

United States District Court,  
E.D. Texas, Beaumont Division.

**Felix L. SORKIN,**  
Plaintiff.

v.

**UNIVERSAL BUILDING PRODUCTS INC,**  
Defendant.

Civil Action No. 1:08-CV-133

**July 9, 2009.**

John Stanton Egbert, Paul Stephen Beik, Egbert Law Offices, Houston, TX, for Plaintiff.

Kevin Patrick Walters, Georgantas & Walters, Houston, TX, Gary R. Plotecher, Kenneth R. Nowakowski, Lisa M. Arent, Whyte Hirschboeck Dudek, Milwaukee, WI, for Defendant.

***ORDER CONSTRUING CLAIM TERMS OF UNITED STATES PATENT NO. 7,237,367***

**RON CLARK, District Judge.**

Plaintiff Felix L. Sorkin filed suit against Defendant Universal Building Products Inc. (UBP) alleging infringement of United States Patent No. 7,237,367 ("the '367 Patent"). The court conducted a *Markman* hearing to assist it in interpreting the meaning of the claim terms in dispute. Having considered the patents, the parties' contentions as presented in their briefs and the arguments of counsel, the court now makes the following findings and construes the disputed claim terms. FN1

FN1. The transcript of the hearing contains a number of representations and agreements of the parties and the answers of their experts to technical questions from the court, all of which will not be repeated here, but which may assist in understanding the issues presented. This Order governs in the event of any conflict between the Order and the court's preliminary analysis at the hearing. The transcript will be cited as Tr.-:-.

**I. CLAIM CONSTRUCTION STANDARD OF REVIEW**

Claim construction is a matter of law. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S.Ct. 1384 (1996) ("*Markman II*"). "The duty of the trial judge is to determine the meaning of the claims at issue, and to instruct the jury accordingly." *Exxon Chem. Patents, Inc. v. Lubrizoil Corp.*, 64 F.3d 1553, 1555 (Fed.Cir.1995) (citations omitted), *cert. denied*, 518 U.S. 1020, 116 S.Ct. 2554 (1996).

" '[T]he claims of the patent define the invention to which the patentee is entitled the right to exclude.' " *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005)( *en banc* ) (citation omitted), *cert. denied*, 546

U.S. 1170, 126 S.Ct. 1332 (2006). "Because the patentee is required to 'define precisely what his invention is,' it is 'unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.' " *Id.* at 1312 (quoting *White v. Dunbar*, 119 U.S. 47, 52 (1886)).

The words of a claim are generally given their ordinary and customary meaning. Phillips 415 F.3d 1303, 1312. The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313. Analyzing "how a person of ordinary skill in the art understands a claim term" is the starting point of a proper claim construction. *Id.*

A "person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Where a claim term has a particular meaning in the field of art, the court must examine those sources available to the public to show what a person skilled in the art would have understood the disputed claim language to mean. *Id.* at 1414. Those sources "include '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.* (citation omitted).

"[T]he ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* In these instances, a general purpose dictionary may be helpful. *Id.*

However, the Court emphasized the importance of the specification. "[T]he specification 'is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronc, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996)). A court is authorized to review extrinsic evidence, such as dictionaries, inventor testimony, and learned treatises. Phillips, 415 F.3d 1303, 1317. However, their use should be limited to edification purposes. *Id.* at 1319.

The intrinsic evidence, that is, the patent specification, and, if in evidence, the prosecution history, may clarify whether the patentee clearly intended a meaning different from the ordinary meaning, or clearly disavowed the ordinary meaning in favor of some special meaning. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979-80 (Fed.Cir.1995); *aff'd*, 517 U.S. 370, 116 S.Ct. 1384 (1996). Claim terms take on their ordinary and accustomed meanings unless the patentee demonstrated "clear intent" to deviate from the ordinary and accustomed meaning of a claim term by redefining the term in the patent specification. *Johnson Worldwide Assoc., Inc. v. Zebco Corp.*, 175 F.3d 985, 990 (Fed.Cir.1999).

The "'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." Phillips, 415 F.3d 1303, 1321. However, the patentee may deviate from the plain and ordinary meaning by characterizing the invention in the prosecution history using words or expressions of manifest exclusion or restriction, representing a "clear disavowal" of claim scope. *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed .Cir.2002). If the patentee clearly intended to provide his own definitions, the "inventor's lexicography governs." Phillips, 415 F.3d 1303, 1316.

## II. PATENT BACKGROUND AND TECHNOLOGY

The '367 Patent relates generally to chairs and spacers used in concrete construction for supporting post-tension cables, rebars, or mesh in a desired position-usually above a surface-before concrete is poured. Normally, a receiving area formed on the chair will contact and support the rebar while the base of the chair rests on a deck or on a grade. When the concrete is poured, the chair will support the post-tension cable or rebar a proper distance above the bottom surface. The chairs of the '367 Patent are made from nylon, which denotes a set of related plastics. According to the '367 Patent, the claimed chairs have several advantages, including being corrosion-proof, inexpensive, easy to manufacture and use, and able to minimize the adverse effects of thermal expansion upon the chair.

### **III. PERSON OF ORDINARY SKILL IN THE ART**

The importance of identifying the education and experience of one of skill in the art has long been established. *See Nazomi Communications, Inc. v. Arm Holdings, PLC*, 403 F3d 1364, 1370-71 (Fed.Cir.2005). Nevertheless, neither side provided a definition of a person of ordinary skill in the art in their claim construction brief. Defendant suggests the following in its technology synopsis:

A person of ordinary skill in the art at the time the alleged invention of the '367 patent was made is a person who has: (1) a Bachelor of Science degree (or its equivalent) in mechanical engineering from an accredited institution; and (2) at least five years of experience in the design, manufacture, and/or use of accessories used in the construction of reinforced concrete. Extensive experience and technical training might substitute for educational requirements, while advanced degrees might substitute for some of the experience.

Defendant's definition unnecessarily limits the skilled person's educational background to mechanical engineering. Civil engineering involves the use of concrete and other building materials and teaches the applicability of these materials under various circumstances. Plaintiff and Defendant both agree that an ordinary person of skill in the art of the '367 Patent could possess a civil engineering degree. Tr. 7:4-8:6.

The court therefore defines a person of skill in the art to be an individual with the equivalent of a "four year" degree from an accredited institution (usually denoted in this country as a B.S. degree) in civil or mechanical engineering from an accredited institution and at least five years of experience in the design, manufacture, and/or use of accessories used in the construction of reinforced concrete. Advanced education in civil or mechanical engineering might substitute for some of the experience, while extensive construction experience might substitute for some of the educational requirements.

### **IV. CLAIM CONSTRUCTION**

Plaintiff asserts claims 1, 2, 3, 4, 5, 8, 9, 10, 11, and 12 of the '367 patent. Claims 1, 9, and 11 are independent claims. The parties dispute seven claim terms, all but one of which can be found in claim 1, which is set out below with disputed terms in bold:

1. A chair comprising:

a receiving area;

a plurality of legs extending downwardly from said receiving area, each of said plurality of legs comprising:

a first portion extending at an angle outwardly from said receiving area; and

a **second portion** extending from an end of said first position opposite said receiving area, said **second portion** extending only vertically downwardly or inwardly from **said end of said first portion**, said **second portion** having a **flat bottom surface** opposite **said end of said first portion**, said first portion having an inner side and an outer side, said inner side extending at a greater angle with respect to vertical than an angle that said outer side extends with respect to vertical such that said inner side and said outer side **converge** toward said end of said first portion, said second portion having an inner side and an outer side **tapering** so as to **converge** at said flat bottom surface; and

a **pin member** extending vertically downwardly from said **flat bottom surface**.

**1. "Second portion." '367 Patent, Claims 1, 2, 9, and 11.**

The parties now agree that "second portion" should be construed to mean "**second portion (of a two-portion leg).**" Tr. 8:11-18. This definition comports with the ordinary use of the term and with the specification and figures, and will be adopted by the court.

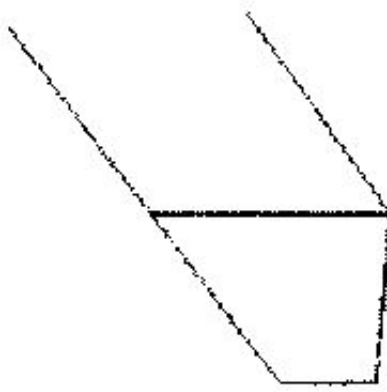
**2. "End of said first portion." '367 Patent, Claims 1, 9, and 11.**

**Court's construction:** "*end of said first portion*" means "*the junction between the first portion of a leg and the second portion, at which the leg's angle from the vertical changes.*"

The '367 Patent identifies the first portion **22** and end of the first portion **26** in Figures 1 and 2, and states that the second portion **24** extends "vertically downwardly or inwardly" from the end of the first portion. Col. 5, ll. 39-45; col. 6, ll. 49-51; *see also* Claims 1 ("said second portion extending only vertically downwardly or inwardly from said end of said first portion"), 9 (same), 11 (same). While any distinction between the first and second portions must require the second portion to extend downward or inward, this does not delineate the first and second portions. Figure 2 of the '367 Patent shows a horizontal line that extends from the inflection point on the inner surface to the inflection point on the outer surface. Of course we are dealing with three dimensional solid objects, so the first portion and second portion join at a plane or some other surface, and not just at a line.

It would be easy to determine where the portions joined if they were made of different materials—the end of the "first portion" would simply be determined by the interface between the two materials. In this case, the construction chairs are often formed through an injection molding process in which polymer is injected into a mold, meaning that the entire construction chair is formed from one polymer. Dominick V. Rosato et al, *Injection Molding Handbook* 4-5 (3rd ed.2000). The end of said first portion then becomes somewhat of an arbitrary surface as the entire construction chair is molded using the same plastic material.

The patentee indicated that the dividing surface occurs where the inner and outer surface changes direction. *See* '367 Patent, figs. 2 and 3. The court therefore proposed the following definition: "end of said first portion" means "the junction between the first portion of a leg and the second portion, at which the leg's angle from the vertical changes." Doc. # 30, Ex. 5. Plaintiff agreed with this definition. Tr. 24:17-25:4. Defendant also agreed with the definition given Plaintiff's stipulation that the court's definition does not include the situation in which the inner surface of the first portion continues straight into the inner surface of the second portion, with no change of angle, as illustrated in the figure below. Tr. 25:5-31:17.



The court therefore construes "end of said first portion" as follows:

**"end of said first portion" means "the junction between the first portion of a leg and the second portion, at which the leg's angle from the vertical changes."**

**3. "Flat bottom surface." '367 Patent, Claims 1, 4, 9, and 11.**

**Courts Construction:** " *Said second portion having a flat bottom surface* " means that the second portion has "an end that is smooth and horizontal, or nearly so."

Claims 1, 4, 9 and 11 each describes the chair as having a "second portion having a flat bottom surface opposite" the end of the first portion. According to the specification, in Figure 2 the "[f]lat bottom **30** is located at the end of the second portion **24** opposite the first portion **22**." '367 Patent, col. 6, ll. 51-53. Figure 2 also depicts the pin member **28** as being found located at the bottom of the second portion **24**, whereby the pin member and the second portion are in direct contact. "Pin member **28** extends vertically downwardly from the flat bottom surface **30**." '367 Patent, col. 6, ll. 53-54. This limitation is included in each of the four claims.

Plaintiff suggests that "flat bottom surface" should be construed as "a surface on the bottom end of the second portion of the leg that is flat." Defendant argues the term should be construed to mean:

a smooth, horizontal surface at the bottom end of the "second portion" of the two-portion chair leg, which is opposite from and parallel to the "end of the first portion" of the leg. The "flat bottom surface" of the 'second portion' is in direct contact with the top of the "pin member," but has visible surface area outside the common cross-sectional area shared with the top of the "pin member."

Def. Cl. Const. Br. [Doc. # 24] at p. 7-8.

Part of Defendant's proposal repeats language found elsewhere in the claim itself. It is of little help to define a three word phrase by repeating other language of the claim. For example, we already know that the "flat bottom surface" is at the end of the second portion opposite from the "end of the first portion" because that is stated in the claims. *See* '367 Patent, col. 7, ll. 35-36 and col. 8, ll. 21-22. Likewise, there is no doubt that the "flat bottom surface" is "in direct contact with the top of the 'pin member' " because each claim describes the "pin member extending vertically downwardly *from* said flat bottom surface." *See* '367 Patent, col. 7, ll. 45-46 and col. 8, ll. 33-34 (emphasis added).

Defendant also seeks to import the limitation that the flat bottom surface "has visible surface area outside the common cross-sectional area shared with the top of the 'pin member.'" Defendant relies upon a statement made by the applicant during prosecution. The Examiner stated that United States Design Patent No. D271,847 to Hernandez disclosed a chair "having a flat bottom surface of the second portion opposite said end of said first portion." The applicant asserted that the Hernandez patent "does not show a 'flat bottom surface' from which the pin member can extend." Def. Cl. Const. Br. [Doc. # 24], Ex. 1, at p. 36 of 88.

Defendant argues that this statement makes it "clear" that the "cross section of the flat bottom surface extends beyond the common cross sectional area with the top of the pin member." Def. Cl. Const. Br. [Doc. # 24] at p. 9. The mere fact that the applicant stated that the Hernandez Design Patent does not show a "flat bottom surface" from which a pin member can extend does not necessarily mean that the term "flat bottom surface" must be construed to require the flat bottom surface have visible surface area outside the shared cross-sectional area. FN2

FN2. Perhaps the patentee has claimed what is already described in Hernandez. While a court tries to avoid ensnaring prior art in its claim construction, it can not redraft a patent to avoid invalidity. This is not the time to resolve this issue.

The specification does state that the foot of a prior chair patented by the inventor had small pins connected to it which could easily deflect because there was no supporting surface extending outwardly from underside of the foot and because of the very small size. '367 Patent, col. 4, ll. 3-6. Courts should avoid importing limitations from the specification into the claim terms, absent a clear disclaimer of claim scope. *Phillips v. AWH Corp.* 415 F.3d 1303, 1323 (Fed.Cir.2005); *Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1375 (Fed.Cir.2005). *Only where the specification uses language of re specification describe an essential step or element of the claim rather than merely a preferred embodiment. See Andersen Corp. v. Fiber Composites, Inc.* , 474 F.3d 1361, 1372-73 (Fed.Cir.2007), *Honeywell Int'l v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed.Cir.2006). The language in this specification does not warrant importing limitations into the claim.

Although Defendant asserts that it disputes the meaning of "flat bottom surface," neither side indicates that any of these words has a special meaning in this patent beyond their ordinarily understood use. Defendant submits ordinary dictionary definitions for each of the three words. Def. Cl. Const. Br. [Doc. # 24], Exs. 3A-3C.

Dictionaries that were current at or near the time the '367 Patent was filed in October 2003, provide guidance as to the ordinary meanings of these terms.

"Flat" is commonly defined as an even, horizontal surface. *The American Heritage Dictionary* 325 (4th ed.2004) ("[h]aving a horizontal surface without a slope, tilt, or curvature"); *McGraw-Hill Dictionary of Scientific or Technical Terms* 816 (6th ed.2003) (an "even surface"); *Merriam-Webster's Collegiate Dictionary* 443 (10th ed.1999) ("continuous horizontal surface").

"Bottom" is generally the underside of something, which supports it. *The American Heritage Dictionary* 104 ("2. The underside. 3. The supporting part, base."); *Merriam-Webster's Collegiate Dictionary* 134 ("1 a: the underside of something b: a surface (as the seat of a chair) designed to support something resting on it").

Finally, a "surface" is the outer boundary of an object. *The American Heritage Dictionary* 826 ("1. The outer or the topmost boundary of an object. 2. The superficial or external aspect."); *McGraw-Hill Dictionary of Scientific or Technical Terms* 2075 ("The outer part ... of a body."); *Merriam-Webster's Collegiate Dictionary* 1185-86 ("the exterior or upper boundary of an object or body.").

The parties did not submit, and the court has not found, different pertinent definitions in technical dictionaries. Nothing in the specification or prosecution history indicates that anything other than common usages should be ascribed to these words. The patentee did not attempt to act as his own lexicographer.

The court proposed the following definition to the parties: "Said second portion having a flat bottom surface" means "that the second portion has an end that is smooth and horizontal, or nearly so." Tr 52:19-24; Doc. # 30, Ex. 6. Plaintiff agreed with this definition. Tr. 52:19-53:13. Defendant objected to the definition because it "reads out the definition of surface." Tr. 53:14-54:7. It is true that when the pin member **28** is in place against the second portion **24**, as seen in Figures 2 and 3, there may be no "flat bottom surface" visible. But a visible surface is not required by the claims, or by the specification. The pin member could be attached to the second portion. Tr. 51:14-52:13. More commonly, plastic construction chairs are injection molded, which means that the entire chair, including the flat bottom surface and the pin member, are all one piece. '367 Patent, col. 3, l. 67-col. 4, l. 1; Dominick V. Rosato et al, *Injection Molding Handbook* 4-5 (3rd ed.2000). With injection molding, the pin member is not added to the flat bottom surface, so in this respect the idea of the flat bottom surface is a construct to differentiate the second portion of the chair from the pin member. While Defendant's strained interpretation of surface may underlie a planned non-infringement defense, it would exclude a preferred embodiment as shown in Figures 2 and 3. The court will therefore construe the term as follows: Said second portion having a **"flat bottom surface"** means that the second portion has **"an end that is smooth and horizontal, or nearly so."**

Again, the location of this surface in relation to the second member, and the fact that the pin member extends vertically from it are set out in other claim language, which does not need to be repeated in the definition of these three words.

#### **4. "Converge/converging" and "Tapering." '367 Patent, Claims 1 and 9.**

**Court's construction:** " *Converge toward said end* " and " *tapering so as to converge at said flat bottom surface* " mean " *that as one moves along the leg from the receiving area of the chair toward the pin member, the sides of the portion of the leg in question come closer together.* "

The terms tapering and converging are used interchangeably in the '367 Patent. For example, in Claim 1, the patentee describes the "second portion" as "tapering so as to converge at said flat bottom surface." '367 Patent, col. 7, ll. 43-44. Claim 9 states that the inner and outer sides of the portions of the chair leg are converging. In the Summary of the Invention, instead of using "converge" the patentee uses "taper" to describe the same phenomena, stating that the "inner and outer sides of the second portion taper toward each other away from the end of the first portion." '367 Patent, col. 4, ll. 52-61. Plaintiff agreed that the terms are used interchangeably in the ' 367 Patent and proposed to define "tapering" using "converge." Tr. 60:2-16.; Pl. Cl. Const. Br. [Doc. # 23] at p. 15. Defendant also recognized the interchangeability between the two terms. *See* Def. Cl. Const. Br. [Doc. # 24] at p. 30.

The parties' major dispute regarding these terms centers around whether only a section of the side must taper as Plaintiff contends, or if the entire side must continuously taper as Defendant asserts. Tr. 61:8-64:4.

Defendant contends that the patentee clearly disavowed any non-continuous taper during the prosecution of the '367 Patent when the patentee stated that "[i]n order to achieve these advantages, it is important to the structure of the present invention that the inner and outer sides of the first portion and the inner and outer sides of the second portion converge in a desired manner." Def. Cl. Const. Br. [Doc. # 24], Ex. 1 at p. 49 of 88.

The patentee's statement does not clearly require constant tapering, or a convergence at a uniform rate, or even a constantly changing rate. The patentee stated only that the inner and outer sides must converge "in a desired manner." This is not a clear and unequivocal surrender of non-continuous convergence, for example in a stair-step manner, like a Christmas tree. Prosecution history estoppel does not attach. *Eagle Comtronics, Inc. v. Arrow Communication Laboratories, Inc.*, 305 F.3d 1303, 1316 (Fed.Cir.2002).

Neither Plaintiff nor Defendant indicates that either "converge" or "tapering" is a term of art in the construction field such that one of ordinary skill in the art would ascribe a meaning different from the ordinary meaning of the term as understood by the general population. Contrary to Plaintiff's assertions, the patentee did not act as his own lexicographer when defining "tapering." He used "converge" and "tapering" to describe what happens when the inner and outer sides of the wall taper-they converge at the flat bottom. *See e.g.*, '367 Patent, col 7., ll. 42-44.

Neither side pointed to a technical dictionary or other technical writing that gave a special definition of taper or converge. Plaintiff urges a definition of "converge" based upon a general 1983 dictionary. Defendant relied upon an on-line thesaurus to assert a commonly understood definition-i.e. non-parallel. The ordinary meaning should govern as it is consistent with the claims and is how one of ordinary skill in the art would understand the term. The court finds the patentee did not deviate from the ordinary meaning of the words "converge" and "tapering." Thus, the plain meaning applies. *See Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1116-17 (Fed.Cir.2004).

"Converge" generally means to tend or move together. *The American Heritage Dictionary* 838 (4th ed. 2004) (Defining "converge" to mean "To tend or move toward a common point or result."). "Tapering" generally means to become gradually narrower or closer together. *The American Heritage Dictionary* 838 (4th ed. 2004) (Defining "tapering" to mean "1. to make or become gradually narrower or thinner toward one end. 2. To diminish gradually; slacken off.>").

The court will construe "converge/converging" and "tapering" consistent with their ordinary meanings as follows:

**"Converge toward said end" and "tapering so as to converge at said flat bottom surface" mean "that as one moves along the leg from the receiving area of the chair toward the pin member, the sides of the portion of the leg in question come closer together."**

**5. "Pin member."** '367 Patent, Claims 1, 3, 4, 9, and 11.

**Court's construction:** " *pin member* " means " *a portion of the leg that comes to one or more points sharp enough to help prevent the chair from moving when it is under load on the surface on which the chair is placed* "

Plaintiff argues that "pin member" should be construed to mean "a member having a bottom positioned below a top, the bottom having a profile smaller than a profile of the flat bottom surface of the leg." Pl. Cl.



Const. Br. [Doc. # 23] at p. 22. The only intrinsic evidence that Plaintiff cites that specifically mentions a minimal profile refers to the legs of the chair, not the pin members. '367 Patent, col. 6, ll. 53-60. ("As a result, each of the legs **14, 16, 18, and 20** will have only a minimal profile on the exposed surface of the wall upon which the chair **10** is placed.").

Defendant contends that the term should be construed as:

a member that is in direct contact with and extends vertically downwardly from the "flat bottom surface" of the "second portion" of the leg to a single point with respect to the surface on which the chair sits-that is, the "pin member" has a pointed end.

Def. Cl. Const. Br. [Doc. # 24] at p. 11.

Including "extends vertically downward" in the definition of "pin member" is redundant, as that language is already in each claim. Likewise, if the member extends from the flat bottom surface, as described in the claim, there is no good reason to tell the jury that the member is in contact with that surface. The real dispute is whether a pin member has a "point," and if so, how sharp it must be. FN3

FN3. A construction chair is a physical object so "point" does not refer to the concept of a geometric point with no dimensions.

The "Summary of the Invention" states "[t]he pin member has a point formed at an end thereof opposite the flat bottom surface. '367 Patent, col. 4, ll. 61-65. This was not merely a description of a preferred embodiment-it was denoted as part of the "present invention." *Microsoft Corp. v. Multi-Tech Systems, Inc.*, 357 F.3d 1340, 1348-49 (Fed.Cir.2004) (limiting the invention based upon statements that describe not a preferred embodiment, but the overall invention, including statements made in the "Summary of the Invention" portion of the patent-at-issue).

The patentee differentiated the '367 Patent over the patentee's own prior art-United States Pat. Nos. 5,555,693 ("the '693 Patent") and 5,791,095 ("the '095 Patent")-in part, because the '367 Patent disclosed a chair that used fewer pin members than the three used in the prior art. '367 Patent, col. 3, l. 62-col. 4, l. 14. Patentee's statements about the "pin members" in his prior art patents may provide guidance as to what the patentee meant, and what one of skill in the art in the field would understand, in arriving at a definition of pin member in the '367 Patent. *See Cook Biotech Inc. v. Acell, Inc.*, 460 F.3d 1365, 1372-73, 1376 (Fed.Cir.2006).

Although not as important to this analysis, the patentee also distinguished United States Design Patent No. D334,133 ("the Hartzheim Design Patent") on the basis that it "does not show a pin member." Def. Cl. Const. Br. [Doc. # 24], Ex. 1 (Prosecution History) at p. 36 of 88. The Hartzheim Design Patent discloses a foot at the bottom of a construction chair, which does not end in a point, but which is smaller in cross sectional area than the leg from which it extends. *See Hartzheim Design Patent*, Figs. 1, 3, 4, and 6.

In the Summary of the Invention Section, the '693 describes a pin member with a pointed end that bites into the support surface below. "This projection should have a point opposite the planar bottom surface. This projection should have a point opposite the planar bottom surface. This point should be sufficiently small so as to bite into the support surface below the chair." ' 693 Patent, col. 3, ll. 6-10, and Figs. 1-3 (illustrating a

pin member with a pointed end). The '095 patent clarifies the meaning of "point" in the context of the leg of a construction chair. "The projections have *a point at the bottom of sufficient sharpness so as to bite into a surface* supporting the chair **10** when the chair **10** is under load" '095 Patent, col. 5, ll. 38-40 (emphasis added).

In the '367 patent, at issue in this case, the patentee described the pin members of the older '693 and '095 patents as having a "pointed end." '367 Patent, col. 3, l. 62-66. The specification notes that experiments "indicated that fewer pin members than those indicated in these patents could achieve the same purpose of *proper placement and holding capability* as the three pin version." '367 Patent, col. 4, ll. 10-14 (emphasis added). It is proper to consider the function of an invention when determining the meaning of a claim term. *ICU Medical Inc. v. Alaris Medical Systems, Inc.* 558 F.3d 1368, 1375 (Fed.Cir.2009).

A pointed end is shown in the figures of the '367 Patent which show the "pin member" extending vertically downward from the flat bottom portion of the legs. The "Detailed Description of the Invention" section of the specification states that "a point **50** is formed at the end of the pin member...." '367 Patent, col. 6, l. 56. Claims are not limited to what is described in a preferred embodiment. On the other hand claims "are part of a fully integrated written instrument...." *ICU Medical Inc.*, 558 F.3d at 1374. This description of the preferred embodiment, and the diagrams, each of which shows a pointed end, do not necessarily limit the claims. However, they do comport with the way "point" is used in describing "the present invention," and with the way "point" is used, and described, as part of the pin member in the patentee's earlier patents. None of the descriptions or drawings of preferred embodiments hint at an alternative description for a pin member.

Plaintiff contends that the court should apply claim differentiation and exclude "pointed end" from the definition of "pin member." Plaintiff points out that Claim 11 of the '367 Patent requires that the "pin member" contain a point but Claim 1 does not. Plaintiff argues that this requires the court to construe "pin member" more generally so as to give effect to the "point" limitation stated in Claim 11.

Canons of claim construction rules are useful tools, not ironclad rules. "Claim differentiation can not broaden claims beyond their correct scope." *Kraft Foods, Inc. v. Int'l Trading Co.*, 203 F.3d 1362, 1368 (Fed.Cir.2000). No where in the '367 Patent is a hint of a disclosure of a "pin member" without a pointed end. The court will construe "pin member" as follows:

**"pin member" means "a portion of the leg that comes to one or more points sharp enough to help prevent the chair from moving when it is under load on the surface on which the chair is placed"**

**6. "Inverted conical shape." '367 Patent, Claims 3 and 11 .**

"Inverted conical shape" is found in claim 3:

3. The chair of claim 1, said pin member being a single pin member of **inverted conical shape**.

**Court's construction:** " *inverted conical shape* " means " *having the general shape of a cone, the wide end of which is at the top and the narrow end is at the bottom.*"

Plaintiff suggests that this term should be construed as "appearance of an inverted cone." Pl. Cl. Const. Br. [Doc. # 23] at p. 27. Defendant argues that the term should be construed as:

having the shape of a cone that is inverted; that is, a three-dimensional solid that tapers smoothly from a flat, round base to a point called the apex or vertex and such solid is oriented with the base on top and the apex/vertex on the bottom, with respect to the surface on which the chair sits. The surface of the cone is formed mathematically by moving a line that passes through a fixed point (the apex or vertex) along a circle.

Def. Cl. Const. Br. [Doc. # 24] at p. 35. Alternatively, Defendant proposed a shorter definition, simply: "having the shape of a cone that is inverted." Id. at p. 37.

The parties dispute centers around how "conical" should be defined-should it be limited to only shapes with a circular base, or can it encompass other geometries?

The specification requires pin members to possess an "inverted conical shape," but does not define what shapes are included. Figures 1 through 4 of the '367 Patent seem to illustrate a circular base, but the specification discloses that the pin members are of a "conical shape," not necessarily a cone. *See e.g.* '367 Patent, col. 6, ll. 54-55. The parties indicated, and the court is not otherwise aware, that "conical" is not a term of art in the construction field which would require any definition apart from its ordinary definition as defined in a general dictionary. Tr. at p. 1.

The use of "conical" in the specification is consistent with its ordinary definition. In the specification, "conical" is applied as an adjective to modify, and describe, the shape of the "pin members." *See e.g.* '367 Patent, col. 6, ll. 54-60. The patentee chose to use the word "conical" not "cone" to describe the "pin members." Thus, "inverted conical shape" is understood by a person of ordinary skill in the art according to its ordinary meaning and the court defines "inverted conical shape" as follows:

**"inverted conical shape" means "having the general shape of a cone, the wide end of which is at the top and the narrow end is at the bottom."**

## V. CONCLUSION

The jury will be instructed in accordance with the court's interpretation of the disputed claim terms in the '367 Patent.

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Sorkin v. Universal Bldg. Products Inc.

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