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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

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.

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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).

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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).

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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.

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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:

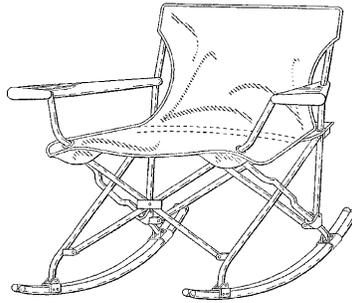
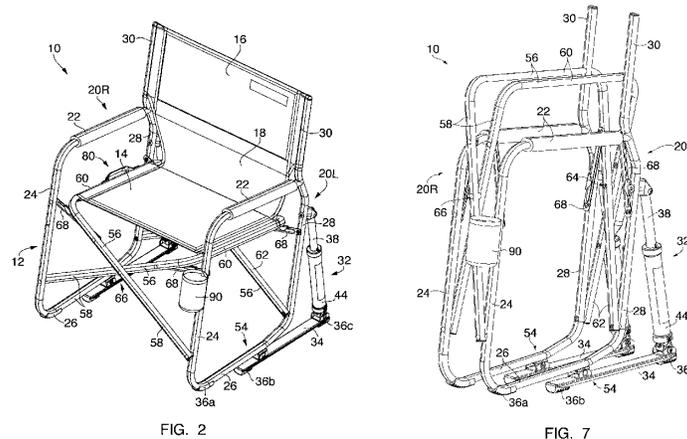


FIG. 1
Prior Art

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.”).

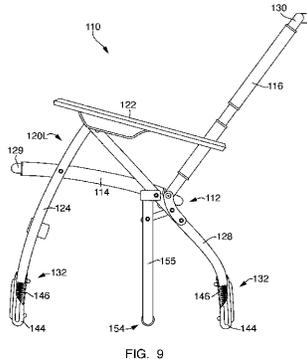
The second type of chair, shown in figures 2–7, is an embodiment of the claimed invention in which the chair collapses side-to-side:



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.”).

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



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

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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.

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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;

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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

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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

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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.

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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.*

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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:”

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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.

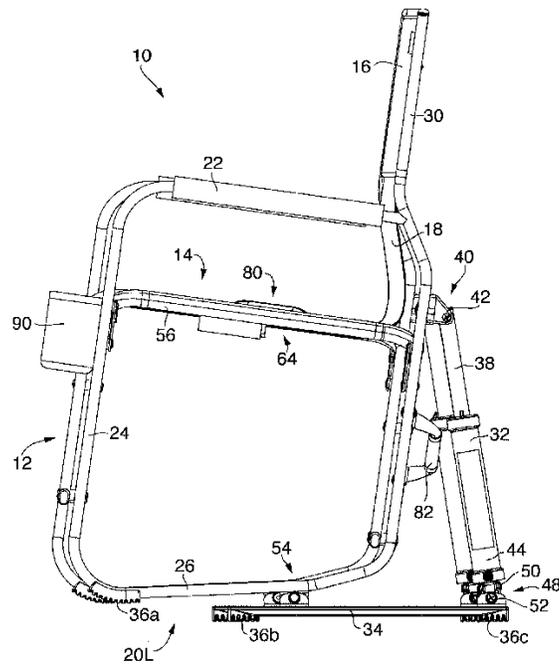
These portions of the specification do not establish, “expressly” or otherwise, that a fulcrum point at a terminal end of a fulcrum member that is designed to contact another part of the chair frame, but not the ground surface, is nonetheless “adapted for contacting the ground surface.” First, none of 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

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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**:

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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 36a, 36b and 36c, 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 36a. Indeed, that conclusion finds support in figure 9 as well, which shows that fulcrum point 154 includes a hemispherical covering:

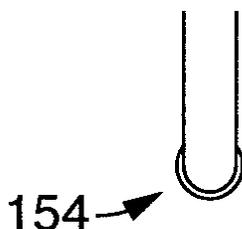


FIG. 9

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,"

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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

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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.

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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.

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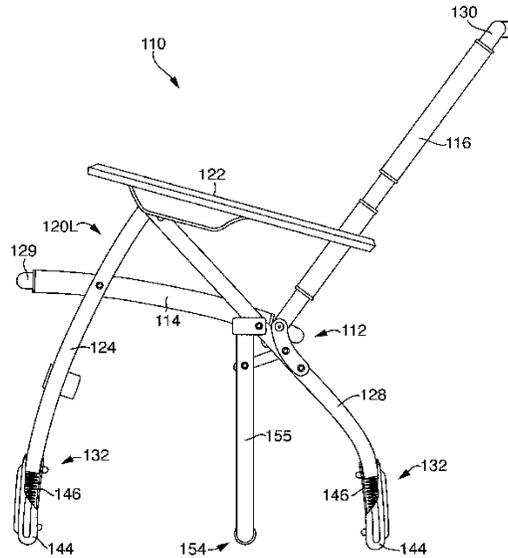


FIG. 9

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:

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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:

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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.

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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

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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.”

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.”).

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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

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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.”).

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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 inasmuch 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.

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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

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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

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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

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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)

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(“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”

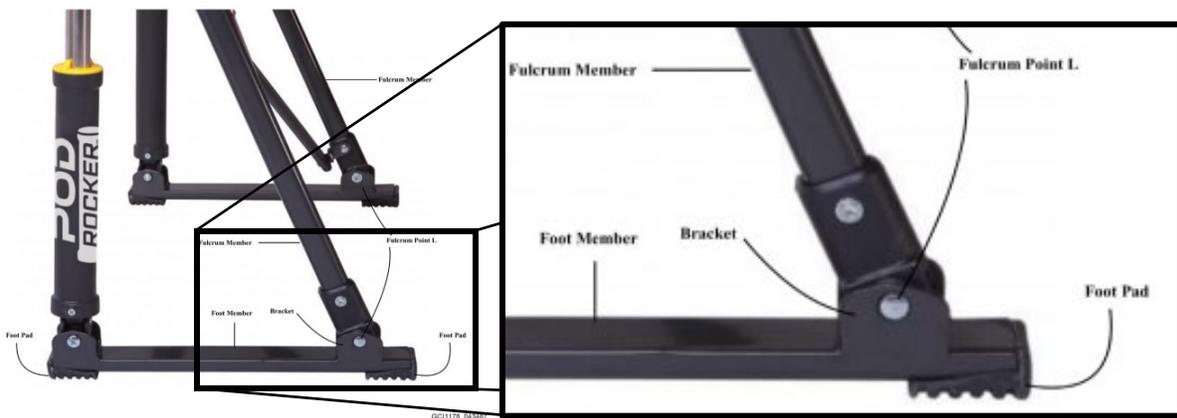
The ID found that GCI’s own chairs do not satisfy the technical prong of the domestic industry requirement because they do not include a fulcrum point adapted for contacting the ground surface, and thus do not practice any claim of the ’824 patent. ID at 87–91. As explained in the ID:

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

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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

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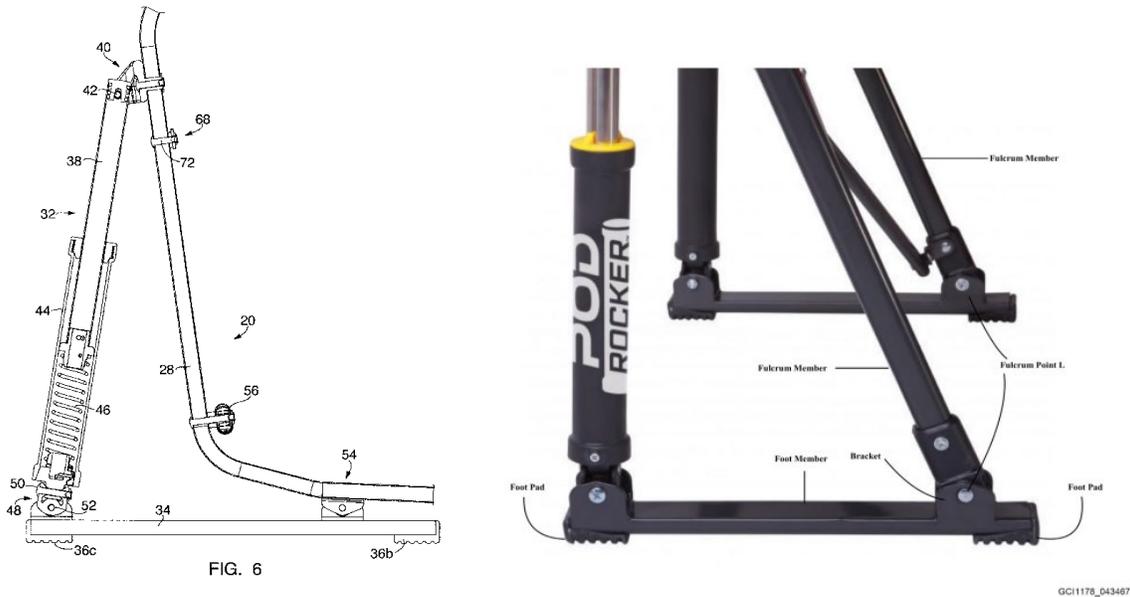
contacting the ground surface required by the claims on which GCI relies to satisfy the technical prong of the domestic industry requirement.

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.

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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:



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

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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

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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

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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

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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,

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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

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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