism described in claim 18. *Id.*
>
> * * *
>
> Denovo next contends that the '824 Patent does not describe "a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies." Again, Denovo is wrong. . . .
>
> Denovo agrees (as it must) that the "cross members" (item 56 in the image above) describe the claimed pair of connector members and that a POSITA reading the specification would understand this phrase. *See* RX-0489C (Babcock DWS) at Q/A 61; Tr. (Babcock) at 657:5-10. Undeterred, it argues that the term lacks written description simply because the cross members are not visible in the illustration of Figure 9. *See id.*

Compl. Br. at 87-89 (footnotes omitted).

The administrative law judge finds that there is no ambiguity in the limitation "connector mechanism": "the connector mechanism" recited in claim 19 is the same "connector mechanism" recited in claim 18. *See* CX-0464C (Smith RWS) at Q/A 303. One of ordinary skill in the art would understand that claim 19 simply adds limitations to the connector mechanism described in claim 18.

Regarding the "pair of connector members", the specification describes such a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies. *See* JX-0001 ('824 patent) at col. 2, lns. 6-9, col. 8, ln. 39 – col. 9, ln. 14; Figures 2, 4, 7 (*e.g.*, item numbers 56, 58, 60, and 62)); CX-0464C (Smith RWS) at Q/A 303. The "pair of connector members" 56 are shown in Figure 2, reproduced below.

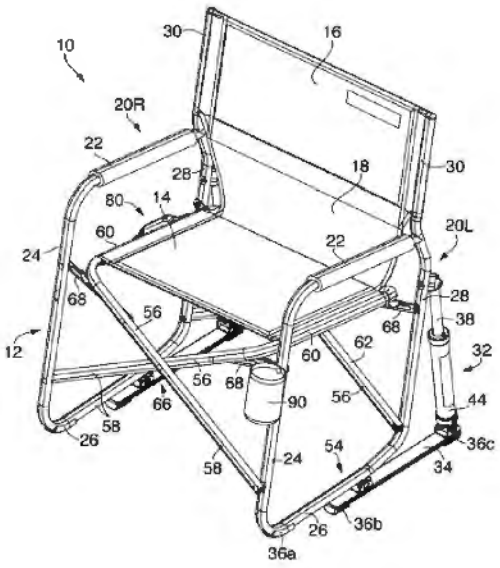


FIG. 2 of JX-0001 ('824 patent)

Denovo argues that there is no written description in the specification that supports claim 19 because the chair in Figs. 2-7 and its description are not relevant to informing or disclosing an embodiment of claims 10, 18, and 19. *See* Resps. Br. at 63. However, "[t]he court must always read the claims in view of the full specification." *See SanDisk Corp. v. Memorex Products, Inc.*, 415 F.3d 1278, 1285 (Fed. Cir. 2005). As indicated above, the specification of the '824 patent discloses a pair of connector members pivotally connected to each other at a respective intermediate portion thereof about a pivot axis and pivotally connected at terminal extremities thereof to each of the side frame assemblies. *See, e.g.*, JX-0001 ('824 patent) at Fig. 2. Denovo has not shown by clear and convincing evidence that claim 19 lacks sufficient written description.

VI. The '611 Patent

A. Overview of the '611 Patent

Asserted U.S. Patent No. 9,060,611 ("the '611 patent") is titled, "Collapsible and Portable Rocking Chair." JX-0002 ('611 patent). The '611 patent issued on June 23, 2015, and the named inventor is Daniel Grace. *Id.*

GCI asserts independent claims 1 and 14 and dependent claims 2, 8, 10, 11, 15 and 19 of the '611 patent. These claims read as follows:

> 1. A collapsible and portable rocking chair comprising:
>
> a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another, each frame side assembly including a front leg portion and a rear leg portion;
>
> a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another, said cross members collectively defining a seat support when in the open condition,
>
> each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies;
>
> a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition;
>
> a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions; and
>
> at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions;

wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair.

2. The collapsible and portable rocking chair according to claim 1, wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up.

8. The collapsible and portable rocking chair according to claim 1,

wherein the rocker mechanism is attached to at least one of the front leg portion and

the rear leg portion of each side frame assembly.

10. The collapsible and portable rocking chair according to claim 1, wherein each cross member includes a front portion, a central front-back portion, and a rear portion, such that the front portions of the pair of cross members are pivotally connected at a front pivot point, the rear portions of the pair of cross members are pivotally connected at a rear pivot point, and the central front-back portions collectively define the seat support of the chair and receive the flexible seat panel therebetween for supported a seated user.

11. The collapsible and portable rocking chair according to claim 10, further comprising:

a forward support brace connected between the front portion of each cross member and the front leg portion of the frame side assembly to which the cross member is not pivotally connected at the terminal end thereof; and

a rear support brace connected between the rear portion of each cross member and the rear leg portion of said frame side assembly.

14. A collapsible and portable rocking chair comprising:

a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another, each frame side assembly including a front leg portion and a rear leg portion;

a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions whereby the front and rear leg portions move relative to the support

surface on which the chair is set up with movement of the chair frame about the fulcrum points;

a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another, said cross members collectively defining a seat support when in the open condition,

each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies;

a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition;

a first foot associated with the front leg portion of each frame side assembly;

a second foot associated with the rear leg portion of each frame side assembly; and

a third foot associated with the fulcrum point of each frame side assembly;

wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame.

15. The collapsible and portable rocking chair according to claim 14, further comprising at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between the forward and rearward positions.

19. The collapsible and portable rocking chair according to claim 15, wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly.

Id. at col. 13, ln. 52 – col. 14, ln. 21; col. 14, lns. 55-59; col. 15, lns. 1-23; col. 15, ln. 30 – col. 16, ln. 20; col. 16, lns. 44-47.

GCI relies on claims 1, 2 and 8 of the '611 patent to satisfy the technical prong of the domestic industry requirement.

B. Claim Construction

1. Level of Ordinary Skill in the Art

GCI contends a person of ordinary skill in the art for both the '824 and the '611 patents has a bachelor's degree in mechanical engineering or a similar field, along with at least two years of experience in the furniture industry, though additional education could substitute for less experience, and vice versa. *See* Compl. Br. at 8-9. For the '611 patent, respondents argue:

> [A] person of ordinary skill in the art ("POSA") with respect to the '611 patent would be aware of all pertinent art, think consistent with conventional wisdom in the art, and be a person of ordinary creativity; or have a bachelor's degree in Engineering or Mechanics and one year of industry experience; or an associate's degree in technology and three years of industry experience; or four years of industry experience in the field of mechanical products or collapsible furniture.

Id. at 63.

The administrative law judge adopts GCI's proposal, which is that a person of ordinary skill in the art for both the '824 and the '611 patents has a bachelor's degree in mechanical engineering or a similar field, along with at least two years of experience in the furniture industry, though additional education could substitute for less experience, and vice versa. This is in accordance with the education level of the inventor, Mr. Daniel Grace. *See* CX-0002C (Smith DWS) at Q/A 232. Moreover, others of ordinary skill in the art have this level of education and experience. *See id.* Respondents' experts did not provide substantive explanation justifying their alternative proposals. *See* RX-0121C (Cameron DWS) at Q/A 19-21; RX-119C (Lee DWS) at Q/A 40; RX-0392C (Howle RWS) at Q/A 40.

2. Disputed Constructions[13]

a. "fulcrum point" (claims 1 and 14)

Claim Term/Phrase	GCI's Construction	Westfield's Proposed Construction	MacSports's Proposed Construction[14]
fulcrum point	A point on which a chair frame is supported and about which the chair frame pivots.	Point (i.e. axis of rotation) about which the chair frame rotates and is supported.	An independent pivot, pin, axle or other structure.

The claim term "fulcrum point" appears in independent claims 1 and 14 of the '611 patent. JX-0002 ('611 patent) at col. 13, ln. 52 – col. 14, ln. 17; col. 15, ln. 30 – col. 16, ln. 15.

GCI argues, in part:

> GCI's construction is consistent with both the claim language and specification, and it should be adopted. For example, both the claims and specification state that the fulcrum point is "a point on which a chair frame is supported." *See, e.g.*, JX-0001 ('824 Patent) at cl. 1 ("a fulcrum point at a terminal end thereof ... for supporting the chair frame"), 3:45-47 ("In preferred embodiments of the rocking chair, each frame side assembly is supported on a fulcrum point ...."), 4:38-40 ("The chair further comprises a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions ...."). The patent also states that the frame's movement about a fulcrum point is a pivoting motion. *See id.* at 11:10-13 ("fulcrum pivot point"), 8:1-32 ("pivoting is what causes the chair 10 to rock"). Denovo's expert Dr. Babcock confirmed that "the plain and ordinary meaning of 'fulcrum point' to an engineer

[13] This initial determination addresses only the disputed claim terms identified by the parties as needing construction. *See* Comprehensive Joint Outline of Issues (EDIS Doc. No. 728207) ("GR11 Filing"). The parties identified the claim terms for construction in a joint filing required by Ground Rule 11, which provides: "On the same day the initial posthearing briefs are due, the parties shall file a comprehensive joint outline of all of the issues, including sub-issues, to be decided in the final Initial Determination. Exemplary issues and sub-issues include . . . disputed claim terms (The claim terms briefed by the parties must be identical. . .)." Ground Rule 11 (emphasis original) (attached to Order No. 2 (Ground Rules)).

[14] MacSports and Westfield each proposed constructions of certain terms, and MacSports proposed constructions for certain other terms. *See* Resps. Br. at 64-68. Hence, for any given term of the '611 patent, only MacSports may have offered constructions on the side of respondents. *See id.*

is the point about which something pivots." Tr. (Babcock) at 639:16-19.

. . .

MacSports's proposal is likewise flawed. *See* Tr. (Lee) at 469:12-16 (confirming the lack of intrinsic evidence in support of MacSports's construction). It construes the fulcrum point as "an independent pivot, pin, axel [sic] or other structure." A POSITA would understand, however, that fulcrums are commonly points of a triangle without a pin, axle, or other structure. *See id.* at Q/A 67 (citing CX-0441; CX-0442). Indeed, when discussing Figure 9, the specification discloses a fulcrum point that has no pin, axle, or similar structure. *See* JX-0001 ('824 Patent) at 11:50-53, Fig. 9; *see also* CX-0464C (Smith RWS) at Q/A 67. MacSports also contends that a fulcrum point cannot support a chair frame by itself, but GCI's construction is not so limited. *See* CX-0464C (Smith RWS) at Q/A 70. As explained, the claim language and specification demonstrate that the fulcrum point along with other structures supports the chair frame. *See* JX-0002 ('611 Patent) (claim 1 ("at least one rocker mechanism ... for supporting the chair during movement of the chair frame between said forward and rearward positions")).

Finally, Westfield proposes construing the fulcrum point as an "axis of rotation." But as explained, construing the fulcrum point as a "pivot," rather than in terms of rotation, comports with the plain meaning of this claim language as well as the teachings of the specification. MacSports's non-infringement expert, Dr. Howle, confirmed that the '611 Patent "never mentions an axle being a fulcrum point" or "use[s] the word axle at all." Tr. (Howle) at 442:1-7.

Compl. Br. at 19-20 (footnote omitted).

Respondents argue, in part:

Westfield's position: The term fulcrum point is used in the '611 patent in a manner consistent with the plain and ordinary meaning of "fulcrum," only located at a point. *See* RX-0134; RX-0135; RX-0136; JX-0002 at abstract, 3:42-66, 4:1-5:7, 7:65-8:35, 9:50-67, 10:6-11:54, & figs. 2-9. Thus, the proper construction is a "point (i.e. axis of rotation) about which the chair frame rotates and is supported."

MacSports' position: MacSports contends "fulcrum point" should mean "an independent pivot, pin, axle or other structure." RX-0305, Attachment A at 1. A fulcrum point, to a POSA, is simply a point at which something pivots or rotates. RX-0119C, Q&A 54. There must be something at that point, like a pin, axel, or other structure, to pivot. *Id.*

Resps. Br. at 64.

It is determined that the claim term "fulcrum point" means "a point on which a chair frame is supported and about which the chair frame pivots." Both the claims and specification state that the fulcrum point is "a point on which a chair frame is supported." *See, e.g.*, JX-0002 ('611 patent) at cl. 1 ("a fulcrum point supporting the chair frame"), col. 4, lns. 35-37 ("The chair further comprises a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions . . .").

Westfield proposes construing the fulcrum point as an "axis of rotation." However, construing the fulcrum point as a "pivot," rather than in terms of rotation, comports with the plain meaning of this claim language as well as the teachings of the specification.

MacSports construes the fulcrum point as "an independent pivot, pin, axle or other structure." One of ordinary skill in the art would understand, however, that fulcrums are commonly points of a triangle without a pin, axle, or other structure. *See* CX-0464C (Smith RWS) at Q/A 67 (citing CX-0441; CX-0442). Moreover, in the context of Figure 9, the specification discloses a fulcrum point that has no pin, axle, or similar structure. *See* JX-0002 ('611 patent) at col. 11, lns. 51-54, Fig. 9.

b. "rocker mechanism" (claim 1) / "rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions" (claim 14)

Claim Term/Phrase	GCI's Construction	Westfield and MacSports's Construction
rocker mechanism / rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame	Construed pursuant to 35 U.S.C. § 112(f): The function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." The	Construed pursuant to 35 U.S.C. § 112(f): The function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward

between said forward and rearward positions	means/structure described in the specification are set forth in 3:55-4:11, 6:56-64, 7:42-64, 11:17-32, 11:55-12:27, and Figs. 2, 6, and 9 of the '611 patent.	positions." The means/structure described in the specification are set forth in column 11 lines 17 through 32.

The claim term "rocker mechanism" appears in independent claim 1 of the '611 patent. JX-0002 ('611 patent) at col. 13, ln. 52 – col. 14, ln. 17. The claim term "rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions" appears in independent claim 14 of the '611 patent. *Id.* at col. 15, ln. 30 – col. 16, ln. 15.

GCI argues, in part:

> The ALJ should construe the structure corresponding to the claimed "rocker mechanism" to include the following portions of the specification: 3:55-4:11, 6:56-64, 7:42-64, 11:17-32, 11:55-12:27, and FIGS. 2, 6, and 9.
>
> Respondents Westfield and MacSports contend that this term should be construed pursuant to 35 U.S.C. § 112(f). For purposes of streamlining the issues in dispute, GCI has agreed to apply 35 U.S.C. § 112(f) to this term in order to facilitate an infringement determination in view of the evidentiary record. In doing so, GCI agrees to Respondents' proposed function – namely, "for supporting the chair during movement of the chair frame between said forward and rearward positions." GCI does not, however, agree to Respondents' proposed structure, which is too limited and improperly omits disclosed structural embodiments for the recited rocker mechanism.
>
> Properly determining corresponding structure requires looking to the entire specification. *Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369, 1379 (Fed. Cir. 2001). "When multiple embodiments in the specification correspond to the claimed function, proper application of § 112, ¶ 6 generally reads the claim element to embrace each of those embodiments." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999). The construction of a means-plus-function term must include equivalents of the disclosed structure within its literal scope. 35 U.S.C. § 112(f).
>
> Here, Respondents have not identified each embodiment disclosing structure corresponding to the rocker mechanism function, and instead narrowly focus on only one discussion associated with Figure 6. *See* RPreHB at 54-55. As stated during that discussion, "the rocker mechanism 32 can take a variety of forms

without departing from the spirit and principles of the present invention." JX-0002 ('611 Patent) at 11:18-20.

Indeed, the specification describes a variety of possible structures of the rocker mechanism. CX-0002C (Smith DWS) at Q/A 273-77; CX-0464C (Smith RWS) at Q/A 63-65; JX-0002 ('611 Patent) at 3:55-67 (describing a "rocker mechanism comprising a tubular extension member projecting outwardly and downwardly from the rear of the frame side assemblies and received within a sleeve housing a compression spring to which the tubular extension member is attached"), 4:1-11 (disclosing alternate embodiments in which the rocker mechanism may be provided (i) in connection with the front leg member, either together with or in lieu of a rear rocker mechanism; (ii) in connection with both the front and rear leg members on each side of the chair frame, each positioned about a fulcrum point; or (iii) as "a torsion spring operatively associated with the fulcrum point of each frame side assembly"), 7:42-64 (detailing the structure of alternate designs of a rocker mechanism that "can comprise an axially-elongated tubular member 38 pivotally attached at a first end via a pivot joint 40 and pivot pin 42 to the rear leg portion 28 of the frame loop"), 11:21-25 (describing alternate designs for a rocker mechanism using "torsion springs provided on the lower portion of each frame side assembly"); 11:55-12:27 (describing the structure of the "built in rocker mechanism" included on the front and rear legs of the chair shown in Figure 9), 6:56-64, Fig. 2.

Because each of these embodiments describe structure corresponding to the rocker mechanism, any construction that does not account for all of them, and equivalents thereof, is necessarily incorrect. *See Callicrate v. Wadsworth Mfg., Inc.*, 427 F.3d 1361, 1369 (Fed. Cir. 2005) (district court erred by not accounting for all embodiments of structure in the specification corresponding to the claimed "cutting means").

Accordingly, the ALJ should construe the structure corresponding to the claimed "rocker mechanism" to include the following portions of the specification: 3:55-4:11, 6:56-64, 7:42-64, 11:17-32, 11:55-12:27, and FIGS. 2, 6, and 9.

Compl. Br. at 90-91.

Respondents argue, in part:

GCI previously advocated for a different construction of the "rocker mechanism" terms, but agreed to a § 112(f) construction in its pre-hearing brief. GCI Pre. Br. at 73-75. The only remaining dispute with respect to these "rocker mechanism" terms is what structures are disclosed in the specification. Westfield and MacSports contend the function for "rocker mechanism" is identified in claims 1 and 15 as "for supporting the chair during movement of the chair frame between said forward and rearward positions." The means is described in the specification and shown in Figure 6. JX-0002, 11:17-32, fig. 6; RX-0119C, Q&A 53; *see also* RX-0305, Attachment A at 1.

> GCI faults Respondents for not identifying other sections of the '611 patent's specification where the concept of a "rocker mechanism" is discussed. *See* GCI Pre. Br. at 73-75. But none of these additional sections identify any structure for performing the claimed function of "rocker mechanism" that is not also identified in the sections cited by Respondents. Tellingly, neither GCI nor Mr. Smith provides any arguments or opinions on invalidity, infringement, or technical domestic industry referencing GCI's added sections of the specification. So, in addition to lacking merit, GCI's criticism is merely academic and devoid of relevance to the issues in this Investigation.

Resps. Br. at 65-66.

As agreed to by the parties, "rocker mechanism" and "rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions" are both construed pursuant to 35 U.S.C. § 112(f), and the function is identified in claim 1 as "for supporting the chair during movement of the chair frame between said forward and rearward positions."[15] As proposed by GCI, it is determined that the structure corresponding to the claimed "rocker mechanism" includes the following portions of the specification: col. 3, ln. 55 – col. 4, ln. 11, col 6, lns. 56-64, col. 7, lns. 42-64, col. 11, lns. 17-32, col. 11, ln. 55 – col. 12, ln. 27, and FIGS. 2, 6, and 9. "When multiple embodiments in the specification correspond to the claimed function, proper application of § 112, ¶ 6 generally reads the claim element to embrace each of those embodiments." *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999). Inasmuch as the specification describes a variety of possible structures of the rocker mechanism, the administrative law judge finds that the claim element embraces each of these embodiments. CX-0002C (Smith DWS) at Q/A 273-

[15] The Patent Act recites: "An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. § 112(f).

77; CX-0464C (Smith RWS) at Q/A 63-65; JX-0002 ('611 Patent) at col. 3, lns. 55-67; *id.* at col. 4, lns. 1-11.

c. "a [first] / [second] foot associated with the [front] / [rear] leg portion of each frame side assembly" (claim 14)

Claim Term/Phrase	GCI's Construction	MacSports's Construction
a [first] / [second] foot associated with the [front] / [rear] leg portion of each frame side assembly	A contact at the lower portion of each side of a chair frame, each corresponding to a portion of the chair frame supporting a [forward] / [rearward] portion of the chair frame.	A protrusion toward the ground or other support surface from the frame side assembly at or near the [front] / [rear] leg.

The claim terms "a first foot associated with the front leg portion of each frame side assembly" and "a second foot associated with the rear leg portion of each frame side assembly" appear in independent claim 14 of the '611 patent. JX-0002 ('611 patent) at col. 15, ln. 30 – col. 16, ln. 15.

GCI argues, in part:

> The issue in dispute is whether the claimed "foot" must protrude toward the ground. Neither the claim language nor the specification supports such a narrowing construction.
>
> All parties agree that the first foot and second foot should be capable of contacting or touching the ground. The parties also agree that the first foot should be at or near the front leg (or supporting a forward portion of the chair frame), and that the second foot should be at or near the rear leg (or supporting a rearward portion of the chair frame). CX-0464C (Smith RWS) at Q/A 72, 75.
>
> MacSports's proposed requirement that the feet protrude toward the ground, however, is divorced from the patent. In the context of the patent, the feet are clearly described as acting as contact points between the chair and the ground or support surface on which the chair is placed for use. JX-0002 ('611 Patent) at 7:7-19 ("By maintaining more than one contact point, the stability and safety of the chair 10 is improved."); 9:50-67. No claim language suggests that a protrusion is required. CX-0464C (Smith RWS) at Q/A 73, 76. MacSports cannot point to a single portion of the specification that supports its position—indeed, the word *protrusion* does not appear in the '611 Patent at all.

With no support in the patent, MacSports resorts to arguing that a foot should "implicitly" be capable of touching a support surface, and hence require a protrusion. *See* RPreHB at 57-58. But a POSITA would understand that there are many non-protruding configurations of the claimed feet that still would be capable of contacting the ground surface. *See* CX-0464C (Smith RWS) at Q/A 73, 76. Indeed, MacSports's expert, Dr. Lee, agrees with Mr. Smith on this crucial point. Tr. (Lee) at 470:11-19. Figure 3 of the '611 Patent discloses one such configuration, where first foot 36a (in orange), second foot 36b (in red), and third foot 36c (in blue) touch the ground without protruding toward it:

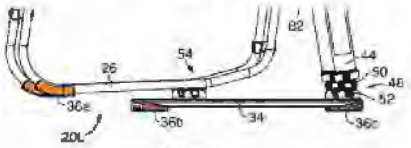


FIG. 3

CDX-0354

In sum, MacSports is attempting to import an additional limitation into the claim—requiring that a foot be a protrusion—without any support in the intrinsic or extrinsic record. The ALJ should accordingly decline this invitation to narrow the scope of the plain claim language.

Compl. Br. at 92-93.

Respondents argue, in part:

MacSports contends [the phrase "a first foot associated with the front leg portion of each frame side assembly"] means "a protrusion toward the ground or other support surface from the frame side assembly at or near the front leg." RX-0305, Attachment A at 2. A "foot" implicitly should be capable of touching a support surface; hence, a protrusion toward the ground or other support surface. RX-0119C, Q&A 55. The claim language, itself, directly associates the first foot (or protrusion) "with the front leg portion of each frame side assembly." *Id.*

GCI's proposed construction ignores recitations in the claim and is ambiguous. RX-0119C, Q&A 55. For example, a "forward portion of the chair frame" could mean any part of the front half of the chair frame, but the claim language indicates that a first foot must be associated with a front leg portion. RX-0119C, Q&A 55. Moreover, the word "contact" implies that one or more objects are touching or contacting each other, but there is no direct requirement for that in this claim phrase. RX-0119C, Q&A 55. Finally, there is no requirement in the claim language for the purported "contact" (or first foot) to be "at the lower portion of each side of a chair frame" as GCI contends. RX-0119C, Q&A 55. The ALJ should adopt MacSports' constmction and reject GCI's flawed proposal for "a first foot."

* * *

> MacSports contends [the phrase "a second foot associated with the rear leg portion of each frame side assembly"] means "a protrusion toward the ground or other support surface from the frame side assembly at or near the rear leg." RX-0305, Attachment A at 2. Again, any "foot" implicitly should be capable of touching a support surface; hence, a protrusion toward the ground or other support surface. RX-0119C, Q&A 56. The claim language itself directly associates the second foot (or protrusion) with the rear leg portion of each frame side assembly. *Id.*
>
> GCI's proposed construction again ignores recitations in the claim and is ambiguous. RX-0119C, Q&A 56. For example, a "rearward portion of the chair frame" could mean any part of the rear half of the chair frame, but the claim language indicates a second foot must be associated with a rear leg portion. *Id.* Moreover, the word "contact" implies that one or more objects are touching or contacting each other, but there is no direct requirement for that in this claim phrase. *Id.* Finally, there is no requirement in the claim language for the purported "contact" (or second foot) to be "at the lower portion of each side of a chair frame" as GCI contends. *Id.* Because of these flaws, the ALJ should adopt MacSports' proposed construction.

Resps. Br. at 66-67.

As proposed by GCI, it is determined that the claim term "a [first] / [second] foot associated with the [front] / [rear] leg portion of each frame side assembly" means "a contact at the lower portion of each side of a chair frame, each corresponding to a portion of the chair frame supporting a [forward] / [rearward] portion of the chair frame." Indeed, MacSports's proposed construction introduces additional limitations that are not required by the intrinsic evidence.

No claim language suggests that a protrusion is required, CX-0464C (Smith RWS) at Q/A 73, 76, and the word "protrusion" does not appear in the '611 patent. Moreover, the specification of the '611 patent teaches that the feet of the chair serve as contact points for the stability of the chair. *See* JX-0002 ('611 Patent) at col. 7, lns. 7-19 ("By maintaining more than one contact point, the stability and safety of the chair 10 is improved."); col. 9, lns. 50-67.

d. "a third foot associated with the fulcrum point of each frame side assembly" (claim 14)

Claim Term/Phrase	GCI's Construction	MacSports's Construction
a third foot associated with the fulcrum point of each frame side assembly	A contact at the lower portion of each side of a chair frame, each corresponding to a point on which the chair frame is supported and about which the chair frame pivots.	A protrusion toward the ground or other support surface from the frame side assembly near the fulcrum point.

The claim term "a third foot associated with the fulcrum point of each frame side assembly" appears in independent claim 14 of the '611 patent. JX-0002 ('611 patent) at col. 15, ln. 30 – col. 16, ln. 15.

GCI argues, in part:

> As with the previous term, the parties dispute whether the claimed "third foot" must protrude toward the ground. The only difference here is that the third foot is associated with the fulcrum point, rather than the front or rear legs. Because the location of the foot is immaterial to the parties' dispute, GCI's construction of "third foot" is correct for the same reasons as its constructions of "first foot" and "second foot."
>
> Indeed, just as it does for the first and second feet, Figure 3 depicts a foot 36b (shown in red in the image above) associated with the fulcrum 54 and positioned to touch the ground without protruding toward it. *See* JX-0002 ('611 Patent) at 6:64-67, 7:22-24, 7:65-66, FIG. 3; CX-0464C (Smith RWS) at Q/A 77-79. Therefore, Respondents' claim construction cannot be correct. *See Duncan Parking Techs., Inc. v. IPS Grp., Inc.*, 914 F.3d 1347, 1364 (Fed. Cir. 2019) ("[A] claim construction that excludes the preferred embodiment is highly disfavored.") (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996) (holding that a claim construction that excludes the preferred embodiment is "rarely, if ever, correct and would require highly persuasive evidentiary support.")).

Compl. Br. at 93-94.

Respondents argue, in part:

> MacSports contends [the phrase "a third foot associated with the fulcrum point of each frame side assembly"] means "a protrusion toward the ground or other support surface from the frame side assembly near the fulcrum point." RX-0305, Attachment A at 2-3. Again, a "foot" implicitly should be capable of touching a support surface; hence, a protrusion toward the ground or other support surface.

> RX-0119C, Q&A 57. The claim language itself directly associates the third foot (or protrusion) with the fulcrum point of each frame side assembly. *Id.*
>
> Here again, GCI's proposed construction ignores recitations in the claim and is ambiguous. RX-0119C, Q&A 57 For example, the word "contact" implies that one or more objects are touching or contacting each other, but there is no direct requirement for that in this claim phrase. *Id.* Moreover, there is no requirement in the claim language for the purported "contact" (or third foot) to be "at the lower portion of each side of a chair frame" as GCI contends. *Id.* Further, GCI's construction apparently pulls in other claim elements to interpret this claim phrase. As with the claim phrase "fulcrum point," a POSA would not understand that a "third foot associated with the fulcrum point," alone, to necessarily support a chair frame. *Id.* The ALJ should not adopt GCI's construction because it attempts to add three additional requirements (e.g., one or more objects are touching, contact to be at the lower portion of each side of a chair frame, and a point on which the chair frame is supported) to this claim phrase.

Resps. Br. at 67-68.

As proposed by GCI, it is determined that the claim term "a third foot associated with the fulcrum point of each frame side assembly" means "a contact at the lower portion of each side of a chair frame, each corresponding to a point on which the chair frame is supported and about which the chair frame pivots." This construction comports with the plain meaning of the claim language, and the disclosures in the specification. Indeed, MacSports's proposed construction introduces additional limitations that are not required by the intrinsic evidence.

As discussed above with reference to the first and second feet, no claim language suggests that a protrusion is required, CX-0464C (Smith RWS) at Q/A 73, 76, and the word "protrusion" does not appear in the '611 patent. Moreover, the specification of the '611 patent teaches that the feet of the chair serve as contact points for the stability of the chair. *See* JX-0002 ('611 patent) at col. 7, lns. 7-19 ("By maintaining more than one contact point, the stability and safety of the chair 10 is improved."); col. 9, lns. 50-67.

e. "wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame" (claim 14)

Claim Term/Phrase	GCI's Construction	MacSports's Construction
wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame	Of three contact surfaces at the lower portion of each side of the chair frame, at least two of said contact surfaces touch the surface on which the chair frame sits in its set-up condition at any position of the chair frame during rocking motion of the chair frame.	At least two feet must always be in contact with the ground or other support surface.

The claim term "wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame" appears in independent claim 14 of the '611 patent. JX-0002 ('611 patent) at col. 15, ln. 30 – col. 16, ln. 15.

GCI argues, in part:

> The only substantive difference in the parties' proposals for this recitation is the construction of the first, second, and third feet. For the reasons discussed already, there is no basis to require the feet to protrude toward the ground. The ALJ should therefore adopt GCI's construction.

Compl. Br. at 94.

Respondents argue, in part:

> MacSports contends this phrase means "at least two feet must always be in contact with the ground or other support surface." RX-0305, Attachment A at 4. This construction is the plain meaning of this oddly-worded claim. RX-0119C, Q&A 58.
>
> GCI's proposed construction suffers the same flaws as its proposals for "first foot," "second foot," and "third foot." GCI again introduces the extraneous concept of "at the lower portion of each side of the chair frame" and "contact surfaces" which are nowhere supported in the recited claim language. RX-0119C,

> Q&A 58. Indeed, "contact" and "contact surfaces" are better interpreted as the feet from the prior claim elements. *Id.* For these reasons, MacSports' claim constructions should be accepted.

Resps. Br. at 68.

It is determined that the claim term "wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame" means "at least two of the first, second and third feet must always be in contact with the ground or other support surface." GCI states, "The only substantive difference in the parties' proposals for this recitation is the construction of the first, second, and third feet." Compl. Br. at 94. GCI's proposed construction introduces verbiage that is not supported by the intrinsic record, and is therefore rejected.

f. "a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points" (claim 14)

Claim Term/Phrase	GCI's Construction	Respondents' Construction
a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points	A point on each lateral side of a chair frame, on which the chair frame is supported and about which the chair frame pivots during rocking motion in forward and backward directions, whereby the forward supporting frame members and rearward supporting frame members are not stationary during rocking motion of the chair frame.	None.

The claim term "a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions whereby the front and rear

leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points" appears in independent claim 14 of the '611 patent. JX-0002 ('611 patent) at col. 15, ln. 30 – col. 16, ln. 15.

GCI argues:

> No respondent has proposed a construction for this term. See Joint Claim Construction Statement (EDIS Doc. ID 695324). The first half of GCI's construction incorporates its construction of "fulcrum point," which is correct for the reasons previously discussed in Section V.A.5, supra. The second half simply streamlines the language used to describe the motion of the front and rear portions of the chair frame. The ALJ should thus adopt GCI's uncontested construction.

Compl. Br. at 94.

As noted by GCI, no respondent proposed a construction for this term. *See* Joint Claim Construction Statement (EDIS Doc. ID 695324). Moreover, as GCI also notes, this claim term incorporates its construction of "fulcrum point," discussed above, which has been adopted as the construction of "fulcrum point" for the '611 patent.

As proposed by GCI, it is determined that the claim term "a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points" means "point on each lateral side of a chair frame, on which the chair frame is supported and about which the chair frame pivots during rocking motion in forward and backward directions, whereby the forward supporting frame members and rearward supporting frame members are not stationary during rocking motion of the chair frame."

C. Infringement

1. Claim 1

The MacRocker and the Mulberry Bounce Chair are accused of infringing independent claim 1 of the '611 patent.

a. A collapsible and portable rocking chair comprising:

The MacRocker constitutes "a collapsible and portable rocking chair." CX-0002C (Smith DWS) at Q/A 390-93. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair constitutes "a collapsible and portable rocking chair." CX-0002C (Smith DWS) at Q/A 531-36. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

b. a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another,

The MacRocker satisfies "a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another." CX-0002C (Smith DWS) at Q/A 394-400. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair satisfies "a chair frame comprising a pair of frame side assemblies having substantially mirrored construction and being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another." CX-0002C (Smith DWS) at Q/A 537-51. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

c. each frame side assembly including a front leg portion and a rear leg portion;

The MacRocker satisfies "each frame side assembly including a front leg portion and a rear leg portion." CX-0002C (Smith DWS) at Q/A 401-08. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair satisfies "each frame side assembly including a front leg portion and a rear leg portion." CX-0002C (Smith DWS) at Q/A 552-54. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

d. a pair of generally U-shaped cross members pivotally connected to one another

The MacRocker satisfies "a pair of generally U-shaped cross members pivotally connected to one another." CX-0002C (Smith DWS) at Q/A 409-12. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair satisfies "a pair of generally U-shaped cross members pivotally connected to one another." CX-0002C (Smith DWS) at Q/A 555-58. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

e. for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another,

i. MacSports

The MacRocker satisfies "for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another." CX-0002C (Smith DWS) at Q/A 409-16. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

ii. Westfield

The Mulberry Bounce Chair satisfies "for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another." CX-0002C (Smith DWS) at Q/A 559-65.

GCI argues, in part:

> The Westfield chair satisfies the claim element **"for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another,"** as recited by claim 1 of the '611 Patent. CX-0002C (Smith DWS) at Q/A 559-65. As shown in CDX-0136 and CDX-0137, the pivotal movement of the cross members allows the Mulberry Bounce Chair to move between open/set-up conditions and collapsed/closed conditions. *Id.* at Q/A 560, 563, 565; *see also* CX-0154 (Video); CX-0155 (Video); CX-0156 (Video); CX-0067C (Features Sheet).
>
> The phrase "generally parallel" was never identified as a term needing construction, thus the plain and ordinary meaning of the term as used in the context of the '611 Patent should control. One embodiment disclosed in the '611 Patent is a portable and collapsible rocking chair that can readily be folded and unfolded between a set-up condition for use and a collapsed condition for transportation and storage. JX-0002 ('611 Patent) at 1:13-17; 3:17-22; FIGS. 2, 7.

As described in that embodiment, the chair comprises left and right frame side assemblies that are joined to each other by a pair of movable X-frame connector assemblies to enable, in part, transverse, or left-right, folding of the chair frame. In the set-up condition of the chair (*e.g.*, FIG. 2), the cross members 56 of the connector assemblies generally open into the shape of an "X". *See id.* at 8:56 to 9:1. When the chair is collapsed, "the cross members 56 are pivoted to close the X-frame so that the cross-members 56 are flattened and brought adjacent to one another… the frame side assemblies 20L and 20R are brought inward and adjacent to one another as well." *Id.* at 9:6-11; *see also id.* at 10:25-28 ("[T]he cross members 56 are moved from a relaxed state – where they are disposed adjacent to one another (FIG. 7) – to a set-up state – where they generally form an X-shape with one another (FIG. 2)").

Thus, the claim language "generally parallel" describes the relative relationship of the cross members between the set-up and collapsed conditions – the two main conditions for the chair. And Figure 7 provides illustrative evidence of this relationship – *i.e.*, approaching but not exactly parallel – in comparison with the open, set-up condition of the same cross-members illustrated in Figure 2. *See id.* at 3:32-38; 12:28-39.

Accordingly, a POSITA would readily understand the intended meaning of the phrase "generally parallel" as described in the intrinsic evidence (i.e., specification) and would not interpret "generally parallel relationship" as used in the '611 Patent to require the members to be "perfectly" or "absolutely" parallel. CX-0002C (Smith DWS) at Q/A 562.

Indeed, GCI's expert, Mr. Smith, and MacSports's expert, Dr. Lee, had no difficulties understanding and applying this claim term. CX-0002C (Smith DWS) at Q/A 561-62; Tr. (Smith) at 152:3-8; Tr. (Lee) at 470:20-471:8 (agreeing that a POSITA would be able to understand and apply the term "generally parallel" as used in the '611 Patent), 476:2-477:1 (confirming the dots-dashed illustration in Fig. 3 of RX-0087 (Kundtz) shows members 24 in "generally parallel" position).

Despite stating that "in general, I don't consider lines that intersect to be generally parallel," Tr. (Cameron) at 335:23-25, Westfield's expert nevertheless testified that the intersecting lines shown in CDX-0390 are "generally parallel within the meaning of the '611 Patent," *id.* at 335:18-336:24. Dr. Cameron reached this conclusion without measuring the angle between the intersecting lines in CDX-0390. *Id.* Similar to the intersecting lines shown in CDX-0390, Figure 7 of the '611 Patent depicts an example arrangement of cross members that are "generally parallel" in the same manner as the cross members in the Mulberry Bounce Chair are "generally parallel." CX-0002C (Smith DWS) at Q/A 562; Tr. (Smith) at 151:16-21.

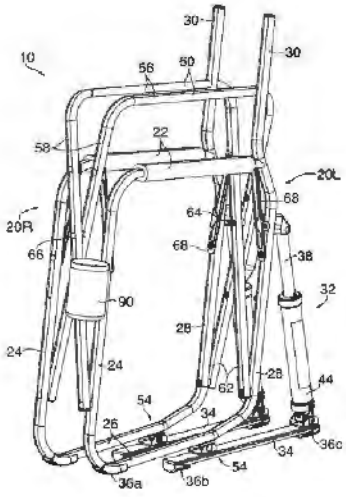


FIG. 7



JX-0002 ('611 Patent) at Fig. 7 **CDX-0137**

Thus, there can be no credible dispute that the Westfield chair meets this limitation.

Compl. Br. at 119-22.

Westfield argues, in part:

> Another independent reason that the WBC does not practice any of the asserted claims is because it does not contain cross members that can be "disposed in generally parallel relationship with one another." RX-0451C at 43-44. Claim 1 of the '611 Patent contains the following limitation:
>
> > a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between an open condition ... and a closed condition wherein said cross members are ***disposed in generally parallel relationship*** with one another
>
> JX-0002 at 13:62-14:1 (emphasis added).
>
> As discussed in Section V.A.2 below, the plain and ordinary meaning of "generally parallel" cannot encompass members that cross one another. Even in its most compact configuration, the WBC's cross members nonetheless still cross one another. RDX-0051 at 6; RPX-0006; RX-0451C at 43-44. Therefore, the WBC's cross members are never "disposed in generally parallel relationship with one another." RX-0451C at 43-46. The WBC thus cannot infringe any of the asserted claims of the '611 Patent.

Resps. Br. at 91-92.

The evidence adduced by GCI shows that the Mulberry Bounce Chair satisfies "for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another." *See* CX-0002C (Smith DWS) at Q/A 559-65. The intrinsic evidence demonstrates that "generally parallel" describes the relative relationship of the cross members between the set-up and collapsed conditions – the two main conditions for the chair. *See* JX-0002 ('611 patent) at col. 9, lns. 6-11; *id.* at col. 10, lns. 25-28 ("[T]he cross members 56 are moved from a relaxed state – where they are disposed adjacent to one another (FIG. 7) – to a set-up state – where they generally form an X-shape with one another (FIG. 2)"). Contrary to Westfield's argument, the claim language does not preclude members that cross one another.

Accordingly, it is determined that the Mulberry Bounce Chair satisfies this claim limitation.

f. said cross members collectively defining a seat support when in the open condition,

The MacRocker satisfies "a pair of generally U-shaped cross members pivotally connected to one another." CX-0002C (Smith DWS) at Q/A 417-19. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair satisfies "said cross members collectively defining a seat support when in the open condition." CX-0002C (Smith DWS) at Q/A 566-69. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

g. each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies;

The MacRocker satisfies "each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies." CX-0002C (Smith DWS) at Q/A 420-23. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair satisfies "each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies." CX-0002C (Smith DWS) at Q/A 570-73. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

h. a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition;

The MacRocker includes "a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition." CX-0002C (Smith DWS) at Q/A 424-27. MacSports does not contest that the MacRocker includes this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair includes "a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition." CX-0002C (Smith DWS) at Q/A 574-77. Westfield does not contest that the Mulberry Bounce Chair includes this limitation. *See* Resps. Br. at 72-92.

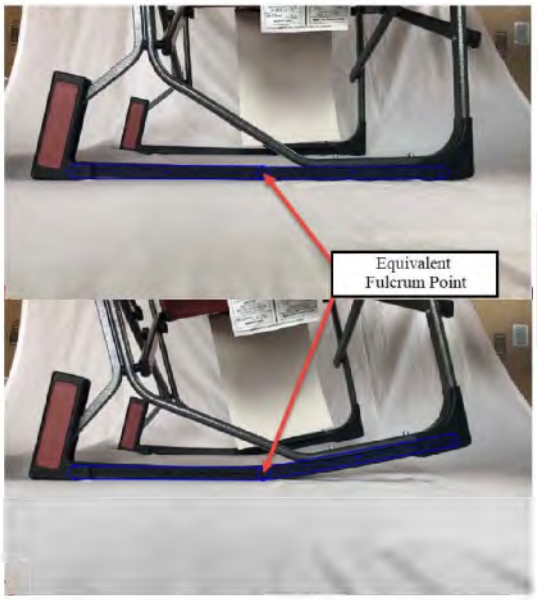
i. a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions;

i. MacSports

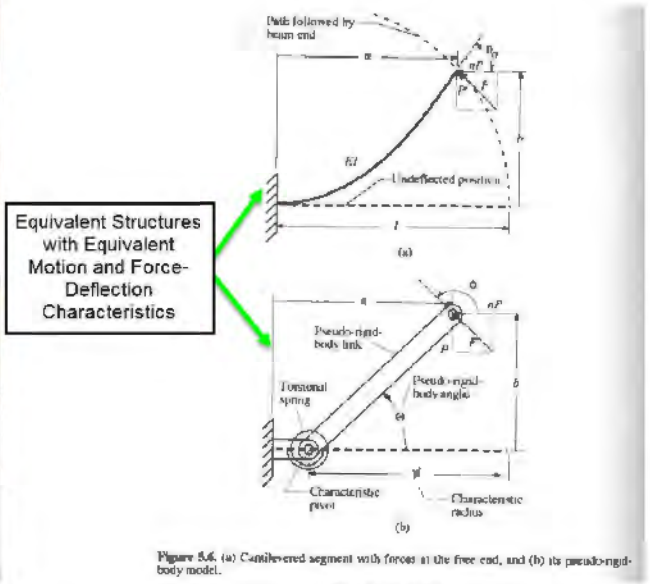
The evidence adduced at the hearing demonstrates that the MacRocker does not include a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions. *See* RX-0392C (Howle RWS) at Q/A 91-100.

GCI argues:

> The MacRocker satisfies the claim element **"a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions,"** as recited by claim 1 of the '611 Patent under the doctrine of equivalents. CX-0002C (Smith DWS) at Q/A 428-33; 636-64.
>
> As shown in the engineering literature and explained by Mr. Smith, who has extensive experience researching and designing products with compliant mechanisms, the PRBM [pseudo-rigid body model] "shows there are insubstantial differences between the claimed fulcrum point and the flexible member that is used in the MacRocker" and "does an excellent job of showing that a person of ordinary skill in the art would understand those to be equivalent." Tr. (Smith) at 200:9-201:1; *see also* Tr. (Smith) at 242:9-21, 243:13-245:19, 251:7-23; 252:15-253:6; CDX-0080; CDX-0081.

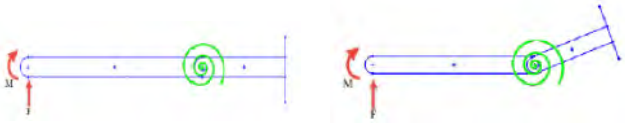


CDX-0080

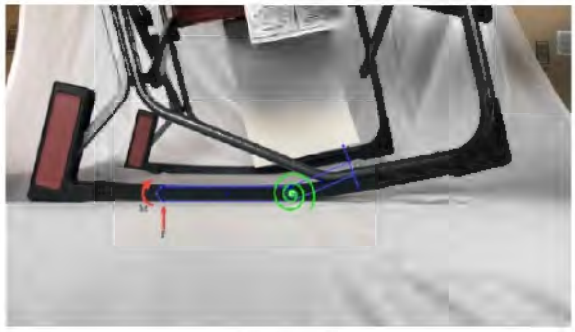


CDX-0081

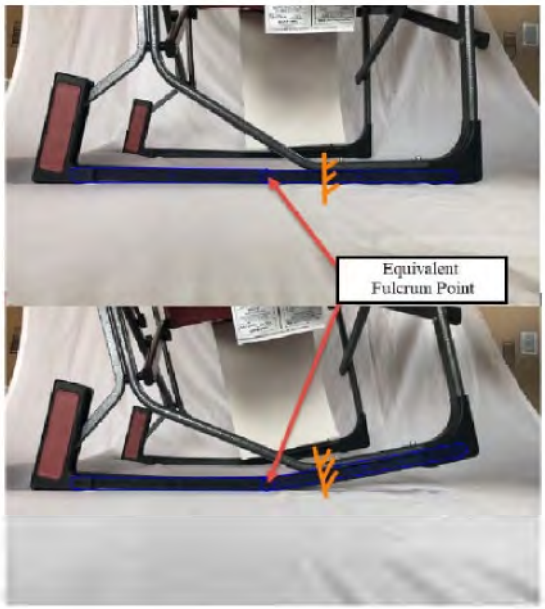
In his analysis, Mr. Smith took great care to choose the correct pseudo-rigid-body model based on the specific loading conditions he observed on the flexible member/leaf spring of each product. *See* Tr. (Smith) at 140:2-6, 253:12-14. MacSports does not dispute that Mr. Smith correctly determined that the MacRocker should be analyzed under loading condition Case 1 with moment and force in the same direction as shown in CDX-0004 and CDX-0007. *See generally* RPreHB at 73-84. In particular, the fixed end of the flexible member of the MacRocker is attached to the frame, and the force and moment are applied by the ground surface. CX-0002C (Smith DWS) at Q/A 661.



CDX-0004 (PRBM Concept for MacRocker Spring Member)



CDX-0007



CDX-0008

Thus, as shown in CDX-0004 (line drawing showing equivalent PRBM of the MacRocker spring member), CDX-0007 (annotated figure comparing the MacRocker spring member with its equivalent PRBM), and CDX-0008 (annotated figure showing equivalent fulcrum point), the MacRocker's flexible member is equivalent to and interchangeable with a rigid linkage of two links with a torsion

spring at the pin joint between the links. CX-0002C (Smith DWS) at Q/A 654, 663. This equivalent (or, "characteristic") fulcrum point at the pin joint both supports the chair frame and is the point about which the chair frame rotates. *Id.* at Q/A 429-32.

The equivalent fulcrum point meets both GCI's and Respondents' proposed constructions for this term. *Id.* at Q/A 433. For example, the equivalent fulcrum point identified by Mr. Smith is plainly "a point on which a chair frame is supported and about which the chair frame pivots," as proposed by GCI. *Id.* The equivalent fulcrum point also meets "an independent pivot, pin, axel or other structure," as proposed by MacSports. *Id.* In addition, the equivalent fulcrum point on the MacRocker is also "a point (i.e., axis of rotation) about which the chair frame rotates and is supported" as proposed by Westfield. *See* Tr. (Smith) at 135:24-136:9 (confirming analysis concerning the "fulcrum point" limitation does not depend on which proposed construction is adopted).

The MacRocker meets the "fulcrum point" limitation under the doctrine of equivalents because its equivalent fulcrum point performs substantially the same function in substantially the same way, producing substantially the same result as the claimed fulcrum point. *Id.* Q/A 432, 663. The pin joint (in the PRBM) is referred to as the characteristic pivot and is equivalent to the claimed fulcrum point because the differences are insubstantial. *Id.* For instance, this characteristic pivot performs substantially the same function of supporting the chair and allowing motion about it, in substantially the same way (by providing a pivot either real or characteristic), and having substantially the same result (rocking motion of the frame). *Id.* at Q/A 663. It is this configuration that allows the chair to move between forward and rearward positions. *Id.* at Q/A 432. In addition, the overall rocking motion of the MacRocker is pivotal, a generally circular motion about the equivalent fulcrum point. *Id.* at Q/A 664. CDX-0009 below shows the MacRocker in forward and rearward positions with the motion of the chair closely follows the concentric circles whereas the green concentric circles are centered at the equivalent fulcrum point. *Id.*



CDX-0009

Thus, the MacRocker satisfies the fulcrum point limitation under the doctrine of equivalents under each party's proposed construction for this term.

MacSports's contention that the MacRocker uses a flexible member that "bends and rolls more like a traditional rocking chair" is without merit. *See* RPreHB at 75-79. As explained by Mr. Smith, a traditional rocking chair with arched rails would roll back and forth along the ground with a changing contact point at any given time. Tr. (Smith) at 285:18-23, 286:5-9; *see also* Tr. (Howle) at 440:6-11 (confirming that at any given time there is only a single point of contact on each rocker rail). Such chairs cannot be analyzed by the PRBM because "the motion isn't achieved through bending of flexible members." Tr. (Smith) at 285:24-286:4. Indeed, MacSports's non-infringement expert admitted that the MacRocker and a traditional rocking chair with rigid rails, like that shown in Figure 1 of the '611 Patent, are "not identical" in how they rock. Tr. (Howle) at 440:12-20.

Unlike a traditional rocker with rigid rails, the MacRocker achieves its rocking motion by deforming a flexible member which has an equivalent fulcrum point. Tr. (Smith) at 286:10-12, 215:25-216:11, 211:17-23; *see also* Tr. (Howle) at 440:21-441:10 (confirming that "the traditional rocking chair would have a solid or rigid beam" that does not deform whereas the "MacRocker has an elastic deformable beam"). Noticeably, MacSports's argument is also contradicted by materials prepared by its own expert Dr. Howle outside this investigation, which emphasizes that "Curved beams [e.g., the arch rails in Figure 1 of the '611 Patent] are NOT bent straight beams [e.g., the flexible members in the accused MacRocker]!" RX-0390 (Howle Lecture Presentation) at p. 13 (emphasis in original).

MacSports's assertion largely rests on Dr. Howle's deficient test results using pressure-sensitive film. *See* RX-0392C (Howle RWS) at Q/A 67-85; Tr. (Smith) at 280:11-21 (explaining why pressure sensitive film is not a suitable tool for this case). These tests are insufficient for two reasons.

First, Dr. Howle failed to choose the correct type of pressure-sensitive film with an appropriate pressure rating. Tr. (Smith) at 306:12-307:1. Indeed, the film used by Dr. Howle "has a contact pressure range of 28 to 85 psi" and comes with an explicit user instruction that "[i]f no color appears at all, you should try a lower pressure range." RX-0392C (Howle RWS) at Q/A 80; RX-0391 at p. 5. In other words, any loads that result in a pressure of lower than 28 psi would not appear on the film Dr. Howle used. His witness statement makes no effort to justify his selection of this particular film, and there is nothing in the record explaining why this particular film was suitable for this task.

And Dr. Howle never tried to use another film with a more sensitive range. Because pressures lower than 28 psi would not have been recorded, Dr. Howle's test cannot provide "accurate data of where it contacts because it can certainly contact with lower than 28 psi." Tr. (Smith) at 306:12-307:1, 281:3-12. Thus, the

contact areas shown in RX-0397 (p. 7) do not reflect the actual contact locations between the MacRocker's flexible member and the ground. Without reliable documentation of the actual contact areas at the non-rocked and rocked positions, Dr. Howle's measurements of the length of the contact areas and calculations of the movement of the contact areas are unsound.

Second, the marking on the pressure-sensitive film "only tells you where pressure has been applied, not where pressure is no longer applied." Tr. (Smith) at 280:11-281:2, 283:8-13 (same), 198:5-25 (explaining why pressure sensitive film is not suitable to "document the contact stress and the movement between the MacRocker and the rigid surface"). Thus, apart from the film used by Dr. Howle not being in a suitable pressure range, the markings recorded by his experiments (RX-0391 at 7) do not indicate the length of the contact area when the MacRocker was rocked backwards because the film cannot show "where pressure is no longer applied." Tr. (Smith) at 280:11-281:2.

Indeed, all Dr. Howle could measure were the "length of" "the seated (nonrocked) Hertzian contact area" and "the total length of" "the trace of all locations that have contacted the ground." RX-0392C (Howle RWS) at Q/A 84-85. But he was not able to measure the length of the contact area at the final rocked position or any intermediate position during the rocking motion based on the markings on RX-0391 at 7. Thus, Dr. Howle's assertion—"[w]hile rocking, the contact pressure area does not substantially change from its original length"—is an unfounded assumption unsupported by the experiments he ran. *See* RX-0392C (Howle RWS) at Q/A 84 (citing no support or reasoning for his conclusory statement). As a result, Dr. Howle's opinions relying on his "constant contact pressure length" are inherently unreliable and should be given no weight. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 139 (1997) (expert testimony found unreliable based on "analytical gap" between data and conclusions); *Certain Radio Frequency Microneedle Dermatological Treatment Devices & Components Thereof*, Inv. No. 337-TA-1112, Order 30 at 2 (May 1, 2019) ("[Expert] opinions that are unscientific and unreliable will be given little weight.").

By contrast, as shown in RX-0064, Mr. Smith's visual illustration of the result from his simple paper thickness gauge test of the MacRocker shows "a portion of the flexible member that's always touching the ground when someone is sitting and rocking in the chair." Tr. (Smith) at 281:13-283:7. This is significantly different from the rocking motion of the traditional rocking chair with arched rails, which contacts the ground at a different point at any given time during rocking. *See* Tr. (Smith) at 286:5-12; *see also* Tr. (Howle) at 440:6-11. And, unlike Dr. Howle's experiments, Mr. Smith's test was independent of the amount of pressure applied and would show contact areas in places where Dr. Howle's experiments could not.

MacSports should not be allowed to avoid infringement by merely substituting a structure described in the '611 Patent (a pin joint and torsion spring) with a well-known equivalent (a compliant spring member). *See Graver Tank &*

Mfg. Co. v. Linde Air Products Co., 339 U.S. 605, 612 (1950) ("It is difficult to conceive of a case more appropriate for application of the doctrine of equivalents…."). Indeed, the Supreme Court specifically recognized that "[o]ne who seeks to pirate an invention… may be expected to introduce minor variations to conceal and shelter the piracy" such that "[o]utright and forthright duplication is a dull and very rare type of infringement." *Id.* at 607.

For these reasons, the MacRocker has the equivalent of the claimed "fulcrum point."

Compl. Br. at 102-08.

MacSports argues:

The '611 patent discloses a rocking chair comprising a frame that pivots forward and backward around a particular point on each side of the frame. JX-0002, Fig. 2; RX-0392C, Q&A 34. The MacRocker is so far removed from having the "fulcrum point" disclosed by the '611 patent that GCI no longer even alleges literal infringement of this claim element, as it did earlier in this Investigation, and retains only a doctrine of equivalents analysis with respect to "fulcrum point." Hrg. Tr. (Smith) 199:1-13; CX-0002C, Q&A 428-33. But the purported "fulcrum point" in the MacRocker has a substantially different function and operates in a substantially different way than the '611 patent. Specifically, the claims require a fixed fulcrum point around which the chair rotates—a pivot point or axle. In contrast, the MacRocker uses a flexible compliant member (called a compliant mechanism by GCI) that bends and rolls more like a traditional rocking chair.

Mr. Smith's opinion does not rely on any tests of the MacRocker because he did not conduct any tests. He simply sat in the chairs and watched them move. RX-0392, Q&A 65-66. He admitted that the MacRocker chair "moved differently" from the GCI chair. Hrg. Tr. (Smith) 193:25-194:7. He did take a variety of measurements of the MacRocker, though. Specifically, he used a tape measure to measure the length of the compliant member, the width of the chair, and the height of the armrest; an angle gauge to measure angles in different positions; and a thickness gauge to determine where the flexible member contacted the ground during different points of the rocking motion. Hrg. Tr. (Smith) 196:19-197:7. But he admitted at the hearing that he did not retain or record any of these measurements. Hrg. Tr. (Smith) 197:8-15. The ALJ can and should infer from the absence of these measurements that they did not support Mr. Smith's opinions. *See Mali v. Federal Ins. Co.*, 720 F.3d 387, 392-94 (2d Cir. 2013); Fed. R. Civ. P. 37(c)(1) 2015 Advisory Committee Notes ("Adverse-inference instructions were developed on the premise that a party's intentional loss or destruction of evidence to prevent its use in litigation gives rise to a reasonable inference that the evidence was unfavorable to the party responsible for loss or destruction of the evidence."). While Mr. Smith testified on redirect that the missing measurements were not necessary, Hrg. Tr. (Smith) 279:24-280:5, that begs the question of why he would

take such extensive measurements if they were indeed unnecessary.

In contrast, Dr. Howle conducted two primary sets of tests on the MacRocker chairs to assess whether they infringe the '611 patent. First, he recorded a video of the lower elastic beam as the chairs rocked backward and extracted images showing the initial and final contact pressure areas. RX-0392, Q&A 65-70 and RX-0382 and RX-0391. This test showed that the MacRocker chairs do not have a fulcrum point about which the chairs rotate and, instead, rolls along the ground like a traditional rocking chair. RX-0392, Q &A 71-73.

As explained in detail in his witness statement, Dr. Howle's second set of tests involved the use of pressure sensitive film to document the contact stress, or pressure, between the MacRocker chairs and a rigid surface on which he placed them. RX-0392, Q&A 74-83. This test showed that the two MacRocker chairs roll along the ground as they are rocked. *Id.,* Q &A 84-86. Dr. Howle then explained that these tests led him to conclude that the MacRocker chairs lack a fulcrum point and do not infringe the '611 patent literally or under the doctrine of equivalents. He testified that the MacRockers do not infringe under the doctrine of equivalents "because they do not function in the same way (pivoting vs. rolling) to produce the same result (pivoting rocking vs. rolling rocking)." *Id.*, Q&A 87-88. GCI did not ask Dr. Howle a single question about this test. Hrg. Tr. (Howle) at 433-48. Mr. Smith admitted that pressure sensitive film is used by engineers, commonly used by POSAs, and that he has used it before, but did not use it here. Hrg. Tr. (Smith) 197:16-198:21.

Mr. Smith attempts to camouflage the weakness of his analysis by including in his witness statement lengthy, repetitive "analysis" of points not in dispute. MacSports does not dispute the facts that the MacRocker chairs are portable, collapsible rocking chairs with side assemblies, front legs, rear legs, a seat and that they open and close. Yet Mr. Smith spends considerable time in his witness statement on these non-issues. *E.g*, CX-0002, Q &A 390-427, 445, 448, 452-469, 484-494, 519, 525.

When he finally arrives at the disputed issues, Mr. Smith argues that bending and rolling are just like pivoting and rotating has two parts. He first creates a hypothetical model supposedly based on the MacRocker using the PRBM and, second, argues that the model satisfies infringement under the doctrine of equivalents. CX-0002, Q&A 432. But a doctrine of equivalents analysis is already one step removed from literal infringement, and Mr. Smith takes another step further away by arguing that an expert-created model, rather than the actual MacRocker, has an equivalent "fulcrum point." In other words, Mr. Smith first argues that bending and rolling are just like a hypothetical model that pivots and rotates without any proof, measurements, or calculations, and then compares that hypothetical model to the asserted claims and concludes there is infringement. Mr. Smith's two-step equivalence analysis concedes the very differences that it intends to circumvent. His doctrine of equivalents argument shows that the MacRocker's

bending and rolling is substantially different from the purported invention of the '611 patent. When there are such significant differences, a doctrine of equivalents analysis fails. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991) ("Application of the doctrine of equivalents is the exception, however, not the rule, for if the public comes to believe (or fear) that the language of patent claims can never be relied on, and that the doctrine of equivalents is simply the second prong of every infringement charge, regularly available to extend protection beyond the scope of the claims, then claims will cease to serve their intended purpose. Competitors will never know whether their actions infringe a granted patent.").

Mr. Smith's use of a hypothetical model shows that the MacRocker is so different from the invention of the '611 patent that there cannot be a direct comparison. The MacRocker does not infringe under the doctrine of equivalents because significant structural differences exist between it and the patent. *See Freedman Seating Co. v. American Seating Co.*, 420 F.3d 1350, 1361 (Fed. Cir. 2005) ("*Freedman*").

In *Freedman*, a patent covered stowable bus seats, and the district court awarded the patent owner summary judgment of infringement based on a doctrine of equivalents analysis. The claims included a limitation of a seat-base having a slidably mounted movable end. On appeal, defendant argued that its rotatably mounted elements were not equivalent. Agreeing with defendant, the Court of Appeals for the Federal Circuit reversed, holding that allowing doctrine of equivalents coverage of a rotatably mounted element would vitiate the claim language that required the element be slidably mounted. "[A]n element of an accused product or process is not, as a matter of law, equivalent to a limitation of the claimed invention if such a finding would entirely vitiate the limitation." *Freedman*, 420 F.3d at 1358. The Court ruled that determining vitiation is done by considering the totality of the circumstances and determining whether the alleged equivalent can be fairly characterized as an insubstantial change from the claimed subject matter without rendering the pertinent limitation meaningless. *Id.* at 1359. The Court then determined that the "slidably mounted" limitation excluded the possibility of doctrine of equivalents coverage of a "rotatably mounted" element. Specifically, the Court found:

> Therefore, while the moveable end of the EZ Fold's support member has the ability to rotate, it cannot slide or otherwise move along the seatbase. It is confined to a fixed location. We think that this structural difference in the mounting of the moveable end to the seatbase is not a 'subtle difference in degree,' but rather, 'a clear, substantial difference or difference in kind.'

Freedman, 420 F.3d at 1361.

Freedman is on point. The MacRocker has a compliant member that partly

rests on the ground, and a portion of that compliant member bends, and rolls up off the ground, during a normal rocking motion, as shown by Dr. Howle's direct testing of the MacRocker. RX-0392C, Q&A 67-70; RPX-0004 (Video C2161A Rolling); RPX-0005 (Video C2163A Rolling). Where and how the MacRocker touches the ground changes as the MacRocker rocks, as can also be seen in the videos created by Dr. Howle. *Id.* Dr. Howle also directly shows that the contact area touching the ground moves between 4 and 5 inches during operation of the MacRocker. RX-0392, Q&A 80-85. This motion is like the rolling and rocking motion of a traditional prior art rocking chair. RX-0392C, Q&A 71. Indeed, the MacRocker moves just like the prior art rocking chair shown in Figure 1 of the '611 patent, which Mr. Smith has admitted does not have a fulcrum. Hrg. Tr. (Smith) 215:8-15; JX-0002, Figure 1; RX-0392C (Howle WS), Q&A 67-73, 87.

In stark contrast, the claimed "fulcrum point" in the '611 patent pivots the chair around a fixed point, pushing against a spring, and the "fulcrum point" does not move along the ground, as admitted by Mr. Smith. Hrg. Tr. (Smith) 210:2-7. Mr. Smith explained that the fulcrum point does not move as the chair rocks forward and backward in his model. Hrg. Tr. (Smith) 210:8-211:6. But in an admission that destroys his infringement argument, Mr. Smith testified that a large portion of the bottom rail of the MacRocker bends as the chair rocks and comes off the ground:

> Q. Now, when you examined the MacRocker and sat in it, the bottom rail bent during the rocking motion, didn't it?
> A. It does bend, yes.
> Q. And the bottom rail bent throughout the length of the flexible member, didn't it?
> A. It---a large portion of it bends, yes.
> Q. As the bottom rail bent, part of the chair came off the ground, correct?
> A. That's correct.

Hrg. Tr. (Smith) 211:7-16. He also testified that a rolling motion does not require a fulcrum. *Id.* 215:1-5. Like *Freedman*'s slidable versus rotatable scenario, the contrast here is the bending and rolling along the ground of the MacRocker versus the claimed fixed point that allows rotation but does not move along the ground of the '611 patent. Extending GCI's claim scope from a fixed point that allows rotation to capture the bending and rolling of the MacSports chair does therefore vitiate the claim, just as in *Freedman*.

This is not a case where GCI can show infringement by simply substituting one component for the other. Here, GCI creates a hypothetical model by replacing the flexible compliant member of the MacRocker with two rigid arms and a pivot point without accounting for the design and operational tradeoffs necessary to make such a substitution. GCI's model does not take into account significant differences between the MacRocker and the '611 patent, like the bending and rolling motion of

the MacRocker's compliant member that is not replicated by the hypothetical model with a fixed point that rotates. Removing the differences through a "simplifying" model is not enough to show infringement.

Further, Mr. Smith admitted that there are known differences in using a compliant member as compared to using a "rigid body" fulcrum and lever apparatus. Hrg. Tr. (Smith) 211:24-212:12. For example, as he testified, compliant members have fewer parts and are easier to manufacture. *Id.* As Dr. Howle explained, there are too many differences between the MacRocker and the disclosure of the '611 patent for them to be equivalent. RX-0392C, Q&A 87-88, 105-110, 117, 132-137.

Put simply, the '611 patent requires a fulcrum point and the MacRocker does not have one. RX-0392C, Q&A 91-110. That is why GCI relies on a hypothetical model in the first place. By using this model, GCI inappropriate reads an element entirely out of the claim. *Freedman*, 420 F.3d at 1362; *Tip Systems, LLC v. Phillips & Brooks/Gladwin*, 529 F.3d 1364, 1380 (Fed. Cir. 2008) (infringement under doctrine of equivalents fails when such a finding would read a claim phrase out of the claim).

Finally, Mr. Smith ignores the possibility that the ALJ might adopt Westfield's claim construction of "fulcrum point." MacSports construes "fulcrum point" as "an independent pivot, pin, axel or other structure" and GCI construes this phrase as "a point on which a chair frame is supported and about which the chair frame pivots." Mr. Smith claims that his analysis shows infringement of the "fulcrum point" limitation under both GCI and MacSports' constructions. CX-0002C, Q&A 433. But Mr. Smith did not provide an analysis under any other Respondents' constructions and there is no evidence to support an infringement finding should the ALJ adopt Westfield's or Denovo's construction. *Id.* (arguments only show MacSports and GCI constructions); RX-0392 Q&A 51-55. The fact that Mr. Smith's hypothetical model is generic enough to encompass such disparate claim constructions is another reason it should not be accepted.

To conclude, GCI's doctrine of equivalents analysis inappropriately compares a hypothetical model to the claims instead of the actual accused product. In addition, significant differences between the MacRocker and the claims are not represented by Mr. Smith's hypothetical model. Thus, GCI has not carried its burden of proving infringement of claims 1 and 14 by the MacRocker.

Resps. Br. at 94-100.

The administrative law judge finds that the MacRocker does not include the claimed fulcrum point.

GCI concedes that the MacRocker chair does not literally infringe but contends that it

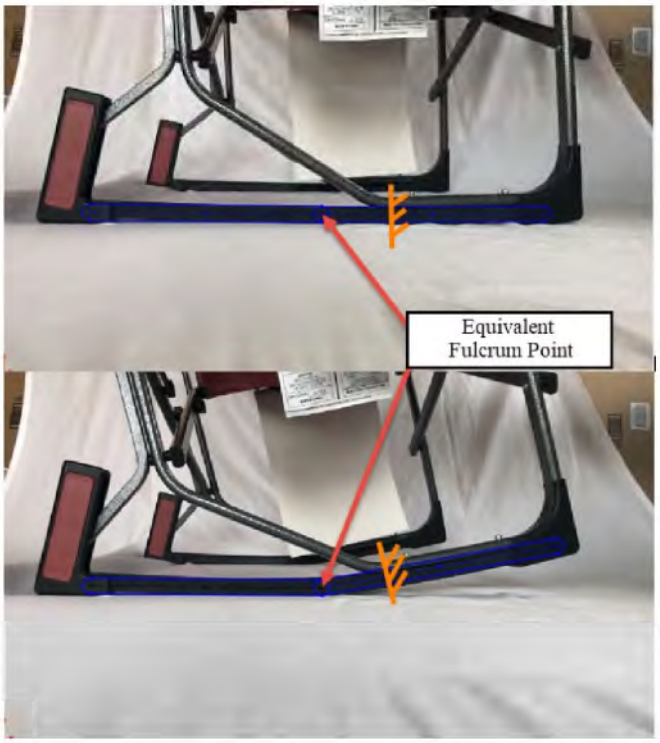
infringes under the doctrine of equivalents. *See, e.g.*, Smith Tr. 199. GCI bases that contention solely on Mr. Smith's testimony, where Mr. Smith relies on the pseudo-rigid-body model ("PRBM"). *Id.* at 16-18. GCI relies on the following analysis from Mr. Smith:

> The MacRocker meets this limitation under the doctrine of equivalents as the flexible member performs substantially the same function in substantially the same way producing substantially the same result as the claimed fulcrum point. It is well known in designing compliant mechanisms that "[f]or each flexible segment… the motion is modeled by rigid links attached at pin joints." Compliant Mechanisms at p. 135 (CX-0018). The pin joint is referred to as the characteristic pivot and is equivalent to a fulcrum point as the differences are insubstantial. The function of the fulcrum point is to allow movement between forward and backward positions, the way is by providing a pivot (real or characteristic/theoretical), and the result is rocking motion of the chair frame. It is this configuration that allows the chair to move between forward and rearward positions.

CX-0002 at Q/A 432.

GCI additionally relies on the following testimony of Mr. Smith:

> The compliant member in the MacRocker is equivalent to a pair of rigid links with a fulcrum point, as I've illustrated in CDX-0008. The compliant member's fulcrum point performs substantially the same function of supporting the chair and allowing motion about it, in substantially the same way, by providing a pivot either real or characteristic, and having substantially the same result: rocking motion of the frame.



CDX-0008

Id. at Q/A 663.

The administrative law judge finds that Mr. Smith's qualitative analysis incorrectly applied the pseudo-rigid-body model ("PRBM") to the accused products. Mr. Smith relies on a reference book, *Compliant Mechanisms*, by Professor Howell, throughout his PRBM analysis. CX-0002C (Smith DWS) at Q/A 647 (citing CX-0018 (*Compliant Mechanisms*), p. 135). Professor Howell's book recites: "The key for each pseudo-rigid-body model is to decide where to place the pin joints and what value to assign the spring constants." CX-0018, p. 134. Mr. Smith testified that he never calculated a single spring constant. Smith Tr. 207-209. In failing to perform any calculations, Mr. Smith never quantified the actual operation of the MacRocker. This analysis both contravened the instructions in the quoted reference, and lacked quantitative analysis which could be tested and verified to ensure that the infringement analysis properly

compares the construed claim to the accused product. *See, e.g., Board of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1367 (Fed. Cir. 2008).

As noted above, "a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions" means "a point on which a chair frame is supported and about which the chair frame pivots." In contrast, the MacRocker uses a flexible compliant member (called a compliant mechanism by GCI) that bends and rolls more like a traditional rocking chair.

Mr. Smith's opinion does not rely on any tests of the MacRocker, and Mr. Smith testified that the MacRocker "moved differently" from the GCI chair. Smith Tr. 193-194.

Dr. Howle conducted two primary sets of tests on the MacRocker to assess whether it infringes the '611 patent. First, he recorded a video of the lower elastic beam as the MacRocker rocked backward and extracted images showing the initial and final contact pressure areas. RX-0392C (Howle RWS) at Q/A 65-70; RX-0391. This test showed that the MacRocker does not have a fulcrum point about which the chair rotates and, instead, rolls along the ground like a traditional rocking chair. RX-0392C (Howle RWS) at Q/A 71-73.

As explained in detail in his witness statement, Dr. Howle's second set of tests involved the use of pressure sensitive film to document the contact stress, or pressure, between the MacRockers and a rigid surface on which he placed them. *See id.* at Q/A 74-83. This test showed that the two MacRockers roll along the ground as they are rocked. *See id.* at Q/A 84-86. Dr. Howle then explained that these tests led him to conclude that the MacRockers lack a fulcrum point and do not infringe the '611 patent literally or under the doctrine of equivalents. He testified that the MacRockers do not infringe under the doctrine of equivalents "because they do not function in the same way (pivoting vs. rolling) to produce the same result (pivoting

rocking vs. rolling rocking)." *Id.* at Q/A 88. Mr. Smith testified that pressure sensitive film is used by engineers, commonly used by those of skill in the art, and that he has used it before, but did not use it here. Smith Tr. 197-198.

The administrative law judge finds that the MacRocker's flexible compliant member bends and rolls in a manner that is substantially different from that of the invention of the '611 patent. When there are such significant differences, a doctrine of equivalents analysis fails. *See Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1344-45 (Fed. Cir. 2016) ("A finding to the contrary would render the requirement that the feedback signals be 'distinct'—the feature described by the inventor as critical to the invention's novelty—meaningless."); *Wallace London & Clemco Prods. v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991) ("Application of the doctrine of equivalents is the exception ... not the rule, for if the public comes to believe (or fear) that the language of patent claims can never be relied on, and that the doctrine of equivalents is simply the second prong of every infringement charge, regularly available to extend protection beyond the scope of the claims, then claims will cease to serve their intended purpose.").

The MacRocker has greater similarity to the prior art rocking chair shown in Figure 1 of the '611 patent, as opposed to the chair including the claimed fulcrum point. Smith Tr. 215; JX-0002 ('611 patent) at Figure 1; RX-0392C (Howle RWS) at Q/A 67-73, 87. The claimed "fulcrum point" of the '611 patent pivots the chair around a fixed point, pushing against a spring, and Mr. Smith testified that the "fulcrum point" of the '611 patent does not move along the ground. Smith Tr. 210. Mr. Smith further explained that, in the model he constructed, the claimed fulcrum point does not move as the chair rocks forward and backward. *See id.* at 210-211.

It is therefore determined that the MacRocker does not include the claimed "fulcrum point."

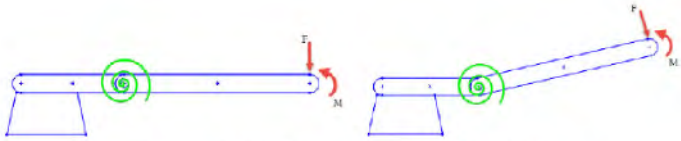
ii. Westfield

The evidence adduced at the hearing demonstrates that the Mulberry Bounce Chair does not include a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions. *See* RX-0451C (Cameron RWS) at Q/A 53-61.

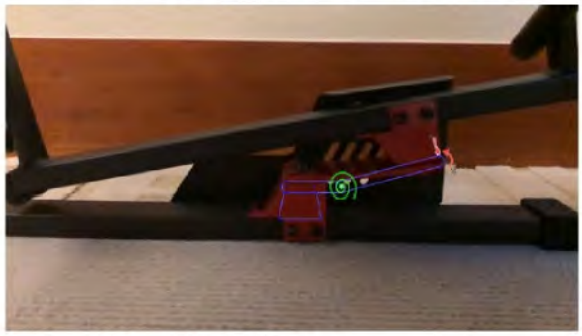
GCI argues:

> The Westfield chair satisfies the claim element **"a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions"** as recited by claim 1 of the '611 Patent under the doctrine of equivalents. CX-0002C (Smith DWS) at Q/A 578-81. As Mr. Smith explained, the leaf spring in the Mulberry Bounce Chair is equivalent to a pair of rigid links joined together at a pin or pivot point (*e.g.*, via a torsion spring), which serves as an equivalent or characteristic fulcrum point. *Id.* at Q/A 636-59, 665-72.
>
> Analyzing the Mulberry Bounce Chair using compliant mechanism theory and PRBM, Mr. Smith determined that the chair's leaf spring would be subject to loading condition Case 2 (force and moment in opposite directions with no inflection point) during the most common rocking condition based on his inspection and testing of the Mulberry Bounce Chair. *See id.* at Q/A 667-668; CX-0151 (video); CX-0159 (video); *see also* Tr. (Smith) at 162:5-163:17 (confirming only Case 2 loading condition applies in the rocking condition tested), 259:18-260:21 (confirming the video in CX-0151 is the Case 2 loading condition analyzed that does not have an inflection point).
>
> Even if there were other possible operating conditions for the Westfield chair (and even if some of those conditions are not suitable for modeling with Case 2), Mr. Smith has plainly shown at least when used by a user in its normal rocking condition the Mulberry Bounce Chair infringes under Case 2 loading condition. This is all that is required under the law. *See Core Wireless Licensing S.A.R.L. v. Apple Inc.*, 899 F.3d 1356, 1363 (Fed. Cir. 2018) ("[I]nfringement is not avoided merely because a non-infringing mode of operation is possible.") (quoting *z4 Techs., Inc. v. Microsoft Corp.*, 507 F.3d 1340, 1350 (Fed. Cir. 2007)); *Hilgraeve Corp. v. Symantec Corp.*, 265 F.3d 1336, 1343 (Fed. Cir. 2001) ("[I]n determining whether a product claim is infringed, we have held that an accused device may be found to infringe if it is reasonably capable of satisfying the claim limitations, even though it may also be capable of non-infringing modes of operation.").

Mr. Smith created CDX-0005 (below) to illustrate the Case 2 loading condition he tested on the Mulberry Bounce Chair. *See* Tr. (Smith) at 253:12-255:24; CX-0002C (Smith DWS) at Q/A 654-58. During the rocking condition tested by Mr. Smith, the moment is much larger than the force, and there is no inflection point on the leaf spring. *See* CX-0002C (Smith DWS) at Q/A 668; Tr. (Smith) at 255:16-24; CX-0151 (video); CX-0159 (video). In other words, when a user of the Westfield chair rocks backwards in the normal rocking condition as shown in CX-0151, the leaf spring only bends upward. *See* Tr. (Smith) at 144:12-17.



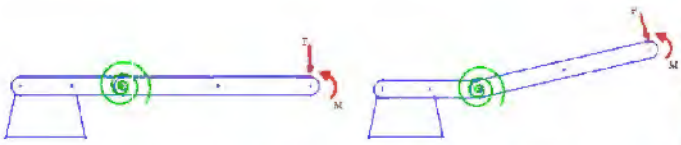
CDX-0005 (PRBM Concept for Westfield Leaf Spring)



CDX-0010

The applicability of the Case 2 loading condition is further confirmed by Mr. Smith's conservative Finite Element Analysis ("FEA"). Specifically, the FEA "shows that when you apply the force, as [Mr. Smith] did in a sitting position in the [Westfield] chair, that the deflection is only upwards at that point and there is no inflection point." Tr. (Smith) at 144:5-17; *see also* CX-0002C (Smith DWS) at Q/A 669; CDX-0011, CDX-0012; Tr. (Smith) at 250:11-251:6 (explaining use of FEA to verify the applicability of Case 2 type loading), 258:6-259:17 (explaining why the FEA, which was "ultra conservative," was used).

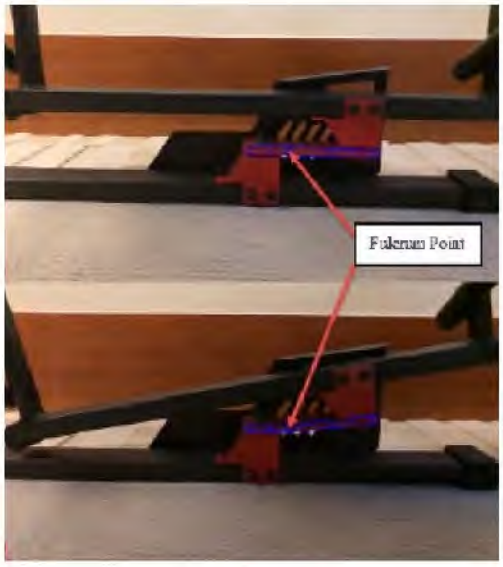
In this Case 2 loading condition, a POSITA would understand that the leaf spring on the Mulberry Bounce Chair is equivalent to and interchangeable with a rigid linkage of two links with a torsion spring at the pin joint between the links. Tr. (Smith) at 138:11-18; CX-0002C (Smith DWS) at Q/A 579, 654, 668; CX-0018.0001. The pin joint is referred to as the characteristic pivot and is equivalent to the claimed fulcrum point because the differences are insubstantial. CX-0002C (Smith DWS) at Q/A 579. In other words, the leaf spring in the Mulberry Bounce Chair Chairs would be seen as being functionally and mathematically equivalent to the rigid linkages with a fulcrum point shown in CDX-0005. *Id.* at Q/A 654.



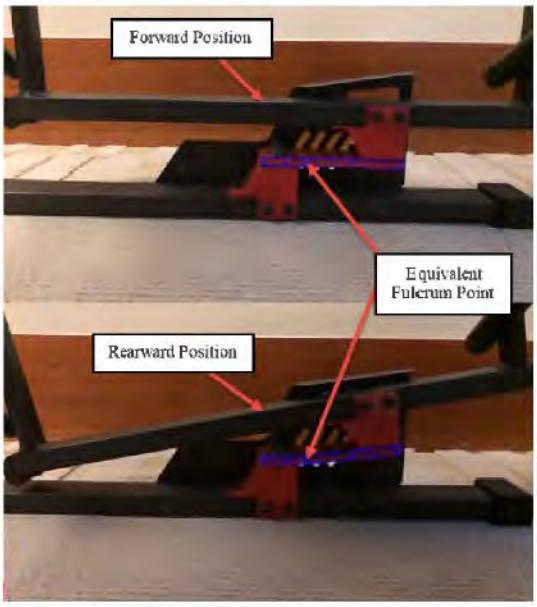
CDX-0005 (PRBM Concept for Westfield Leaf Spring)



CDX-0010



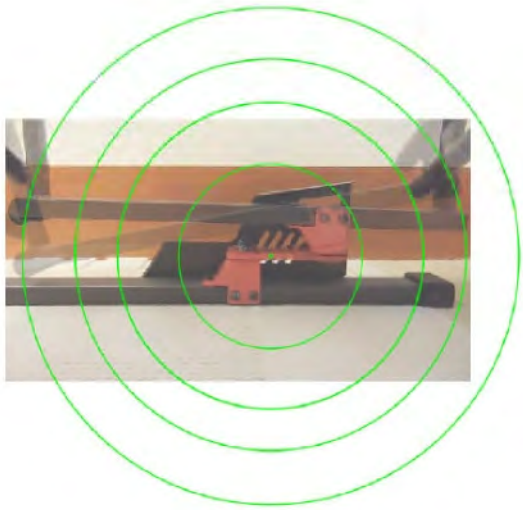
CDX-0014



CDX-0142

As shown in CDX-0005, CDX-0010, CDX-0014, and CDX-0142, the Mulberry Bounce Chair's leaf spring has an equivalent fulcrum point located at the pin joint in the figures. *Id.* at Q/A 579, 654, 668, 670-71. The equivalent fulcrum point performs substantially the same function of supporting the chair and allowing movement betwee forward and rearward positions around that point, in substantially the same way (by providing a pivot either real or characteristic), and substantially the same result (rocking motion of the chair and its frame). *Id.* at Q/A 671, 579.

The overall rocking motion of the Mulberry Bounce Chair is a pivotal, generally circular motion about the equivalent fulcrum point. *Id.* at Q/A 653, 672; *see also* CDX-0003; CX-0151 (Video); CX-0153 (Video).



CDX-0015

CDX-0015 shows the Mulberry Bounce Chair in its forward and rearward positions, with the green concentric circles centered at the equivalent fulcrum point. *Id.* at Q/A 672. As can be seen from the following annotated images of the Mulberry Bounce Chair in CDX-0015, the motion of the chair closely follows the concentric circles, thereby showing that the chair frame rotates (pivots) about and is supported by an equivalent fulcrum point. *Id.*

Under any party's proposed construction for "fulcrum point," the above-described configurations satisfy the requirements of this limitation. *Id.* at Q/A 581. For example, the characteric pivot point (i.e., equivalent fulcrum point) is equivalent to "a point on which a chair frame is supported and about which the chair frame pivots," as proposed by GCI. *Id.* Similarly, the characteric pivot point also shows "a point (i.e. axis of rotation) about which the chair frame rotates and is supported," as proposed by Westfield. *Id.* In addition, the characteric pivot point takes the form of a pin joint and thus is "an independent pivot, pin, axel or other structure," as proposed by MacSports. Tr. (Smith) at 135:24-136:9.

Therefore, Mr. Smith properly applied the PRBM as an analytical tool to analyze and compare the Mulberry Bounce Chair with the Asserted Claims. It is not the model that infringes, of course; it is the model that shows how the product infringes.

Dr. Cameron's modification of Mr. Smith's FEA model is irrelevant. *See* Tr. (Smith) at 257:7-23 ("[S]o just because the Westfield Mulberry Bounce Chair can be used in a way that creates an inflection point, that doesn't mean that it can't also be used in the way that I have shown where there is no inflection points."). Regardless of whether her modifications were realistic, they at best simply show that a single loading condition has an inflection point, not that all loading conditions have an inflection point. Put differently, so long as just one arrangement of the Westfield chair is subject to Case 2 loading, Mr. Smith's model is accurate for

purposes of showing infringement. *See Core Wireless*, 899 F.3d at 1363 (Fed. Cir. 2018) ("[I]nfringement is not avoided merely because a non-infringing mode of operation is possible.").

Unlike Mr. Smith's FEA model, which analyzed a real use case as shown in CDX-0011 and CX-0151, Dr. Cameron's revisions to Mr. Smith's model merely move the load used by Mr. Smith to a different location—an attempt to artificially create a condition where "a seated user leans forward or is seated on a forward portion of the chair." RX-0451C (Cameron RWS) at Q/A 49. However, Dr. Cameron's characterization of this loading condition as being "more representative of the loads seen by the Mulberry Bounce Chair" is contradicted by the testimony of Westfield's own corporate representative and marketing materials. *See* CX-0329C (Webb Dep.) at 77:10-15 (explaining that when a user lean forward in the Mulberry Bounce Chair the user's weight "would have to be very close to the front" which "wouldn't be a traditional way you would sit in a chair"); CX-0469 (Westfield marketing video showing that users in normal rocking condition do not lean forward or sit on the front portion of the chair); Tr. (Webb) at 325:15-24 (confirming that CX-0469 accurately shows the motion of the Mulberry Bounce Chair); *see also* CX-0151 (video showing regular rocking motion without user leaning forward).

Thus, the "front" loading condition observed by Dr. Cameron in no way represents many of the normal rocking conditions in which the Mulberry Bounce Chair would be used (such as a user "leaning all the way back against the backrest," as shown in the videos CX-0151 and CX-0469).

Accordingly, the Westfield chair has a "fulcrum point" under the doctrine of equivalents.

Compl. Br. at 122-28.

Westfield argues, in part:

The WBC does not have a "fulcrum point" under the doctrine of equivalents because it does not have a component that performs substantially the same function, in substantially the same way, to achieve the same result as a "fulcrum point" under any party's proposed construction of the term. *See Crown Packaging Tech., Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1312 (Fed. Cir. 2009). Consistent with the definitions of "fulcrum point" proposed by GCI and Respondents, the function of a fulcrum point is to support the lever (chair frame) while allowing rotation of the lever (chair frame) about that point. RX-0451C at 6, 15-16; Hrg. Tr. (Smith) 134:5-8, 160:17-20. The way a fulcrum point accomplishes this is by using a sliding or rolling bearing surface between the lever (chair frame) and the support structure, where the lever pivots about the point of support. RX-0451C at 15-16; Hrg. Tr. (Smith) 132:11-133:1. The "result" is rotation of the lever (chair frame) in a circular arc about the point as the chair moves between forward and rearward

positions to provide a rocking motion. RX-0451C at 15-16; Hrg.Tr. (Smith) 133:2-6. GCI has not established any of these as to the WBC.

GCI relies upon only one witness – Mr. Smith – to try to establish that the unique spring steel in the WBC is equivalent to the fixed pivot point claimed in the '611 patent. But his testimony fails and, in fact, shows that there is no doctrine of equivalents. Mr. Smith's doctrine of equivalents testimony relies upon his assertion that Westfield's steel plate spring is interchangeable with a mechanism consisting of 2 links, 1 pin, and 1 torsion spring at the pin joint between the links. Hrg. Tr. (Smith) 802:7-12. Mr. Smith's interchangeability assertion, and thus his DOE assertion, depends on his pseudo-rigid-body-model argument. Hrg. Tr. (Smith) 801:16-18; *see also* 138:1-139:1. But a correct analysis of the pseudo-rigid-body-model theory confirms Westfield's steel plate spring cannot be replaced with a mechanism consisting of 2 links, 1 pin, and 1 torsion spring.

* * *

GCI also produced no evidence that a single 2 link, 1 pin, 1 spring mechanism could be used to model the steel plate spring of the WBC for even a small range of motion of the WBC. Mr. Smith performed a FEA analysis only of one position of the WBC and only loaded with one loading. CX-0002C, Q&A 668-69. He admitted that he could not tell whether the WBC steel plate spring was a Case II loading or a Case III loading without running this FEA analysis. Hrg. Tr. (Smith) 258:21-259:7. But once he determined his one very specific loading was Case II, Smith simply stopped. He did not calculate the length of the links, or the spring constant for the 2 link, 1 pin, 1 torsion spring. *See id.*

Nor did Mr. Smith submit any evidence that the pivot point would be in the same place, or that the link lengths, and/or spring constant would be the same for the movement of the WBC as the one loading condition he analyzed. Mr. Smith and GCI provided no evidence that a 2 link, 1 pin, 1 spring model would be the equivalent for even a small range of motion. Again, Mr. Smith performed an FEA analysis at only a single position of the WBC and only with a single loading (i.e, person weighing 200 lbs) – a Case II loading with a static load. But the equations in the *Complaint Mechanism* textbook establish that the location of the pivot point, the lengths of the links, and the spring constant depend upon loading conditions, *i.e.* they all depend on the specific forces and moments. CX-0019. Indeed, the equations for the most simple version of a PRBM – modelling a cantilevered beam with only an end force (no moment) – specifically show that the length of the links (and thus the location of the pivot/pin) vary depending on this equation:

$$r = \gamma l,$$

where r is the characteristic radius, l is original length of the beam, and γ is the characteristic radius factor. Moreover γ can be identified with these equations:

$$\gamma = \begin{cases} 0.841655 - 0.0067807n + 0.000438n^2 & (0.5 < n < 10.0) \\ (0.852144 - 0.0182867n) & (-1.8316 < n < 0.5) \\ (0.912364 + 0.0145928n) & (-5 < n < -1.8316) \end{cases}$$

where n varies with direction of the applied force. The spring constant can be identified with this equation:

$$K_\theta = 3.024112 + 0.121290n + 0.003169n^2 \quad (-5 < n \leq -2.5) \tag{5.60}$$

$$K_\theta = 1.967647 - 2.616021n - 3.738166n^2 - 2.649437n^3 - 0.891906n^4 - 0.113063n^5 \quad (-2.5 < n \leq -1) \tag{5.61}$$

$$K_\theta = 2.654855 - 0.509896 \times 10^{-1}n + 0.126749 \times 10^{-1}n^2 - 0.142039 \times 10^{-2}n^3 + 0.584525 \times 10^{-4}n^4 \quad (-1 < n \leq 10) \tag{5.62}$$

As the specifics of the applied load change, the lengths of the links (and thus the location of the pivot/pin) and the spring constant for the torsion spring at the pin change. And again, this is for a simple, force-only, model. The equations and considerations for calculating force-moment combinations are much more complicated and vary even more with difference loadings. *See* CX-0019 at 11-17 (adding more complexity with each additional load variant, culminating in combined force-moment loading which is "more complex" than the above loading condition).

Mr. Smith never accounted for any of this in his analysis, even though he testified the *Compliant Mechanism* textbook is the basis for his analysis. Hrg. Tr. (Smith) at 141:15-22. Dr. Cameron identified the inadequacies of Mr. Smith's narrow analysis:

> So one of the extremely shocking things that I heard in his testimony was that the -- his pivot point that he claims is equivalent remains stationary. And that is just incorrect
>
> Even you can see from his textbook references that he provided, and even from the physical evidence of his picture of the chair, this is not correct.
>
> And the reason this is not correct is that for that model that he chose, again, he -- he decided to look at the Mode 2 part of that model, that spring stiffness and position, so, in other words, where

that pivot point is, depend both on the moment and on the force that's applied.

And so that -- and this is really why this is such a ridiculous claim that they can be physical equivalent, because for that model, essentially, as soon as you move at all, even a little bit in the chair, you're changing the loading condition on the chair.

And for that model, yes, you can have a pivot point and a fulcrum, but that changes in position and in stiffness over time. So what that means is that, unlike what he said, which is that it remains stationary, it does not remain stationary. It -- it has to move.

And that's why you can't just put a physical -- there is no physical equivalent in that chair because you would need a spring that's changing stiffness over time and you also need to be changing the location of that pivot point over time.

* * *

So, anyway, what I was saying is that this is -- this is -- the first thing that he said is incorrect because the -- pivot, of course, is moving. You can look even at just his textbook reference.

In that book, textbook that he cites to for Mode 2, which is in Section 5.7, it describes where you can look up the math, and that's in section 5.5 of that same book, and you can look at the equations. The location of the pivot point and the spring stiffness, they both depend on the moment.

And so what that means is that, as you're moving or rocking in the chair and the moment is changing, that means that the stiffness of the spring is changing and the location of the spring is change.

And that's why you cannot have a physical equivalent in the chair because we don't -- we don't know how to make springs that do that.

Hrg. Tr. (Cameron) 371:3-372:5, 372:22-373:13.

Assuming Case II is appropriate for a specific static loading condition with just one force and one moment, the model outputs (link lengths, pin location, spring constant) might be calculable. But the equations show that changing inputs changes outputs. Smith did not show an equivalent mechanism would have an equivalent movement for even a short length of motion. Nor did he show that the movement of the chair by a person weighting 200 pounds would be equivalent to movement of the chair by a person weighing 100 pounds. *See* Hrg. Tr. (Cameron) at 372:22-373:13, 380:9-21; CX-0019.

Dr. Cameron, Westfield's expert, confirms Smith's own admissions and failure to extend his single point analysis to any other loading conditions of the WBC. Dr. Cameron showed how a specific link, pin, and spring mechanism combination, modeled under the pseudo-rigid-body model, is not interchangeable with the spring steel in the WBC. Hrg. Tr. (Cameron) at 374:3-6. As explained by

> Dr. Cameron, this means that the supposed pivot point would move during motion and would change with loading. Hrg. Tr. (Cameron) at 370:21-372:8; 375:5-25. Any particular pseudo-rigid-body model combination is not true for even a small range of motion, and even within the same case type (Case I, II, and III). Hrg. Tr. (Cameron) at 378:23-379:10, 379:19-380:4.

Resps. Br. at 74-81.

The administrative law judge finds that the Mulberry Bounce Chair does not include the claimed fulcrum point. Westfield's steel plate spring cannot be replaced with the proposed equivalent of a mechanism consisting of 2 links, 1 pin, and 1 torsion spring.

As noted above, "a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions" means "a point on which a chair frame is supported and about which the chair frame pivots."

GCI concedes that the Mulberry Bounce Chair does not literally infringe but contends that it infringes under the doctrine of equivalents. *See* Compl. Br. at 122. GCI argues that "the leaf spring in the Mulberry Bounce Chair is equivalent to a pair of rigid links joined together at a pin or pivot point (*e.g.*, via a torsion spring), which serves as an equivalent or characteristic fulcrum point." *Id.* GCI's doctrine of equivalents testimony relies upon Mr. Smith's assertion that Westfield's steel plate spring is interchangeable with a mechanism consisting of 2 links, 1 pin, and 1 torsion spring at the pin joint between the links. Smith Tr. 802.

As an initial matter, when analyzing compliant mechanisms, Mr. Smith testified that it is important to choose the correct pseudo-rigid-body model. *See id.* at 253, 255. Mr. Smith testified that there are at least three potential pseudo rigid body models from which to choose, and the choice depends upon the direction and magnitude of: (1) force, and (2) moment. These three cases can be identified as Case I, Case II, and Case III. *See id.* at 250; *see* CX-0019 (*Compliant Mechanisms*). The three cases are summarized below:

Case	Loading	As Applied to Mulberry Bounce Chair
I	Force and moment in the same direction	Leaning forward in the chair, perhaps to cook a hot dog or warm by a campfire
II	Force and moment in opposite directions, with no inflection point in the steel spring	Leaning back in the chair
III	Force and moment in opposite directions, with an inflection point in the steel spring	Region between forward and back

Mr. Smith testified that a compliant mechanism with a Case III loading cannot be modeled with 2 links, 1 pin, and 1 torsion spring. Smith Tr. 143; 149-150. As Mr. Smith testified, Case III loading requires a 4 link, 3 pin, and 2 spring model, and applies whenever there is an inflection point in the steel plate spring. *See id.* at 143; CX-0019 (*Compliant Mechanisms*) at 15-16. Mr. Smith testified that an inflection point will occur in the steel plate spring during the ordinary use of the Mulberry Bounce Chair. Smith Tr. 148-149; 162-164. Thus, whenever a user rocks in the Mulberry Bounce Chair from the back position to the forward position and vice versa, the steel plate spring must pass through a Case III loading with an inflection point. *See id.* at 163-164; RX-0451C (Cameron RWS) at Q/A 47-50. Case II, Case III, and Case I loading of the Mulberry Bounce Chair are shown in the following images.

Case II
(Hrg. Tr. (Smith) at 162:19-25)



CX-0151 at 0:15

Case III
(Hrg. Tr. (Smith) 148:22-149:24)



CX-0151 at 0:16

Case I
(Hrg. Tr. (Smith) at 163:1-5)



CX-0151 at 0:16

GCI argues, "Even if there were other possible operating conditions for the Westfield chair (and even if some of those conditions are not suitable for modeling with Case 2), Mr. Smith has plainly shown at least when used by a user in its normal rocking condition the Mulberry Bounce Chair infringes under Case 2 loading condition." Compl. Br. at 123. However, as Mr. Smith testified, in a normal rocking condition, the steel plate spring passes through a Case III loading condition. Smith Tr. 163-164. The steel plate spring of the Mulberry Bounce Chair is not interchangeable with 2 links, 1 pin, and 1 torsion spring.

Moreover, Mr. Smith performed a finite element analysis of only one position of the Mulberry Bounce Chair and only loaded with one loading. CX-0002C (Smith DWS) at Q/A 668-69. However, the equations in the *Compliant Mechanism* textbook establish that the location of the pivot point, the lengths of the links, and the spring constant depend upon loading conditions, *i.e.* they all depend on the specific forces and moments. CX-0019 (*Compliant Mechanisms*). As the specifics of the applied load change, the lengths of the links (and thus the location of the pivot/pin) and the spring constant for the torsion spring at the pin change. The equations and considerations for calculating force-moment combinations are more complicated

and vary even more with difference loadings. *See* CX-0019 at 11-17 (adding more complexity with each additional load variant, culminating in combined force-moment loading which is "more complex" than the above loading condition). Dr. Cameron testified that it was "extremely shocking" to hear Mr. Smith testify that the pivot point would remain stationary. Cameron Tr. 371.

Dr. Cameron showed how a specific link, pin, and spring mechanism combination, modeled under the pseudo-rigid-body model, is not interchangeable with the spring steel in the Mulberry Bounce Chair. *See id.* at 374. As explained by Dr. Cameron, this means that the supposed pivot point would move during motion and would change with loading. *See id.* at 370-372; 375.

It is therefore determined that the Mulberry Bounce Chair does not satisfy this claim limitation.

j. at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions;

i. MacSports

The evidence adduced at the hearing demonstrates that the MacRocker does not include a rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions. *See* RX-0392C (Howle RWS) at Q/A 89.

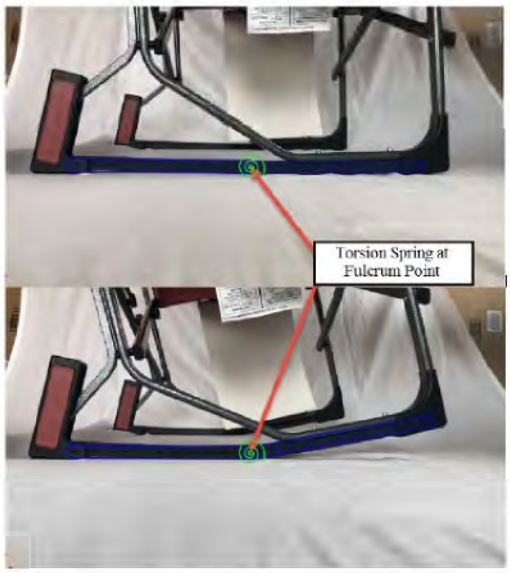
GCI argues:

> The MacRocker satisfies the claim element **"at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions,"** as recited by claim 1 of the '611 Patent. CX-0002C (Smith DWS) at Q/A 434-38,

677-85.



CDX-0082



CDX-0018

As shown in CDX-0082, the MacRocker has a rocker mechanism in the form of a spring member that runs the length of the bottom of the chair and supports the chair frame during movement between forward and rearward rocking positions. *Id.* at Q/A 435-36; *see also* CX-0372C (MacRocker Product Info Sheet) (showing fiberglass material); CX-0029C (Spec Sheet); CX-0031C (MacSports Provisional Application) at MAC_000178, MAC_000171-72; CX-0352C (Wei Dep.) at 79:15-20, 80:11-82:8, CX-0416 (Customer Reviews) at TOFASCO000002. Even the name of the product (the "MacRocker") evidences the chair's ability to rock.

A POSITA would understand that the MacRocker's flexible member is equivalent to and interchangeable with a rigid linkage of two links with a torsion spring at a pin joint (i.e., the fulcrum point) between the links. CX-0002C (Smith DWS) at Q/A 654, 663; *see also* CX-0018.0001; CDX-0018.

One of the corresponding structures for the "rocker mechanism" set forth in the specification is a "torsion spring." JX-0002 ('611 Patent) at 4:9-11, 11:21-25. Thus, as rigid links with a torsion spring are used to model the MacRocker's spring members, a POSITA would recognize that the spring member is an equivalent of a torsion spring. Tr. (Smith) at 276:19-277:16; CX-0002C (Smith DWS) at Q/A 438. The MacRocker's spring member deflects and stores energy as the chair rocks, thereby achieving the same effects as the torsion springs described in the '611 Patent. *Id.* at Q/A 682. Indeed, just like a torsion spring, the MacRocker's spring member stores energy in order to create a rocking motion. Tr. (Smith) at 275:21-277:6; *see also* Tr. (Cameron) at 337:24-338:6 (agreeing that a spring storing energy can aid a user in rocking).

In addition, the MacRocker's spring member performs the function of "supporting the chair during movement of the chair frame between said forward and rearward positions," as recited by the means-plus-function construction for "rocker mechanism." *Id.* at Q/A 438. Thus, the MacRocker has a literal "rocker mechanism." *Id.* at Q/A 685.

Indeed, the '611 Patent teaches that a torsion spring, by itself, is one example of a corresponding structure for the rocker mechanism. *See, e.g.*, JX-0002 ('611 Patent) at 11:21-25. MacSport's invalidity expert Dr. Lee agreed. Tr. (Lee) at 467:21-468 (confirming that a torsion spring alone constitutes the alternative structure of the rocker mechanism).

Thus, the MacRocker satisfies the "rocker mechanism" limitation literally because its flexible spring member is equivalent to one of the corresponding structures (a torsion spring) explicitly disclosed in the '611 Patent, and because this spring member performs the recited function of supporting the chair during movement of the chair frame between forward and rearward positions. CX-0002C (Smith DWS) at Q/A 434-38, 677-85.

Compl. Br. at 108-10.

MacSports argues, in part:

GCI also failed to show that the MacRocker has a "rocker mechanism" under either GCI's or MacSports' construction of that term. Here again, the MacRocker has many obvious differences from the claimed "rocker mechanism" of the '611 patent. RX-0392C, Q&A 112. For example, "rocker mechanism 32" of the '611 patent is shown in Figure 2 of the '611 patent as a rather large structure extending from the back of the chair to the ground, and then forward along the ground to the middle of the chair frame. RX-0392C, Q&A 112; JX-0002, 7:25, Fig. 3. The rocker mechanism, as disclosed, comprises many components, including a spring 46, a tubular member 38, and a sleeve 44, as well as a support runner 34. RX-0392C, Q&A 112, JX-0002, 7:42-64; Fig. 6. Mr. Smith confirmed this at the hearing. Hrg. Tr. (Smith) 271:3-17. It also has a fulcrum point Mr. Smith described as a "connector that, you know, a pin or a bolt or something that connects them." *Id.* 217:20-218: 6. In contrast, the MacRocker lacks these components and instead uses a flat elastic member laying on the ground that bends. RX-0392C, Q&A 113; Hrg. Tr. (Smith) 218: 11-24.

Despite these differences, Mr. Smith relies on the purported compliant mechanism in the MacRocker to show literal infringement under GCI's construction of "rocker mechanism," which is "a mechanism to aid the rocking movement of a chair frame." CX-0002C, Q&A 438. But the elastic beams (or flexible members) of the MacRocker are very different than the rocker mechanisms claimed in the '611 patent. The elastic beams are single components, and therefore fail to meet the definition of a mechanism as would be understood by a POSA. RX-

0392C, Q&A 114. In particular, a POSA would understand the term mechanism to be defined as "[t]hat part of a machine which contains two or more pieces so arranged that the motion of one compels the motion of the others." RX-0389, McGraw-Hill Dictionary of Science and Engineering, 1984. A single component – the MacRocker elastic beam – cannot meet the definition of a mechanism. RX-0392C, Q&A 114.

Notably, Mr. Smith relies on exactly the same component of the MacRocker to be both the "rocker mechanism" and the "fulcrum point." Hrg. Tr. (Smith) 219:11-16. Using the same component to show infringement of more than one element is contrary to the explicit claim language here. *Becton, Dickinson & Co. v. Tyco Healthcare Grp. LP*, 616 F.3d 1249 (Fed. Cir. 2010) ("Where a claim lists elements separately, 'the clear implication of the claim language' is that those elements are 'distinct component[s]' of the patented invention.") (citations omitted).

Further, the '611 patent shows a fulcrum point and a rocker mechanism as separate components. Mr. Smith testified at the hearing that the same component of the MacRocker is equivalent to both the fulcrum point and the rocker mechanism. Hrg. Tr. (Smith) 219:11-16. This interpretation would implicate almost every component of any chair that performs a "rocking mechanism." For GCI's construction of "rocker mechanism" to have any limits at all, it cannot be interpreted to mean the component that is performing the rocking mechanism is the same component that also "aids" it.

Doubling down on his hypothetical model, Mr. Smith argues that the hypothetical model he created somehow shows literal infringement of "rocker mechanism" under Respondents' construction of this phrase. MacSports contends this is a means plus function claim, with the function "for supporting the chair during movement of the chair frame between said forward and rearward positions" and the means as described in the specification at column 11, lines 17 through 32. RX-0392C, Q&A 48; JX-0002 ('611 patent), 11:16-32. Mr. Smith's argument fails for several reasons.

For literal infringement of a means plus function claim, both the function and at least an equivalent structure to those shown in the '611 patent must exist in the MacRocker. Nowhere does Mr. Smith argue that such a structure literally exists. CX-0002C, Q&A 438. Instead, Mr. Smith argues that the '611 patent shows torsion springs as a possible alternative to the disclosed rocker mechanism, and then points to the torsion springs in his hypothetical model as an equivalent structure of a "rocker mechanism." CX-0002C, Q&A 438. However, the MacRocker has no torsion springs; indeed, Mr. Smith had to draw them onto a picture of the MacRocker. RX-0392C, Q&A 94-95. Here again, Mr. Smith is relying on a two-step analysis that is one step too far.

* * *

> A POSA would not conclude that the MacRocker infringes the claim element "rocker mechanism" of claim 1 of the '611 patent. As a result, GCI has failed to carry its burden of proving that the MacRocker chairs infringe claim 1 of the '611 patent either literally or under the doctrine of equivalents.

Resps. Br. at 100-04.

The construction of this claim term was discussed above; "rocker mechanism" is construed pursuant to 35 U.S.C. § 112(f), and the function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." As proposed by GCI, it is determined that the structure corresponding to the claimed "rocker mechanism" includes the following portions of the specification: col. 3, ln. 55 – col. 4, ln. 11, col 6, lns. 56-64, col. 7, lns. 42-64, col. 11, lns. 17-32, col. 11, ln. 55 – col. 12, ln. 27, and FIGS. 2, 6, and 9.

GCI argues that the MacRocker uses an equivalent of a torsion spring, which the '611 patent teaches as a corresponding structure for the rocker mechanism. *See* Compl. Br. at 110. The '611 patent recites, in pertinent part, "In still another alternate embodiment, the rocker mechanism comprises a torsion spring operatively associated with the fulcrum point of each frame side assembly." JX-0002 ('611 patent) at col. 4, lns. 8-11. The '611 patent further recites, in pertinent part, "In alternate designs, this rocker mechanism 32 can be replaced by torsion springs provided on the lower portion of each frame side member assembly—for example, at the fulcrum point of each frame assembly on a support runner." *Id.* at col. 11, lines 21-25.

GCI contends that the MacRocker's flat elastic member is an equivalent of the torsion spring disclosed in the '611 patent. *See* Compl. Br. at 109-10. GCI argues, "[T]he MacRocker has a rocker mechanism in the form of a spring member that runs the length of the bottom of the chair and supports the chair frame during movement between forward and rearward rocking

positions." Compl. Br. at 109.

The administrative law judge finds that the MacRocker does not include a torsion spring, or the equivalent of a torsion spring, as GCI contends. Mr. Smith testified:

> A compliant member is most certainly an equivalent of a torsion spring provided on the lower member. For example, compliant mechanisms are equivalent to and typically analyzed and designed using the pseudo-rigid-body model which "predicts the deflection path and force-deflection relationships of a flexible segment. The motion is modeled by rigid links attached at pin joints. Springs are added to the model to accurately predict the force-deflection relationships of the compliant segments." Compliant Mechanisms at p. 135 (CX-0018). As rigid links with a torsion spring are used to model flexible members, they are clearly equivalent structures. An example of a compliant member and its pseudo-rigid-body model are shown above. This concept is also discussed further in the body of the report.

CX-0002C (Smith DWS) at Q/A 524. Dr. Howle testified:

> Additionally, at Mr. Smith argues that "[a] compliant member is most certainly an equivalent of a torsion spring provided on the lower member." CX-0002C (Smith Witness Statement), Q7A 524. I disagree with this statement as a POSITA would understand that Mr. Smith's purported compliant member is actuated by and returns a linear force transverse to the long axis of the purported compliant member. Conversely, a torsion spring is actuated by and returns a torque applied to the end of the spring. Therefore, a purported compliant member and a torsion spring operate in a different way to produce a different result.

RX-0392C (Howle RWS) at Q/A 117.

The administrative law judge finds that the compliant member is actuated by and returns a linear force transverse to the long axis of the purported compliant member, rather than a torque applied to the end of the spring. A torsion spring requires a torque to be applied to the spring, rather than a linear force on an elastic member.

Moreover, the MacRocker's compliant member functions in a substantially different way from the torsion spring disclosed in the '611 patent. Dr. Howle testified that the contact point between the MacRocker and the ground moves as the chair rocks backwards and forwards. *See*

id. at Q/A 116. In contrast to the static support runner of the '611 patent, while the MacRocker's compliant member flexes and moves. *Id.* Thus, the MacRocker does not have an equivalent structure to the "rocker mechanism" disclosed by the '611 patent.

It is therefore determined that the MacRocker does not satisfy this claim limitation.

ii. Westfield

The Mulberry Bounce Chair does not include "at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions." RX-0451C (Cameron RWS) at Q/A 115-20.

GCI argues, in part:

> The Mulberry Bounce Chair satisfies the claim element **"at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions"** as recited by claim 1 of the '611 Patent. CX-0002C (Smith DWS) at Q/A 582-98, 677-85.
>
> Using the PRBM, a POSITA would understand that the leaf spring in the Westfield chair is equivalent to and interchangeable with a rigid linkage of two links with a torsion spring at a pin joint (i.e., the equivalent fulcrum point) between the links. CX-0002C (Smith DWS) at Q/A 654, 668; *see also* CX-0018.0001; CDX-0019. As set forth in column 11 lines 17-32 of the '611 Patent, one of the alternative corresponding structure for the "rocker mechanism" is a torsion spring. JX-0002 ('611 Patent) at 11:21-25. Thus, as rigid links with a torsion spring are used to model the leaf spring, a POSITA would further recognize the leaf spring in the Westfield chair is an equivalent of a torsion spring as expressly recited in the '611 Patent. CX-0002C (Smith DWS) at Q/A 597, 682, 684; Tr. (Smith) at 275:21-277:6 (explaining why a POSITA would view a leaf spring as equivalent to a torsion spring). In addition, the leaf spring in Westfield's chair performs the function of "supporting the chair during movement of the chair frame between said forward and rearward positions," as recited by the claim. *Id.* at Q/A 598. Thus, the Westfield chair has a literal "rocker mechanism." CX-0002C (Smith DWS) at Q/A 685.

Compl. Br. at 128.

Westfield argues, in part:

> GCI, Westfield, and MacSports now agree that the rocker mechanism limitation should be construed under 35 U.S.C. § 112(f). The WBC does not

contain any equivalent to the "rocker mechanism" means disclosed in the specification of the '611 patent. To determine whether a § 112(f) claim limitation is met, the court must compare the accused structure with the disclosed structure, and must find both equivalent structure, and identity of claimed function for that structure. *See Lockheed Martin Corp v. Space Sys/Loral, Inc.*, 324 F.3d 1308, 1319 (Fed Cir. 2003); *Medtronic, Inc. v. Advanced Cardiovasculare Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001).

* * *

Mr. Smith relies on the "torsion spring" rocker mechanism embodiment disclosed in the '611 patent for the basis for his conclusion that the WBC's steel plate satisfies this limitation. *See* CX-0002C, Q&A 678; Hrg. Tr. (Smith) at 161:16-162:4. He acknowledges, however, that the WBC does not actually contain a torsion spring that satisfies the rocker mechanism's function. Hrg. Tr. (Smith) at 161:16-162:4, 275:25-276:4. Rather, he asserts that the WBC steel plate spring is equivalent to the torsion spring embodiment, based entirely on his flawed Pseudo-Rigid-Body-Model theory that forms the basis of his "fulcrum point" limitation opinions. *Id.*; *compare* CX-0002C, Q&A 678-85, *with id.* Q&A 665-72. For the reasons identified above at Section III.B.2.b, Mr. Smith's Pseudo-Rigid-Body Model is inapplicable to the steel plate spring of the WBC. *See* RX-0451C, Q&A 117-20. As such, his Pseudo-Rigid-Body-Model theory does not support the notion that the WBC steel plate spring is equivalent to a torsion spring.

Moreover, GCI's § 112(f) analysis fails because it has not shown that the steel plate spring of the WBC meets the FWR test. In order for an accused structure to be equivalent to a structure disclosed in the '611 patent specification under § 112(f), the accused structure must perform the claimed function in substantially the same way to achieve substantially the same result. *See EMD Millipore Corp. v. AllPure Techs., Inc.*, 768 F.3d 1196, 1202 (Fed. Cir. 2014). Smith completely failed to conduct this FWR analysis. *See generally* CX-0002C. Indeed, Mr. Smith's description of the torsion spring "twist[ing] to store energy," is inapplicable to the Westfield WBC's spring steel. Hrg. Tr. (Smith) at 275:21-24; *see also* Hrg. Tr. (Lee) at 490:22-491:21. Because Mr. Smith failed to conduct the necessary Function-Way-Result analysis, and GCI has no other expert witness testimony, GCI has failed to meet its evidentiary burden of whether the rocker mechanism limitation of the asserted claims of the '611 patent is present under § 112(f).

* * *

Dr. Cameron conducted a correct § 112(f) analysis and concluded that the WBC did not have the required equivalence. RX-0451C at 41-43; RDX-0051 at 5. As she testified, to faithfully replicate the "rocker mechanism" functionality of the steel spring of the WBC with a torsion spring – as Mr. Smith suggests – the spring constant of the torsion spring would have to vary depending on each particular user and other loading variables. Hrg. Tr. (Cameron) at 380:6-8. But there is no real-

> world torsion spring that can change its spring constant in response to a user rocking in the chair, or between different chair users, and clearly no such spring was disclosed in the specification of the '611 patent. Mr. Smith's suggestion that the spring steel of the WBC is thus interchangeable or equivalent with the torsion spring embodiment briefly described in column 11, lines 17 through 25 of the '611 patent ("rocker mechanism 32 can be replaced by torsion springs provided on the lower portion of each frame side assembly member – for example, at the fulcrum point of each frame assembly on a support runner") necessarily fails.

Resps. Br. at 89-91 (footnote omitted).

The construction of this claim term was discussed above; "rocker mechanism" is construed pursuant to 35 U.S.C. § 112(f), and the function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." As proposed by GCI, it is determined that the structure corresponding to the claimed "rocker mechanism" includes the following portions of the specification: col. 3, ln. 55 – col. 4, ln. 11, col 6, lns. 56-64, col. 7, lns. 42-64, col. 11, lns. 17-32, col. 11, ln. 55 – col. 12, ln. 27, and FIGS. 2, 6, and 9.

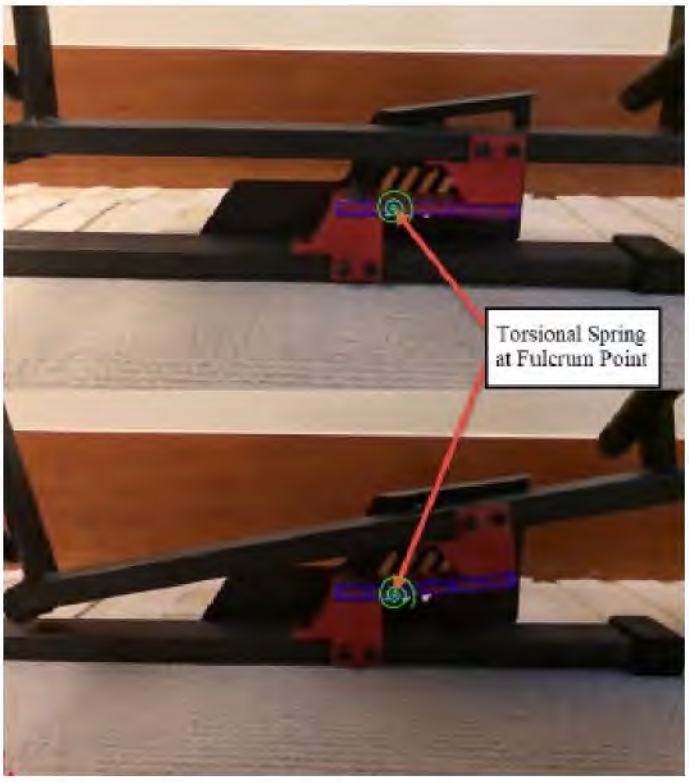
GCI argues that the Mulberry Bounce Chair uses an equivalent of a torsion spring, which the '611 patent teaches as a corresponding structure for the rocker mechanism. *See* Compl. Br. at 128. The '611 patent recites, in pertinent part, "In still another alternate embodiment, the rocker mechanism comprises a torsion spring operatively associated with the fulcrum point of each frame side assembly." JX-0002 ('611 patent) at col. 4, lns. 8-11. The '611 patent further recites, in pertinent part, "In alternate designs, this rocker mechanism 32 can be replaced by torsion springs provided on the lower portion of each frame side member assembly—for example, at the fulcrum point of each frame assembly on a support runner." *Id.* at col. 11, lines 21-25.

GCI argues, "[A] POSITA would understand that the leaf spring in the Westfield chair is

equivalent to and interchangeable with a rigid linkage of two links with a torsion spring at a pin joint (i.e., the equivalent fulcrum point) between the links." Compl. Br. at 128. However, at the hearing, Mr. Smith testified, "A torsion spring is a spring that -- instead of compressing linearly to store energy, a torsion spring twists to store energy." Smith Tr. 275.

The administrative law judge finds that the Mulberry Bounce Chair does not include a torsion spring, or the equivalent of a torsion spring. Mr. Smith testified:

> [A] PRBM for the compliant member of the Mulberry Bounce Chair is shown in CDX-0019, with the equivalent rigid links drawn in blue, and the torsion spring represented in green. This rigid body mechanism is equivalent to and interchangeable with the compliant member of the Mulberry Bounce Chair. Thus, under either party's construction of "rocker mechanism," the Mulberry Bounce Chair still has this element and infringes.



CDX-0019

CX-0002C (Smith DWS) at Q/A 684. Dr. Cameron testified:

> The structure of a torsion spring at a fulcrum point forces the chair frame to move in a circle about the fulcrum point. The Mulberry Bounce Chair, on the other hand, is not constrained to rotate about any particular point. Without the presence of an actual fulcrum point, different and dynamic loads will not be absorbed (hence the support part of the construction of fulcrum) to force the motion to be circular about the fulcrum point. The trajectory of the motion will depend on the input force, leading to a much different feel of the Mulberry Bounce Chair compared to a chair with a fulcrum. Mr. Smith does not appear to have considered the different effects of dynamic loading or even different static loadings (e.g., whether the motion of the chair changes depending on the seated position of the user or the weight of the user) on the Mulberry Bounce Chair as opposed to a chair with a torsion spring at an actual fulcrum point.

RX-0451C (Cameron RWS) at Q/A 117.

The administrative law judge finds that the Mulberry Bounce Chair does not include a torsion spring, or the equivalent of a torsion spring, for the following reasons. First, as discussed above with regard to the "fulcrum point" limitation, Westfield's steel plate cannot be replaced with the proposed equivalent of a mechanism consisting of 2 links, 1 pin, and 1 torsion spring. Mr. Smith misapplies the PRBM in the context of the Mulberry Bounce Chair because, under normal rocking condition, the steel plate spring must pass through a Case III loading with an inflection point. Second, Westfield's steel plate does not function in the same way as a torsion spring to achieve the same result. Mr. Smith's description of the torsion spring ("twist[ing] to store energy") is inapplicable to the Westfield steel plate. Smith Tr. 275.

It is therefore determined that the Mulberry Bounce Chair does not satisfy this claim limitation.

k. wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair.

The MacRocker satisfies "wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair." CX-0002C (Smith

DWS) at Q/A 439-43. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

The Mulberry Bounce Chair satisfies "wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair." CX-0002C (Smith DWS) at Q/A 599-602. Westfield does not contest that the Mulberry Bounce Chair satisfies this limitation. *See* Resps. Br. at 72-92.

* * *

It is therefore determined that the accused MacSports and Westfield products do not infringe asserted independent claim 1 of the '611 patent.

2. Claim 2

The MacSports and Westfield products are accused of infringing dependent claim 2 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 1

As discussed above, the accused MacSports and Westfield products do not satisfy all limitations of independent claim 1.

b. wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up.

The evidence adduced by GCI demonstrates that the accused MacRocker satisfies the additional claim 2 limitation "wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up." *See* CX-0002C (Smith DWS) at Q/A 445. MacSports does not contest that the MacRocker satisfies this claim limitation. *See* Resps. Br. at 92-107.

The evidence adduced by GCI demonstrates that the accused Mulberry Bounce Chair satisfies the additional claim 2 limitation "wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up." *See* CX-0002C (Smith DWS) at Q/A 604-06. Westfield does not contest that the Mulberry Bounce Chair satisfies this claim limitation. *See* Resps. Br. at 72-92.

* * *

It is therefore determined that the accused MacSports and Westfield products do not infringe asserted dependent claim 2 of the '611 patent.

3. Claim 8

The MacRocker is accused of infringing dependent claim 8 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 1

As discussed above, the accused MacRocker does not satisfy all limitations of independent claim 1.

b. wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly.

As noted above, "rocker mechanism" is construed pursuant to 35 U.S.C. § 112(f), and the function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." None of the disclosed structures in the '611 patent corresponds to the flat elastic member of the MacRocker.

As there is no rocker mechanism on the MacRocker, the MacRocker does not satisfy this claim limitation.

* * *

It is therefore determined that the MacRocker does not infringe asserted dependent claim 8 of the '611 patent.

4. Claim 10

The Mulberry Bounce Chair is accused of infringing dependent claim 10 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 1

As discussed above, the accused Mulberry Bounce Chair does not satisfy all limitations of independent claim 1.

b. wherein each cross member includes a front portion, a central front-back portion, and a rear portion, such that the front portions of the pair of cross members are pivotally connected at a front pivot point, the rear portions of the pair of cross members are pivotally connected at a rear pivot point, and the central front-back portions collectively define the seat support of the chair and receive the flexible seat panel therebetween for supported a seated user.

The evidence adduced by GCI demonstrates that the accused Mulberry Bounce Chair satisfies the additional claim 10 limitation "wherein each cross member includes a front portion, a central front-back portion, and a rear portion, such that the front portions of the pair of cross members are pivotally connected at a front pivot point, the rear portions of the pair of cross members are pivotally connected at a rear pivot point, and the central front-back portions collectively define the seat support of the chair and receive the flexible seat panel therebetween for supported a seated user." *See* CX-0002C (Smith DWS) at Q/A 608-20.

Westfield does not contest that the Mulberry Bounce Chair satisfies this claim limitation. *See* Resps. Br. at 72-92.

* * *

It is therefore determined that the Mulberry Bounce Chair does not infringe asserted dependent claim 10 of the '611 patent.

5. Claim 11

The Mulberry Bounce Chair is accused of infringing dependent claim 11 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 10, further comprising:

As discussed above, the accused Mulberry Bounce Chair does not satisfy all limitations of independent claim 1, upon which claim 10 depends.

b. a forward support brace connected between the front portion of each cross member and the front leg portion of the frame side assembly to which the cross member is not pivotally connected at the terminal end thereof; and a rear support brace connected between the rear portion of each cross member and the rear leg portion of said frame side assembly.

The evidence adduced by GCI demonstrates that the Mulberry Bounce Chair includes the additional claim 11 limitations: "a forward support brace connected between the front portion of each cross member and the front leg portion of the frame side assembly to which the cross member is not pivotally connected at the terminal end thereof; and a rear support brace connected between the rear portion of each cross member and the rear leg portion of said frame side assembly." *See* CX-0002C (Smith DWS) at Q/A 622-27.

Westfield does not contest that the Mulberry Bounce Chair satisfies this claim limitation. *See* Resps. Br. at 72-92.

* * *

It is therefore determined that the Mulberry Bounce Chair does not infringe asserted dependent claim 11 of the '611 patent.

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d. a fulcrum point supporting each frame side assembly and about which said chair frame can move between forward and rearward positions

The administrative law judge finds that the MacRocker does not include the claimed fulcrum point.

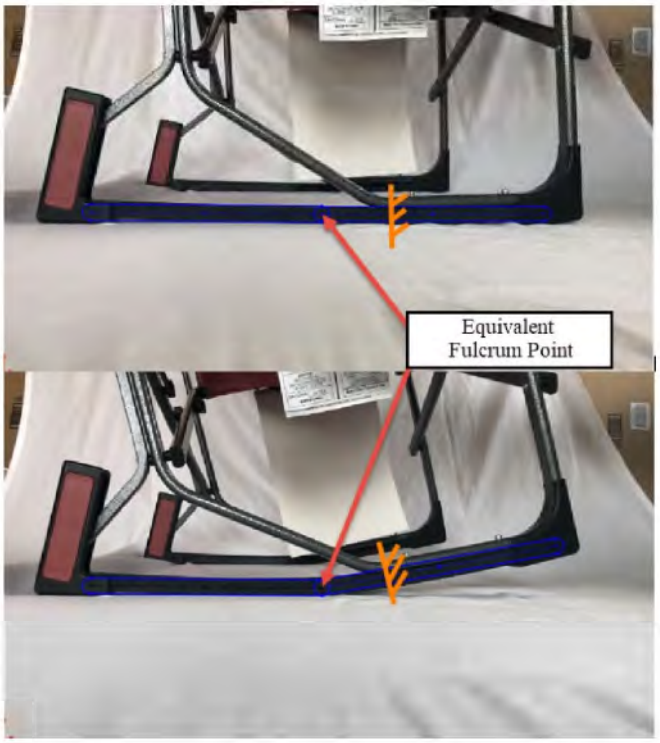
GCI concedes that the MacRocker does not literally infringe but contends that it infringes under the doctrine of equivalents. *See, e.g.*, Smith Tr. 199. GCI bases that contention solely on Mr. Smith's testimony, where Mr. Smith relies on the PRBM. *Id.* at 16-18. GCI relies on the following analysis from Mr. Smith:

> The MacRocker meets this limitation under the doctrine of equivalents as the flexible member performs substantially the same function in substantially the same way producing substantially the same result as the claimed fulcrum point. It is well known in designing compliant mechanisms that "[f]or each flexible segment… the motion is modeled by rigid links attached at pin joints." Compliant Mechanisms at p. 135 (CX-0018). The pin joint is referred to as the characteristic pivot and is equivalent to a fulcrum point as the differences are insubstantial. The function of the fulcrum point is to allow movement between forward and backward positions, the way is by providing a pivot (real or characteristic/theoretical), and the result is rocking motion of the chair frame. It is this configuration that allows the chair to move between forward and rearward positions.

CX-0002C (Smith DWS) at Q/A 432.

GCI additionally relies on the following testimony of Mr. Smith:

> The compliant member in the MacRocker is equivalent to a pair of rigid links with a fulcrum point, as I've illustrated in CDX-0008. The compliant member's fulcrum point performs substantially the same function of supporting the chair and allowing motion about it, in substantially the same way, by providing a pivot either real or characteristic, and having substantially the same result: rocking motion of the frame.



CDX-0008

Id. at Q/A 663.

The administrative law judge finds that Mr. Smith's qualitative analysis incorrectly applied the PRBM to the accused products. Mr. Smith relies on a reference book, *Compliant Mechanisms*, by Professor Howell, throughout his PRBM analysis. CX-0002C (Smith DWS) at Q/A 647 (citing CX-0018 (*Compliant Mechanisms*), p. 135). Professor Howell's book recites: "The key for each pseudo-rigid-body model is to decide where to place the pin joints and what value to assign the spring constants." CX-0018, p. 134. Mr. Smith testified that he never calculated a single spring constant. Smith Tr. 207-209. In failing to perform any calculations, Mr. Smith never quantified the actual operation of the MacRocker. This analysis both contravened the instructions in the quoted reference, and lacked quantitative analysis which could be tested and verified to ensure that the infringement analysis properly compares the

construed claim to the accused product. *See, e.g., Bd. of Regents of the Univ. of Tex. Sys. v. BENQ Am. Corp.*, 533 F.3d 1362, 1367 (Fed. Cir. 2008).

As noted above, "a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions" means "a point on which a chair frame is supported and about which the chair frame pivots." In contrast, the MacRocker uses a flexible compliant member (called a compliant mechanism by GCI) that bends and rolls more like a traditional rocking chair.

Mr. Smith's opinion does not rely on any tests of the MacRocker, and Mr. Smith testified that the MacRocker chair "moved differently" from the GCI chair. Smith Tr. 193-194.

Dr. Howle conducted two primary sets of tests on the MacRocker chairs to assess whether they infringe the '611 patent. First, he recorded a video of the lower elastic beam as the chairs rocked backward and extracted images showing the initial and final contact pressure areas. RX-0392C (Howle RWS) at Q/A 65-70; RX-0391. This test showed that the MacRocker does not have a fulcrum point about which the chair rotates and, instead, rolls along the ground like a traditional rocking chair. RX-0392C (Howle RWS) at Q/A 71-73.

As explained in detail in his witness statement, Dr. Howle's second set of tests involved the use of pressure sensitive film to document the contact stress, or pressure, between the MacRockers and a rigid surface on which he placed them. *See id.* at Q/A 74-83. This test showed that the two MacRocker chairs roll along the ground as they are rocked. *See id.* at Q/A 84-86. Dr. Howle then explained that these tests led him to conclude that the MacRocker chairs lack a fulcrum point and do not infringe the '611 patent literally or under the doctrine of equivalents. He testified that the MacRockers do not infringe under the doctrine of equivalents "because they do not function in the same way (pivoting vs. rolling) to produce the same result

(pivoting rocking vs. rolling rocking)." *See id.* at Q/A 87-88. Mr. Smith testified that pressure sensitive film is used by engineers, commonly used by those of skill in the art, and that he has used it before, but did not use it here. Smith Tr. 197-198.

The administrative law judge finds that the MacRocker's flexible compliant member bends and rolls in a manner that is substantially different from that of the invention of the '611 patent. When there are such significant differences, a doctrine of equivalents analysis fails. *See Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1344-45 (Fed. Cir. 2016) ("A finding to the contrary would render the requirement that the feedback signals be 'distinct'—the feature described by the inventor as critical to the invention's novelty—meaningless."); *Wallace London & Clemco Prods. v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991) ("Application of the doctrine of equivalents is the exception ... not the rule, for if the public comes to believe (or fear) that the language of patent claims can never be relied on, and that the doctrine of equivalents is simply the second prong of every infringement charge, regularly available to extend protection beyond the scope of the claims, then claims will cease to serve their intended purpose.").

The MacRocker is more like the prior art rocking chair shown in Figure 1 of the '611 patent than the chair including the claimed fulcrum point. Smith Tr. 215; JX-0002 ('611 patent) at Figure 1; RX-0392C (Howle RWS) at Q/A 67-73, 87. The claimed "fulcrum point" of the '611 patent pivots the chair around a fixed point, pushing against a spring, and Mr. Smith testified that the "fulcrum point" of the '611 patent does not move along the ground. Smith Tr. 210. Mr. Smith further explained that, in the model he constructed, the claimed fulcrum point does not move as the chair rocks forward and backward. *See id.* at 210-211. However, as Dr. Howle testified to in his witness statement, the fulcrum point of the MacRocker does move as the

chair rocks back and forth. *See* RX-0392C (Howle RWS) at Q/A 71-73.

It is therefore determined that the MacRocker does not satisfy this claim limitation.

e. whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points;

The MacRocker satisfies "whereby the front and rear leg portions move relative to the support surface on which the chair is set up with movement of the chair frame about the fulcrum points." CX-0002C (Smith DWS) at Q/A 473-75. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

f. a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between

The MacRocker includes "a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between." CX-0002C (Smith DWS) at Q/A 476-79. MacSports does not contest that the MacRocker includes this limitation. *See* Resps. Br. at 92-107.

g. an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another,

The MacRocker satisfies "an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another." CX-0002C (Smith DWS) at Q/A 480-83. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

h. said cross members collectively defining a seat support when in the open condition,

The MacRocker satisfies "said cross members collectively defining a seat support when in the open condition." CX-0002C (Smith DWS) at Q/A 484-86. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

i. each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemhlies;

The MacRocker satisfies "each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies." CX-0002C (Smith DWS) at Q/A 487-90. MacSports does not contest that the MacRocker satisfies this limitation. *See* Resps. Br. at 92-107.

j. a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition;

The MacRocker includes "a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition." CX-0002C (Smith DWS) at Q/A 491-94. MacSports does not contest that the MacRocker includes this limitation. *See* Resps. Br. at 92-107.

k. a first foot associated with the front leg portion of each frame side assembly;

The MacRocker includes "a first foot associated with the front leg portion of each frame side assembly." CX-0002C (Smith DWS) at Q/A 495-99. MacSports does not contest that the MacRocker includes this limitation. *See* Resps. Br. at 92-107.

l. a second foot associated with the rear leg portion of each frame side assemhly;

The MacRocker includes "a second foot associated with the rear leg portion of each frame side assembly." CX-0002C (Smith DWS) at Q/A 500-04. MacSports does not contest that the MacRocker includes this limitation. *See* Resps. Br. at 92-107.

m. a third foot associated with the fulcrum point of each frame side assembly;

The MacRocker does not include "a third foot associated with the fulcrum point of each frame side assembly." *See* RX-0392C (Howle RWS) at Q/A 130.

GCI argues, in part:

> The MacRocker also satisfies the claim element **"a third foot associated with the fulcrum point of each frame side assemhly,"** as recited by claim 14 of the '611 Patent. CX-0002C (Smith DWS) at Q/A 505-11. As shown in CDX-0007 through CDX-0009, CDX-0080, and CDX-0081, the MacRocker has an equivalent fulcrum point. As shown in CDX-0117, the MacRocker has a third foot associated with the general location of the equivalent fulcrum point of each frame side assembly (*i.e.*, at the point where the spring member contacts the ground). CX-0002C (Smith DWS) at Q/A 506. Further, as shown in CDX-0117, when a user is seated in the chair, a portion of the spring member contacts the ground/support surface ("protruding" toward the ground, under MacSport's construction) near the fulcrum point, thereby providing support for the chair frame. *Id.* at Q/A 507.
>
> This contact area with the ground surface is further evidenced by Dr. Howle's pressure-sensitive film test and Mr. Smith's paper thickness gauge test. *See* RDX-0392C (Howle RWS) at Q/A 80-85; Tr. (Smith) at 281:13-283:7; RX-0064 (illustrating the position relationship between the equivalent fulcrum point and the portion of the flexible member contacting the ground); Tr. (Howle) at 446:5-448:17 (confirming that, besides the front and back end caps, there is also a portion near the middle of the spring member that contacts the ground during rocking).
>
> This limitation is satisfied under either party's proposed construction. CX-0002C (Smith DWS) at Q/A 510. The structures identified here are plainly each "a contact at the lower portion of each side of a chair frame, each corresponding to a point on which the chair frame is supported and about which the chair frame pivots," as proposed by GCI. *Id.* at Q/A 511. The contact area is also associated with the equivalent fulcrum point, as shown in RX-0064. Tr. (Smith) at 282:10-283:1.

In addition, the MacRocker also meets MacSports's proposed construction of the "third foot" (i.e., "a protrusion toward the ground or other support surface from the frame side assembly near the fulcrum point,") at least under the doctrine of equivalents. CX-0002C (Smith DWS) at Q/A 509. For example, the portion of the spring member that remains in contact with the support surface on which the chair rests while rocking is equivalent to the claimed "third foot," at least because it performs the same function (acting as a contact to support a portion of the chair frame), in the same way (by directly engaging and contacting the support surface), to achieve the same result (supporting the chair frame while rocking and stationary). *Id.* Again, that contact area is associated with the equivalent fulcrum point as shown in RX-0064. Tr. (Smith) at 282:10-283:1.

In short, this limitation is met literally under GCI's proposed construction of the "third foot." Further, there are insubstantial differences between the claimed "third foot" and the equivalent structure on the MacRocker on which the chair frame rests under MacSport's proposed construction. CX-0002C (Smith DWS) at Q/A 509.

Compl. Br. at 115-16.

MacSports argues, in part:

This claim phrase appears in claim 14, and is not practiced by the MacRocker. Under GCI's construction, this claim element reads "a contact at the lower portion of each side of a chair frame, each corresponding to a point on which the chair frame is supported and about which the chair frame pivots" but the MacRocker does not have a fulcrum point, either literally or under the doctrine of equivalents. Thus, under GCI's construction, the MacRocker does not have a third foot. RX-0392C, Q&A 130.

Likewise, under MacSports' construction "a protrusion toward the ground or other support surface from the frame side assembly near the fulcrum point," this claim limitation is absent from the MacRocker. First, there is no fulcrum point on the MacRocker under MacSports' construction of "fulcrum point," literally or under the doctrine of equivalents. RX-0392C, Q&A 131. Second, there is no "protrusion toward the ground or other support surface from the frame side assembly near the fulcrum point." *Id.*

The elastic beam of the MacRocker is in direct contact with the ground during portions of normal operation, so there is no component protruding from the frame side assembly that acts as a foot. Mr. Smith's purported first foot and second foot are separate components that hold or contain a portion of the elastic member. Yet, despite the obvious differences, Mr. Smith does not explain why or how one part of a long elastic member should be understood as literally showing a foot. RX-0392C, Q&A 132.

> The MacRocker elastic member does not comprise a "third foot" under the doctrine of equivalents. RX-0392C, Q&A 133. The elastic member flexes as the chair rocks back and forth, and the contact area between the elastic member and the ground surface does not remain stationary but rather travels toward the rear of the chair. *Id.* Thus, it does not support the chair frame in the same way as a literal foot would.

Resps. Br. at 92-107.

The construction of this claim term was discussed above; "a third foot associated with the fulcrum point of each frame side assembly" means "a contact at the lower portion of each side of a chair frame, each corresponding to a point on which the chair frame is supported and about which the chair frame pivots."

As noted above, the MacRocker uses a flexible compliant member (called a compliant mechanism by GCI) that bends and rolls more like a traditional rocking chair. Hence, the MacRocker does not include "a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions."

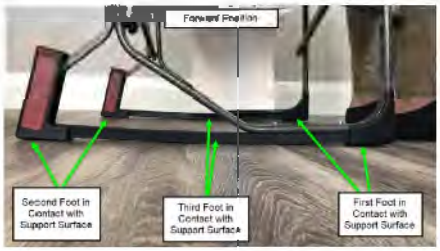
As there is no fulcrum point on the MacRocker, there is no third foot associated with the fulcrum point of each frame side assembly.

n. wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame.

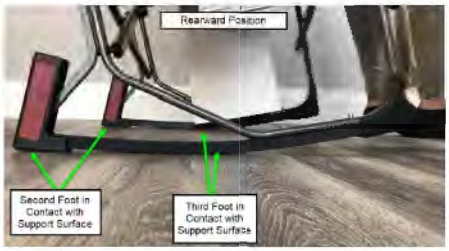
The MacRocker does not satisfy "wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame." RX-0392C (Howle RWS) at Q/A 134-35.

GCI argues, in part:

For the same reasons described already, the MacRocker has the required "third foot." CX-0002C (Smith DWS) at Q/A 505-11; *see also id.* at Q/A 516-17.



CDX-0117



CDX-0118

> . . . When the chair is rocked backward, at least the second and third feet remain in contact with the support surface and the rocking backward of the chair causes the chair to rest also on the third foot located at or near the fulcrum point. CX-0002C (Smith DWS) at Q/A 514; Tr. (Howle) at 447:22-25, 448:9-17. Similarly, Mr. Smith paper thickness gauge test shows at least two feet contacting the ground at all times. *See* Tr. (Smith) at 281:13-283:7; RX-0064 (illustrating the position relationship between the equivalent fulcrum point and the portion of the flexible member contacting the ground).

Compl. Br. at 116-17.

MacSports argues, in part:

> The MacRocker does not practice this claim limitation of claim 14 under either GCI's construction "of three contact surfaces at the lower portion of each side of the chair frame, at least two of said contact surfaces touch the surface on which the chair frame sits in a set up condition at any position of the chair frame during rocking motion of the chair frame" or MacSports' construction "at least 2 feet must always be in contact with the ground or support surface." This is because, in part, the accused MacRocker does not have a third foot. RX-0392C, Q&A 134-35.
>
> . . . Therefore, under either GCI's or MacSports' construction for this claim element, the accused MacRocker does not maintain contact with the support surface with at least two of the first, second, and third feet at all positions between the forward and rearward positions of the chair frame. *Id.* Thus, the MacRocker does not literally practice this claim element. This element is also not practiced under the doctrine of equivalents, as two contacts being on the ground at all times is substantially different than having one contact on the ground. RX-0392C, Q&A 136.

Resps. Br. at 92-107.

The construction of this claim term was discussed above; "wherein each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame" means "at least two of the first, second and third feet must always be in contact with the ground or other support surface."

As noted above, the MacRocker does not include "a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions," and hence does not include "a third foot associated with the fulcrum point of each frame side assembly."

Mr. Smith testified that, during normal operation, the elastic beams of the MacRocker lifts completely off the ground. Smith Tr. 211. This leaves the only contact between the chair and ground at the end-cap of the elastic beam. RX-0392C (Howle RWS) at Q/A 134-35. Also, during most normal operation, the front portion of the MacRocker elastic beam would leave the ground and, as the MacRocker does not have a third foot, that leaves only the second foot still in contact with a support surface. *See id.*

It is therefore determined that the MacRocker does not satisfy this claim limitation.

* * *

It is therefore determined that the MacRocker does not infringe asserted independent claim 14 of the '611 patent.

7. Claim 15

The MacRocker is accused of infringing dependent claim 15 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 14

As discussed above, the accused MacRocker does not satisfy all limitations of independent claim 14.

b. further comprising at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between the forward and rearward positions.

The construction of this claim term was discussed above; "rocker mechanism" is construed pursuant to 35 U.S.C. § 112(f), and the function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." As proposed by GCI, it is determined that the structure corresponding to the claimed "rocker mechanism" includes the following portions of the specification: col. 3, ln. 55 – col. 4, ln. 11, col 6, lns. 56-64, col. 7, lns. 42-64, col. 11, lns. 17-32, col. 11, ln. 55 – col. 12, ln. 27, and FIGS. 2, 6, and 9.

GCI argues that the MacRocker uses an equivalent of a torsion spring, which the '611 patent teaches as a corresponding structure for the rocker mechanism. *See* Compl. Br. at 110. The '611 patent recites, in pertinent part, "In still another alternate embodiment, the rocker mechanism comprises a torsion spring operatively associated with the fulcrum point of each frame side assembly." JX-0002 ('611 patent) at col. 4, lns. 8-11. The '611 patent further recites, in pertinent part, "In alternate designs, this rocker mechanism 32 can be replaced by torsion springs provided on the lower portion of each frame side member assembly—for example, at the fulcrum point of each frame assembly on a support runner." *Id.* at col. 11, lines 21-25.

GCI contends that the MacRocker's flat elastic member is an equivalent of the torsion spring disclosed in the '611 patent. *See* Compl. Br. at 109-10. GCI argues, "[T]he MacRocker

has a rocker mechanism in the form of a spring member that runs the length of the bottom of the chair and supports the chair frame during movement between forward and rearward rocking positions." Compl. Br. at 109.

The administrative law judge finds that the MacRocker chair does not include a torsion spring, or the equivalent of a torsion spring, as GCI contends. Mr. Smith testified:

> A compliant member is most certainly an equivalent of a torsion spring provided on the lower member. For example, compliant mechanisms are equivalent to and typically analyzed and designed using the pseudo-rigid-body model which "predicts the deflection path and force-deflection relationships of a flexible segment. The motion is modeled by rigid links attached at pin joints. Springs are added to the model to accurately predict the force-deflection relationships of the compliant segments." Compliant Mechanisms at p. 135 (CX-0018). As rigid links with a torsion spring are used to model flexible members, they are clearly equivalent structures. An example of a compliant member and its pseudo-rigid-body model are shown above. This concept is also discussed further in the body of the report.

CX-0002C (Smith DWS) at Q/A 524. Dr. Howle testified:

> Additionally, at Mr. Smith argues that "[a] compliant member is most certainly an equivalent of a torsion spring provided on the lower member." CX-0002C (Smith Witness Statement), Q7A 524. I disagree with this statement as a POSITA would understand that Mr. Smith's purported compliant member is actuated by and returns a linear force transverse to the long axis of the purported compliant member. Conversely, a torsion spring is actuated by and returns a torque applied to the end of the spring. Therefore, a purported compliant member and a torsion spring operate in a different way to produce a different result.

RX-0392C (Howle RWS) at Q/A 117.

The administrative law judge finds that the compliant member is actuated by and returns a linear force transverse to the long axis of the purported compliant member, rather than a torque applied to the end of the spring. A torsion spring requires a torque to be applied to the spring, rather than a linear force on an elastic member.

Moreover, the MacRocker's compliant member functions in a substantially different way

from the torsion spring disclosed in the '611 patent. Dr. Howle testified that the location where the MacRocker contacts the ground moves along the ground as the chair rocks backwards and forwards. *See id.* at Q/A 116. In contrast to the static support runner of the '611 patent, while the MacRocker's compliant member flexes and moves. *See id.* Thus, the MacRocker does not have an equivalent structure to the "rocker mechanism" disclosed by the '611 patent.

It is therefore determined that the MacRocker does not satisfy this claim limitation.

* * *

It is therefore determined that the MacRocker does not infringe asserted dependent claim 15 of the '611 patent.

8. Claim 19

The MacRocker is accused of infringing dependent claim 19 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 15

As discussed above, the accused MacRocker does not satisfy all limitations of independent claim 14, upon which claim 15 depends. The accused MacRocker does not satisfy the additional limitations of dependent claim 15 either.

b. wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly.

The evidence adduced by GCI demonstrates that the accused MacRocker satisfies the additional claim 19 limitation "wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly." *See* CX-0002C (Smith DWS) at Q/A 526-29.

MacSports does not contest that the MacRocker satisfies this claim limitation. *See* Resps. Br. at 92-107.

* * *

It is therefore determined that the MacRocker does not infringe asserted dependent claim 19 of the '611 patent.

D. Technical Prong

1. Claim 1

GCI alleges that the Freestyle Rocker / Mesh Freestyle Rocker, FirePit Rocker, and Beach Rocker products ("'611 GCI products") satisfy all limitations of independent claim 1 of the '611 patent.

a. A collapsible and portable rocking chair comprising:

The '611 GCI products all satisfy the claim 1 limitation "[a] collapsible and portable rocking chair." *See* CX-0002C (Smith DWS) at Q/A 844-46. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 168-70.

b. a chair frame comprising a pair of frame side assemblies having substantially mirrored construction

GCI adduced evidence showing that each of the '611 GCI products satisfies this limitation of claim 1. *See* CX-0002C (Smith DWS) at Q/A 847-50. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 168-70.

c. being relatively movable with respect to one another between a set-up condition of said chair where said frame side assemblies are transversely spaced apart from one another and a collapsed condition of said chair where said frame side assemblies are generally adjacent to one another,

Each of the '611 GCI products includes this feature of claim 1. *See* CX-0002C (Smith DWS) at Q/A 851-54. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 168-70.

d. each frame side assembly including a front leg portion and a rear leg portion;

The record evidence demonstrates that the '611 GCI products satisfy the claim 1 limitation "each frame side assembly including a front leg portion and a rear leg portion." *See* CX-0002C (Smith DWS) at Q/A 855-62. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

e. a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement

Each of the '611 GCI products includes this feature of claim 1. *See* CX-0002C (Smith DWS) at 863-66. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

f. between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another,

The evidence adduced at the hearing demonstrates that each of the '611 GCI products satisfies this limitation of claim 1. *See* CX-0002C (Smith DWS) at Q/A 867-72.

GCI argues, in part:

> Given that Westfield never sought to construe this term, Westfield's contention that "[t]he term 'generally' modifies 'parallel' to allow for only slight deviations from parallel" is a belated claim construction argument that has been waived. *See Printing & Imaging Devices*, Inv. No. 337-TA-690, Order No. 29, at 21. Regardless, the term should be given its plain and ordinary meaning in view of the specification. *See Phillips*, 415 F.3d at 1315-17.
>
> Without explaining why the purported "noticeable angle" could not be considered as merely a "slight deviation" in view of the teachings in the specification, Westfield now attempts to limit the scope of the claim based on an argument it never advanced until its motion for summary determination. EDIS Doc. ID 706763 (GCI's Opposition to Westfield's Motion for Summary Determination) at 5. Westfield further seeks to construe this term in a vacuum without consulting the explicit teachings in the specification and against the fundamental rules of claim

construction. *See Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) ("We cannot look at the ordinary meaning of the term . . . in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history.").

Essentially, Westfield ignores the qualifier "generally" and attempts to construe the term "generally parallel" devoid from the teachings in the specification such that it would exclude the preferred embodiment disclosed in Figure 7 of the '611 Patent. *See* RPreHB at 138-40. "Such an interpretation is rarely, if ever, correct and would require highly persuasive evidentiary support, which is wholly absent in this case." *Vitronics Corp. v. Conceptronic*, 90 F.3d 1576, 1583 (Fed. Cir. 1996); *see also* CX-0002C (Smith DWS) at Q/A 917-18 ("Westfield's interpretation ignores Figure 7 of the patents, which clearly ties the 'generally parallel' feature to the image shown in the Figure").

A POSITA, reading the '611 Patent, would have understood that "generally parallel" does not require the cross members to be perfectly parallel. CX-0002C (Smith DWS) at Q/A 869-70; Tr. (Cameron) at 335:18-336:24 (confirming that intersecting lines in CDX-0390 are "generally parallel" "with the understanding that Figure 7 describes generally parallel"). For example, the specification teaches that "cross members 56 are generally parallelly disposed relative to each other, as shown in FIG. 7." JX-0002 ('611 Patent) at 12:34-36; *see also* JX-0002 at 10:25-27 (describing the cross members being "disposed adjacent to one another (Fig. 7)"). Thus, a POSITA would recognize that cross members of the '611 Patent Covered Rockers are in a nearly identical "generally parallel relationship" to one another, as shown in FIG. 7 (reproduced below with annotations), when they are in the collapsed condition. This is also shown in videos CX-0173, CX-0168, and CX-0165. Thus, Westfield has failed to prove that the '611 Patent Covered Rockers do not satisfy the "generally parallel" limitation. When the claim language is properly viewed in light of the specification, GCI's rockers clearly meet this limitation.

Compl. Br. at 137-39.

Respondents argue, in part:

None of GCI's chairs practice the claims of the '611 Patent because none contain cross members that can be "disposed in generally parallel relationship with one another." Claim 1 of the '611 Patent contains the following limitation:

> a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between an open condition ... and a closed condition wherein said cross members are ***disposed in generally parallel relationship*** with one another,

JX-0002 at 13:62-14:1 (emphasis added).

Because terms are to be given their plain and ordinary meaning unless there is a clear redefinition of the term in the specification or prosecution history, the "generally parallel" requirement of the claims of the '611 patent is not met by cross members that cross one another when the chair is in a collapsed position. *See Phillips*, 415 F.3d at 1314; RX-0451C at 43; *see also* Section III.C.1. The ordinary meaning of "parallel" is extending in the same direction, equidistant at all points, and never converging or diverging. Mr. Smith's definition of the term, "two lines or planes that never cross," is in accordance with this definition. *See* Hrg. Tr. (Smith) at 150:13-19. The adjective "generally" in this context means mostly. The term "generally" modifies "parallel" to allow for only slight deviations from parallel. GCI proposes that the term "generally parallel" be so broad as to encompass crossing lines – the opposite of parallel – an absurd notion.

Thus none of the GCI chairs possess the "generally parallel" requirement of claim 1 of the '611 patent, and GCI cannot meet the technical prong of the domestic industry requirement. None of the Freestyle Rocker, Mesh Freestyle Rocker, Beach Rocker, and FirePit Rocker collapses in a manner that the cross members are in a parallel (or even near parallel) relationship with one another. Instead, the members collapse into a configuration where the cross members still cross one another to form a noticeable angle. *See* CPX-0004; CPX-0005; CPX-0006. This can be seen in the images below.

* * *

Each of the Freestyle Rocker, Firepit Rocker, and Beach Rocker maintain an X-shaped configuration when in the "closed" condition. *See, e.g.*, CX-0002C at Q&A 871-73. This X-shaped configuration is not "generally parallel" and therefore none of these chairs practice any of the claims of the '611 patent, as both independent claims require "a closed condition wherein said cross members are disposed in generally parallel relationship with one another." *See* JX-0002 at Claims 1 & 14. Mr. Smith identifies one of the embodiments of the '611 Patent, shown in Figure 7 of the '611 Patent as illustrating the meaning of "generally parallel." CX-0002C at Q&A 546. The cross members in Figure 7 are not in any way parallel, and therefore those cross members are not "generally parallel." RX-0451C at 45; JX-0002 at fig. 7.

The only way the cross members in Figure 7 of the '611 Patent are "generally parallel" would be if it is found that the specification of the '611 Patent redefined the meaning of "generally parallel." GCI did not make such a contention in the claim construction disclosures in this case, and there is no definition of "generally parallel" in the specification of the '611 Patent. Using the ordinary meaning of "generally parallel," none of the Westfield Bounce Chair, Freestyle Rocker, Firepit Rocker, or Beach Rocker have "a closed condition wherein said cross members are disposed in generally parallel relationship with one another." RX-0451C at 45-46. Therefore, none of these chairs practice any of the claims of the '611 Patent and GCI cannot satisfy the technical prong of the domestic industry

requirement.

Resps. Br. at 168-70.

The evidence adduced by GCI shows that each of the '611 GCI products satisfies "for pivotal movement between an open condition wherein said cross members are disposed to generally resemble an X-shaped configuration and a closed condition wherein said cross members are disposed in generally parallel relationship with one another." *See* CX-0002C (Smith DWS) at Q/A 867-72. The intrinsic evidence demonstrates that "generally parallel" describes the relative relationship of the cross members between the set-up and collapsed conditions – the two main conditions for the chair. *See* at JX-0002 ('611 patent) at col. 9, lns. 6-11; *id.* at col. 10, lns. 25-28 ("[T]he cross members 56 are moved from a relaxed state – where they are disposed adjacent to one another (FIG. 7) – to a set-up state – where they generally form an X-shape with one another (FIG. 2)"). Contrary to Westfield's argument, the claim language does not preclude members that cross one another.

Accordingly, it is determined that each of the '611 GCI products satisfies this claim limitation.

g. said cross members collectively defining a seat support when in the open condition,

Each of the '611 GCI products includes this feature of claim 1. CX-0002C (Smith DWS) at Q/A 873-76. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

h. each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies;

Each of the '611 GCI products includes this feature of claim 1. *See* CX-0002C (Smith DWS) at Q/A 877-80. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 168-70.

i. a flexible seat panel mounted between the cross members and defining a generally taut seat when the cross members are in the open condition;

Each of the '611 GCI products includes this feature of claim 1. CX-0002C (Smith DWS) at Q/A 881-84. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

j. a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions;

GCI adduced evidence showing that the '611 GCI products satisfy the claim 1 limitation "a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions." *See* CX-0002C (Smith DWS) at Q/A 885-94. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

k. at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions;

Each of the '611 GCI products includes this feature of claim 1. CX-0002C (Smith DWS) at Q/A 895-900. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

l. wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair.

GCI adduced evidence showing that the '611 GCI products satisfy the claim 1 limitation "wherein the open and closed conditions of the cross members generally correspond to the set-up and collapsed conditions of the chair." *See* CX-0002C (Smith DWS) at Q/A 901-04. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 168-70.

* * *

It is therefore determined that the '611 GCI products practice independent claim 1 of the '611 patent.

2. Claim 2

GCI alleges that its '611 GCI products satisfy all limitations of dependent claim 2 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 1,

As discussed above, the '611 GCI products satisfy all limitations of independent claim 1.

b. wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up.

The evidence adduced by GCI demonstrates that the '611 GCI products satisfy the additional claim 2 limitation "wherein each frame side assembly maintains at least two contact points with the support surface on which said frame side assembly is set up." *See* CX-0002C (Smith DWS) at Q/A 906-10.

Respondents do not contest that the '611 GCI products satisfy this claim limitation. *See* Resps. Br. at 168-70.

* * *

It is therefore determined that the '611 GCI products practice dependent claim 2 of the '611 patent.

3. Claim 8

GCI alleges that its '611 GCI products satisfy the limitations of dependent claim 8 of the '611 patent.

a. The collapsible and portable rocking chair according to claim 1,

As discussed above, the '611 GCI products satisfy all limitations of independent claim 1.

b. wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assemhly.

The evidence adduced by GCI demonstrates that the '611 GCI products satisfy the additional claim 8 limitation "wherein the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly." *See* CX-0002C (Smith DWS) at Q/A 911-14.

Respondents do not contest that the '611 GCI products satisfy this claim limitation. *See* Resps. Br. at 168-70.

* * *

It is therefore determined that the '611 GCI products practice dependent claim 8 of the '611 patent.

E. On-Sale Bar Under 35 U.S.C. § 102

Respondents argue, in part:

> Under 35 U.S.C. § 102, an offer for sale of a product within the scope of a claim more than one year prior to the priority date of the claim invalidates the claim. *See, e.g., Helsinn Healthcare S.A. v. Teva Pharm. USA, Inc.*, 139 S. Ct. 628, 631-32 (2019). Whether a patent is invalid because of an early offer for sale is a question of law. *E.g., The Medicines Co. v. Hospira, Inc.*, 881 F.3d 1347, 1350 (Fed. Cir.

2018). To be an offer for sale under § 102, two conditions must be satisfied: (1) "the product must be the subject of a commercial offer for sale"; and (2) "the invention must be ready for patenting," which can be satisfied by an actual or constructive reduction to practice. *Helsinn*, 139 S. Ct. at 633.

* * *

Under 35 U.S.C. § 119, the priority date for claims of a patent can be the filing date of a provisional application only if the provisional application discloses the claimed invention "in the manner provided by section 112(a) (other than the requirement to disclose the best mode)." *See* 35 U.S.C. § 119(e); *New Railhead Mfg., LLC v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1294 (Fed. Cir. 2002). A claim can have the benefit of the filing date of a provisional application only if the content of the provisional application provides sufficient written description for that claim. *Id.*

To satisfy the written description requirement, the disclosure at issue "must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed." *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (quotation marks omitted). This test is based on the disclosure in the document in question – whether the inventor actually possessed the invention based on evidence outside the document is irrelevant to this issue. *Id.* at 1352; *see also id.* at 1351.

Despite the statutory presumption of validity, there is no presumption that any claim can properly claim priority to a provisional application's priority date. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1380 (Fed. Cir. 2015). Therefore it is the burden of the party asserting the benefit of earlier priority to provide sufficient evidence to justify a finding that the earlier application contained all of the information needed to meet the requirements of § 112(a). *E.g.*, *Speedfit LLC v. Woodway USA, Inc.*, 432 F. Supp. 3d. 183, 205 (E.D.N.Y. 2020); *Certain Light-Emitting Diode Prod.*, Initial Determination, USITC Inv. No. 337-TA-1168, 2020 WL 5798112, at *54-55 (June 26, 2020).

* * *

Under GCI and Smith's interpretation of "generally parallel," the Freestyle Rocker undisputedly practices claims 1, 2, 10, and 11 of the '611 Patent. GCI consistently admitted that the Freestyle Rocker practices at least claims 1, 2, 10, and 11 of the '611 Patent in order to demonstrate that it satisfies the technical prong of the domestic industry requirement. *See, e.g.*, Am. Compl. at 26; RX-0139C at 22. Indeed, Mr. Smith provided his opinion that the Freestyle Rocker practices at least claims 1 and 2. CX-0002C, Q&A 844-911. Although GCI's expert did not testify regarding the additional elements of claims 10 and 11, no party contested the fact that the Freestyle Rocker practices each of these elements. *See* RX-0139C at 22; RX-0143C at 28; Respondents' Pre. Br. at 138-41.

It is also undisputed that GCI's Freestyle Rocker was sold and/or offered for sale in August 2012. *See* RX-0127; RX-0143C at 11. GCI's own documents demonstrate that it had terms and pricing for different types of customers for the various shipping options it offered as of August 1, 2012. *See* RX-0127; Hrg. Tr. (Grace) at 91:3-93:6 (discussing meaning of terminology on GCI's Price Lists). Further, in its interrogatory responses, GCI admits that the first offer for sale was in August 2012. RX-0143C at 11. The Freestyle Rocker was also ready for patenting in August 2012 because it was already reduced to practice and it was presented for sale at the August 2012 Outdoor Retailers Show. *See* RX-0036C at 15:17-21; RX-0143C at 10.

The '611 patent's application was filed October 7, 2013 (JX-0002 at 2), more than one year after the Freestyle Rocker's August 2012 first offer for sale. Therefore, if it is determined that the Freestyle Rocker practices any of the claims of the '611 patent, each of claims 1, 2, 10, and 11 are invalid under § 102 because, as set forth below, GCI cannot demonstrate that the claims properly benefit from the filing date of the '238 Provisional Application.

* * *

To establish priority to the '238 Provisional Application, GCI cannot rely on "attorney *ipse dixit* and conclusory arguments," but instead must come forward with "adequate and admissible material evidence" that each of claims 1, 2, 10, and 11 of the '611 patent are supported by the '238 Provisional Application. *See Speedfit*, 432 F. Supp. 3d at 209. The facts of this case are almost identical to those in *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299 (Fed. Cir. 2008). In *PowerOasis*, defendant T-Mobile conclusively demonstrated that a system that practiced the asserted claims was for sale more than a year before the filing date of the asserted patent. *Id.* at 1305-06. Plaintiff argued defendant was required to *disprove* the priority claim to an earlier application. *Id.* The Federal Circuit, however, held that "[o]nce T-Mobile established by clear and convincing evidence that the MobileStar Network was § 102(b) prior art to the asserted claims of the '658 and '400 patents, the burden was on PowerOasis to come forward with evidence to the contrary." *Id.* In other words, the burden was correctly placed on PowerOasis "to come forward with evidence to prove entitlement to claim priority to an earlier filing date." *Id.*; *see also Speedfit*, 432 F. Supp. 3d at 208. ("[O]nce an accused infringer 'has established a *prima facie* case of invalidity and its burden is met,' the patentee bears the burden of coming forward with evidence to prove entitlement to claim priority to an earlier filing date."). Because, under GCI's own constructions, the scope of each of these claims is dependent on information missing from the '238 Provisional Application, the claims are not supported by and are not entitled to priority to the '238 Provisional Application.

* * *

The ordinary meaning of the term parallel is extending in the same direction, equidistant at all points, and never converging or diverging. GCI asserts that the inclusion of the adjective "generally" and the specification of the '611 Patent radically expanded the meaning of "generally parallel." In particular, GCI asserts that Figure 7 of the '611 Patent informs a POSA as to the scope of the term "generally parallel." Claim 1 (and therefore all asserted claims against Westfield) contains the limitation:

> a pair of generally U-shaped cross members pivotally connected to one another for pivotal movement between an open condition ... and a closed condition wherein said cross members are disposed in generally parallel relationship with one another

JX-0002 at 13:62-14:1. In order to include either GCI's or Westfield's chairs in the scope of this claim, GCI and its expert rely on Figure 7 of the '611 Patent and the text located in column 12, lines 28-36 to expand the meaning of "generally parallel." *See* GCI Pre. Br. at 97-98, 113; CX-0002C, Q&A 414, 482, 562, 916-18; Hrg. Tr. (Smith) at 151:11-152:08; *see also* JX-0002 at 12:28-36 ("... positions whereby the cross-members 56 are generally parallelly disposed relative to each other, as shown in FIG. 7.").

* * *

Figure 7 does not appear in the '238 Provisional Application. Rather, the '238 Provisional Application has similar language regarding "cross-members [being] generally parallelly disposed," but referring to "FIG. 6" instead of Figure 7. CX-0391 ¶ [0045]. But the angle of the cross members in Figure 6 of the '238 Provisional Application is much smaller than the angle of the cross members in Figure 7 of the '611 Patent. Annotated versions of "FIG. 6" of the '238 Provisional Application and Figure 7 of the '611 Patent are shown below. *Compare* RX-0061, *and* RX-0154, *with* CX-0391 at fig. 6, *and* JX-0002.

RX-0061 (highlighted here for emphasis); RX-0154 at Fig. 7 (highlighted for emphasis). Mr. Smith measured and identified the angles of the figures in RX-0061 and RX-0154, included above. Hrg. Tr. (Smith) at 156:25-157:20. He testified that the angle of the cross members in Figure 6 of the earlier-filed '238 Provisional Application is about 11 degrees (*id.* at 158:12-24) and the angle of the cross members in Figure 7 of later-filed application of the '611 patent is "about 15 degrees" (*id.* at 157:21-158:11)). In other words, the measurements of GCI's own expert shows the angle of Figure 7 of the '611 Patent is over 36% larger than the angle of Figure 6 of the earlier '238 Provisional Application. GCI has no contrary evidence on this point.

As such, if, as repeatedly emphasized by GCI and its expert, Figure 7 of the '611 Patent informs a POSA as to the scope of the meaning of the "generally parallel" limitation of claim 1, nothing in the specification of the '238 Provisional

would have informed a POSA of that same scope. Indeed, Figure 6 of the '238 Provisional would have informed a POSA of a narrower scope of what is "generally parallel" as of the filing date of the '238 Provisional because the angle in the '611 Patent figure is more than 36% larger than that in the '238 Provisional figure. This is true even though patent figures are not typically understood as being drawn to scale. *Cf.* GCI's Pre. Br. at 141. GCI and Mr. Smith repeatedly emphasized that the proportions of Figure 7 inform a POSA of the meaning of "generally parallel." *Id.* at 97-98, 113; CX-0002C at Q&A 414, 482, 562, 916-18; Hrg. Tr. (Smith) at 151:11-152:08. GCI cannot then abandon the significance of the proportions in the figures to use the general "not-to-scale" principle to avoid the consequences of the differences in the '238 Provisional and the '611 patent. And regardless of whether these figures are to-scale, if they inform a POSA as to the scope of the term "generally parallel," the scope established by Figure 7 of the application of the '611 patent is broader than and not established by Figure 6 of the provisional application.

For these reasons, if the figures inform the scope, the narrower scope of the '238 Provisional does not support the broader scope of the "generally parallel" limitation of the claims of the '611 patent. This is similar to other cases where the written description was found lacking. *See, e.g.*, *Eiselstein v. Frank*, 52 F.3d 1035, 1039-40 (Fed. Cir. 1995). Therefore, the claims of the '611 patent are not entitled to claim priority to the filing date of the '238 Provisional.

Importantly, it is ***GCI's*** burden—not Respondents'—to demonstrate that the '238 Provisional Application provides sufficient support of its asserted '611 Patent claims. GCI has failed to satisfy this burden. As such, if the scope of the "generally parallel" limitation is understood to include any of domestic industry chairs in this Investigation, the Freestyle Rocker's August 2012 offer for sale invalidates at least claims 1, 2, 10, and 11 of the '611 Patent.

Resps. Br. at 107-13.

GCI argues, in part:

Recycling many of the same arguments almost verbatim from its now-denied summary determination motion, Westfield again asserts that the '611 Patent is not entitled to claim priority to a provisional application that contains a near-identical specification. *Compare* RPreHB at 84-89 *with* Mot. No. 1178-015 at 18-25. Westfield presents the same attorney arguments without any supporting testimony from either its own expert Dr. Cameron, or MacSports's experts Dr. Howle and Dr. Lee. *See generally* RPreHB at 84-89.

This invalidity argument boils down to a single issue—whether the "generally parallel" limitation in claim 1 of the '611 Patent has sufficient written description support in the '238 Provisional Application. *See id.* To accept Westfield's argument, the ALJ would have to find (1) that the figures in both the provisional application and the '611 Patent are drawn to scale and at the same

perspective, such than an accurate angle may be measured; (2) that the slight angular difference between Figure 7 of the '611 Patent and the corresponding Figure 6 in the provisional application is somehow meaningful; and (3) that a POSITA would have assigned a different meaning to "generally parallel" in the claims of the '611 Patent than based on the description of that term in the provisional application. Westfield cannot show any of this, let alone clearly or convincingly.

Contrary to Westfield's assertion that GCI provided no explanation of priority, *see* RPreHB at 87, GCI's January 7, 2020 response to Westfield's Interrogatory No. 49 explicitly states that the Asserted Claims of the '611 Patent are entitled to claim priority to the October 5, 2012 filing date of the '238 Provisional Application because (1) the subject matter of each of the Asserted Claims was set forth in the '238 Provisional Application; and (2) at least paragraphs [0027] through [0048] and Figures 2 through 8 in the '238 Provisional Application provide support for the Asserted Claims. EDIS Doc. ID 706763 (GCI's Opposition to Westfield's Summary Determination Motion) at 7. Despite having GCI's position for over two months, Westfield did not dispute the sufficiency of the written description in the '238 Provisional Application in its invalidity contentions or provide any explanation as to why the "generally parallel" limitation lacks written support in the '238 Provisional Application until the filing of its motion for summary determination. *See generally* CX-0255C (Westfield's 5th Supp. Rog Resps.) at .0019-.0022. Indeed, Dr. Cameron, Westfield's own expert, who is also a registered patent agent knowledgeable about the written description requirement, submitted two expert reports that never mention any purported lack of written description support. *See generally* RX-0121C (Cameron DWS); RX-0451C (Cameron RWS).

Westfield has no expert testimony supporting this argument. Rather, Dr. Cameron adopted and relied on the priority date of the '238 Provisional Application in forming all of her opinions in this case. *See* RX-0121C (Cameron DWS) at Q/A 9-10; RX-0451C (Cameron RWS) at Q/A 5. On the other hand, GCI's expert Mr. Smith opined that column 12, lines 28 through 36 of the '611 Patent, including Figure 7, provide support for the term "generally parallel," CX-0002C (Smith DWS) at Q/A 562, 870; *see also id.* at Q/A 414, and the '238 Provisional Application contains a nearly verbatim written description. CX-0391 ('238 Provisional Application). Indeed, as shown below, the relevant text of the '238 Provisional Application is more than merely "similar" as suggested by Westfield but almost verbatim the same as the written disclosure in the '611 Patent. *Compare* CX-0391 ('238 Provisional Application) at ¶ [0045] *with* JX-0002 ('611 Patent) at 12:28-36.

* * *

This is more than enough to provide support for GCI's priority claim. As recognized in cases cited by Westfield, "[i]dentity of description is not necessary,"

> "[i]dentity of that which is described, however, is necessary: 'What is claimed by the patent application must be the same as what is disclosed in the specification.'" *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1296 (Fed. Cir. 2002) (emphasis added); *see also Speedfit LLC v. Woodway USA, Inc.*, No. 13-CV-1276, 2020 U.S. Dist. LEXIS 4843, at *32-33 (E.D.N.Y. Jan. 9, 2020) (same). None of the cases cited by Westfield supports a finding that a nearly verbatim disclosure in a provisional disclosure is insufficient to support a priority claim.

Compl. Br. at 142-46 (footnote omitted).

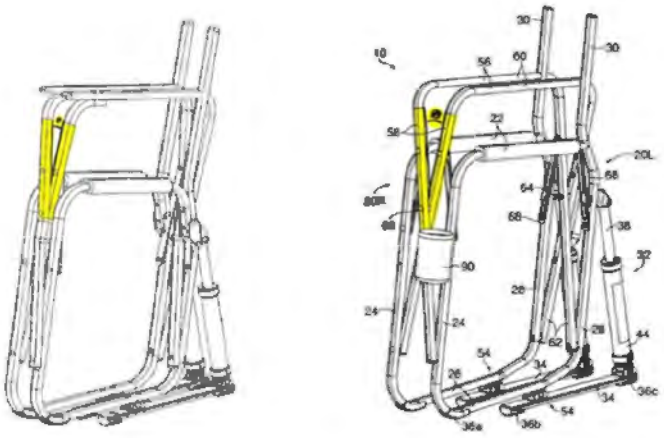
Westfield argues that the asserted claims of the '611 patent are not entitled to the priority date of U.S. Provisional App. No. 61/710,238 ("the '238 provisional application") because the "generally parallel" limitation lacks sufficient written description in the '238 provisional application. *See* Resps. Br. at 107-13. The '238 provisional application was filed on October 5, 2012, *see* CX-0391 ('238 provisional application), while the '611 patent was filed on October 7, 2013, *see* JX-0002 ('611 patent). Inasmuch as GCI's Freestyle Rocker was sold and/or offered for sale in August 2012, Westfield argues the on-sale bar renders the asserted claims of the '611 patent invalid. *See* Resps. Br. at 107-13.

Westfield argues that the angles between cross-members shown in Figure 6 of the '238 provisional application differ from those shown between cross-members in Figure 7 of the '611 Patent. *See id.* However, "it is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue." *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed. Cir. 2000) (citing *In re Wright*, 569 F.2d 1124, 1127 (C.C.P.A. 1977); *In re Olson*, 212 F.2d 590, 592 (C.C.P.A. 1954) ("Ordinarily drawings which accompany an application for a patent are merely illustrative of the principles embodied in the alleged invention claimed therein and do not define the precise proportions of elements relied upon to endow the

claims with patentability."). Dr. Cameron agreed at the hearing that patent figures are generally not drawn to scale. *See* Cameron Tr. 350.

The test for determining the sufficiency of the written description in a provisional application for priority purposes is "whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (citations omitted).

Westfield argues: "But the angle of the cross members in Figure 6 of the '238 Provisional Application is much smaller than the angle of the cross members in Figure 7 of the '611 Patent." Resps. Br. at 111. However, Westfield's argument implicitly acknowledges that the difference between the two angles is literally a difference in degree, not a difference in kind.



RX-0061 (highlighted); RX-0154 at Fig. 7 (highlighted).

The administrative law judge finds that GCI possessed the subject matter of the '611 patent's claims at the time the '238 provisional application was filed. The provisional application demonstrated that "generally parallel" cross members need not be perfectly parallel, and that the cross members may indeed overlap.

As the administrative law judge finds that the asserted claims of the '611 patent are entitled to the priority date of the '238 provisional application, October 5, 2012, it is determined that the asserted claims of the '611 patent cannot be invalid in view of the Freestyle Rocker's August 2012 offer for sale.

F. Obviousness

1. Simpson and Colbridge

U.S. Patent No. 5,873,624 ("Simpson"), issued February 23, 1999, and is therefore prior art to the '611 patent. *See* RX-0058. U.S. Patent No. 2,056,957 to Colbridge issued on October 13, 1936, and is therefore prior art to the '611 patent. *See* RX-0057.

Respondents argue, in part:

> U.S. Patent No. 2,056,957 ("Colbridge"), issued October 13, 1936, teaches "chair attachments" for adding rocking functionality "to feet of legs of articles of furniture, such for example, as chairs, davenports, benches, sofas, and the like, so that such articles of furniture may be rocked or tilted thus affording more comfort for sitting purposes." RX-0121C at 14; RX-0057 at 1:1-7. An exemplary setup of a chair that has been equipped with the "chair attachments" is shown in Colbridge Figure 1. RDX-0008 at 2 (RX-0057); RX-0121C at 14-15. U.S. Patent No. 5,873,624 ("Simpson"), issued February 23, 1999, discloses a side-to-side collapsing chair with a tray. RX-0121C at 13. Figure 1 of Simpson, as shown in RDX-0008 at slide 1, depicts the disclosed chair. *See* RX-0058 at fig. 1; RX-0121C at 13-14.
>
> Colbridge's "chair attachment" comprises a compression spring (C), a flexible rubber cover (7), and a screw or other fastener for attaching the spring to the chair (5). RX-0121C at 15; RX-0057 at 2:34-48 & fig. 2. These components are shown in Colbridge Figure 2. RX-0121C at 15; RDX-0008 at 3 (RX-0057). Once the chair attachment is affixed to the chair, the user may then rock in the chair by tilting the chair and shifting the user's weight. RX-0121C at 15. This would then cause the spring to elastically deform (as shown in Colbridge Figure 3) and provide a spring-back force to urge rocking. *See id.*; RX-0057 at 3:20-25 & figs. 2-3.
>
> A POSA would have been motivated to combine the disclosures of Simpson and Colbridge, by attaching Colbridge's "chair attachment" to the front portion of each of the right and left peripheral support members of the Simpson chair to create a portable, collapsible, rocking chair (the "Modified Simpson Chair"). RX-0121C at 16-17. In particular, a POSA, understanding the teachings of Colbridge and

Simpson, would be motivated to add Colbridge's chair attachments to the front supports of Simpson to enjoy the benefits of Simpson's collapsible chair as well as the rocking and tilting motion afforded by the Colbridge attachment. *Id.* at 16. Colbridge explicitly teaches combining the Colbridge chair attachments with a wide variety of furniture, a category into which the chair of Simpson clearly fits. *Id.*; RX-0057 at 1:1-25. This motivation to combine would have been bolstered by many other prior art references that teach adding compression springs to the front legs of chairs to form rocking chairs. *E.g.*, RX-0122 at 2; RX-0123 at 2; RX-0124 at 2. From the teachings of Colbridge, as well as the teachings of these other references, a POSA would have been motivated to apply the Colbridge springs to the front or rear of most any type of chair, including folding chairs generally and the folding chair of Simpson specifically. RX-0121C at 17. A POSA would have had a reasonable expectation of success in combining the disclosures of Colbridge and Simpson to create the Modified Simpson Chair as Colbridge explicitly teaches such a combination of its chair attachments to a piece of furniture. RX-0057 at 2:35-40; RX-0121C at 20-21.

* * *

The Modified Simpson Chair has the chair frame of Simpson, and Simpson's chair frame meets [the] limitation ["each cross member having terminal ends thereof pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies"]. RX-0121C at 29. Each front leg of the Simpson chair has a straight portion and a lower curved portion. Hrg. Tr. (Smith) 757:5-8. Simpson refers to the portion of the front leg portion and rear leg portion where the cross members are pivotally secured as a front lower bend and a rear lower bend respectively. RX-0121C at 29. The cross members are each pivotally connected to the left support member 14 and right support member 16, respectively, via bracket (90). *Id.*; RX-0058 at 2:32-41, 5:60-6:7 & fig. 5. This can be seen in the modified Figures 1 and 2, included below. RDX-0008 at 15-16 (RX-0058); RX-0121C at 30. To the extent this connection is not understood as being "secured to the [front/rear] leg portion," it would have been obvious to a POSA, in light of the prior art generally, to adjust the point of connection up the bend by a few inches to, for example, avoid any damage or interference from the resting surface. RX-0121C at 29.

* * *

The Modified Simpson Chair, which is a combination of Simpson with Colbridge, meets [the] limitation ["a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions"]. RX-0121C at 35. Colbridge describes an improved configuration of a spring that can be used at the front legs of a chair to pivot the chair about the rear legs. *Id.*; RX-0057 at 2:8-25. If Colbridge's compression-spring "chair attachments" were placed on the front most portions of the Simpson chair, the chair would be capable of rocking. RX-0121C at 36. Furthermore, a POSA attempting to apply the rocking

functionality of Colbridge to Simpson would also be motivated to provide an edge (e.g., a squared edge) at the rear legs—like that shown in Fig. 1 of Colbridge, here—about which the chair can rock. *Id.*; RDX-0008 at 20 (RX-0057). This would be easily accomplished by either adding squared-off feet at the bottom of the rear section of Simpson or by squaring-off the lower-back portion of Simpson. RX-0121C at 36. This would allow the chair to rotate about a fixed point—which would constitute the pivot point—in a stable manner, and that rear-edge portion of the chair would support the chair frame as it rocks between forward and rearward positions. *Id.*; Hrg. Tr. (Smith) at 757:9-758:6 (agreeing that the rear edge of the chair described in Colbridge is a "fulcrum point"); Hrg. Tr. (Grace) at 723:7-23 (agreeing that tipping back in a non-rocking chair makes edge of the back legs of the chair a "fulcrum point"). Thus, Colbridge, when applied to the chair in Simpson, teaches a fulcrum point supporting the chair frame and about which the frame can move between forward and rearward positions. RX-0121C at 36.

* * *

Because the obvious combination of Simpson and Colbridge – the Modified Simpson Chair – includes each of the limitations of claims 1, 2, 10, and 11, those claims are invalid because they are obvious in light of Simpson and Colbridge.

Resps. Br. at 113-23.

GCI argues, in part:

Simpson is one of just a few references already considered by the USPTO examiner during prosecution of the '611 Patent. *See* JX-0002 ('611 Patent) at p. 2 ("References Cited"). Despite being aware of this reference, the examiner allowed the claims of the '611 Patent to issue. Neither Westfield nor Dr. Cameron have identified any supposed error or omission by the USPTO examiner regarding Simpson, and Westfield cannot meet its clear-and-convincing burden to show obviousness for at least this reason.

In addition, a POSITA would not have been motivated to combine Simpson with Colbridge to arrive at a collapsible and portable rocking chair as claimed in the '611 Patent, as argued by Westfield. CX-0464C (Smith RWS) at Q/A 372. A POSITA would not have been motivated to combine Simpson with Colbridge in the manner proposed by Dr. Cameron at least because this combination would have defeated the purpose of and destroyed the principle of operability of Simpson. *Id.* at Q/A 375.

* * *

Adding the chair attachments from Colbridge to Simpson's front, as proposed by Dr. Cameron, would cause Simpson's linear portion 46 to be tilted from the support surface and defeat Simpson's original purpose by greatly reducing

its stability. *Id.* Indeed, none of the references cited by Dr. Cameron (*i.e.*, Colbridge, Blake (RX-0122), Ober (RX-0123), and Smith (RX-0124)) teaches adding a chair attachments similar to Colbridge to a collapsible chair, much less a chair with a collapsible frame similar to that in Simpson. CX-0464C (Smith RWS) at Q/A 375. A POSITA would not have done this at least because, even in 1936 when Colbridge issued, the inventor was aware of the inherent danger in a device with reduced stability. *Id.*; RX-0057 (Colbridge) at 1:11-15; Tr. (Smith) at 795:11-797:17 (explaining that a POSITA would not be motivated to put Colbridge under the front of another chair due to safety concerns about tipping over and unexpected or unintended buckle or deformation of the spring and the associated housing).

Further, a POSITA would not have been motivated to combine Simpson with Colbridge to arrive at a collapsible and portable rocking chair for various additional reasons as explained in Section V.D.2(ii), *supra*. In addition, Colbridge does not teach how to apply a rocking capability to a foldable chair like that in Simpson. Nor does it teach how to solve the numerous engineering problems associated with adding a rocking capability to a collapsible and portable rocking chair, including changing loading conditions, dynamic loads, maintaining stability and safety. CX-0464C (Smith RWS) at Q/A 375.

This combination would also not satisfy each limitation of the asserted claims. For instance, claim 1 recites that **"each cross member having terminal ends therefore pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies."** JX-0002 ('611 Patent) at 14:3-5. But Simpson makes clear that the terminal ends of the alleged cross members are directly connected to brackets 90 rather than the frame of the Simpson chair. *See* RX-0058 (Simpson) at Figs. 1, 2, 5, 6 (reproduced below); CX-0464C (Smith RWS) at Q/A 379.

* * *

Dr. Cameron also fails to explain why the resting surface would cause "damage or interference." *See id.* at Q/A 71. Indeed, Figures 2 and 5 of Simpson illustrates that the brackets 90 are not even in contact with the supporting surface. RX-0058 (Simpson) at Figs. 2, 5. Further, the side profile of frame portions 42 and 44 (as shown in Figure 2 of Simpson) are not perpendicular to the ground surface. *Id.* at Fig. 2; CX-0464C (Smith RWS) at Q/A 382.

A POSITA would not have been motivated to move the points of connection to the alleged front and rear leg portions as suggested by Dr. Cameron. CX-0464C (Smith RWS) at Q/A 382. This would cause an interference between the cross member and the leg portions when the chair is folded. *Id.* Thus, moving the points of connection as proposed by Dr. Cameron would result in interference and an inability to fold the chair flat. *Id.*

Claim 1 further requires **"a fulcrum point supporting the chair frame**

> **and about which said chair frame can move between forward and rearward positions."** JX-0002 ('611 Patent) at 14:9-11. In contrast, Simpson teaches that "[t]he support members are formed of tubular aluminum" and that "[t]he small bend radius of the front bend of the left and right support member provides stability to the support members when positioned on a receiving surface." RX-0058 (Simpson) at 4:33-35, 4:38-40. Dr. Cameron's modifications "to provide an edge (e.g., a squared edge)," RX-0121C (Cameron DWS) at Q/A 78, would increase manufacturing difficulty and reduce stability of the Simpson chair. CX-0464C (Smith RWS) at Q/A 384. A POSITA would have found this undesirable and would not have pursued this modification. *Id.*
>
> Dr. Cameron also fails to explain why it would be necessary for the chair to "rotate about a fixed point." *Id.* For example, Figure 1 of the '611 Patent utilizes arched rocker rails on the bottom were able to rock in a stable manner without a fixed edge point. JX-0002 ('611 Patent) at Fig. 1.

Compl. Br. at 156-59.

The evidence shows that one of ordinary skill in the art would not combine Simpson with Colbridge in the manner proposed by Westfield. *See* CX-0464C (Smith RWS) at Q/A 372. Simpson states that "[t]he small bend radius of the front bend of the left and right support member provides stability to the support members when positioned on a receiving surface" and that "[t]he front lower bend and the rear bend of each support member has a linear portion 46 therebetween for resting on a receiving surface." RX-0058 (Simpson) at col. 4, lns. 36-40, col. 4, lns. 59-62. One of ordinary skill in the art would understand that Simpson's extended linear portion 46 maintain extended contact with the ground to provide improved stability for the user. CX-0464C (Smith RWS) at Q/A 375. Combining Simpson with Colbridge would directly contravene Simpson's stated goal of providing increased stability by maintaining contact between the support members and the receiving surface.

Furthermore, the Simpson-Colbridge combination does not render obvious "each cross member having terminal ends therefore pivotally secured to the front leg portion and the rear leg portion of one of the frame side assemblies." *See* CX-0464C (Smith RWS) at Q/A 380. Figures

1, 2, and 5 of Simpson show that the bracket members 90 are pivotally secured to the linear portion 46 of the frame. *See* RX-0058 (Simpson) at col. 5, lns. 60-67, col. 4, lns. 55-62, Figs. 1, 2, 5; CX-0464C (Smith RWS) at Q/A 380. Dr. Cameron's own annotated figure (RDX-0008 at 8) does not point to any portion of linear portion 46 in Simpson as being part of the front leg portion or rear leg portion. *See* RX-0121C (Cameron DWS) at Q/A 66.

As discussed above, the evidence shows that the front feet of a stationary chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that respondents have not shown by clear and convincing evidence that the combination of Simpson and Colbridge would not result in a chair with a working "fulcrum point." In particular, the straight springs experienced friction/binding during rocking motion and the stationary front foot created a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 375; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Colbridge would experience similar issues when added to the Simpson chair. *See* CX-0464C (Smith RWS) at Q/A 234. Accordingly, adding the spring mechanism of Colbridge to the Simpson chair would not create a workable collapsible and portable rocking chair.

2. Glass and Maclaren

U.S. Patent No. 2,675,057 ("Glass"), issued April 13, 1954, and is therefore prior art to the '611 patent. *See* RX-0059. U.S. Patent No. 3,698,991 ("Maclaren"), issued July 13, 1976, and is therefore prior art to the '611 patent. *See* RX-00125.

Respondents argue, in part:

U.S. Patent No. 2,675,057 ("Glass"), issued April 13, 1954, discloses a wheelchair that collapses side to side. RX-0121C at 48-49. Figure 1 of Glass depicts the disclosed embodiment. *Id.*; *see* RX-0059 at 4:62-5:3 & fig. 1; RDX-0009 at 1 (RX-0059). U.S. Patent No. 3,698,991 ("Maclaren"), issued July 13, 1976, discloses a foldable wheelchair having a rocking element. RX-0121C at 48-49. Figure 15 shows an embodiment of the disclosed wheelchair. *Id.* at 49-50.; RX-0125 at fig. 15; RDX-0009 at 2 (RX-0125). Figure 10 of Maclaren "illustrates the resilient suspension of a front, castoring, wheel pair." RX-0121C at 50; RX-0125 at 5:34-35, 9:34-63 & fig 10; RDX-0009 at 3 (RX-0125).

Glass and Maclaren are analogous art to the '611 patent because they are part of the same field of endeavor as the asserted '611 claims. The field of endeavor is determined "by reference to explanations of the invention's subject matter in the patent application, including the embodiments, function, and structure of the claimed invention." *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Prior art is in the same field of endeavor of the patent and claims if it is within categories of items that fall within the scope of the claims of the patent. *See, e.g.*, *id.* at 1323-27 (affirming a finding that prior art references related to toothbrushes were analogous art for a patent describing improvements in hairbrushes because the claims were not limited to hairbrushes). Glass and Maclaren both teach types of wheel*chairs*. *See generally* RX-0059; RX-0125. Wheelchairs are types of *chairs*, which is the general field of endeavor for the patent. RX-0137; Hrg. Tr. (Babcock) at 662:20-663:6. Nothing in the asserted '611 claims prevents such claims from encompassing wheelchairs. *See In re Singhal,* 602 F. App'x 826, 831 (Fed. Cir. 2015) (rejecting a proposed narrow definition of "field of endeavor" because the "specification and claims are not so limiting"); *Application of Sebald*, 268 F.2d 430, 432 (C.C.P.A. 1959). Furthermore, the "Field of Invention" section of the '611 patent does not exclude wheelchairs from the field of the endeavor, describing the invention as "generally relat[ing] to folding chairs." JX-0002 at 1:9-17. Thus, prior art related to wheelchairs, including Glass and Maclaren, is analogous art to the asserted '611 claims.

A POSA would have been motivated to combine the disclosures of Glass and Maclaren to create a portable, side-to-side-collapsible, wheelchair with an improved set of resiliently-suspended castor wheels. RX-0121C at 51-52. A POSA would have realized that with all four wheels of the Maclaren chair being small, a user would not be able to readily propel himself or herself. *Id.* at 51. A POSA would have understood that to take advantage of the resiliently suspended castor wheels in a user-propelled wheelchair, such wheelchair would need two large wheels. *Id.* Glass teaches a collapsible wheelchair with castoring wheels but also with large wheels that a user can reach in order to self-propel. *Id.* at 51-52. A POSA would have understood that in order to fit into a trunk of a typical car, a wheelchair with the large wheels needs to fold side-by-side such as disclosed in Glass as opposed to the front-to-back fold of Maclaren. *Id.* at 51. As such, a POSA would have

looked to combine the teachings concerning Maclaren's resiliently suspended castor wheels with the folding wheelchair of Glass. *Id.* at 51-52.

This modification allows the user of the Modified Glass Chair to enjoy the benefits of the resiliently-suspended castor wheels described in Maclaren. RX-0121C at 51-52; RX-0125 at 9:19-23. Therefore, a POSA would have been motivated to replace Glass's non-resilient castor wheels with Maclaren's resiliently suspended castor wheels to improve upon Glass by, for example, increasing the user's comfort. RX-0121C at 52; RX-0125 at 9:19-23. Maclaren's rocker-element castor wheels also allow for the user to experience a rocking motion as the user shifts weight or applies varying forces to the Modified Glass Chair that would not have occurred in the chair taught by Glass alone. RX-0121C at 52. Thus, it would have been desirable to create a collapsible wheelchair with an improved suspension by combining the disclosures of Glass and Maclaren. *Id.*

Thus, a POSA would have been motivated to replace the castoring wheels of the wheelchair disclosed in Glass with the resiliently suspended castor wheels of Maclaren (the "Modified Glass Chair") to provide the benefit of such resiliently suspended castor wheels along with the large wheel and side-to-side collapsibility of the Glass wheelchair. *Id.* A POSA would also have had a reasonable expectation of success in combining the disclosures of Glass and Maclaren to form the Modified Glass Chair because the combination would have been routine to a POSA – merely employing the castor wheel assemblies of Maclaren instead of the castor wheel assemblies of Glass. *Id.*

As shown in the sections below, because the obvious Modified Glass Chair contains each of the limitations of Claims 1, 2, 10, and 11, each of those claims are obvious.

* * *

The Modified Glass Chair meets [the] limitation ["a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions"]. RX-0121C at 61. The Modified Glass Chair includes the castor wheels 100 of Maclaren instead of the castor wheels 11 of Glass. *Id.*; *see* RX-0125 at 9:34-59. By replacing the castor wheel assemblies of the wheelchair disclosed in Glass with the resilient castor wheel assemblies depicted in Figure 10 of Maclaren, the position of maximum compression of the rocker mechanism corresponds to the rearward position and the position of minimum compression of the rocker mechanism corresponds to the forward position. RX-0121C at 62; RDX-0009 at 1, 3, 11 (RX-0059; RX-0125). In the Modified Glass Chair with the castor wheels of Maclaren, the chair rotates or pivots about the axles of the large front wheels, and the axles of the front wheels support the body of the chair frame as the chair frame moves between the forward and rearward positions. RX-0121C at 62-63. This is true even if the amount of the rocking (the distance between the forward and rearward positions) is minimal. Hrg. Tr. (Smith) at 279:6-

11. The axle of each large front wheel therefore constitutes a "fulcrum point" under each party's proposed construction. RX-0121C at 63.

* * *

The Modified Glass Chair meets [the] limitation ["at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions"] because it includes the castor wheel assemblies 100 of Maclaren instead of the castor wheel assemblies 11 of Glass. RX-0121C at 63. As explained above, by replacing the castor wheel assemblies of the wheelchair disclosed in Glass with the castor wheel assemblies depicted in Figure 10 of Maclaren, the position of maximum compression of the rocker mechanism corresponds to the rearward position and the position of minimum compression of the rocker mechanism corresponds to the forward position. *Id.* at 63-64; *see* RX-0125 at 9:34-59. The Maclaren castor wheel connections that are part of the Modified Glass Chair have rubber components that act as a compression spring attached to the castor wheel. RX-0121C at 64. This supports the chair as it moves between relaxed (forward) and compressed (rearward) positions. *Id.*

Construing this element pursuant to § 112(f), as agreed by the parties, the Maclaren castor wheel connections of Modified Glass Chair meet this limitation. RX-0121C at 64. Each of the Maclaren castor wheel connections have rubber components such that each act as a compression spring attached to the castor wheel. *Id.* Indeed, GCI's expert agreed that these components are equivalent to compression springs. Hrg. Tr. (Smith) at 755:13-24; 756:3-15. This satisfies the function of "supporting the chair during movement of the chair frame between said forward and rearward positions" and is at least equivalent to the compression springs disclosed in the '611 Patent at 11:18-21 for performing the function. RX-0121C at 64.

GCI and Mr. Smith take an overly restrictive view of the disclosed "rocker mechanisms" in the '611 Patent in arguing that Maclaren's suspension cannot satisfy this limitation. The specification of the '611 Patent describes a rocker mechanism "compris[ing] a compression spring" as the structure that performs the claimed function. JX-0002 at 11:18-21. The "tubular member" and other descriptions of the connections to the chair frame are not part of what is required to be the claimed "rocker mechanism" because those members do not perform the claimed function. *See id.*; *Baran v. Med. Device Techs., Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010) ("In construing a means-plus-function claim, the district court must first determine the claimed function and then identify the corresponding structure in the written description of the patent that performs that function."). Furthermore, GCI and Mr. Smith's argument that Maclaren's suspension is a dampening system is irrelevant as even the '611 patent explains that the compression spring rocker mechanism in Figure 6 "dampens." JX-0002 at 8:9-12.

* * *

Because the obvious combination of Glass and Maclaren – the Modified Glass Chair – includes each of the limitations of claims 1, 2, 10, and 11, those claims are invalid because they are obvious in light of Glass and Maclaren.

Resps. Br. at 123-34.

GCI argues, in part:

A POSITA would not have been motivated to combine Glass and Maclaren to arrive at a rocking chair as claimed in the '611 Patent. CX-0464C (Smith RWS) at Q/A 386.

For the same reasons as discussed in Section VI.B.4, *supra*, wheelchairs (including Glass and Maclaren) are not in the same field of endeavor as the '611 Patent (for example, improvements to portable and collapsible rocking chairs) and are also not reasonably pertinent to the problems Mr. Grace sought to solve with the inventions of the '611 Patent (for example, use on all types of surfaces, including soft ground and sand). *See, e.g.*, *id.* at Q/A 388-95. Accordingly, Glass and Maclaren are not analogous art to the '611 Patent, and their use in an obviousness combination is improper. *Id.*

Specifically, the titles and related fields listed in Glass and Maclaren are vastly different from the '611 Patent. RX-0059 (Glass) at 1:1-14; RX-0125 (Maclaren) at 1:1-12; CX-0464C (Smith RWS) at Q/A 390-91. In stark contrast to the wheelchairs described in Glass and Maclaren, the '611 Patent "generally relates to folding chairs, and more particularly relates to improvements in rocking chairs that are foldable and unfoldable between a set-up condition for use and a substantially collapsed condition for transportation and storage." JX-0002 ('611 Patent) at 1:13-17. Indeed, the title of the '611 Patent is "Collapsible and Portable Rocking Chair" with "portable" being understood by a POSITA and supported by the etymology to mean easy to carry. CX-0464C (Smith RWS) at Q/A 392. In this sense, "portable" is distinguishable from "mobile." As explained in Section VI.B.4, *supra*, even the other prior art that Westfield relies on (such as Ayers) distinguishes the rocking furniture from wheelchairs. *See* RX-0126 (Ayers) at 2:24-28.

In addition, Maclaren's focus is on the collapsible frame structure that "is not only intended to be applied to a wheeled chair, but also to a folding seat or chair without wheels or some form of runner other than wheels, might be applied to it." RX-0125 (Maclaren) at 2:12-16; CX-0464C (Smith RWS) at Q/A 393. Indeed, the wheel system described in Maclaren's Figure 10 used by Dr. Cameron "is not an essential part of the invention and … may be entirely omitted." RX-0125 (Maclaren) at 10:25-29; CX-0464C (Smith RWS) at Q/A.

* * *

Claim 1 requires **"a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions."** JX-0002 ('611 Patent) at 14:9-11. While Glass does teach an axle where the wheels are attached, it is not a fulcrum point because Glass teaches a rigid frame, not one that can rock or has forward and backward movement about a fulcrum point. CX-0464C (Smith RWS) at Q/A 399. Further, as discussed above, "[t]he resilient mountings of wheels . . . reduces stresses which tend to overload the structure by yielding to inequalities of the ground." RX-0125 (Maclaren) at 1:36-38. Thus, a POSITA would understand that the alleged chair frame of the Glass-Maclaren combination would not move between forward and rearward positions or rock, rather, it is the castoring wheel being "urged upwards" or "mov[ing] downwards," RX-0125 at 9:48-59, without transferring the motion of the wheels to the frame (the purpose of suspension). CX-0464C (Smith RWS) at Q/A 399.

Indeed, the distinction between upward-downward movement (as in the Glass-Maclaren) and the "rocking" described the '611 Patent was used by Westfield to argue that its Bounce Chair supposedly does not infringe. But unlike the Mulberry Bounce Chair—which has forward-rearward movement (*see, e.g.*, CX-0151, CX-0469)—the Modified Glass Chair has not been shown to have forward-rearward motion, and indeed the frame has not been shown to have any motion at all. CX-0464C (Smith RWS) at Q/A 399.

Claim 1 further requires **"at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions."** JX-0002 ('611 Patent) at 14:12-14. Neither Glass, nor Maclaren, nor the two in combination, teach a "rocker mechanism." CX-0464C (Smith RWS) at Q/A 401. Maclaren clearly states that "[t]he axle 101 is fixed in two side plates 102 of a rocking element which has a pivotal support at 102A attaching it (through a lug not shown) to a vertical square-sectioned tube 103 which is rotatable (for castoring movement) on a vertical hollow pin 105." RX-0125 (Maclaren) at 9:37-41 (emphasis added); CX-0464C (Smith RWS) at Q/A 403. Thus, a plain reading of the disclosure in Maclaren is that side plates 102 and pivot support 102A are part of the "rocking element," whereas tube 103 and hollow pin 105 as well as other structures connecting to them are not part of the "rocking element." CX-0464C (Smith RWS) at Q/A 403.

Nevertheless, a POSITA would not consider the castoring wheel assembly in Maclaren to be the claimed "rocker mechanism." *Id.* This is in part because this structure is a "resilient suspension," RX-0125 (Maclaren) at 5:34-35, 9:54, which is not intended for rocking and does not rock the wheelchair. CX-0464C (Smith RWS) at Q/A 403; Tr. (Cameron) at 351:24-352:21 (confirming that Figure 10 of Maclaren is a "suspension" "similar to a shock absorber"). A suspension is distinct from the "rocker mechanism" recited by claim 1 of the '611 Patent. CX-0464C (Smith RWS) at Q/A 403. Suspensions are designed to minimize up-and-down movement of a chassis, not to allow for forward-and-rearward/rocking movement in a stationary chair. *Id.*; *see also* CDX-0376 (Oxford Dictionary of Mechanical

Engineering). Maclaren itself confirms this. CX-0464C (Smith RWS) at Q/A 404; *see also* RX-0125 (Maclaren) at 9:19-23; 1:36-38.

Indeed, consistent with the differences between suspensions and the claimed rocker mechanisms, Maclaren, by providing "a collapsible volume frame which when extended is in a high degree resistant to deformation while being very light in weight," addresses the concern that the loads caused by the occupant and the uneven ground may "give rise to considerable forces" that may "wreck or deform the volume frame structure." RX-0125 (Maclaren) at 1:16-30; CX-0464C (Smith RWS) at Q/A 405. Thus, a POSITA would recognize that the resilient suspension in Maclaren exists to eliminate (or at least minimize) rocking motion that could disturb the user and frame, rather than to allow the user to rock. CX-0464C (Smith RWS) at Q/A 405; *see also* RX-0121C (Cameron DWS) at Q/A 109 ("Maclaren discloses that the improved castor wheel design acts as a form of suspension and improves the wheelchair's performance, including, for example, on uneven terrain.").

In this manner, the Maclaren assembly is a "suspension" system that is "similar to a shock absorber," which is plainly distinct from the rocker mechanisms taught by the '611 Patent. *See* Tr. (Cameron) at 351:24-352:21 (confirming that Figure 10 of Maclaren is a "suspension" "similar to a shock absorber"). Indeed, Dr. Howle (MacSports's expert) recognized that a POSITA would not consider rubber pads (like those in Maclaren) to be equivalent to the rocker mechanism of the '611 Patent. Tr. (Howle) at 442:10-443:14.

On this point, Dr. Howle and Mr. Smith agree: the structure Dr. Cameron points to in Maclaren is not equivalent to the corresponding structure for the claimed "rocker mechanism." CX-0464C (Smith RWS) at Q/A 407. For example, when a force is applied to the Maclaren castor wheel as shown on the left, it will cause the two side plates 102 to rotate about their pivotal connection to the vertical post 102A. *Id.* This motion will cause the channel sectioned fitting 109 to move forward compressing the rubber block 109A. *Id.* Thus, the majority of the upward motion of the wheel is absorbed, and is not transferred to the chair frame. *Id.* The Maclaren suspension assembly also does not receive a tubular member extending from the rear of each side frame and fails to disclose the rocker mechanism as construed by Westfield. *Id.*

The "suspension" used in McLaren is designed to keep the chair frame stabilized when moving over rough or uneven surfaces. It is designed to reduce movement, not create it. *Id.* Rather than allow a user to rock, the Maclaren suspension system attempts to minimize any motion, for example, when an individual pushes a wheelchair and wants a safe, stable rolling movement. *Id.* Thus, McLaren does not teach the claimed "rocker mechanism." *Id.*

Further, Dr. Cameron's reliance on the Maclaren suspension should have included all of the components in this assembly. *Id.* at Q/A 408. Yet Dr. Cameron

> arbitrarily selected only the "rubber components," ignoring the other structures (e.g., resiliently tired wheels 100) that contribute to the safe operation of the wheels. *See* RX-0121C (Cameron DWS) at Q/A 132; RX-0125 (Maclaren) at 9:34-36; CX-0464C (Smith RWS) at Q/A 408.

Compl. Br. at 159-65.

As an initial matter, the administrative law judge finds that wheelchairs, including those of Glass and Maclaren, are not analogous art to the '611 patent. A wheelchair is a transportation device, as opposed to a piece of portable furniture. *See* CX-0464C (Smith RWS) at Q/A 393. Further, wheelchairs are built to withstand dynamic forces sustained while transporting a user safely over diverse terrain. *See id.*; Howle Tr. 438. Often additional components are necessary to safely maintain and transport a passenger. *See* CX-0464C (Smith RWS) at Q/A 393.

The administrative law judge finds that one of ordinary skill in the art would have been motivated to combine the disclosures of Glass and Maclaren. *See* RX-0121C (Cameron DWS) at Q/A 109-11. Such a combination of Glass's collapsible wheelchair with Maclaren's resiliently suspended castor wheels would result in a portable, side-to-side-collapsible, wheelchair with an improved set of resiliently-suspended castor wheels. *See id.*

However, the administrative law judge finds that this combination would not provide the claimed "rocker mechanism." As noted above, the claim term "rocker mechanism" is construed pursuant to 35 U.S.C. § 112(f), and the function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." Furthermore, the structure corresponding to the claimed "rocker mechanism" includes the following portions of the specification: col. 3, ln. 55 – col. 4, ln. 11, col 6, lns. 56-64, col. 7, lns. 42-64, col. 11, lns. 17-32, col. 11, ln. 55 – col. 12, ln. 27, and FIGS. 2, 6, and 9.

The castor wheel assembly in the Glass-Maclaren combination is not one of the

corresponding structures of "rocker mechanism" under § 112(f). *See* CX-0464C (Smith RWS) at Q/A 408. Dr. Cameron testified that the Maclaren castor wheel connections have rubber components that act as a compression spring attached to the castor wheel. *See* RX-0121C (Cameron DWS) at Q/A 132. However, Maclaren's rubber components are designed to keep the chair frame stabilized when moving over rough surfaces. *See* CX-0464C (Smith RWS) at Q/A 407. Inasmuch as this structure serves to provide a stable, rolling movement when an individual is using the wheelchair, the administrative law judge finds that the Glass-Maclaren combination does not include the claimed "rocker mechanism."

Moreover, Maclaren's suspension functions in a different way to obtain a different result from that of the "rocker mechanism" recited in claim 1 of the '611 patent. *See id.* at Q/A 403. Suspensions are designed to minimize up-and-down movement of a chassis, not to allow for forward-and-rearward/rocking movement in a stationary chair. *See* RX-0125 (Maclaren) at col. 9, lns. 19-23; col. 1, lns. 36-38.

The administrative law judge finds that respondents have not shown by clear and convincing evidence that the Glass-Maclaren combination renders the asserted claims obvious.

3. Kundtz and Seng

U.S. Patent No. 3,026,143 ("Kundtz"), issued March 20, 1962, and is therefore prior art to the '611 patent. *See* RX-0087. U.S. Patent No. 490,366 ("Seng") issued January 24, 1893, and is therefore prior art to the '611 patent. *See* RX-0088.

Respondents argue, in part:

> Dr. Lee's testimony explained this combination in detail in his witness statement. RX-0119C Q&A 79-156. He began by pointing out that Seng, Kundtz, and the '611 patent are all analogous art. RX-119C, Q&A 79. He then explained that Seng provides advantages of stability and enhancement to the rocking motion itself that a POSA could combine with Kundtz to improve its function. *Id.* Q&A

80. It would have been obvious to a POSA that the spring D of the supplementary leg of Seng would prevent an occupant from rocking a chair backward to the point of tipping. RX-0088, 1:79-82. This is an obvious improvement of Kundtz-Seng in view of Kundtz alone. *Id.*, Q&A 80.

Dr. Lee also explained that Seng's supplementary leg comprises "branches G" with "rubber buffers g" at their ends for the purpose of preventing excessive motion to the right or left. RX-0119C Q&A 81-83; RX-0088, 1:51-63; Fig. 2. These supporting branches and buffers would also provide additional stability when the chair is used on soft ground or sand—a specific goal of the '611 patent. JX-0002, 2:34-37; RX-0119C, Q&A 82. Further, the front leg (with or without spring J) and the rocker mechanism installed behind the rear leg operate together to facilitate the rocking motion. RX-0088, 1:89-2:3. That is, their tandem operation requires "little exertion on the part of the occupant to move it either way." *Id.*, 2:2-4. Thus, a POSA would be motivated to combine Kundtz with Seng in order to improve the functions provided by Kundtz. RX-0119C, Q&A 83.

In Dr. Lee's opinion, it would be obvious to a POSA to combine Kundtz and Seng. RX-0119C, Q&A 84. Kundtz itself is a collapsible rocking chair, and there are others in the prior art; a combination of a collapsible rocking chair with any other known rocking mechanism would have been obvious to try. *Id.* Indeed, one goal of the '611 patent's purported invention is to "optimize the collapsibility and portability of the full-sized article without compromising comfort," which is easily accomplished by simply adding a rocking mechanism to any existing chair, such as shown by Seng. *Id.*

The combined Kundtz-Seng device would show the supplementary leg of Seng attached to each of the rear leg portions of Kundtz, with the rear leg portions of Kundtz being modified sufficiently to allow the respective attachment. RX-0119C, Q&A 85; Hrg. Tr. (Lee) 474:14-475:1. Spring J, or a similar such device, could also be added to the front leg portions, but is not needed. *Id.* It would have been obvious to POSA that each side frame 10 of Kundtz, made from a single tube, has sufficient structural strength to support the supplementary legs of Seng. *Id.* The Kundtz-Seng device would also modify each side frame member 10 such that the rear leg portion of the frame is substantially vertical from just aft of pivot point 25 to upstanding portion 15 in order to attach a supplementary leg to each side frame. RX-0119C, Q&A 86. A POSA would find such a combination obvious and easy to implement. *Id.*; Hrg. Tr. (Smith) 765:16-766:1 (agreeing that he could add the supplemental leg of Seng to a chair in about a day). Indeed, improving a known rocking mechanism by combining with other prior art would predictably result in a collapsible rocking chair with improved functions, such as stability, without sacrificing easy collapsibility. *Id.* Further, the combined Kundtz-Seng device would have multiple contacts with the ground, rather than a single rocker, which would further improve stability on soft ground or sand, a stated goal of the '611 patent. *Id.*; JX-0002, 2:34-37.

As shown below, the combination of Kundtz in view of Seng discloses each element of the asserted claims. RX-0119C, Q&A 59, 92-156.

* * *

This combination also discloses a fulcrum point. Seng discloses converting a chair into a rocking chair by adding either a "supplementary leg" to the back rear of a chair or two supplementary legs, one each on either side of the rear of the chair (behind the rear legs of the chair). RX-0088, 1:7-9; 1:26-29. RX-0088, Fig. 1; Hrg. Tr. (Lee) 493:4-13, 493:23-494:7. Seng does not specify the attachment method for the supplementary leg, except by using a Plate A. RX-0088, 1:20-24. It would have been obvious to a POSA how to attach Plate A to each rear leg immediately within the legs and under the seat. The converted chair is meant to move between forward and rearward positions by pivoting on the rear leg. RX-0088, 1:77-86. Fig. 1. Spring D facilitates the rocking motion; spring J is not required. RX-0088, Fig.. 1, 1:71-75, 1:89-2:3; claim 1. Thus, the rear leg of the chair is the fulcrum point. Moreover, the rear leg supports the chair frame. RX-0088, Fig. 1. This pivot point meets the definition of a fulcrum point under both MacSports' and GCI's claim constructions. RX-0119C, Q&A 115. Mr. Smith agreed that Seng discloses a fulcrum point, at least under GCI's construction. CX-0420C, Q&A 309; Hrg. Tr. (Smith) 763:24-765:1.

Kundtz /Seng discloses the sixth element of claim 1. RX-0119C, Q&A 116-120. Kundtz discloses a rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between forward and rear positions. Kundtz shows that "fourth portion 14" is curved and "provides the rocker," and that fourth portion 14 is part of side frame member 10. RX-0119C Q&A 116-120; RX-0087, 2:13-15. As the rocker is part of the frame member, it must be attached to the chair frame. But if Kundtz is not found to disclose this element, then the combination of Kundtz and Seng discloses this element; indeed, the Seng apparatus is designed to be attached to the rear of a chair specifically for the purpose of supporting the chair during movement of the chair frame between a forward and rear position. RX-0119C Q&A 117-120. As discussed with the fifth element of claim 1, Seng discloses converting a chair into a rocking chair. RX-0088, Fig. 1, 1:7-9; 1:26-29; Hrg. Tr. (Smith) 765:16-766:1. The converted chair is meant to move between forward and rearward positions by pivoting on the rear leg. RX-0088, 1:77-86. Spring D facilitates the rocking motion; spring J is not required. *Id.*, Fig. 1; RX-0088, 1:71-75, 1:89-2:3; claim 1; RX-0119C Q&A 119-120. Moreover, the supplementary leg is attached to the chair frame. RX-0088, Fig. 1, 1:19-26. A POSA would have understood the compression spring of Seng would have a protective covering. Hrg. Tr. (Lee) 480:25-481:6, 489:22-490:17. Mr. Smith agreed that Kundtz discloses a rocker mechanism. Hrg. Tr. (Smith) 762:14-16.

Resps. Br. at 136-44.

GCI argues, in part:

A POSITA would not have been motivated to combine Kundtz with Seng to arrive at a collapsible and portable rocking chair as claimed in the '611 Patent. CX-0464C (Smith RWS) at Q/A 333. As acknowledged by Dr. Lee, Seng discloses "an apparatus that can convert a [non-rocking] chair into a rocking chair." RX-0119C (Lee DWS) at Q/A 111. However, Kundtz is already a functioning collapsible rocking chair in and of itself, so a POSITA would have no reason to turn to Seng for any additional converting apparatus. CX-0464C (Smith RWS) at Q/A 336.

Further, Dr. Lee proposes adding two "supplementary legs" of Seng, each containing two "branches G" with "rubber buffers g." Tr. (Lee) at 480:9-24, 488:25-489:5. However, such additions would affect the collapsibility of the modified chair (as there would be two supplemental legs, one on each side, two branches G, and four rubber buffers g) and also defeat Kundtz's goal of having "no raw or sharp edges on the completed article." CX-0464C (Smith RWS) at Q/A 336.

Dr. Lee asserts that Spring D of Seng would provide a means of averting tipping without any explanation as to why the original Kundtz frame could not provide a similar function. *Id.*; *see generally* RX-0087 (Kundtz) (no discussion of any concern about tipping). Dr. Lee also opines that his proposed combination would improve the functions provided by Kundtz without identifying any deficiencies in Kundtz that require improvement. CX-0464C (Smith RWS) at Q/A 336.

Dr. Lee also states that his proposed combination would have been obvious to try but provides no analysis as to what were the finite number of identified, predictable solutions with a reasonable expectation of success. *Id.* Dr. Lee further states that the '611 Patent's goal to "optimize the collapsibility and portability of the full-sized article without compromising comfort" "can be easily accomplished by simply adding a rocking mechanism to any existing chair, such as shown by Seng" without explaining how any of the problems identified in the '611 Patent would be solved. *Id.* Yet Dr. Lee proposes a combination that requires substantial modifications to Kundtz, including removing almost the entire rear section of frame 10 and adding additional complex structures. *Id.*; Tr. (Lee) at 474:14-475:1; 488:25-489:5.

Dr. Lee's proposed combination would also defeat Kundtz's purpose by substantially reducing its range of rocking. CX-0464C (Smith RWS) at Q/A 336; *compare* RX-0087 (Kundtz) (teaching a curve portion 14 that spans the entire bottom of the chair as the rocker portion) *with* Tr. (Lee) at 474:14-475:1 (proposing removing the rear portion of the bottom curvature 14). Moreover, the "supplemental leg" in Seng is connected to a rigid seat whereas Kundtz uses a flexible seat panel supported by the frame. CX-0464C (Smith RWS) at Q/A 336. Thus, a POSITA would further understand that substantial structure modifications are needed to

> connect the "supplemental leg" as taught by Seng with the seat panel and frame structure from Kundtz. *Id.*
>
> Accordingly, a POSITA would not have been motivated to combine Kundtz and Seng. There are various additional reasons why such a combination would not have been obvious and why a POSITA would not have been motivated to combine these references as discussed in Section V.D.2(ii), *supra*.

Compl. Br. at 146-50.

The administrative law judge finds that one of ordinary skill in the art would not have combined Seng and Kundtz because Kundtz is already a functioning collapsible rocking chair in and of itself, and Seng does not provide any obvious improvement to a functioning rocking chair. *See* CX-0464C (Smith RWS) at Q/A 336. As acknowledged by Dr. Lee, Seng discloses "an apparatus that can convert a [non-rocking] chair into a rocking chair." *See* RX-0119C (Lee DWS) at Q/A 111.

Westfield argues, "It would have been obvious to a POSA that the spring D of the supplementary leg of Seng would prevent an occupant from rocking a chair backward to the point of tipping. RX-0088, 1:79-82." Resps. Br. at 136. However, the stated goal of Seng is to provide a rocking motion for a non-rocking chair, not to provide a tipping prevention system. *See generally* RX-0088.

Moreover, the proposed Kundtz-Seng combination would not result in a rocking chair with the claimed "fulcrum point." Dr. Lee relies entirely on the disclosure of Seng but fails to identify any specific point as the alleged fulcrum point in his annotated Figure 1 of Seng. *See* RX-0119C (Lee DWS) at Q/A 111, 133. Dr. Lee fails to explain how this limitation is met in the Kundtz-Seng combination given the substantial modifications proposed by him. *See* CX-0464C (Smith RWS) at Q/A 339.

Dr. Lee emphasized that the modified side frame "would still be a single piece of tubing." RX-0119C (Lee DWS) at Q/A 91. Dr. Lee proposes modifying the Kundtz side frame 10 to remain a single-piece closed loop with a curved bottom portion 14, but, in this proposed Kundtz-Seng combination, there is no structure that resembles Seng's rear leg. One of ordinary skill in the art would not understand the proposed combination's "rear leg" as a whole to function as the claimed "fulcrum point." CX-0464C (Smith RWS) at Q/A 339.

Inasmuch as the proposed Kundtz-Seng combination lacks the required "fulcrum point", the administrative law judge finds that respondents have not shown by clear and convincing evidence that the proposed combination renders the asserted claims obvious.

4. MacSports Directors Chair in View of Seng

Respondents argue, in part:

> Dr. Lee also explained in detail the combination of the MacSports Directors Chair in view of Seng. RX-0119C Q&A 157-209. The MacSports Directors Chair, Seng, and the '611 patent are all analogous art, as all comprise a form POSA would know to combine the MacSports Chair with Seng to achieve a rocking chair that also collapses. RX-0119C, Q&A 157.
>
> The combination would not be difficult to implement, as no unusual techniques would be required. RX-0119C, Q&A 158. The engineering involved to combine the MacSports Chair with Seng is simple and straightforward, such that a POSA would find such a combination obvious and easy to implement. *Id.*
>
> Combining these prior art elements (that is, a collapsible chair with a rocking mechanism from other prior art) would, predictably, result in a collapsible rocking chair. RX-0119C, Q&A 159. As there are collapsible rocking chairs in the prior art, such a combination would have been obvious to try. *Id.* Indeed, one goal of the '611 patent's purported invention is to "optimize the collapsibility and portability of the full-sized article without compromising comfort," which a POSA would realize can be easily accomplished by simply adding a rocking mechanism to any existing chair, such as shown by Seng. *Id.*
>
> The MacSports Directors Chair-Seng combined device would resemble the MacSports Directors Chair with the Seng device implemented on at least the rear legs. RX-0119C, Q&A 160. The apparatus of Seng provides advantages of a stable rocking motion that a POSA would know could be combined with the MacSports

Directors Chair. *Id.* The supplementary leg of Seng comprises "branches G" with "rubber buffers g" at their ends for the purpose of preventing excessive motion to the right or left. *Id.*; RX-0088, 1:51-63, Fig. 2. These supporting branches and buffers would also provide stability when the chair is used on soft ground or sand, a specific goal of the '611 patent. JX-0002, 2:34-37; RX-0119C, Q&A 160. It would also be obvious to a POSA that the spring D of the supplementary leg of Seng would prevent an occupant from rocking a chair backward to the point of tipping, "the spring in such leg will be compressed sufficiently to ease the backward motion of the chair and give it the desired impulse forward." RX-0088, 1:79-82. This is another example of the stable rocking motion provided by adding at least one supplementary leg of Seng to the MacSports Directors Chair. RX-0119C, Q&A 160.

The combination of the MacSports Directors Chair in view of Seng discloses each element of the asserted claims. RX-0119C, Q&A 59, 161-209.

* * *

This combination also discloses the fifth element of claim 1 because it discloses a fulcrum point. RX-0119C, Q&A 171-75. Seng discloses converting a chair into a rocking chair by adding either a "supplementary leg" to the back of a chair, or two supplementary legs, one each on either side of the back of the chair (behind the rear legs of the chair). RX-0088, 1:7-9; 1:26-29; Hrg. Tr. (Lee) 493:4-13, 493:23-494:7. Seng does not specify how to attach the supplementary leg, other than using a Plate A. RX-0088, 1:20-24. It would have been obvious to a POSA how to attach Plate A to each rear leg that is immediately within the legs and under the seat. RX-0119C, Q&A 171-75; Hrg. Tr. (Lee) 493:4-13, 493:23-494:7. The converted chair is meant to move between forward and rearward positions by pivoting on the back leg. *Id.*, RX-0088, 1:77-86. Spring D facilitates the rocking motion; spring J is not required. RX-0088, Fig. 1., 1:71-75, 1:89-2:3; claim 1. Thus, the back leg of the chair is the fulcrum point. Moreover, the back leg supports the chair frame. RX-0088, FIG. 1.

* * *

Resps. Br. at 144-50.

GCI argues, in part:

For the same reasons discussed in Section VI.D.2(i), *supra*, a POSITA would not have been motivated to combine the MacSports Director Chair with Seng to arrive at a collapsible and portable rocking chair as claimed in the '611 Patent. CX-0464C (Smith RWS) at Q/A 344. There are various additional reasons why such a combination would not have been obvious and why a POSITA would not have been motivated to combine these references as discussed in Section V.D.2(ii).

Dr. Lee states that his proposed combination would have been obvious to try but provides no analysis as to what were the finite number of identified, predictable solutions with a reasonable expectation of success. *Id.* Dr. Lee further states that the '611 Patent's goal to "optimize the collapsibility and portability of the full-sized article without compromising comfort" "can be easily accomplished by simply adding a rocking mechanism to any existing chair, such as shown by Seng" without explaining how any of the problems identified in the '611 Patent would be solved. *See* RX-0119C (Lee DWS) at Q/A 159. Yet Dr. Lee proposes a combination that requires substantial modifications to the MacSports Director Chair. CX-0464C (Smith RWS) at Q/A 347.

Claims 1 and 14 require **"a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions."** JX-0002 ('611 Patent) at 14:9-11, 15:40-42. Dr. Lee relies entirely on the disclosure of Seng in opining that "the [back/rear] leg of chair [in Seng] is the fulcrum point" but fails to explain how this limitation is met in the Director-Seng combination. CX-0464C (Smith RWS) at Q/A 343. Indeed, his proposed combination does not even include adding the "rear leg" in Seng to the MacSports Director Chair. RX-0119C (Lee WS) at Q/A 160. Further, a POSITA would not understand the alleged "[rear/back] leg" in Seng as a whole to be the fulcrum point as it is not a "point." CX-0464C (Smith RWS) at Q/A 343. Identifying the "[rear/back] leg" in Seng as a whole to be the fulcrum point is also inconsistent with GCI's and MacSports's proposed constructions. *Id.* Regardless, Seng does not disclose a fulcrum point under any proposed construction. Tr. (Smith) at 791:5-17.

Claims 1 and 15 further require "at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions." JX-0002 ('611 Patent) at 14:12-14, 16:16-20. Dr. Lee has failed to explain how the "supplementary leg" in Seng satisfies the proposed claim construction under § 112(f) other than the fact that it includes a spring D. Indeed, the proposed construction of the term further requires a sleeve but there is no sleeve around the Spring D in Seng. CX-0464C (Smith RWS) at Q/A 349; RX-0088 (Seng) at Fig. 1.

Dr. Lee's assertion that "the supplementary leg [in Seng] is attached to the chair frame, as shown in FIG. 1" directly contradicts the teachings of Seng that the supplementary leg B is connected to a plate A "under the rigid seat." CX-0464C (Smith RWS) at Q/A 344; RX-0088 (Seng) at 20-24. Dr. Lee has failed to explain how Seng could be connected to any purported "rear leg" and did not create any visual illustrations of such a connection. RX-0119C (Lee DWS) at Q/A 173.

Claim 14 also requires **"a third foot associated with the fulcrum point of each frame side assembly."** JX-0002 ('611 Patent) at 14:12-14, 16:8-9. Dr. Lee relies entirely on the disclosure in Seng and asserts that the purported "rear leg" in Seng is both the fulcrum point and the third foot. RX-0119C (Lee DWS) at Q/A 201, 203. In Figure 2 of the '611 Patent, the first, second and third feet (36a, 36b,

> 36c) and the fulcrum point (54) are shown as separate structures. Dr. Lee does not identify a separate fulcrum point and third foot in the Director-Seng combination. CX-0464C (Smith RWS) at Q/A 350. In particular, the "rear leg" in Seng is not even part of Dr. Lee's proposed Director-Seng combination. *See* RX-0119C (Lee DWS) at Q/A 160 (proposing to add only the supplementary leg (not the rear leg) in Seng to the MacSports Director Chair). Further, a POSITA would not understand the purported "rear leg" as a whole to be the fulcrum point as it is not a "point" and such an identification is also inconsistent with MacSports's and GCI's proposed constructions. CX-0464C (Smith RWS) at Q/A 350. Dr. Lee has also failed to identify where exactly is the third foot located in the Director-Seng combination. *Id.*
>
> Claims 8 and 19 further require that **"the rocker mechanism is attached to at least one of the front leg portion and the rear leg portion of each side frame assembly."** JX-0002 ('611 Patent) at 14:55-59, 16:45-47. Dr. Lee relies entirely on the disclosure in Seng because "the rocker mechanism is behind the [back/rear] of each frame assembly" but fails to explain whether and how the alleged rocker mechanism is "attached to" any purported rear leg portion in the Director-Seng combination. RX-0119C (Lee DWS) at Q/A 177-79. 206-08. Indeed, Seng teaches that the supplemental leg is attached to the seat of the chair, *see* RX-0088 (Seng) at 1:19-26, which would not be functional with the foldable fabric seat of the MacSports Director Chair. CX-0464C (Smith RWS) at Q/A 351.

Compl. Br. at 151-53.

The administrative law judge finds that it would not have been obvious to one of ordinary skill in the art to combine the MacSports Directors Chair with Seng to arrive at a collapsible and portable rocking chair as claimed in the '611 patent. MacSports faced difficulties in designing its MacRocker rocking chair. CX-0464C (Smith RWS) at Q/A 130. MacSports's corporate representative, Sharon Wei, testified that [redacted] CX-0352C (Wei Dep.) at 49:20-50:23, 63:1-9, 65:5-24, 67:18-68:8, 74:23-75:19. Eddie Zheng, one of the witnesses testifying on behalf of MacSports, documented the difficulties of designing collapsible rocking chairs in a patent that issued to him in 2006. Zheng Tr. 410-411.

Simply adding a "spring" does not enable a chair to rock properly or safely, or to function for its intended purpose. Smith Tr. 787-789; 800; CX-0464C (Smith RWS) at Q/A 112. Because of this, it was difficult, time-consuming, and not obvious to add rocking capabilities (as claimed in the '611 patent) to collapsible chairs. *Id.* As noted above, the evidence shows that the front feet of the DLHA chair exhibited translational movement when straight springs were added to the back legs. *See* Penn Tr. 554-555; CX-0450C (Lock N'Rock Engineering Recap) at 4.

The administrative law judge finds that respondents have not shown by clear and convincing evidence that the proposed combination of the MacSports Directors Chair with Seng renders the asserted claims obvious because the proposed combination would not result in a chair with a working "fulcrum point". Straight springs may experience friction/binding during rocking motion and the stationary front foot may create a tipping hazard. *See* CX-0464C (Smith RWS) at Q/A 348; Penn Tr. 546-547; CX-0075C at 6 ("Why it doesn't work"). The spring mechanism of Seng would experience similar issues when added to the MacSports Directors Chair. *See* CX-0464C (Smith RWS) at Q/A 347-48. Accordingly, adding the spring mechanism of Seng to the MacSports Directors Chair would not create a workable collapsible and portable rocking chair. *Id.*

5. MacSports Directors Chair in View of Lampila

Respondents argue, in part:

> Dr. Lee also explained this combination in detail in his witness statement. RX-0119C, Q&A 261-304. The MacSports Directors Chair, Lampila, and the '611 patent are all analogous art, as all comprise a form of chair. R X-0119C, Q&A 261. A POSA would combine the MacSports Directors Chair and Lampila because, although not collapsible, Lampila provides a light chair that takes up little room (RX-0089, 1:1-3) and is tubular in design, like the MacSports Directors Chair and the '611 patent. RX-0089, 1:39-2:3; Fig. 1; RX-0119C, Q&A 262. Such a

combination would be obvious to try, as a POSA would know how to combine the MacSports Directors Chair and Lampila to achieve a collapsible chair with the additional function of rocking. RX-0119C, Q&A 263.

Lampila comprises a lower frame 2 that provides support for the chair (RX-0089, 1:10-11) and a point 6 that comprises a fulcrum that allows the chair to rock. RX-0119C, Q&A 263. A spring 1 is also provided, that reduces the effort needed to use the Lampila device. *Id.* It would have been obvious for a POSA at the time of the alleged invention of the '611 patent to modify Lampila to use one such spring on each rear leg of the MacSports Directors Chair, and remove the portion of lower frame 2 that spans the width of the chair (from the left to the right side), such that it would provide the rocking function while not interfering with the ability of the MacSports Directors Chair to be collapsed. *Id.* That is, although Lampila is not collapsible, the rocking mechanism is easily adapted to a collapsible chair such as the MacSports Directors Chair. *Id.*

The combination would be easy to make, as no unusual techniques would be required. RX-0119C, Q&A 264. The engineering involved in the combination is simple, and such a modification would not require undue experimentation and would be within the skill of a POSA. Id. As there are other collapsible rocking chairs in the prior art, such a combination would have been obvious to try. *Id.* Indeed, combining these prior art elements (that is, a collapsible chair with a rocking mechanism from other prior art) would, predictably, result in a collapsible rocking chair. *Id.*

Essentially, the MacSports Directors Chair-Lampila device would add a portion of the lower frame, disclosed in Lampila, that is parallel to, and directly under, the bottom of each side frame of the MacSports Chair. RX-0119C, Q&A 265. A pivot point 6 would be added to the bottom of each side frame, approximately midway between the front and back of the side frame, connecting the side frame to the lower frame below it (in other words, at a fulcrum). *Id.* The lower frame of Lampila would provide the advantage of stable support on soft ground or sand, a specific goal of the '611 patent. JX-0002, 2:34-37; RX-0119C, Q&A 265. Instead of a rocker that contacts the ground at one point at a time, the lower frame of Lampila would be straight and flat, providing ideal support. RX-0119C, Q&A 265. It would also be obvious to a POSA that the bearing elements 7 of Lampila would provide a means of averting an occupant from rocking a chair backward to the point of tipping, "bearing elements 7 are attached to the lower portion of the upper frame 8, one on each side of the same in such manner that on rocking the chair backwards these stop and bearing elements contact with the lower frame thus preventing upsetting of the chair." *Id.*; RX-0089, 1:32-38.

Dr. Lee also opined that each element of the asserted claims is rendered obvious by the combination of the MacSports Directors Chair and Lampila. RX-0119C, Q&A 59, 266-304.

* * *

The combination also discloses the fifth element of claim 1. RX-0119C, Q&A 277-78. Lampila discloses a fulcrum point supporting the chair frame and about which said chair frame can move between forward and rearward positions. Specifically, Lampila discloses an upper frame "pivotally connected" with a lower frame at points 6, one "point 6" being on each side of the upper frame. RX-0089, 1:13-14; Fig. 1. Lampila further discloses that the upper frame, together with the seat, will "oscillate" on the pivots 6. RX-0089, 1:27-28. Thus, "point 6" as shown on Figure 1 of Lampila is a fulcrum point supporting the chair frame in such a way that allows for forward and backward motion. GCI does not contest that this combination discloses this limitation. GCI Pre. Br. at 129-31.

The combination also discloses the sixth element of claim 1. RX-0119C, Q&A 279-80. The lower frame of Lampila would be added to the MacSports Director Chair. RX-0089, Fig. 1. Lampila discloses a "bent spring 1" that is pivotally attached to the rear of the frame assembly at "point 4" and attached to a lower frame at "point 5." This bent spring 1 is the rocker mechanism, as it regulates the oscillation of the chair on the pivots 6. RX-089, 1:15-17, Fig. 1. A POSA would understand that one could use two springs in this combination. Hrg. Tr. (Lee) 483:17-24, 486:12-487:11.

Resps. Br. at 150-57.

GCI argues, in part:

A POSITA would not have been motivated to combine the MacSports Director Chair and Lampila to arrive at a collapsible and portable rocking chair as claimed in the '611 Patent. CX-0464C (Smith RWS) at Q/A 363. Dr. Lee's proposed combination requires not only substantial modifications to the MacSports Director Chair, but also to the elements borrowed from Lampila, including removing the lateral section of lower frame 2 in Lampila and replacing the bend spring 1 with two bent springs on two sides of the chair frame. *Id.* at Q/A 366; Tr. (Lee) at 482:10-11 (confirming that Lampila does not disclose that portions of the frame 2 can be removed). Dr. Lee's proposed modification finds no support in the teachings of Lampila. CX-0464C (Smith RWS) at Q/A 366.

In addition, Lampila teaches that the bend spring 1 could be either a "plate spring" or "several wire springs placed side by side and held together by a sleeve" with noticeable width. RX-0089 (Lampila) at 1:21-25; Tr. (Lee) at 483:10-24; 484:20-25. Thus, using two such springs on each side of the modified chair would affect its collapsibility due to part of the bend springs extending laterally outside the chair, would interfere with the upper frame, and would also create safety concerns. CX-0464C (Smith RWS) at Q/A 366. Further, a POSITA would recognize that Lampila contains a non-flexible seat 3, Tr. (Lee) at 481:14-20, which in combination with bend spring 1 and lower frame 2, provides lateral stability for

the chair. CX-0464C (Smith RWS) at Q/A 366. Yet, in Dr. Lee's Director-Lampila combination, not only is the seat panel flexible, the bend spring is also moved to the two sides of the chair frame with lower frame 2 being deprived of its lateral portion, which results in substantially reduced lateral stability in comparison to the original Lampila embodiments and no obvious improvement in lateral stability in comparison to the original MacSports Director Chair. *Id.*

Moreover, the bend spring in Lampila is connected to a rigid seat, whereas the MacSports Director Chair uses a flexible seat panel supported by the frame. Thus, a POSITA would further understand that substantial structural modifications are needed to connect the bend spring as taught by Lampila with the flexible seat panel and frame structure from the MacSports Director Chair. *Id.* Dr. Lee states that his proposed combination would have been obvious to try but provides no analysis as to what were the finite number of identified, predictable solutions with a reasonable expectation of success. *See* RX-0119C (Lee DWS) at Q/A 263-64.

Accordingly, a POSITA would not have been motivated to combine the MacSports Director Chair and Lampila. CX-0464C (Smith RWS) at Q/A 366. Additional reasons why such a combination would not have been obvious and why a POSITA would not have been motivated to combine these references are discussed in Section V.D.2(ii), *supra.*

Claims 1 and 15 require **"at least one rocker mechanism attached to the chair frame for supporting the chair during movement of the chair frame between said forward and rearward positions."** JX-0002 ('611 Patent) at 14:12-14, 16:16-20. Dr. Lee does not explain how the bent spring in Lampila would be implemented in the proposed combination. CX-0464C (Smith RWS) at Q/A 367. Further, the bent spring does not satisfy the proposed claim construction under § 112(f). *Id.* Indeed, Dr. Lee admitted on cross that Lampila does not disclose any torsion spring or compression spring as disclosed in the alternative structures for the "rocker mechanism" under the means-plus-function construction. Tr. (Lee) at 482:22-9.

Claim 14 requires **"a first foot associated with the front leg portion of each frame side assembly; a second foot associated with the rear leg portion of each frame side assemhly; and a third foot associated with the fulcrum point of each frame side assembly."** JX-0002 ('611 Patent) at 16:4-9. A POSITA would not understand the stop bearing element to be a foot, and Dr. Lee does not explain how this structure satisfies either MacSports's or GCI's proposed constructions. CX-0464C (Smith RWS) at Q/A 368. Regardless, the stop bearing element would be located "at the bottom of each side frame [of the MacSports Chair], approximately *midway* between the front and back of the side frame," RX-0119C (Lee DWS) at Q/A 265, which is not part of either the front leg portion or the rear leg potion. Thus, the alleged first foot would not "be associated with the front leg portion." CX-0464C (Smith RWS) at Q/A 368.

> Dr. Lee identifies the bend spring 1 in the Director-Lampila combination as both the rocking mechanism and second foot and the pivots 6 in the Director-Lampila combination to be both the fulcrum point and the third foot. Dr. Lee does not identify a separate rocking mechanism and second foot or a separate fulcrum point and third foot in the Director-Lampila combination. *Id.* Dr. Lee has failed to explain how the alleged second and third feet meet MacSports's and GCI's proposed constructions. Regardless, a POSITA would not consider any of the alleged structures to be a foot, especially given that none of them is intended to be in contact with the ground or support surface. *Id.*; Tr. (Lee) at 482:15-19 (confirming the frame 2, to which all of the alleged "feet" connect, "would be the interface to the support surface").
>
> Claim 14 further requires **"each frame side assembly contacts the support surface on which said frame side assembly is set up with at least two of the first, second and third feet at all positions between the forward and rearward positions of the chair frame."** JX-0002 ('611 Patent) at 16:10-14. Contrary to Dr. Lee's assertion, a POSITA would not consider the lower frame from Lampila to be the "support surface." Tr. (Lee) at 482:15-19 (confirming the support surface is the floor underneath the lower frame 2); CX-0464C (Smith RWS) at Q/A 369; *see* RX-0089 (Lampila) at 1:10-12 (emphasis added).
>
> As discussed, the alleged fulcrum point in Lampila is not a foot. Further, Dr. Lee has failed to explain how the stop bearing element is ever in contact with the support surface. CX-0464C (Smith RWS) at Q/A 369.

Compl. Br. at 153-56.

The administrative law judge finds that one of ordinary skill in the art would not have combined the MacSports Directors Chair with Lampila's chair to arrive at a workable, collapsible rocking that reads on the asserted claims. Dr. Lee's proposed combination requires not only substantial modifications to the MacSports Directors Chair, but also to the elements borrowed from Lampila, including removing the lateral section of lower frame 2 in Lampila and replacing the bend spring 1 with two bent springs on two sides of the chair frame. *See* CX-0464C (Smith RWS) at Q/A at Q/A 366; Lee Tr. 482 (confirming that Lampila does not disclose that portions of the frame 2 can be removed).

Moreover, the administrative law judge finds that this combination would not provide the claimed "rocker mechanism." As noted above, the claim term "rocker mechanism" is construed

pursuant to 35 U.S.C. § 112(f), and the function is identified in claim one as "for supporting the chair during movement of the chair frame between said forward and rearward positions." Furthermore, the structure corresponding to the claimed "rocker mechanism" includes the following portions of the specification: col. 3, ln. 55 – col. 4, ln. 11, col 6, lns. 56-64, col. 7, lns. 42-64, col. 11, lns. 17-32, col. 11, ln. 55 – col. 12, ln. 27, and Figs. 2, 6, and 9.

Lampila's bent spring does not satisfy the proposed claim construction under § 112(f). CX-0464C (Smith RWS) at Q/A 367. Dr. Lee admitted on cross examination that Lampila does not disclose any torsion spring or compression spring as disclosed in the alternative structures for the "rocker mechanism" under the means-plus-function construction. Lee Tr. 482-483.

As noted above, a "second foot" means "a contact at the lower portion of each side of a chair frame, each corresponding to a portion of the chair frame supporting a rearward portion of the chair frame", and "third foot" means "a contact at the lower portion of each side of a chair frame, each corresponding to a point on which the chair frame is supported and about which the chair frame pivots." Dr. Lee identifies the bend spring 1 in the Directors-Lampila combination as both the rocking mechanism and second foot and the pivots 6 in the Directors-Lampila combination to be both the fulcrum point and the third foot. RX-0119C (Lee DWS) at Q/A 299-300. Dr. Lee does not identify a separate rocking mechanism and second foot or a separate fulcrum point and third foot in the Directors-Lampila combination. *See* CX-0464C (Smith RWS) at Q/A 367. Neither the bend spring 1 nor the pivots 6 are intended to be in contact with the ground or support surface. *Id.*; Lee Tr. 482 (confirming the frame 2, to which all of the alleged "feet" connect, "would be the interface to the support surface"). Hence, the administrative law judge finds that respondents have not shown by clear and convincing evidence that the proposed Directors-Lampila combination satisfies all limitations of the asserted

claims.

G. Obviousness – Secondary Considerations

The objective evidence, also known as "secondary considerations," includes commercial success, long felt need, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 13-17 (1966); *Dystar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1361 (Fed. Cir. 2006). "[E]vidence 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). Secondary considerations, such as commercial success, will not always dislodge a determination of obviousness based on analysis of the prior art. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 426 (2007) (commercial success did not alter conclusion of obviousness).

GCI argues there is substantial evidence of secondary indicia of non-obviousness of the invention in the '611 patent. *See* Compl. Br. at 79-85. GCI argues several factors weigh in favor of a finding of non-obviousness:

- the claimed invention of the '611 patent is a commercial success
- the claimed invention of the '611 patent addresses a long-felt but unresolved need
- there is substantial recognition in the industry of the claimed invention of the '611 patent
- there has been copying of the claimed invention of the '611 patent

The evidence supports the first and third of the four factors and shows a nexus with the merits of the claimed invention of the '611 patent. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). Thus, the evidence supports the validity of the '611 patent.

1. Commercial Success

GCI argues that the '611 GCI products (Freestyle Rocker / Mesh Freestyle Rocker, FirePit Rocker, and Beach Rocker) practice the '611 patent, and have been commercially successful. *See* Compl. Br. at 79-81. GCI has adduced evidence demonstrating that the '611 GCI products are commercially successful. *See id.* Furthermore, GCI adduced evidence showing that that the ability of the '611 GCI products to safely rock in a portable, collapsible chair drove the success of these products. *See* CX-0419C (Polke RWS) at Q/A 58-60, 68, 78-80, 84-89, 94-95, 103-05, 131-33; CX-0464C (Smith RWS) at Q/A 284. GCI has released other products without this rocking capability that have not been as successful as the '611 GCI products. *See* CX-0001C (Grace WS) at Q/A 103-08; CX-0464C (Smith RWS) at Q/A 284. The administrative law judge finds that the commercial success of the '611 GCI products is tied to the claimed features that provide this capability, such as the "rocker mechanism" and "fulcrum point."

2. Long-Felt But Unresolved Need

GCI argues that was a long-felt but unresolved need for portable and collapsible rocker chairs embodying the claims of the '611 patent, and that respondents have identified no portable rocking chairs that are collapsible in the manner described by the '611 patent. *See* Compl. Br. at 81-82. GCI mainly relies on the testimony of its expert, Mr. Smith, who cites the asserted patent for support. *See id.* (citing CX-0464C (Smith RWS) at Q/A 285). GCI cites the following passages of the '611 patent:

- [T]here is a desire for a rocking chair that is likewise foldable and portable, so that a user at a picnic or an outdoor event can rock in their chair or recline as desired.

JX-0002 ('611 patent) at col. 2, lns. 19-22.

- Prior art foldable and portable chairs, such as those described above, have not been capable of rocking due to the design and construction of such chairs.

Id. at col. 2, lns. 22-25.

The administrative law judge finds that these statements are of little probative value because the patent does not explain how the need arose or describe how long it was felt. *See Certain Strontium-Rubidium Infusions Systems, and Components Thereof Including Generators*, 337-TA-1110, Final Initial Determination (Aug. 1, 2019) at 120, *aff'd in pertinent part*, Comm'n Opinion (Dec. 11, 2019) (Public Version) (EDIS Doc. ID 696920) at 38. GCI's other evidence does not demonstrate any long-felt unresolved need for the claimed invention of the '611 patent. *See* CX-0258C (Oliphant Dep.) at 26:17-27:8; 34:1-12, 36:6-37:4; Zheng Tr. 409, 411. Viewing the evidence as a whole, this factor does not support a conclusion of non-obviousness.

3. Praise by Others

GCI argues that the invention of the '611 patent "has[s] received contemporaneous praise by others and professional approval, which shows that those with ordinary skill in the art consider GCI's inventions to be new and nonobvious." Compl. Br. at 82. GCI has adduced articles and awards that praise the rocking features (such as the "rocker mechanism") of the '611 GCI products. *See* CX-0419C (Polke RWS) at Q/A 138-61; CX-0418C (Grace RWS) at Q/A 94-95; CX-0421 (Dream Guides: "Best Portable Fishing Chair in 2019"); CX-0422 (Gear Junkie: "Best Camping Chairs (That Rock)"); CX-0423 (Gear Patrol: "The 11 Best Camp Chairs of 2019"); CX-0424 (Men's Health: "Best Camping Chairs 2019"); CX-0425 (Popular Mechanics: "Best Camping Chairs 2019"); CX-0426 (The Manual: "Best Camp Chairs on Amazon for Chilling Around the Campfire"); CX-0427 (Yahoo Finance: "Celebrate National Tailgating Day With Tailgating Challenge"); CX-0428 (Business Insider: "The best folding chair in 2019");

CDX-0386 (Photo of 2013 Tailgater Magazine Best in Show at the National Hardware Show for GCI's Freestyle Rocker).

Respondents argue that GCI's reviews are inherently unreliable because many are online and do not list an author. *See* Resps. Br. at 162. However, CDX-0386 is a photo of GCI's 2013 Tailgater Magazine Best in Show, an award GCI received at the National Hardware Show for its Freestyle Rocker. CX-0419C (Polke RWS) at Q/A 139-43. Moreover, the reviews and other exhibits accorded any weight in this regard were published as part of well-known publications, such as Men's Health Magazine, Popular Mechanics, and Business Insider. *See* CX-0423 (Gear Patrol); CX-0424 (Men's Health); CX-0425 (Popular Mechanics); CX-0428 (Business Insider). The administrative law judge finds that this information provides evidence of praise of others for the claimed features of the '611 patent.

4. Copying

GCI argues that copying by Westfield and MacSports is further objective evidence of the non-obviousness of the invention of the '611 patent. *See* Compl. Br. at 83-85. GCI argues that [redacted] *See id.* (citing CX-0329C [redacted] at 47:14-24). GCI contends [redacted] CX-0054C [redacted] at 1)). GCI argues that MacSports sent a GCI Freestyle Rocker to the Meike factory during development of the MacRocker. Wei Tr. 395-396; Zheng Tr. 414. GCI contends that MacSports "purchased these GCI rockers for the purpose of studying them." *See* Compl. Br. at 84 (quoting Wei Tr. 394).

Westfield argues [redacted] which does not practice the '611 patent. *See* Resps. Br. at 164 (citing CX-0330C). Westfield argues that [redacted]

[redacted] has no relation to the claimed invention of the '611 patent. *See id.* (citing CX-0054C).

MacSports argues that it "designed around the GCI chair to make sure that we did not copy the GCI chair." RX-0384C (Zheng DWS) at Q/A 17. MacSports argues that it specifically designed the MacRocker to not copy GCI's intellectual property. RX-0118C (Liu DWS) at Q/A 35-49; RX-0384C (Zheng DWS) at Q/A 12-21; RX-0117C (Wei DWS) at Q/A 19-53.

The administrative law judge finds that GCI has not adduced evidence demonstrating that Westfield or MacSports copied the invention of the '611 patent.

[redacted] does not practice the '611 patent. *See* Resps. Br. at 164 (citing CX-0330C). Moreover, testing a competitor's product does not equate to copying. Grace Tr. 733.

GCI cites evidence showing that MacSports sent a GCI chair to its factory in China. *See* Compl. Br. at 83-85. However, Mr. Zheng testified that he wanted to make a non-infringing rocking chair and sent the GCI chair to the factory so it would "kn[ow] what it was not supposed to be copying." RX-0384C (Zheng DWS) at Q/A 17. MacSports engaged Wen Liu, Esq., an experienced patent lawyer, to ensure that its chairs did not infringe and Mr. Liu found that they did not. *See id.*

The administrative law judge finds that this evidence shows that Westfield and MacSports were aware of the '611 GCI products, but such knowledge is insufficient evidence to demonstrate that Westfield and MacSports in fact copied these products. GCI argues that there is a "similarity between Respondents' accused products and GCI's patented products." Compl. Reply Br. at 29. However, as noted above, neither Westfield nor MacSports infringes an

asserted claim of the '611 patent. The administrative law judge finds that the accused chairs are not similar enough to demonstrate that Westfield or MacSports copied GCI's technology.

* * *

Accordingly, the administrative law judge finds that there is some evidence of secondary considerations that tends to support non-obviousness of the claims of the '611 patent.

VII. Economic Prong

GCI argues that it has satisfied the economic prong of the domestic industry requirement of section 337(a)(3)(A)-(C) through significant investment in plant and equipment with respect to the articles protected by the '824 and '611 patents, significant investment in labor and capital with respect to the articles protected by the '824 and '611 patents, and substantial investment in exploitation of the '824 and '611 patents. *See* Compl. Br. at 165-73. Respondents oppose any such findings. *See* Resps. Br. at 170-75.

GCI applied a sales-based allocation method to apportion its expenses for its capital and equipment. *See* Compl. Br. at 168. Respondents did not challenge GCI's use of a sales-based allocation method. *See* Resps. Br. at 170-75. Indeed, sales-based allocation may be used when determining whether the economic prong of the domestic industry requirement has been satisfied. *See Certain Marine Sonar Imaging Devices, Including Downscan and Sidescan Devices, Products Containing the Same, and Components Thereof* ("*Marine Sonar*"), Inv. No. 337-TA-921, Comm'n Op. at 61-62 (approving use of weighted sales-based allocation to arrive at investment amounts) (Jan. 6, 2016) (Public Version) (EDIS Doc. ID 571940). Yet, even when applying a sales-based methodology, the overall economic analysis must still include an appropriate assessment of the relative importance of domestic activities related to the domestic

industry products. Among the analyses that may be helpful to the Commission in ascertaining significance are a comparison of domestic and foreign investments or expenditures in relation to the domestic industry products or a value-added analysis. *Carburetors*, Inv. No. 337-TA-1123, Comm'n Op. at 17 (Oct. 28, 2019) (Public Version) (EDIS Doc. ID 692517); *Certain Movable Barrier Operation Sys. and Components Thereof* ("*Movable Barrier*"), Inv. No. 337-TA-1118, Comm'n Order at 4 (May 4, 2020) (Public Version) (EDIS Doc. ID 709462).

GCI applied the sales-based percentages of the '611 and '824 GCI products sold each year from 2015 through May 30, 2019 to produce the following table:

Year	'611 GCI Products Sold	'611 GCI Products as % of Total Sales (Allocations Factor)	'824 GCI Products Sold	'824 GCI Products as % of Total Sales (Allocation Factor)
2015	[redacted]	[redacted]	[redacted]	[redacted]
2016	[redacted]	[redacted]	[redacted]	[redacted]
2017	[redacted]	[redacted]	[redacted]	[redacted]
2018	[redacted]	[redacted]	[redacted]	[redacted]
2019[16]	[redacted]	[redacted]	[redacted]	[redacted]

CX-0001C (Grace WS) at Q/A 61-102; CX-0376C (GCI's Rocker Sales)

A. GCI's Investments in Plant and Equipment

GCI argues, in part:

> Since 2018, GCI has occupied [redacted] at 457 Killingworth Road, Higganum, CT. CX-0001C (Grace WS) at Q/A 118, 128. This facility includes [redacted] *Id.* GCI's current facility is shown in CDX-0350 and CDX-0351, with callouts to space devoted to R&D activities. *Id.* at Q/A 120-23.

[16] According to GCI, the 2019 data is current as of May 30, 2019. *See* Compl. Br at 168.

. . .

> Accordingly, applying the sales-based allocation methodology using the 2019 percentages, the total investment in land and buildings that is attributable to the '824 Covered Rockers in 2019 is [redacted] CX-0001C (Grace WS) at Q/A 131. Similarly, total investment in land and buildings that is attributable to the '611 Covered Rockers in 2019 [redacted] *Id.* at Q/A 132.

Compl. Br. at 169.

Respondents argue, in part:

> GCI incorrectly inflates its alleged expenses by including in its investments the entire purchase price for the 457 Killingworth Road facility. GCI's Co-President Dan Grace testified that a separate (non-party) entity owns that facility and GCI pays rent monthly for this space. Hrg. Tr. (Grace) 99:13-15, 100:7-101:4; RX-0035C (Grace Dep.) 109:1-110:11. Any alleged investment for plant and equipment should use GCI's monthly rent and not the total purchase price as the starting point its allocation.

Resps. Br. at 171.

The administrative law judge finds that GCI's investment for plant and equipment should use the fair market value for GCI's monthly rent as the starting point for the allocation, rather than the purchase price for the facility because a separate (non-party) entity owns that facility and GCI pays rent monthly for this space. Grace Tr. 99, 100-101; RX-0035C (Grace Dep.) 109:1-110:11. Mr. Grace testified that the fair market value of GCI's facility would be [redacted]" CX-0001C (Grace DWS) at Q/A 130. Thus, the starting point for the allocation would be [redacted]

With respect to GCI's investments in plant and equipment relating to its '824 GCI products, the evidence shows that GCI's total investment in land and buildings that is attributable to the '824 GCI products in 2019 is [redacted] *See* CX-0001C (Grace WS)

at Q/A 130. Similarly, total investment in land and buildings that is attributable to the '611 GCI products in 2019 is [redacted] *See id.*

GCI further argues:

> [redacted] Applying the sales-based allocation methodology, GCI spent approximately [redacted] on warehouse facilities related to the '824 Covered Rockers and approximately [redacted] on warehouse facilities related to the '611 Covered Rockers from 2015 through May 2019. *Id.*

Compl. Br. at 170.

Respondents did not dispute GCI's investments in warehousing, totalling more than [redacted] between the asserted patents. *See* Resps. Br. at 170-75. The administrative law judge finds that GCI invested approximately [redacted] on warehouse facilities related to the '824 GCI products and approximately [redacted] on warehouse facilities related to the '611 GCI products from 2015 through May 2019. *See* CX-0001C (Grace WS) at Q/A 133-49.

GCI further argues:

> Equipment related to R&D is accounted for separately below. The total amount of non-R&D equipment from 2015 through May 2019 is [redacted] *Id.* at Q/A 150-55. This equipment includes computers, tradeshow booths, copiers, and office equipment. *Id.* at Q/A 156; CX-0377C (GCI Equipment Expenditures). This equipment is used for all of GCI's products, including the '824 and '611 Covered Rockers. CX-0001C (Grace WS) at Q/A 157.
>
> Using the sales-based allocation methodology, the amount of GCI's non-R&D equipment that can be attributed to the '824 Covered Rockers is [redacted] and the amount attributable to the '611 Covered Rockers is [redacted] from 2015 through May 2019. *Id.* at Q/A 158-59.

Compl. Br. at 170.

Respondents argue:

> GCI also improperly includes investments in "tradeshow booths, copiers and office equipment, etc.," (CX-0001C (Q&A 156)), without connecting these marketing and sales expenses to the '611 patent or the '824 patent. In addition, GCI failed to show how these expenses add value to the Domestic Industry Products.

Resps. Br. at 171.

The administrative law judge finds that GCI has not provided sufficient evidence to "show how its activities were important to the articles protected by the asserted patents in the context of the company's operations, the marketplace, or the industry in question, or whether complainant's undertakings had a direct bearing on the practice of the patent." *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 30-31 (Feb. 17, 2011).

GCI further argues:

> In addition, from 2015 through May 30, 2019, GCI spent approximately [redacted] on R&D-related computers and equipment. *Id.* at Q/A 218-19. Using the sales-based allocation methodology (*id.* at Q/A 220-27), GCI's total R&D equipment expenditures attributable to the '824 Covered Rockers is approximately [redacted] *Id.* at Q/A 229. GCI's total R&D equipment expenditures allocable to the '611 Covered Rockers for the same period is [redacted] *Id.* at Q/A 228.

Compl. Br. at 170-71.

Respondents did not dispute GCI's investments in R&D-related computers and equipment. *See* Resps. Br. at 170-75. The administrative law judge finds that GCI invested approximately [redacted] on R&D-related computers and equipment related to the '824 GCI products and approximately [redacted] on R&D-related computers and equipment related to the '611 GCI products from 2015 through May 2019. *See* CX-0001C (Grace WS) at Q/A 220-29.

B. GCI's Investments in Labor and Capital

GCI argues, in part:

> GCI has also invested and continues to invest significant sums in domestic labor and capital relating to the Covered Rockers. At the time of the Amended Complaint in August 2019, GCI employed [redacted] full-time personnel at its US headquarters, including [redacted] R&D employees. *Id.* at Q/A 15-17; *see also* CX-0378C (GCI Employee/Salary List). GCI's total labor expenditures for its US employees from 2015 through May 2019 was [redacted] CX-0001C (Grace DWS) at Q/A 170-80; CX-0378C (GCI Employee/Salary List).
>
> Using the sales-based allocation methodology, the total non-R&D labor expenditures attributable to GCI's '824 Covered Rockers is approximately [redacted] from 2015 through May 2019. CX-0001C (Grace DWS) at Q/A 184. Using this same methodology, the total non-R&D labor expense attributable to the '611 Covered Rockers is approximately [redacted] from 2015 through May 2019. *Id.* at Q/A 183.

Compl. Br. at 171.

Respondents argue, in part:

> GCI's labor and capital expenses also suffer from the same flaw as its plant and equipment expenses—namely, not removing non-Domestic Industry Product related expenses. For example, GCI's labor expenses include "sales and marketing [redacted] finance/production [redacted]; and distribution [redacted]." CX-0001C Q&A 165. These non-Domestic Industry Product related expenses are improper because GCI failed to tie them to the '611 patent or the '824 patent and GCI failed to show whether and to what extent these expenses add value to the Domestic Industry Products. *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 30-31 (Feb. 17, 2011) ("[C]omplainant [did not] demonstrate whether and to what extent its domestic activities added value to the imported products.").

As noted above, respondents did not challenge the use of GCI's sale-based allocation method, and the administrative law judge finds that GCI's allocation methodology reasonably approximates the labor and capital expenditures relating to the '611 and '824 GCI products. *See Ground Fault Circuit Interrupters and Products Containing Same*, Inv. No. 337-TA-739, Comm'n Op. at 74-75, 79-81 (June 8, 2012). Using GCI's sales-based allocation methodology, the administrative law judge finds that GCI's total amount of non-R&D labor expenditures

attributable to GCI's '824 GCI products is approximately [redacted] from 2015 through May 2019. *See* CX-0001C (Grace DWS) at Q/A 184. Using this same methodology, the administrative law judge finds that the total amount of non-R&D labor expense attributable to the '611 GCI products is approximately [redacted] from 2015 through May 2019. *See id.* at Q/A 183.

C. GCI's R&D Expenditures

GCI argues, in part:

> GCI has invested and continues to invest significant sums in engineering, research and development, and equipment (such as computers and CAD software) relating to the '824 and '611 Covered Rockers. For example, [redacted] *Id.* at Q/A 250. GCI considers R&D in general "extremely important" and R&D related to its Covered Rockers "a critical component of [GCI's] ability to grow." *Id.* at Q/A 255. As evidence of its R&D expenditures, GCI provided letters showing tax credits it claimed for most years between 2011 through 2018. *Id.* at Q/A 188-93 [redacted]. These letters also show the projects GCI was investing in for each year. *Id.* at Q/A 193; CX-0379C (R&D Tax Ltrs.).
>
> Taking the total R&D expenditures for each year and dividing them by the percentage of projects related to the Covered Rockers for that year, GCI spent at least [redacted] on R&D related to the '824 Patent from 2015 through May 2019. CX-0001C (Grace DWS) at Q/A 216; CX-0462C (Grace Errata). According to Mr. Grace, "these figures significantly underestimate the amount expended on R&D on these products for these years, since both the '824 and '611 Covered Rocker Products were important products to which more R&D resources were devoted proportionally than other projects." CX-0001C (Grace DWS) at Q/A 217.

Compl. Br. at 171-72.

Respondents argue, in part:

> GCI also failed to properly allocate its R&D expenses and failed to show a nexus between its alleged investments and the asserted patents. GCI's employees did not keep track of their time spent on the '611 patent or the '824 patent. Hrg. Tr. (Grace) 97:8-11. Instead, GCI uses a sales-based allocation that suffers a fatal flaw—any R&D expenses that may have a nexus to the asserted claims occurred before GCI sold any Domestic Industry Products in 2013. GCI did not and cannot show a nexus between its R&D efforts and the asserted claims. For example, Mr. Grace discusses R&D work [redacted]

(CX-0418C Q&A45-46), [redacted] (*id.* at Q&A51-53), [redacted] (*id.* at Q&A76-77)—none of which are related to the asserted claims. Hrg. Tr. (Grace) 737:14-19. The futility of applying GCI's sales-based allocation in this investigation is shown by the fact that GCI had no sales during its R&D efforts to create its first Domestic Industry Product and now the chairs make up the vast majority of GCI's sales while the R&D efforts to create the GCI chairs ended years ago.

GCI's allocation to create R&D expenses does not correspond with the actual amount of time the employees spent on research and development for the asserted patents. For example, [redacted] RX-0023C (Agli) 20:19-21:11. In addition, Mr. Grace testified that the time estimates he provided for GCI's various R&D efforts overlap—that GCI worked on more than one project at a time, including work on projects not related to the asserted patents or the Domestic Industry Products. Hrg. Tr. (Grace) 96:24-97:7, 734:20-735:7.

GCI also overstates its R&D expenses by claiming R&D expenses in the years after GCI started selling the '611 patent Domestic Industry Products in the market. For example, GCI alleges that four products practice the '611 patent (CX-0001 Q&A 26-30), and that GCI offered all four products for sale starting in 2016. CX-0001 Q&A28, 61-64; CX-0376C.003 (showing 2017 sales totals). Yet, GCI claims R&D expenses in 2017, 2018, and 2019 for the '611 patent. CX-0001 Q&A222, 224, 226, 228.

Resps. Br. at 172-73.

As an initial matter, respondents appear to be incorrect regarding GCI's manner of calculating R&D expenses. GCI used letters showing tax credits it claimed for most years between 2011 through 2018. *See* CX-0001C (Grace DWS) at Q/A 188-93; CX-0379C. Moreover, it is not the case that GCI "claims R&D expenditures in 2017, 2018, and 2019 for the '611 patent." Resps. Br. at 173. GCI did not allocate any R&D expenditures for the '611 patent. *See* Compl. Br. at 172-73.

The administrative law judge finds that GCI's R&D efforts are related to the specific products covered by the patents. *See Motorola Mobility, LLC v. U.S. Int'l Trade Comm'n*, 737 F.3d 1345, 1351 (Fed. Cir. 2013) ("[N]othing in § 337 precludes a complainant from relying on

investments or employment directed to significant components, specifically tailored for use in an article protected by the patent."). The evidence demonstrates that GCI expended at least [redacted] on R&D related to the '824 patent from 2015 through May 2019. CX-0001C (Grace DWS) at Q/A 216.

D. GCI's Engineering-Related Travel Expenditures

GCI argues, in part:

> GCI also incurred engineering-related travel expenses that are attributable to the production and manufacturing of the Covered Rockers. Numerous staff, including Daniel Grace, participated in this travel. *Id.* at Q/A 230. [redacted] *Id.* From 2015 through May 2019, GCI spent approximately [redacted] on engineering-related travel. *Id.* at Q/A 233, 235, 237, 240, 243.
>
> Using the sales-based allocation methodology, the value of GCI's engineering-related travel expenses attributable to GCI's '824 Covered Rockers is approximately [redacted] from 2015 through May 2019. *Id.* at Q/A 247. Using the same methodology, the value of GCI's engineering-related travel expenses attributable to the '611 Covered Rockers is approximately [redacted] from 2015 through May 2019. *Id.* at Q/A 246.

Compl. Br. at 172.

Respondents argue, in part:

> GCI's alleged engineering related expenses are for activities occurring outside the United States. Hrg. Tr. (Grace) 101:14-102:5, 102:15-103:1; CX-0001 Q&A230. The ALJ should not count these expenses because Section 337 requires that the investment take place in the United States. 19 U.S.C. § 1337 (a)(3) ("[A]n industry in the United States shall be considered to exist if *there is in the United States*...") (emphasis added).

Resps. Br. at 173-74.

GCI argues that it incurred engineering-related travel expenses "that are attributable to the production and manufacturing of the Covered Rockers." *See* Compl. Br. at 172. However, Mr. Grace testified that this was "travel to [redacted] to discuss production of our products."

CX-0001C (Grace DWS) at Q/A 230. These are thus admittedly activities occurring outside the United States. The administrative law judge finds that these travel-related expenses are not attributable to the domestic industry.

E. Contextual Analysis

Respondents argue, in part:

> GCI's arguments under any prong of the domestic industry requirement fail because GCI did not provide enough context of GCI's operations, the marketplace, or the industry for the Commission to evaluate. *Certain Carburetors and Products Containing Such Carburetors*, Inv. 337-TA-1123, Comm'n Op. at 17 (Oct. 28, 2019) ("*Carburetors*") ("Walbro's reliance on the numerical amounts, which the ID refers to as 'absolute values,' of its domestic investments fails to evaluate significance based on any context of Walbro's operations, the marketplace, or the industry in question."). Significantly, "other than the sales-based allocation of its investments, [GCI] fails to provide any other context for its domestic industry investments." *Carburetors* at 13-14.
>
> Here, GCI failed to provide enough information so that the Commission can consider "the nature and importance of the complainant's activities to the patented products in the context of the marketplace or industry in question." *Carburetors* at 18. "Beyond using sales for allocating the absolute amount of investments, the Commission has also compared those investments to sales of protected articles in order to consider the context of a complainant's domestic industry investments among other evidence." *Carburetors* at 9. GCI has failed to provide the Commission such context. To the extent GCI argues its investments are significant or substantial relative to the industry as a whole, GCI failed to provide any evidence of what the norms are in the industry beyond self-serving statements by GCI's Co-President Mr. Grace. Hrg. Tr. (Grace) 97:12-98:6.
>
> The Commission seeks "to place the value of domestic investments in the context of the relevant marketplace, such as by comparing a complainant's domestic expenditures to its foreign expenditures or considering the value added to the product from a complainant's activities in the United States." *Carburetors* at 18. Critically, GCI failed to show how any of GCI's domestic activities add value to the domestic industry products. *Id.* Moreover, GCI failed to provide any evidence relating to its worldwide sales to put its U.S. sales or investments into context. *Id.* at 20-21. For example, GCI failed to provide any information about investments it made in other product categories and only provides vague, unsubstantiated claims about what investments the industry makes.

Resps. Br. at 174-75.

GCI argues, in part:

> GCI put its US expenditures into the proper context. Mr. Grace testified that its expenditures on the Covered Rockers "very significant" to GCI, particularly for a company of GCI's size. CX-0001C (Grace DWS) at Q/A 250-52, 256. Mr. Grace also explained that GCI's domestic spend on the '611 and '824 Covered Rockers was about [redacted] respectively, of GCI's total expenditures in the same period. *Id.* at Q/A 251-52; *see also id.* at Q/A 217 ("[B]oth the '824 and '611 Covered Rocker Products were important products to which more R&D resources were devoted proportionally than other projects."). All totalled, GCI's US investments in the Covered Rockers is "[redacted] of [GCI's] total US expenditures over the last few years." *Id.* at Q/A 252.
>
> Mr. Grace also explained that, based on his experience in the industry and his personal knowledge of GCI's competitors, GCI's US investments in the Covered Rockers would be considered significant for this industry. *Id.* at Q/A 253-54. Thus, GCI put its expenditures into the proper context.

Compl. Reply Br. at 63-64.

Respondents rely on *Carburetors*, Inv. No. 337-TA-1123, Comm'n Op. (Oct. 28, 2019), and argue that "GCI did not provide enough context of GCI's operations, the marketplace, or the industry for the Commission to evaluate." Resps. Br. at 174. However, in *Carburetors*, the Commission observed that "comparing a complainant's domestic expenditures to its foreign expenditures" was one of multiple ways of conducting a contextual analysis of a complainant's domestic activities. *See Carburetors* at 18. In other words, "Commission precedent permits complainants to present evidence of their U.S. investments using methods and approaches that are appropriate to the facts of a particular investigation." *Movable Barrier*, Inv. No. 337-TA-1118, Comm'n Op. at 23 (Jan. 12, 2021) (Public Version) (EDIS Doc. ID 730303) (citing *Certain Optoelectronic Devices for Fiber Optic Communications*, Inv. No. 337-TA-860, Comm'n Op. at 18-19 (May 9, 2014) (Public Version) (EDIS Doc. ID 533534) ("These figures show the relative importance of [complainant's] R&D investments as they are directly tied to

development of the articles protected by the patent and are critically important to [complainant's] business as a whole.")).

The administrative law judge finds that GCI's domestic industry activities are critical to the sales of the '824 and '611 GCI products. GCI's [redacted] warehouse/R&D workshop at its 457 Killingworth Road facility is used for [redacted] CX-0001C (Grace DWS) at Q/A 122. GCI's warehouse space is used for [redacted] *See id.* at Q/A 127. Moreover, '[redacted] *Id.* at Q/A 125-26; CX-0379C.

The administrative law judge finds that these activities provide context for the company's operations, demonstrating that the relative value of GCI's domestic activities and investments is significant and substantial.

F. Analysis of GCI's Investments

In summary, the evidence shows:

- Land and buildings attributable to the '824 GCI products: [redacted]
- Land and buildings attributable to the '611 GCI products: [redacted]
- Warehouse facilities related to the '824 GCI products: [redacted]
- Warehouse facilities related to the '611 GCI products: [redacted]
- R&D-related computers and equipment related to the '824 GCI products: [redacted]
- R&D-related computers and equipment related to the '611 GCI products: [redacted]
- Non-R&D labor expenditures attributable to the '824 GCI products: [redacted]
- Non-R&D labor expense attributable to the '611 GCI products: [redacted]
- R&D related to the '824 patent: [redacted]

The administrative law judge thus finds that the total value of GCI's domestic activities and investments attributable to the '824 and '611 GCI products, established during the evidentiary hearing, is [redacted]

Based on the record evidence discussed above, it is determined that GCI has satisfied the economic prong of the domestic industry requirement under section 337(a)(3)(A) and (B). GCI adduced testimony and documentary evidence showing that GCI has made significant investments in plant and equipment with respect to its '824 and '611 GCI products, as well as significant investments in labor and capital with respect to its '824 and '611 GCI products. Specifically, the evidence shows that GCI made significant investments in its Killingworth Road facility, including, but not limited to, rent and laboratory equipment. The evidence also shows that GCI has made significant investments in salaries for people working on its '824 and '611 GCI products, including engineers, technicians, and Mr. Grace himself.

VIII. Conclusions of Law

1. The Commission has subject matter, personal, and *in rem* jurisdiction in this investigation.

2. The importation requirement is satisfied as to respondents.

3. Denovo and Zhenli's Rok-It Chair infringes asserted claims 10, 11, 12, 15, 18, and 19 of the '824 patent.

4. Westfield's Mulberry Bounce Chair does not infringe asserted claims 1, 2, 10, and 11 of the '611 patent.

5. MacSports and Meike's MacRocker does not infringe asserted claims 1, 2, 8, 14, 15, and 19 of the '611 patent.

6. The domestic industry requirement is not satisfied as to the '824 patent.

7. The domestic industry requirement is satisfied as to the '611 patent.

8. It has not been shown by clear and convincing evidence that any asserted claim of the '824 patent is invalid.

9. It has not been shown by clear and convincing evidence that any asserted claim of the '611 patent is invalid.

IX. Initial Determination on Violation

Accordingly, it is the initial determination of the undersigned that a violation of section 337 (19 U.S.C. § 1337) has not occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain collapsible and portable furniture, with respect to asserted claims 10, 11, 12, 15, 18 and 19 of U.S. Patent No. 9,282,824, and asserted claims 1, 2, 8, 10, 11, 14, 15 and 19 of U.S. Patent No. 9,060,611.

Further, this initial determination, together with the record of the hearing in this investigation consisting of (1) the transcript of the hearing, with appropriate corrections as may hereafter be ordered, and (2) the exhibits received into evidence in this investigation, is hereby certified to the Commission.

In accordance with 19 C.F.R. § 210.93(c), all material found to be confidential by the undersigned under 19 C.F.R. § 210.5 is to be given *in camera* treatment.

The Secretary shall serve a public version of this initial determination upon all parties of record and the confidential version upon counsel who are signatories to the Protective Order, as amended, issued in this investigation.

Pursuant to 19 C.F.R. § 210.42(h), this initial determination shall become the determination of the Commission unless a party files a petition for review pursuant to

§ 210.43(a) or the Commission, pursuant to § 210.44, orders on its own motion a review of the initial determination or certain issues herein.

X. Recommended Determination on Remedy and Bonding

Pursuant to the notice of investigation, 84 Fed. Reg. 52896 (Oct. 3, 2019), this is the recommended determination in *Certain Collapsible and Portable Furniture*, United States International Trade Commission Investigation No. 337-TA-1178.

A. Limited Exclusion Order

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). A limited exclusion order directed to respondents' infringing products is among the remedies that the Commission may impose. *See* 19 U.S.C. § 1337(d).

GCI requests that the Commission impose a limited exclusion order that prohibits Denovo and Zhenli from importing products found to infringe asserted claims 10, 11, 12, 15, 18, and 19 of the '824 patent, Westfield from importing products found to infringe asserted claims 1, 2, 10, and 11 of the '611 patent, and MacSports and Meike from importing products found to infringe asserted claims 1, 2, 8, 14, 15, and 19 of the '611 patent. *See* Compl. Br. at 173.

In their posthearing briefs, respondents argue that, in the event of a limited exclusion order, the order should be limited to products imported after the Presidential Review Period, and delayed by 24 months to allow the respondents sufficient time to implement or license a new design.

Respondents offer no legal authority supporting such a significant delay and, indeed, such a request would be particularly inappropriate here inasmuch as, due to the pandemic, the target

date has already been extended by more than five months (*i.e.*, from January 4, 2021, to June 18, 2021). *See* Order No. 18 at 2, 4 (unreviewed).

Based on the arguments of the parties, it is the determination of the administrative law judge that, in the event a violation of section 337 is found, the Commission should issue a limited exclusion order with respect to products that infringe the asserted claims of the '824 and '611 patents, subject to any public interest factors considered by the Commission.

B. 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 as a remedy for a violation of section 337. *See* 19 U.S.C. § 1337(f)(1). Under current Commission precedent, a cease and desist order is generally issued when there is a "commercially significant" amount of infringing, imported product in the United States that could be sold by an infringing respondent resulting in evasion of the remedy provided by an exclusion order. *Certain Mobile Devices, Associated Software, and Components Thereof*, Inv. No. 337-TA-744, Comm'n Op. at 24 (June 5, 2012).

GCI argues that a cease and desist order is appropriate under the circumstances of this investigation. *See* Compl. Br. at 174. GCI argues that MacSports has over [redacted] units of the accused MacRocker in its warehouse in [redacted] *see id.* (citing Wei Tr. 391),Westfield has "around [redacted] units of the Mulberry Bounce Chair in [redacted] *see id.* (citing Webb Tr. at 321-322), and Denovo has maintained during the pendency of this investigation over 7000 units in inventory in the US, *see id.* (citing Perry Tr. 676-678).

Respondents argue that Denovo and Zhenli are exempt from a cease and desist order, because Zhenli does not maintain any inventory of the accused Rok-It Chair in the United States, and Denovo has only [redacted] units of the accused Rok-It Chair in inventory in the United States,

which is not a commercially significant amount. *See* Resps. Br. at 176 (citing Perry Tr. 678). Respondents further argue that GCI has cited to no evidence that Westfield has sufficient inventory to justify a cease and desist order. *See id.*

GCI argues and has established that, during the pendency of this investigation, Denovo has maintained over [redacted] units in inventory in the United States. *See* Compl. Br. at 174-75 (citing Perry Tr. 676-678). GCI further argues that [redacted] sell the accused products on Amazon through Amazon's US fulfillment centers. *See id.* at 174-75 (citing [redacted] *id.* at 389 (MacSports); CX-0470 (MacSports Amazon ad); CX-0016C (receipt for purchase of Denovo chair on Amazon)).

Based on the arguments of the parties and the evidence cited in the parties' posthearing briefs, it is the determination of the administrative law judge that the Commission should issue cease and desist orders in the event a violation of section 337 is found. GCI has adduced sufficient evidence showing that Denovo, Westfield, and MacSports each maintains commercially significant amounts of infringing products in the United States. Moreover, the sale of [redacted] products on Amazon from Amazon's fulfillment centers "supports the inference that [respondents] maintain a commercially significant inventory." *Certain Hand Dryers & Housings for Hand Dryers*, Inv. No. 337-TA-1015, Comm'n Op. at 11 (Oct. 30, 2017).

C. Bond

Pursuant to section 337(j)(3), the administrative law judge and the Commission must determine the amount of bond to be required of a respondent, during the 60-day Presidential review period following the issuance of permanent relief, in the event that 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 bond by eliminating the differential between the domestic product and the imported, infringing product. *Certain Microsphere Adhesives, Processes for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 24 (1995). In other cases, the Commission has turned to alternative approaches, especially when the level of a reasonable royalty rate could be ascertained. *Certain Integrated Circuit Telecommunication Chips and Products Containing Same, Including Dialing Apparatus*, Inv. No. 337-TA-337, Comm'n Op. at 41 (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).

GCI requests bond be required and that for each respondent it be based on the price differential between the sales price of GCI's products and the price of each respondent's accused products. *See* Compl. Br. at 175-77. GCI argues for a 20.3% bond for the Rok-It Chair imported or sold by Denovo and Zhenli, a [redacted]% bond for MacSports/Meike's MacRocker, and a [redacted]% bond for Westfield's Mulberry Bounce Chair. *See id.*

Respondents argue that GCI did not establish the need for a bond with proof of injury, such as lost sales or price erosion. It is argued that GCI's Co-President Mr. Polke testified that [redacted] *See id.* In their reply, respondents further argue that GCI's pricing information is

outdated and unreliable, particularly with respect to Westfield's Mulberry Bounce Chair. *See* Resps. Br. at 176 (citing Polke Tr. 687-688); Resps. Reply Br. at 60-61.

The purpose of a bond, as indicated above, is to prevent any future injury during the Presidential review period, in the event that the Commission determines to issue exclusion orders. As discussed below, the evidence adduced during the hearing supports the use of the commonly used price differential method to calculate bond.

To calculate price differentials, GCI has used pricing data from the summer of 2020 (CX-0380), during the pendency of this investigation, for its own products, and a variety of evidence for respondents' products, including deposition testimony, shipping information, and a receipt of purchase. *See* Compl. Br. at 175-76. With respect to the Westfield products (the "Mulberry Bounce Chair" or "Bounce Chair"), GCI relies on CX-0341C (Packaging and Shipping Information used during the Webb deposition) and CX-0067C (containing a target retail price). *See id.*

Respondents argue that during the hearing, GCI should have cross-examined Mr. Webb, Westfield's Senior Vice President of design, development, and marketing, about current pricing, but did not do so. Yet, respondents point to no evidence of different pricing. It is unclear whether GCI could have cross-examined Mr. Webb on a subject that respondents have not shown to be in Mr. Webb's direct testimony. *See* Resps. Reply Br. at 61; *see also* RX-0120C (Webb DWS). GCI has adduced probative evidence of Westfield pricing. A calculation based on that evidence is preferable to the imposition of a 100% bond.

The administrative law judge finds that GCI has adduced sufficient evidence demonstrating a price differential between the sales price of complainant's product and the price of respondents' products. The administrative law judge recommends that, in the event that a

violation of section 337 is found, and subject to the issuance of an exclusion order, Denovo/Zhenli should be required to post an importation bond of 20.3%, MacSports/Meike should be required to post a bond o[redacted]%, and Westfield should be required to post a bond of [redacted]%.

XI. Order

To expedite service of the public version of this document, the parties shall file a joint proposed public version, on the date and in the manner required by Order No. 28.

DPShaw

David P. Shaw
Administrative Law Judge

Issued: February 18, 2021

PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **INITIAL DETERMINATION** has been served upon the following parties as indicated, on **March 18 2021.**

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