United States District Court,
C.D. California.

B-K LIGHTING, INC., a California corporation,
Plaintiff.
v.
VISION3 LIGHTING, a business entity of unknown form, and Fresno Valves & Castings, Inc., a California Corporation,
Defendants.

No. CV 06-02825 MMM (PLAx)

March 13, 2008.

Brian Jason Philpott, Jaye G. Heybl, Koppel Patrick Heybl and Dawson, K Andrew Kent, Rincon Venture Law Group, Thousand Oaks, CA, Jan P. Weir, Jennifer A. Trusso, Steven M. Hanle, Taylor Crellin Foss, Stradling Yocca Carlson and Rauth, Newport Beach, CA, for Plaintiff.

K T Cherian, Irene Inkyu Yang, Howrey LLP, San Francisco, CA, for Defendants.

CLAIM CONSTRUCTION ORDER

MARGARET M. MORROW**, District Judge.**

This action involves a patent dispute between plaintiff B-K Lighting, Inc. ("B-K") and defendant Fresno Valves & Casting, Inc. ("FVC"). The *Markman* hearing in this matter was originally scheduled for October 15, 2007. On October 9, 2007 the court vacated the hearing and directed the parties to make further disclosures in order to identify the nature of the infringement claimed and to narrow the focus of the dispute prior to claim construction. The parties have complied with the court's order and have submitted new claim construction briefs. Pursuant to Markman v. Westview Instruments, Inc., 517 U.S. 370, 373, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), therefore, this order sets forth the court's construction of disputed terms in the patent claims.

I. THE PATENT

A. History

B-K Lighting owns, as assignee, the rights to U.S. Patent No. 6,161,948 (""8 patent") and U.S. Patent No. RE39,084 ("'084 patent"). FN1 Both patents are protect an "Adjustable Mount for Sealed Light Systems." FN2 On May 10, 2006, B-K Lighting sued Vision3, alleging infringement of the "8 and ' 084 patents and unfair competition.

FN1. First Amended Complaint ("FAC"), para.para. 10-14, Exhs. A-B.

FN2. Id., para.para. 10-13, Exhs. A-B.

The "8 patent issued on December 19, 2000.FN3 In 2002, B-K sued Kim Lighting, alleging that it had infringed the ' 948 patent.FN4 During the course of the litigation, Kim produced evidence that called the validity of the ' 948 patent into question. In response, B-K dismissed the suit and on May 19, 2003, filed an application for a reissue patent under 35 U.S.C. s. 251.FN5 During the course of the reissue proceeding, FVC filed a protest under 37 C .F.R. s. 1.291(a), asserting that certain prior art either anticipated the invention or rendered it obvious.FN6 Ultimately, B-K cancelled several claims and amended others; on August 8, 2005, the Patent Office issued a Notice of Allowability.FN7 The ' 084 patent itself issued on May 2, 2006.

FN3. United States Patent Number 6,161,948.

FN4. See Defendant Fresno Valves' Opening Claim Construction Brief, ("Def.'s Brief") at 3. Although FVC adduces no evidence regarding the Kim suit, B-K does not dispute the accuracy of this history.

FN5. See Id. Section 251 provides for the reissue of patents "whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent." 35 U.S.C. s. 251.

FN6. See Declaration of Duane H. Mathiowetz in Support of FVC's Opening Claim Construction Brief ("Mathiowetz Decl."), Exh. 3.

FN7. See Mathiowetz Decl., Exh. 12.

The reissue patent protects "an adjustable mount for use with light fixtures that are sealed to prevent entry of moisture and contaminates." FN8 The mount is a "knuckle-type mount that connects a light fixture with a junction box or other source of electrical power." FN9 It allows the light to rotate along a full range of "vertical and rotational angles" without twisting the electrical wiring "that is sealed inside the mount." FN10 The lighting angle can be set without adjusting the "set screws which connect the components together" by means of "frictional connections in the mount." FN11 The invention was designed to allow "one person to infinitely adjust the angle of an outdoor light while providing a connection that maintains the integrity of the sealed lighting system." FN12

FN8. '084 Patent at 1 (Abstract).

FN9. *Id*.

FN10. *Id*.

FN11. *Id*.

FN12. *Id*., col. 2:12-14.

B. Background

The patent was intended to address problems with prior art adjustable outdoor light fixtures. The wiring on an outdoor light fixture must be sealed to protect it from damage. Generally, prior art fixtures that were adequately sealed had only a limited range of adjustment. Fixtures that had a wide adjustment range, by contrast, were not adequately sealed.FN13

FN13. '084 Patent, col. 1:29-45.

The prior art fixtures typically employed a knuckle joint with serrated edges that had to be rotated to lock and form the desired angle. The fact that the serrated edges had to lock together limited the available angles of adjustment. Additionally, two people had to work together to set the angle; if one person attempted to adjust the light alone, a time-consuming iterative process was required. The inventor sought to create a mount with infinite adjustability that maintained the integrity of the sealed wiring, and that could be adjusted by one person with ease,.FN14

FN14. Id., col. 1:46-2:6.

C. Description

The invention has three principal components: a support member (which attaches to the light fixture), a stud member (which attaches to the power source), and a base member (which connects the two). The side of the support member is pivotally connected to the side of the base member. This connection is achieved by interaction between a tapered post attached to the base member and fitting inside a tapered opening attached to the support member in such a fashion that it provides frictional resistance. The upper end of the stud member connects with an opening at the bottom of the base member allowing the base member to rotate, with frictional resistance, relative to the stud member. This rotation is limited by rotational stop members to protect the wires that pass through the stud member into the base member.FN15

FN15. Id., col. 2:9-51.

The design is described in more detail in the preferred embodiment. The base member is connected to the source of electricity by a hollow "stud member" which is threaded on the bottom and fitted with an O-ring on the upper part where it connects with the base member. This O-ring frictionally limits the free rotation of the base member. There is also a "rotational stop member" in the base opening, which interacts with a

second "rotational stop member" in the stud member to prevent the base member from rotating more than 360 degrees. The electrical wire threads through the stud member into the base member, where it passes through the "second passageway," through a "slot," into the first passageway in the support member, and on to the light fixture. The support member is "pivotally connected" to the base member and is capable of pivoting 360 degrees. The connection between the support member and base member is achieved through a tapered post on the base member that is sized and configured to fit tightly inside a tapered opening in the support member. This connection allows the support member to be "manually pivoted" yet not freely pivot. This makes it possible for one person to set the angle of the fixture herself. The slot is designed to keep the wire from rotating or twisting as the support member pivots. There are a number of seals, which in the preferred embodiment are created by O rings. These ensure that the entire mount is sealed and watertight to protect the wiring.FN16

FN16. Id., col. 3:30-5:67.

D. The Claim Terms

The '084 patent has 19 claims. The parties dispute terms in 13 of the 19 claims.FN17 The joint claim construction chart indicates that there are 21 terms in possible need of construction.FN18 B-K argues that only ten require construction; FN19 of these, nine are "means-plus-function" terms.FN20 FVC argues that the remaining eleven terms also require construction.FN21 The disputed terms recur throughout the patent, but claims 3, 5, 22 and 26 combined contain them all. The relevant portions of these four claims are recited below with the disputed terms underlined:

FN17. The terms appear in claims 3, 5, 7, 8, 12, 15, 18, 19, 21, 22, 23, 24, and 26. See Joint Claim Construction Chart.

FN18. See id.

FN19. See Id.; B-K's Markman Claim Construction Brief ("Pl.'s Opening Brief") at 2.

FN20. See Joint Claim Construction Chart. The parties agree on the construction of three of the nine means-plus-function terms, leaving only six terms that are truly in dispute. (See id., terms 6-9.)

FN21. See Joint Claim Construction Chart; Def.'s Opening Brief at 1.

3. An adjustable mount for a light fixture, comprising: a support member connected to the light fixture, said support member having a first passageway therethrough to allow passage of one or more electrical wires to said light fixture; a base member having a second passageway therethrough and a base opening at one end of said base member, said base member *pivotally connected* at an end opposite said base opening to said support member, said second passageway connected to said first passageway in said support member to allow passage of said electrical wires; *first locking means for locking said support member to said base*

member; a *first seal* between said *base member* and said *support member* to prevent entry of moisture and contaminants; a *stud member* having an upper end, a lower end and a stud opening through said *stud member,* said upper end of said stud member in said base opening and *rotationally interacting therewith,* said lower end of said stud member *configured to connect* to a source of electrical power, said stud opening connected to said second passageway in said *base member* to allow passage of said electrical wires from said source of electrical power to said *base member; second locking means for locking said base member to said stud member;* and a *first resistance means for limiting free pivotal movement of said base member relative to said support member,* wherein said first resistance means comprises a *tapered opening* in said *support member* and a *tapered post* in said base member, said *tapered opening sized and configured to receive said tapered post and allow frictional pivoting of said tapered post therein.*
5.... a *second resistance means for limiting free rotational movement of said base member relative to said stud member* and an upper end seal between said *stud member* and said base opening wherein said second resistance means comprises an *inner wall in said base member, said inner wall sized and configured to frictionally receive said upper end seal and allow frictional rotation of said base member relative to said stud member .*

22.... a *slot in said base member disposed between said first passageway in said support member and second passageway in said base member when said support member and said base member are operatively connected,* said *slot* sized and configured to pass said electrical wires from said second passageway to said first passageway; second resistance means for limiting free rotational movement of said base member relative to said stud member; *rotational limiting means interconnecting said base member and said stud member for limiting rotation of said base member relative to said stud member to prevent damage to said electrical wires;* second locking means for locking said base member to said *stud member;* and *first sealing means on said support member for sealing the connection between said support member and the light fixture, second sealing means disposed between said support member and said base member for sealing the connection of said base member to said support member, third sealing means on said upper end of said stud member for sealing the connection between said base member and said stud member,* and *fourth sealing means on said lower end of said stud member for sealing the connection between said stud member and source of electrical power.*

26.... *first locking means for locking said support member to said base member with a watertight seal between the two....*

II. DISCUSSION

A. Legal Standard Governing Claim Construction

Patents grant inventors the exclusive right to make and sell their inventions in exchange for full disclosure of the invention. Markman v. Westview Instruments, Inc., 517 U.S. 370, 373, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "It has long been understood that a patent must describe the exact scope of an invention and its manufacture to 'secure to [the patentee] all to which he is entitled, [and] to apprize the public of what is still open to them.' " *Id.* (quoting McClain v. Ortmayer, 141 U.S. 419, 424, 12 S.Ct. 76, 35 L.Ed. 800 (1891)). Two parts of the patent fulfill this function-the specification and the claims. *Id.* The specification must describe the invention "in such full, clear, concise, and exact terms as to enable any person skilled in the art ... to make and use the same." 35 U.S.C. s. 112. The claims must "particularly point[ ] out and distinctly claim[ ] the subject matter which the applicant regards as his invention." *Id .*

"Victory in an infringement suit requires a finding that the patent claim 'covers the alleged infringer's

product or process,' which in turn necessitates a determination of 'what the words in the claim mean.' " Markman, 517 U.S. at 374 (quoting H. Schwartz, PATENT LAW AND PRACTICE 1, 33 (2d ed.1995) and 3 E. Lipscomb, WALKER ON PATENTS, s. 11:2, pp. 288-90 (3d ed.1985)). The Supreme Court's decision in *Markman* clarified that it is the judge, not the jury, who must determine the meaning of the claim terms. *Id*. at 387.

To ascertain the meaning of a claim term, "the court [must] look[ ] to 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.' " Phillips v. AWH Corp., 415 F.3d 1303, 1314 (Fed.Cir.2005) (en banc) (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed.Cir.2004)), cert. denied, 546 U.S. 1170, 126 S.Ct. 1332, 164 L.Ed.2d 49 (2006). These sources include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id*. at 1314; Innova/Pure Water, 381 F.3d at 1116. It is important 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." Phillips, 415 F.3d at 1313.

1. Intrinsic Evidence

Intrinsic evidence is the most important source in construing patent claims. In Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576 (Fed.Cir.1996), the Federal Circuit reiterated the "well-settled" rule "that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." Vitronics, 90 F.3d at 1582. The *Vitronics* court described such "intrinsic evidence" as "the most significant source of the legally operative meaning of disputed claim language," *id*., and recent Federal Circuit opinions confirm this. See Phillips, 415 F.3d at 1315 (quoting *Vitronics*); see also Atofina v. Great Lakes Chem. Corp., 441 F.3d 991, 996 (Fed.Cir.2006) ("Our primary focus in determining the ordinary and customary meaning of a claim limitation is to consider the intrinsic evidence of record, viz., the patent itself, including the claims, the specification and, if in evidence, the prosecution history, from the perspective of one of ordinary skill in the art").

Even within the general category of "intrinsic evidence," there are preferences. Initially, a court should look to the words of the claims themselves to define the scope of the patented invention. Vitronics, 90 F.3d at 1582; see Liquid Dynamics v. Vaughan Co. ., 355 F.3d 1361, 1367 (Fed.Cir.2004) ("We examine this intrinsic evidence seriatim. 'We look first to the claim language itself, to define the scope of the patented invention. As a starting point, we give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art,' " quoting Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1372 (Fed.Cir.2001)); Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc., 336 F.3d 1308, 1314 (Fed.Cir.2003) ("We begin our claim construction analysis with the words of the claim.... In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point[ ] out and distinctly claim[ ] the subject matter which the patentee regards as his invention" (internal quotation marks omitted)); Advanced Cardiovascular v. Medtronic, 265 F.3d 1294, 1304 (Fed.Cir.2001) ("As always, we begin our construction with the words of the claim.... After looking to the claim language we consider the rest of the intrinsic evidence, that is, the written description and the prosecution history if in evidence"); Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1331 (Fed.Cir.2001) ("First, we look to the claim language").

The words used in the claims are generally given the ordinary meaning they would have to a person skilled in the art. Phillips, 415 F.3d at 1313 ("We have made clear, moreover, that 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, i.e., as of the effective filing date of the patent application"); Intellectual Prop. Dev., 336 F.3d at 1314 ("In the absence of an express intent to impart a novel meaning to claim terms, the words are presumed to take on the ordinary and customary meanings attributed to them by those of ordinary skill in the art"); see also Tegal Corp. v. Tokyo Electron Am., Inc., 257 F.3d 1331, 1342 (Fed.Cir.2001) ("Throughout the construction process, it is important to bear in mind that the viewing glass through which the claims are construed is that of a person skilled in the art").

The person of ordinary skill in the art is presumed "to read [a disputed] 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." Phillips, 415 F.3d at 1313; see also Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed.Cir.2005) ("We cannot look at the ordinary meaning of the term ... in a vacuum. Rather, we must look at the ordinary meaning in the context of the written description and the prosecution history"); V-Formation, Inc. v. Benetton Group SpA, 401 F.3d 1307, 1310 (Fed.Cir.2005) (stating that the intrinsic record "usually provides the technological and temporal context to enable the court to ascertain the meaning of the claim to one of ordinary skill in the art at the time of the invention"); Unitherm Food Sys., Inc. v. Swift-Eckrich, Inc., 375 F.3d 1341, 1351 (Fed.Cir.2004) (the proper definition of a claim term is the "definition that one of ordinary skill in the art could ascertain from the intrinsic evidence in the record").

Frequently, a review of the specification "may reveal a definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor's lexicography governs." Phillips, 415 F.3d at 1316; see also Interactive Gift Express, 256 F.3d at 1331 (stating that a deviation from ordinary meaning may be required where "a patentee [has chosen] to be his own lexicographer and use terms in a manner other than their ordinary meaning," quoting Vitronics, 90 F.3d at 1582); FN22 Forest Labs., Inc. v. Abbott Labs., 239 F.3d 1305, 1310 (Fed.Cir.2001) ("The words of a claim are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently by the inventor"); Biovail Corp. Int'l. v. Andrx Pharms., Inc., 239 F.3d 1297, 1301 (Fed.Cir.2001) (quoting *Vitronics* and stating that the court "review[s] both the specification and the applicable prosecution history to determine whether the patentee defined claim terminology in a manner inconsistent with its ordinary meaning"); Vitronics, 90 F.3d at 1585 (where the specification clearly and unambiguously defines a claim term, that definition is controlling).

FN22. Where a patentee seeks to depart from the ordinary meaning of a claim term, he must "clearly set forth" or "clearly redefine" the term in the specification so as to put persons reasonably skilled in the art on notice of the intended meaning. Bell Atlantic Network Servs., Inc. v. Covad Commc'ns Group, Inc., 262 F.3d 1258, 1268 (Fed.Cir.2001) (quoting Elekta Instrument S.A. v. O. U.R. Scientific Int'l, Inc., 214 F.3d 1302, 1307 (Fed.Cir.2000)); see also Schering Corp. v. Amgen, Inc., 222 F.3d 1347, 1353 (Fed.Cir.2000) (stating that the specification must demonstrate an "express intent to impart a novel meaning" to claim terms); Optical Disc Corp. v. Del Mar Avionics, 208 F.3d 1324, 1334 (Fed.Cir.2000) ("Without evidence in the patent specification of an express intent to impart a novel meaning to a claim term, the term takes on its ordinary meaning"). An explicit statement of redefinition is not required, however. *Bell Atlantic,* 262 F.3d at 1334; SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1344 (Fed.Cir.2001) (a patentee's description of the preferred embodiment "can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in

explicit definitional format"); see also Astrazeneca AB v. Mutual Pharm. Co., 384 F.3d 1333, 1339-40 (Fed.Cir.2004). Rather, the specification may define claim terms "by implication" such that the meaning to be given to the terms is "found in or ascertained by a reading of the patent documents." Vitronics, 90 F.3d at 1582, 1584 n. 6; see also Schoenhaus v. Genesco, Inc., 440 F.3d 1354, 1358 (Fed.Cir.2006) ("The patentee is free to act as his own lexicographer, and may set forth any special definitions of the claim terms in the patent specification or file history, either expressly or impliedly").

A deviation from the ordinary meaning of a term may also be necessary if a patentee has "relinquished [a] potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference." Interactive Gift Express, Inc., 256 F.3d at 1331 (quoting Elkay Mfg. Co. v. Ebco Mfg. Co., 192 F.3d 973, 979 (Fed.Cir.1999)); see also Phillips, 415 F.3d at 1316 ("[T]he specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor's intention, as expressed in the specification, is regarded as dispositive"); id. at 1317 ("In addition to consulting the specification, we have held that a court 'should also consider the patent's prosecution history, if it is in evidence,' " quoting *Markman,* 52 F.3d at 980); Vitronics, 90 F.3d at 1582 (stating that the prosecution history is "often of critical significance in determining the meaning of the claims").

"[B]ecause the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." Phillips, 415 F.3d at 1317. Nonetheless, it "can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.* Thus, the court should look to the prosecution history "to exclude any interpretation that was disclaimed during prosecution." CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1155 (Fed.Cir.1997), cert. denied sub nom. Marchon Eyewear v. Tura LP, 522 U.S. 1109, 118 S.Ct. 1039, 140 L.Ed.2d 105 (1998); see also Chimie v. PPG Indus., Inc., 402 F.3d 1371, 1384 (Fed.Cir.2005) ("The purpose of consulting the prosecution history in construing a claim is to 'exclude any interpretation that was disclaimed during prosecution,' " quoting ZMI Corp. v. Cardiac Resuscitator Corp., 844 F.2d 1576, 1580 (Fed.Cir.1988)); Intellectual Prop. Dev., 336 F.3d at 1316 ("We have noted that, like the specification, the prosecution history may demonstrate that the patentee intended to deviate from a term's ordinary and accustomed meaning, i.e., if it shows that the patentee characterized the invention using words or expressions of manifest exclusion or restriction before the United States Patent and Trademark Office.... The prosecution history limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance"); Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576 (Fed.Cir.) (same), cert. denied, 516 U.S. 987, 116 S.Ct. 515, 133 L.Ed.2d 424 (1995). The prosecution history of a patent "cannot be used to limit the scope of a claim[, however,] unless the applicant took a position before the PTO that would lead a competitor to believe that the applicant had disavowed coverage of the relevant subject matter." Schwing GMBH v. Putzmeister Aktiengesellschaft, 305 F.3d 1318, 1324 (Fed.Cir.2002).

"It is also appropriate to examine the prior art cited in the prosecution history in order to determine what the claims do not and cannot cover." Vitronics, 90 F.3d at 1583; see also *Amhil Enter., Ltd. v. Wawa, Inc.,* 81 F.3d 1544, 1560 (Fed.Cir.1996) (because a patent claim cannot be construed to encompass the prior art, "[a]n examination of the prosecution history is particularly important where ... the claimed invention is in a crowded art").

In considering a patent's prosecution history, the applicant's subjective intent is irrelevant; "[r]ather, the standard for determining what subject matter was surrendered is objective and depends on what a competitor, reading the prosecution history, would reasonably conclude was given up by the applicant." *Instituform Techs.,* Inc. v. CAT Contracting, Inc., 99 F.3d 1098, 1107-08 (Fed.Cir.1996), cert. denied, 520 U.S. 1198, 117 S.Ct. 1555, 137 L.Ed.2d 703 (1997).

2. Extrinsic Evidence

Although intrinsic evidence is most important, the court may also look to extrinsic evidence, such as expert and inventor testimony, dictionaries and treatises. Phillips, 415 F.3d at 1317. Extrinsic evidence "cannot be used [, however,] to alter a claim construction dictated by a proper analysis of the intrinsic evidence ." *On-*Line Techs., Inc. v. Bodenseewerk Perkin-Elmer GMBH, 386 F.3d 1133, 1139 (Fed.Cir.2004); see also Phillips, 415 F.3d at 1317 ("[W]hile extrinsic evidence 'can shed useful light on the relevant art,' we have explained that it is 'less significant than the intrinsic record in determining "the legally operative meaning of claim language," ' " quoting C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed.Cir.2004), and Vanderlande Indus. Nederland BV v. Int'l Trade Comm'n, 366 F.3d 1311, 1318 (Fed.Cir.2004)); id. at 1318 ("We have viewed extrinsic evidence in general as less reliable than the patent and its prosecution history in determining how to read claim terms.... [U]ndue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the 'indisputable public records consisting of the claims, the specification and the prosecution history,' thereby undermining the public notice function of patents").

While "extrinsic evidence ... is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence," the Federal Circuit has held that the district court may, in its discretion, admit such evidence to the extent it is "useful [in] ... provid[ing] background on the technology at issue, ... explain[ing] how an invention works, ... ensur[ing] 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 ... establish[ing] that a particular term in the patent or the prior art has a particular meaning in the pertinent field." Phillips, 415 F.3d at 1319; see also Omega Eng'g, Inc. v. Raytek Corp., 334 F.3d 1314, 1332 (Fed.Cir.2003) (stating that "expert testimony and declarations are useful to confirm that the construed meaning is consistent with the denotation ascribed by those in the field of the art"); Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed.Cir.1999) ("Thus, under *Vitronics,* it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field. This is especially the case with respect to technical terms, as opposed to non-technical terms in general usage or terms of art in the claim-drafting art, such as 'comprising' "); Mantech Envtl. Corp. v. Hudson Envtl. Servs., Inc., 152 F.3d 1368 (Fed.Cir.1998) (endorsing reference to extrinsic evidence as "background in the technical area at issue").

3. Means Plus Function Claims

Under 35 U.S.C. s. 112, para. 6, an element in a patent claim may be drafted as a generic "means" for performing a function without including a description of the physical structure by which the element performs the function. A claim element is in means plus function format if it recites the performance of a function without reciting sufficient structure to perform the function. Phillips, 415 F.3d at 1311 ("Means-plus-function claiming applies only to purely functional limitations that do not provide the structure that performs the recited function"); Lockheed Martin Corp. v. Space Systems/Loral, Inc., 324 F.3d 1308, 1318

(Fed.Cir.2003) ("A means-plus-function limitation recites a function to be performed rather than definite structure or materials for performing that function"); Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1375 (Fed.Cir.2003) ("An element of a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof").

Construction of a means plus function limitation involves two steps. First, the court must identify and interpret the claimed function using ordinary principles of claim construction. Second, it must determine what structure disclosed in the specification corresponds to the claimed function. Omega Engineering, 334 F.3d at 1321 ("The construction of a means-plus-function limitation follows a two-step approach. First, we must identify the claimed function, ... staying true to the claim language and the limitations expressly recited by the claims.... Once the functions performed by the claimed means are identified, we must then ascertain the corresponding structures in the written description that perform those functions.... A disclosed structure is corresponding 'only if the specification or the prosecution history clearly links or associates that structure to the function recited in the claim.'... In other words, the structure must be necessary to perform the claimed function"); Micro Chemical, Inc. v. Great Plains Chemical Co., Inc., 194 F.3d 1250, 1257-58 (Fed.Cir.1999) ("Application of s. 112, para. 6 requires identification of the structure in the specification which performs the recited function. Therefore, s. 112, para. 6 requires both identification of the claimed function and identification of the structure in the written description necessary to perform that function").

4. Analysis of the Accused Product

"[T]he legal function of giving meaning to claim terms always takes place in the context of a specific accused infringing device or process." Wilson Sporting Goods Co. v. Hillerich & Bradsby Co., 442 F.3d 1322, 1326 (Fed.Cir.2006). Thus, while claim construction is the first step in the infringement analysis, the accused product provides context for the court's proposed construction of the claims. See *id*. ("While a trial court should certainly not prejudge the ultimate infringement analysis by construing claims with an aim to include or exclude an accused product or process, knowledge of that product or process provides meaningful context for the first step of the infringement analysis, claim construction," citing Multiform Dessicants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1476-78 (Fed.Cir.1998)).

Although courts are permitted to consider underlying infringement issues contextually in construing the patent claims, "[p]roviding context is not the same as raising infringement issues for resolution." Board of Trustees of Leland Stanford Jr. University v. Roche Molecular Sys., Inc., 528 F.Supp.2d 967, 2007 WL 4208340, (N.D.Cal. Nov.27, 2007). As a result, the court cannot construe the claims in light of the accused device. See SRI Intern. v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1118 (Fed.Cir.1985) ("A claim is construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, *not* in light of the accused device" (emphasis added)); see also Exigent Technology, Inc. v. Atrana Solutions, Inc., 442 F.3d 1301, 1309 n. 10 (Fed.Cir.2006) ("It is true that '[a] claim is construed in the light of the claim language ... not in light of the accused device.' ... However, it is appropriate for a court to consider the accused device when determining what aspect of the claim should be construed," quoting SRI Int'l v. Matsushita Elec. Corp. of America, 775 F.2d 1107, 1118 (Fed.Cir.1985) (en banc)).

FVC makes repeated reference to its products as support for its proposed construction of disputed claim terms. While it is appropriate to refer to the accused products to determine what aspects of the claims need

to be construed, the court construes the claim terms on the basis of the intrinsic evidence and such extrinsic evidence as is appropriate, not with reference to defendant's device.

B. The Non Means-Plus-Function Claim Terms

1. "Slot"

The term "slot" appears in claims 18, 19, 21, and 22 of the '084 patent. In each claim, the word is used identically in the same phrase: "said *slot* sized and configured to pass said electrical wires from said second passageway to said first passageway." FN23 The specification states that the "[b]ase side 32 has *slot* 46 to hold the electrical wires between first passageway 40 and second passageway 42 to prevent damage to the electrical wire during rotation of adjustable mount 10." FN24

FN23. See, e.g., '084 Patent, col. 11:40-42,

FN24. Id., col 4:27-31.

i. FVC's Proposed Construction

FVC proposes that "slot" be construed as "a narrow opening or groove." FN25 It asserts that although the term is not "specifically defined in the specification," it is used consistently "to refer to a narrow opening or groove." FN26 FVC draws its proposed construction from Webster's dictionary.FN27 It argues that B-K seeks a broader construction of the term in an attempt to convince the jury that the accused device contains a "slot." FN28

FN25. Def.'s Brief at 26.

FN26. Id.

FN27. WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 1110 (1985) (defining "slot" as "a narrow opening or groove").

FN28. Def.'s Brief at 27.

In addition to dictionary definitions, FVC cites the prosecution history in support of its construction of the term. In response to a protest, B-K distinguished the '084 patent from U.S. Patent No. 4,143,413 ("the Kelly patent"). B-K argued that the "slot" disclosed in the '084 patent was distinct from the "space" disclosed in the Kelly patent.FN29 Because B-K distinguished its "slot" from the "space" described in Kelly, FVC asserts that the term must be construed to mean something different than the Kelly "space."

FN29. Declaration of Duane H. Mathiowetz in Support of Defendant's Opening Claim Construction Brief ("Mathiowetz Opening Decl."), Exh. 4 ("Pl.'s Response to Protest") at 7-8.

ii. B-K's Proposed Construction

B-K's proposed construction is drawn directly from the language of claims 18, 19, 21, and 22. It proposes that the term be construed as "an opening sized and configured to pass electrical wires from the second passageway in the base member to the first passageway in the support member." FN30 B-K asserts that by including this language in the claims, the patentee specifically designated the size of the slot and "acted as his own lexicographer ." FN31 It contends that FVC's reference to the accused product improperly seeks to address infringement in the context of claim construction.

FN30. Pl.'s Brief at 15.

FN31. Pl.'s Reply at 12.

iii. The Court's Construction

The court begins with the language of the claims. See Phillips, 415 F.3d at 1312. As B-K notes, the claims address the size and purpose of the slot, stating that the slot is "sized and configured to pass electrical wires from [the] second passageway to [the] first passageway." While this dependent clause places limitations on the slot that is claimed, it does not define what the slot is. As a result, B-K's construction is redundant.FN32 It merely replaces "slot" with "opening," and repeats the additional limitations recited in the claim.FN33

FN32. As FVC notes, if B-K's construction were adopted, the claims would read "an opening sized and configured to pass electrical wires from the second passageway in the base member to the first passageway in the support member ... said opening sized and configured to pass said electrical wires from said second passageway to said first passageway." (Def.'s Reply at 17.)

FN33. B-K's construction suggests that it believes "opening" is the correct construction of "slot." Such a construction, however, is not sufficiently specific and is at odds with the common meaning of the term. It also would not address the concession B-K made during prosecution that the "slot" disclosed in the '084 patent was distinguishable from the "space" disclosed in Kelly. FVC argued in its protest that the "slot" claimed in the '084 patent was obvious in light of the "space" disclosed in Kelly. In Kelly, the electrical wires "pass out of chamber 67 through an opening 93 in the trunnion 75. These leads then pass through the hollow space 45 of casting 31 and continue on to the luminaire 11, through opening 53." ('413 Patent, col. 4:59-63.) The "hollow space," as depicted in Figure 3 of Kelly, does not appear to be in any way fitted to the size of the wires passing through it. (Id., Fig. 3 .) B-K noted this difference and also noted that "if Kelly includes a slot in casting 33, then bolt 79 cannot be positioned 79 to hold together castings 31 and 33." (Pl.'s Response to Protest at 7-8.) Through this statement, B-K limited itself to a narrow "slot" to distinguish the "space" in Kelly. Like "space," "opening" is a broad term that does not convey the dimensional limitations implied by "slot."

The fact that B-K proposes that "slot" be defined as "opening" also undermines its argument that it acted as its own lexicographer and provided a special definition for the term. B-K proffers no evidence that it defined

"slot" as an "opening." The specification does not specifically define the term, and notes only that the purpose of the slot is to "hold the electrical wires" between the two passageways.FN34

FN34. '084 Patent, col. 4:27-28.

The court concludes that "slot" has a common meaning that is known both to persons of skill in the art and to lay jurors. The Federal Circuit has approved the use of general purpose dictionaries in ascertaining the ordinary meaning of claim terms. See Phillips, 415 F.3d at 1314 ("In such circumstances, general purpose dictionaries may be helpful"). As defined in Webster's dictionary, a "slot" is "a narrow opening or groove." FN35 This definition is consistent with the way the term is used in the claims and specification. Although the opening must be "narrow," narrowness is judged relative to other openings in the structure or device where the "slot" is found.FN36 In the case of the patent in suit, the claims and the specification describe the narrowness of the slot by stating that it "passes" electrical wires from the second to the first passageway.FN37 This additional limitation makes it clear that the slot must be sufficiently wide for electrical wires to pass through.

FN35. Webster's definition is consistent with that found in other dictionaries. See Dictionary.com (http://dictionary.reference.com/browse/slot) (Last Viewed on January 20, 2008) (defining slot as "a narrow, elongated depression, groove, notch, slit, or aperture, esp. a narrow opening for receiving or admitting something"); OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989) (defining slot as: "an elongated narrow depression or perforation made in the thickness of a piece of timber, etc., usually for the reception of some other part or piece, whether fixed or movable").

FN36. A slot that allows an I-beam to pass through the strut of a bridge and connect to its structural support will be larger than a slot that allows a coin to pass into a vending machine. While "slot" connotes a narrow opening relative to other openings, it does not place an absolute size limit on how narrow or wide the opening need be.

FN37. In reaching this conclusion, the court does not consider or determine whether the accused device incorporates a "slot." As noted, infringement arguments are not properly addressed at the claim construction stage.

In sum, the court finds that the word "slot" should be accorded its ordinary meaning in the '084 patent, i.e., "a narrow opening or groove." FN38

FN38. FVC requests that the court construe the entire phrase in which the word "slot" appears, i.e., "[slot in said base member] disposed between said first passageway in said support member an said second passageway in said base member when said support member and said base member are operatively connected." FVC proposes that the phrase be construed to mean "a slot created in the base member to facilitate passage of electrical wire extends between the passageway in the support member and the passageway in the base member when the support and base members are joined together by inserting the tapered post of the base member into the tapered opening of the support member." (Def.'s Brief at 42.) FVC acknowledges that this construction is based on its proposed construction of the terms "slot" and

"operatively connected." In its reply, however, FVC abandons its interpretation of "operatively connected," i.e., that "the support member and base members are joined together by inserting the tapered post of the base member into the tapered opening of the support member creating frictional resistance to vertical rotation of the light fixture." (Def.'s Reply at 27; see Def.'s Brief at 40.)

As can be seen, much of FVC's proposed construction of the phrase including "slot" is derived from its construction of "operatively connected." Removing the additional language now waived by FVC, the proposed construction reads: "a slot created in the base member to facilitate passage of electrical wire extends between the passageway in the support member and the passageway in the base member when the support member and the base member are operatively connected." There is no need to reference the fact that the slot "facilitate[s] passage of electrical wire" because each of claims 18, 19, 21, and 22 specifically include this limitation, stating that "said slot [is] sized and configured to pass said electrical wires...." ('084 Patent, col. 11:40-41.) Furthermore, FVC provides no argument or evidence that "extend between" is synonymous with "disposed between," and the court concludes they are not. "Disposed between" means "arranged or placed in the space that separates two structures or points." Floe Intern., Inc. v. Newmans Mfg. Inc., Civil No. 04-5120 (DWF/RLE), 2006 WL 1716281, (D.Minn. June 21, 2006); see also OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989) ("disposed" means "arranged, appointed, prepared, suitably placed, or situated"). "Extend," by contrast, means "[t]o spread out in area; to make to cover a certain space." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989), def. 5(a).) Thus, if something "extends," it reaches out between two points, while if something is "disposed," it is placed between two points. Consequently, the court declines to construe the phrase as FVC suggests.

2. "Stud Member"

The term "stud member" appears in all thirteen of the disputed claims of the ' 084 patent. The "stud member" is described in the summary of the invention section of the specification as one of three principal components of the invention (together with the "base member" and the "support member"). FN39 The parties dispute whether the term is fully defined in the claims or whether it requires further construction.

FN39. '084 Patent, col. 2:22-23.

i. FVC's Proposed Construction

FVC argues that B-K limited the meaning of "stud member" in the specification and prosecution history. FVC asserts that the term should be construed to mean "a structure having a threaded connection at one end, a hole through its entire length, and sized and shaped to be complementary to the base opening such that the stud member provides frictional rotational resistance when the stud member is positioned in the base opening." FN40 In support of this proposal FVC cites the specification. In the preferred embodiment, "the bottom of the stud member threadably connects to a junction box or the like." FN41 The "[e]lectrical wiring from the junction box passes through a stud opening, which traverses the entire stud member." FN42 Also, "[t]he upper end of the stud member frictionally connects inside an opening at the bottom of the base member." FN43 FVC seeks to read these limitations from the preferred embodiment into the construction of "stud member" as used in the claims.

FN40. Def.'s Brief at 29.

FN41. '084 Patent, col. 2:26-28.

FN42. Id., col.2:43-44.

FN43. Id., col. 2:29-30.

FVC also cites the prosecution of the '084 patent, during which B-K argued that the invention was distinguishable from the prior art Kelly patent because Kelly did not include a "second resistance means for limiting free rotational movement between the stud member 16 and base member 14." FN44 FVC contends that by making this representation, B-K explicitly limited the construction of "stud member" to a structure whose shape complements that of the base member in such a fashion that it will provide frictional resistance and allow the rotational angle of the light fixture to be set by one person. FN45

FN44. Pl.'s Response to Protest at 4.

FN45. Def.'s Brief at 30.

ii. B-K's Proposed Construction

B-K argues that this term is fully defined in the claims of the '084 patent and does not require further construction. B-K asserts that the "stud member" is a fundamental structural element of the invention whose structure is detailed in the claims. Should the court construe "stud member," B-K suggests that its relative orientation in the apparatus be clarified. It proposes the following definition: "the part for structurally coupling the claimed apparatus to a power source, such as a junction box." FN46

FN46. Pl.'s Brief at 16; Pl.'s Reply at 15.

iii. The Court's Construction

FVC seeks to limit the "stud member" to the structure described in the specification, i.e., one having a threaded connection at one end and an opening that runs its entire length. FVC also seeks to limit the stud member to structures that provide frictional resistance between the stud member and the base opening. The court addresses these limitations in turn.

As noted, the court must begin its construction by looking to the language of the claims. In each of the claims in which "stud member" appears, the element is described as follows:

"a *stud member* having an upper end, a lower end and a stud opening through said *stud member,* said upper end of said *stud member* in said base opening and rotationally interacting therewith, said lower end of said *stud member* configured to connect to a source of electrical power ..." FN47

FN47. See e.g., '084 Patent, col. 6:50-55.

As can be seen, the claims include all of the limitations FVC seeks to incorporate into the definition of "stud member." FVC proposes, for example, that the court limit the "stud member" to a structure that has a "hole through its entire length." The claims already require, however, that there be a "stud opening through said stud member." Including such a limitation in the definition of "stud member" would therefore be redundant. See Chip-Mender, Inc. v. Sherwin-Williams Co., 458 F.Supp.2d 994, 1009 (N.D.Cal.2006) ("Sherwin-Williams' proposed addition of 'pigment and solvent' is unnecessary, as both claim 1 and claim 12 include the limitation 'including ... pigment and ... solvent' immediately following the term 'automotive paint composition.' Thus, including 'pigment and solvent' as part of the construction would be redundant").

The claims also state that the "lower end of said stud member is configured to connect to a source of electrical power." FVC's proposal that the court define "stud member" as a structure that has a "threaded connection at one end" is therefore redundant. It also impermissibly imports a limitation from the specification into the claims, in that it requires that the connection be threaded. The claims do not impose this requirement, which is found only in the specification's description of the preferred embodiment,FN48 and the court declines to read this limitation from the specification into the claims. See CollegeNet, Inc. v. ApplyYourself, Inc., 418 F.3d 1225, 1231 (Fed.Cir.2005) ("In examining the specification for proper context, however, this court will not at any time import limitations from the specification into the claims").

FN48. Additionally, the nature of the connection is more properly addressed in construing of the term "configured to connect." Even if the court were to conclude that threading is required, it would be duplicative to construe "stud member" as having a "threaded connection at one end" since the claims include the limitation "configured to connect to a source of power." Neither party has proposed that "configured to connect" requires construction, however.

Finally, FVC proposes that the court's construction of "stud member" include the requirement that the stud member be sized and shaped so that it provides "frictional rotational resistance" when positioned in the base opening. As noted above, the claims explicitly require that the stud member's upper end "rotationally interact" with the base opening.FN49 The court concludes *infra* that "rotational interaction" requires frictional resistance. To construe "stud member" as requiring such resistance would therefore be redundant. As a result, the court declines to adopt FVC's proposed construction.

FN49. '084 Patent, col. 6:52-53.

Rather, the court agrees with B-K that "stud member" describes a fundamental structural element of the claimed invention. "Stud members" are a well-known feature of a multitude of devices. See, e. g., American Seating Co. v. Freedman Seating Co., 450 F.Supp.2d 765, 767 (W.D.Mich.2006) ("A self-aligning fastener system incorporates a stud member fastened to a first member and a female member attached to a second panel member for fastening the first member to the panel member"); Buxton Inc. v. Julen Inc., 223 F.Supp. 697, 699 (S.D.N.Y.1963) ("Patent No. 1,765,053, also issued on June 17, 1930 to Carr and assigned by him to United-Carr, also covers a one-piece stud member for attachment to a part, such as an automobile door, to be covered by a slip cover"). Nonetheless, the court concludes that it would be useful to define the term as used in the patent for the jury. The court therefore adopts B-K's proposed construction, which adequately describes the stud member's purpose as "the part for structurally coupling the claimed apparatus to a power source, such as a junction box."

3. "Rotationally Interacting Therewith"

The parties' next dispute concerns the construction of "said stud member ... rotationally interacting" with the base opening. This term is used in claims 3, 5, 7, 12, 15, 18, 19, 21, 22, 23, 24, and 26 of the patent to describe the relationship of the stud member to the base member.

i. FVC's Proposed Construction

Citing the specification, FVC argues that the term should be construed as "the stud member provides frictional rotational resistance when positioned within the base opening." FN50 The specification's summary of the invention states that "the upper end of the stud member frictionally connects inside an opening at the bottom of the base member." FN51 FVC also cites a declaration prepared by Hiroshi Kira, the inventor of a prior art device, the Coronado 720, sold by Kim Lighting. The Coronado 720 was the prior art lighting fixture that prompted B-K to seek a reissue patent.FN52 In his declaration prepared for the 2002 litigation between B-K and Kim Lighting, Kira asserted that "the structure for limiting free rotational movement of the base member relative to the stud member [in the '984 patent (predecessor to the ' 084 patent)] [was] the frictional fit between the upper end of the stud and the inner wall of the base." FN53 Kira distinguished the Coronado 720 on the basis that the stud member in that device was not sized and configured to provide a frictional fit with the inner wall of the base member.FN54

FN50. Def.'s Brief at 31.

FN51. '084 Patent, col. 2:29-30.

FN52. See Def.'s Brief at 3. After B-K sued Kim Lighting for infringement, Kim asserted an invalidity defense, citing the prior art Coronado 720. B-K dismissed its complaint against Kim Lighting in 2003, and applied for a reissue patent. In its application, B-K cited the Coronado 720 as prior art and submitted a copy of Kira's declaration to the examiner. (See Mathiowetz Decl., Exh. 2 (Reissue Application) at 30 (recounting the history of the litigation and referencing the declaration).)

FN53. Mathiowetz Decl, Exh. 16 (Declaration of of Hiroshi Kira ("Kira Decl.")) at 226.

FN54. Id. at 226-27.

Finally, FVC cites B-K's statement to the patent examiner during prosecution of the reissue application. Distinguishing the '084 patent from Kelly, B-K stated that Kelly did not disclose a "resistance means for limiting free rotational movement." FN55 Based on the specification and the prosecution history, FVC argues that B-K limited the construction of "rotationally interacting therewith" to *frictional* rotational interaction.

FN55. Response to Protest at 7.

ii. B-K's Proposed Construction

B-K argues that "rotationally interacting" requires no construction. It asserts that the plain meaning of the term is that the base member rotates relative to the stud member.FN56 For this reason, B-K contends, FVC's construction, which includes a requirement that the rotational interaction be frictional, is at odds with the term's plain meaning.

FN56. Pl.'s Brief at 7.

iii. The Court's Construction

The court begins its construction by looking to the language of the claims. Each of the eleven claims in which the term appears use it in the same manner. Claims 12, 15, 18, 19, 21, and 22 include the additional limitation of a "second resistance means." This "second resistance means" functions to "limit [ ] free rotational movement of said base member relative to said stud member." FN57 The court finds infra that the second resistance means does this frictionally. In the remaining claims in which "rotationally interacting" appears, there is no mention of a "second resistance means." If the court were to fine that "rotationally interacting" required frictional resistance, it would render the second resistance means largely redundant.

FN57. '084 Patent, col. 7:33-35; see also claims 12, 15, 18, 21, and 22.

Under the doctrine of claim differentiation, " 'different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope.' " Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1369 (Fed.Cir.2007) (quoting Karlin Tech. v. Surgical Dynamics, Inc., 177 F.3d 968, 971-72 (Fed.Cir.1999)); see Tandon Corp. v. U.S. Int'l Trade Comm'n, 831 F.2d 1017, 1023 (Fed.Cir.1987) ("To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant").

The Federal Circuit has cautioned, however, that "the written description and prosecution history [may] overcome any presumption arising from the doctrine of claim differentiation." Kraft Foods, Inc. v. Int'l Trading Co., 203 F.3d 1362, 1368 (Fed.Cir.2000); see Andersen, 474 F.3d at 1370 ("That inference [of claim differentiation] would be a plausible one in the absence of evidence to the contrary, but here there is powerful evidence to the contrary, as we have discussed"); Multiform Dessicants, Inc. v. Medzam, Ltd. 133 F.3d 1473, 1480 (Fed.Cir.1998) ("[T]he doctrine of claim differentiation can not broaden claims beyond their correct scope, determined in light of the specification and the prosecution history and any relevant extrinsic evidence.... [C]laims that are written in different words may ultimately cover substantially the same subject matter"). Thus, even if including friction in the definition of "rotationally interacting rendered the "second resistance means" partially redundant, the construction would be proper if the language of the specification demanded it.

Ultimately, the court concludes that such a construction is mandated by the language of the specification. As an initial matter, the specification does not directly define "rotationally interacting therewith." In describing what "the present invention comprises," however, the summary of the invention states that "the upper end of the stud member frictionally connects inside an opening at the bottom of the base member." FN58 Although

a "rotational" connection is essential to the underlying purpose of the invention, the only reference to the connection in the summary describes it as "frictional." FN59 Not only is the connection described only as "frictional," the summary of the invention implies that the frictional nature of the connection is inherent to the invention rather than just an aspect of the preferred embodiment.FN60 The court infers from this that "rotational interaction" must include a "frictional connection." FN61 Stated differently, the language of the specification compels the conclusion that "rotationally interacting therewith" includes frictional interaction.FN62

FN58. '084 Patent, col. 2:29-30.

FN59. As noted, the primary objective of the invention is to provide a mount for outdoor lights "that provides infinite adjustability." (Id., col. 2:3-4.) Crucial to this "infinite adjustability" is the ability of the base to rotate on the stud member.

FN60. Where a particular limitation is referenced in connection with the overall invention, rather than a single embodiment, this suggests that it "is part of the invention, not merely a preferred embodiment." Gillette Co. v. Energizer Holdings, Inc., 405 F.3d 1367, 1379 (Fed.Cir.2005) (holding, with respect to a patent that described the "*invention* as a razor having three blades" that having three blades was a limitation on the meaning of the claims (emphasis original)); see *id*. ("We have held that a claim term was properly construed in accordance with a limitation that was 'repeatedly and consistently' described in the specification where '[t]hose statements, some of which [were] found in the 'Summary of the Invention' portion of the specification, [were] not limited to describing a preferred embodiment, but more broadly describe the overall inventions of [the] patent[ ],' " quoting Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1346-48 (Fed.Cir.2004)); C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 864 (Fed.Cir.2004) ("Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term," citing Digital Biometrics, Inc. v. Identix, Inc., 149 F.3d 1335, 1347 (Fed.Cir.1998); see also Wireless Agents LLC v. Sony Ericsson Mobile Communications AB, 189 Fed.Appx. 965, 967 (Fed.Cir.2006) (Unpub.Disp.) ("This description is not merely referring to a preferred embodiment; rather, as part of the 'Summary of the Invention,' it is 'commensurate with the invention as claimed,' quoting 37 C.F.R. s. 1.73).

FN61. At oral argument, B-K contended that if the court construed the term in this fashion, it would allow the specification to trump the plain meaning of "rotational." It is hornbook law that the court must interpret the claims in light of the specification. Here, the specification clearly describes a stud member frictionally connected to the base member, and indicates that frictional connection is fundamental to operation of the invention. Consequently, the court concludes that B-K acted as its own lexicographer and defined "rotational interaction" by implication in a way that requires frictional connection. B-K has offered no argument that would support a contrary conclusion.

FN62. The court is not convinced that the portions of the prosecution history FVC cites demonstrate that B-K surrendered a construction of "rotationally interacting" that does not require that the interaction be frictional. It is true that B-K differentiated the '084 patent on the basis that it included a "second resistance means" that was distinguishable from Kelly and the Coronado 720. B-K argued in response to FVC's protest

that "pole 27 [of Kelly, corresponding to the stud member,] is not frictionally received in the base portion 39 because pole 27 has a circular cross section and base portion 39 has a square cross section." (Pl.'s Response to Protest at 7.) This statement was made to distinguish the "second resistance means" over the prior art-B-K made no reference to the language "rotationally interacting therewith." (See id. (arguing that nothing in Kelly provides a resistance means as contemplated by B-K's patent).) Indeed, in none of the statements FVC cites did B-K explicitly abandon the ordinary meaning of "rotationally interacting." The court is not convinced that the portions of the prosecution history FVC cites demonstrate that B-K surrendered any construction of "rotationally interacting" that does not require that the interaction be frictional. It is true that B-K differentiated the '084 patent on the basis that it included a "second resistance means" that was distinguishable from Kelly and the Coronado 720. B-K argued in response to FVC's protest that "pole 27 [of Kelly, corresponding to the stud member,] is not frictionally received in the base portion 39 because pole 27 has a circular cross section and base portion 39 has a square cross section." (Pl.'s Response to Protest at 7.) This statement was made to distinguish the "second resistance means" over the prior art-B-K made no reference to the language "rotationally interacting therewith." (See id. (arguing that nothing in Kelly provides a resistance means as contemplated by B-K's patent).) Indeed, in none of the statements FVC cites did B-K explicitly abandon the ordinary meaning of "rotationally interacting." Original claim 1 did not include a "second resistance means." FVC challenged the portion of that claim that included "rotationally interacting therewith" by arguing that it was rendered obvious by "pole 27." (Mathiowetz Decl., Exh. 3 (FVC's Protest) at 5.) In response to this protest, B-K argued that
"the lower end of pole 27 is not shown in any of the figures in the '413 patent and is not discussed in Kelly. Hence Kelly does not disclose, teach or suggest configuring the lower end of pole 27 to connect to a source of electrical power, and consequently, Kelly does not teach every element of Claim 1." (Pl.'s Response to Protest at 3-4.)

As can be seen, B-K distinguished the "stud member" on grounds that had nothing to do with the fact that its rotation relative to the base member was frictional. The language cited by FVC and quoted above was B-K's response to FVC's challenge to original claim 4, which was dependent on claim one and thus included both a stud member "rotationally interacting" with the base member and the additional limitation of a "second resistance means." (See FVC's Protest at 6; Pl's Response to Protest at 5-7.) B-K had already argued that claim 1 was allowable, without reference to frictional interaction. The additional arguments it offered to distinguish claim 4 were focused entirely on the way the "second resistance means" was distinct from Kelly.

At oral argument, FVC asserted that, in distinguishing claims 4 and 5 from Kelly, B-K discussed not only the second resistance means, but also the overall structure of the stud member and its fit and interaction with the base member. This argument is unpersuasive. First, as discussed infra, the second resistance means can be the fit of the upper end of the stud member interacting with the inner wall of the base member. Consequently, B-K's discussion of the structural interaction or fit between these elements does not necessarily address something other than the second resistance means. More fundamentally, the fact that B-K discussed Kelly's overall structure does not imply that it meant to limit the structure of its patented device. B-K sought to show that the space in Kelly would "not [ ] provide resistance means for limiting the free rotational movement of pole 27 as discussed above in conjunction with claim 4." (Id. at 7.) Stated differently, B-K argued that Kelly did not disclose the "resistance means" disclosed by the '084 patent. This is not equivalent to a disclaimer of any rotation that was not frictional.

It is true that not all of the claims using "rotationally interacting therewith" include a second resistance means. Claims 3, 7, 23, and 24 do not make reference to the second resistance means. Each of these claims, however, include elements that the examiner might well have found to distinguish the claim over Kelly. Claim 3, for example, includes a "first resistance means" (discussed infra); claim 7 includes a "first sealing means"; claim 23 includes a first and a second seal; and claim 24 includes a "third seal." Because FVC has cited no instance in which B-K explicitly limited "rotational interaction" to "frictional interaction," and because the prosecution history does not clearly demonstrate that all of the claims including the "rotationally interacting" limitation were deemed unpatentable over Kelly absent frictional connection, the prosecution history alone does not justify FVC's proposed limitation. See SanDisk Corp. v. Memorex Products, Inc., 415 F.3d 1278, 1287 (Fed.Cir.2005) ("An ambiguous disclaimer, however, does not advance the patent's notice function or justify public reliance, and the court will not use it to limit a claim term's ordinary meaning," citing Omega Engineering, Inc. v. Raytek Corp., 334 F.3d 1314, 1324 (Fed.Cir.2003)). The court has nonetheless found that B-K limited the meaning of the term in the specification.
Nonetheless, the court cannot adopt FVC's proposed construction because it does not clearly describe the way in which the "rotational interaction" between the stud member and the base member operates. First, the proposed construction is redundant in that it includes the concept that the stud member is positioned within the opening of the base member. The claims explicitly provide that the "said upper end of said stud member [is] in said base opening," however. Thus, the court construes "rotationally interacting therewith" as "frictionally rotating relative to the base member."

4. "Tapered Opening" and "Tapered Post"

The terms "tapered opening" and "tapered post" appear in claims 3, 12, 18, 19, and 21 of the '084 patent. In each of these claims, the terms are referenced as part of the "first resistance means": "said first resistance means comprises a *tapered opening* in said support member and a *tapered post* in said base member, said *tapered opening* sized and configured to receive said *tapered post* and allow frictional pivoting of said *tapered post* therein." FN63

FN63. See, e.g., '084 Patent, col. 7

i. FVC's Proposed Constructions

FVC argues that both terms must be construed because the "inventor gave [them] a particular meaning in his patent." FN64 It asserts that the patentee specifically designated the size and shape of the "tapered opening" and the "tapered post" in both the specification and in the claims, and requests that the terms be construed as follows:

FN64. Def.'s Brief at 34.

Tapered opening: "Circular opening in the support member for receiving the tapered post, sized and shaped to be complementary to and fit the tapered post such that the post member provides frictional resistance to rotation of the support member relative to the base member."

Tapered post: "a pole-like structure extending outwardly from the base member, sized and shaped to be complementary to and fit within the tapered opening such that the post member provides frictional

resistance to rotation of the support member relative to the base member."

FVC cites the preferred embodiment in support of these definitions. It describes a "support member 12 with a tapered opening 28 in support side 30, which abuts against base side 32 on base member 14. Extending outward from base side 32 is a tapered post 34 that is sized and configured to tightly fit inside tapered opening 28.... If properly sized and configured, tapered opening 28 and tapered post 34 will provide an internal compression fit that creates a positive lock when the user pivots support member 12 to aim the light...." FN65

FN65. '084 Patent, col. 3:55-4:1.

FVC also relies on the prosecution history, citing the fact that B-K distinguished the '084 patent from the prior art by noting that "the cited references do not disclose, teach or suggest a tapered post or tapered opening which allows 'frictional pivoting' of the tapered post in the opening." FN66

FN66. Response to Protest at 4-5.

FVC asserts that referencing the relative size and configuration of the tapered post and tapered opening in the court's claim construction is critical because it is this design feature that overcame problems in the prior art.

ii. B-K's Proposed Constructions

B-K argues that the terms do not require construction because they are self-explanatory and fully described in the claims.FN67 B-K asserts that the claims contain most of the limitations proposed by FVC, and that those which are not-e.g., a "circular" opening and a "pole-like" structure-find no support in the claim language or the specification.

FN67. Pl.'s Brief at 16-17.

iii. The Court's Construction

The court concludes that the claims contain all of the structural limitations that FVC contends are crucial to the validity of B-K's patent. The claims make clear that the tapered opening is "in said support member" and that the tapered post is "in said base member." FN68 The same logic applies to FVC's suggestion that the court's definition of the terms include a reference to their complementary size and shape. FVC argues that B-K seeks to avoid any construction that requires the post and opening to fit together so to create frictional resistance.FN69 The claims themselves, however, make clear that the opening and the post must be "sized and configured" to "allow frictional pivoting of [the] tapered post" inside the tapered opening. This requirement, therefore, need not be duplicated in construing "tapered opening" and "tapered post."

FN68. '084 Patent, col. 6:63-65. FVC argues that B-K does not "want the court to require that the post be part of the base member ." (Def.'s Reply at 24.) B-K does not argue, however, that the post should not be considered part of the base member; rather, it asserts that the relative location of the post is clear from the language of the claims and that it need not be included in construction of the term itself. (Pl.'s Brief at 17-

18.)

FN69. Def.'s Reply at 24.

FVC's remaining proposed limitations are not supported by the claim language, the specification, the prosecution history, or extrinsic evidence. FVC asserts first that the "tapered opening" is a "circular." "Circular" is not synonymous with "tapered," FN70 and neither the specification nor the prosecution history limit the shape of the opening in this fashion. To the extent that FVC seeks to import a limitation from the specification into the claims,FN71 it has not offered any rationale for doing so. See Prima Tek II, L.L.C. v. Polypap, S.A.R.L., 318 F.3d 1143, 1148 (Fed.Cir.2003) ("limitations may not be read into the claims from the written description").

FN70. "Tapered" means "gradually decreasing in size toward a point." (Dictionary.com (h ttp://dictionary.reference.com/browse/tapered) (last viewed on January 20, 2008); see also OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989) (defining "tapered" as "diminished in breadth or thickness by degrees"). An object need not be circular to be tapered; for instance, one might describe the Pyramids or an arrowhead as "tapered."

FN71. As depicted in figures 4 and 5 of the '084 patent, the tapered post and opening both appear to have a circular cross-section. ('084 Patent, Figs. 4, 5.)

FVC similarly seeks to define the "tapered post" as a "pole-like structure." In support of this limitation, FVC notes that Kelly discloses a "trunnion 75 which extends outwardly from casting 33 to engage the cooperative opening 63 in casting 31." FN72 FVC argues that the post in the ' 084 patent must be distinguished from the structure in the Kelly patent, and proposes the arguably more specific term "pole-like structure." FVC does not cite any statement by the patentee during prosecution that surrendered a definition of "tapered post" that included the "trunnion" in Kelly.FN73 Without evidence of a "clear and unmistakable" surrender or disclaimer, the court cannot limit the term as FVC desires. See Omega Engineering, 334 F.3d at 1326.FN74 FVC also fails to cite any portion of the patent or its prosecution history that supports description of the post as "pole like." FN75

FN72. Mathiowetz Decl., Exh. 14 ('413 Patent), col. 4:19-24.

FN73. A post is "a strong piece of timber, metal, or the like, set upright as a support." (Dictionary.com (http:// dictionary.reference.com/browse/post) (last viewed on January 24, 2008); see also OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989) (defining post as "a support or column of timber or (later) some other strong material"). By contrast, a "trunnion" is "either of the two cylindrical projections on a cannon, one on each side for supporting the cannon in its carriage ... [or] any of various similar supports for machinery" (Dictionary.com (http://dictionary.reference.com/browse/trunnion) (last viewed on January 20, 2008). In some instances, when a post projects horizontally, it may be indistinguishable from a trunnion.

FN74. The "trunnion" in Kelly does not appear to allow for "frictional pivoting" of the tapered post in the opening. It was for this reason that B-K argued in response to the protest that "[t]he cited references do not disclose, teach or suggest a tapered post or a tapered opening which allows 'frictional pivoting' of the tapered post in the opening." (Pl.'s Response to Protest at 5.) As can be seen, B-K distinguished the trunnion from the tapered post on the basis of the difference in frictional resistance rather than the shape or relative size of the trunnion. The court therefore finds FVC's attempt to limit the size of the post based on this reference unavailing.

FN75. While the "post" protrudes visibly from the base member, the court does not agree that it must be a "pole-like" protrusion. (See '084 Patent, Fig. 1.) A pole is "a long, straight slender, and more or less cylindrical piece of wood or another material." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989); see also Dictionary.com (http:// dictionary.reference.com/ browse/ pole) (last viewed on January 25, 2008) (defining pole as "a long, cylindrical, often slender piece of wood, metal, etc."). The post depicted in the figures of the '084 patent does not appear to be long or slender. Thus, "pole-like" does not accurately describe even the preferred embodiment.

In sum, the court agrees with B-K and finds that the terms "tapered opening" and "tapered post" do not require construction. FVC's proposed constructions either import unnecessarily duplicative or unsupported additional limitations into the terms. Tapered is a commonly used word that is easily understood both by a person skilled in the art and by a lay juror. So too are "opening" and "post." Where commonly understood words are accorded their ordinary meaning in the patent, the court need not construe them for the jury. See, e.g., Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc., 249 F.3d 1341, 1349 (Fed.Cir.2001) (holding that the district court did not err when it declined to construe "melting" because the term was used in the patent in its ordinary meaning and did not otherwise require construction); Orion IP, LLC v. Mercedes-Benz USA, LLC, No. CV 05-322, 2007 WL 1091025, (E.D.Tex. Apr. 10, 2007) ("[T]here is no reason within the patent to believe the Applicant used 'questions' in any manner besides its ordinary meaning. Accordingly, there is no need to construe the term, much less to stringently limit the meaning of 'questions' as [d]efendants would like"); Applera Corp. v. Stratagene Corp., No. CV 04-1881(RNC), 2007 WL 776329, (D.Conn. Mar.12, 2007) ("In its claim construction brief, [defendant] urged the court to construe 'operable' as meaning 'capable of being used.' However, the claim is perfectly clear on its face, and there is no significant disagreement between the parties as to its meaning.... Therefore, it is unnecessary to construe this term"); Vision Advancement, LLC v. Vistakon, No. CV 05-55, 2007 WL 275572, (E.D.Tex. Jan. 26, 2007) (rejecting plaintiff's argument that the term "continuously" should be constructed as "no discontinuities in progressivity," because, as used in the patent, the term was given its "plain and ordinary [meaning]" and no construction was necessary); Collegenet, Inc. v. XAP Corp., No. CV 03-1229 HU, 2004 WL 2429843, (D.Or. Oct.29, 2004) ("While claim terms must be construed as they would be understood by a person of ordinary skill in the art to which the invention pertains, and thus, what the claim terms would mean to laymen is irrelevant, if a person of ordinary skill in the art would understand the term in its ordinary, everyday sense, there is no need to construe the term. Both 'application' and 'application form' are easily understood terms which the patents use in their ordinary sense. Neither the claim language nor the specification suggests that the meaning is anything other than the form used to apply to an institution or an institution of higher education. To the extent any construction is needed, I agree with plaintiff that it should be limited to 'a form corresponding to an application' " (citations and alterations omitted)); Agere Systems, Inc. v. Broadcom Corp., No. CV 03-3138, 2004 WL 1658530, (E.D.Pa. July 20, 2004) (declining to construe

the term "predetermined" in a patent involving technology that transmitted certain wireless signals at "predetermined intervals," since there was no indication that the term had been given anything other than its "customary meaning" in the patent, and that meaning would be equally clear to a layperson and a person skilled in the art); Appelra Corp. v. MicrosMass, UK, Ltd., 186 F.Supp.2d 487, 524, 526 (D.Del.2002) (declining to construe the terms 'maintain,' 'maintaining,' and a 'whereby' clause because they were clear on their face and their meaning was "self-evident"); Zip Dee, Inc. v. Dometic Corp., 63 F.Supp.2d 868, 872 (N.D.Ill.1998) (rejecting defendant's "artificial construct" of the term "tension" because no construction beyond the "ordinary English language meaning of the term" was required and thus the patent's "references to 'tension' [would] go to the jury without the interposition of any judicial gloss").FN76

FN76. FVC has proposed that the phrase "tapered opening sized and configured to receive said tapered post and allow frictional pivoting of said tapered post therein" be construed as "the tapered opening in the support member is shaped complementary to and mates with the tapered post to allow pivoting of the support member relative to the post but offering resistance to such rotation." (Def.'s Brief at 37.) FVC offers the same arguments in support of this construction as it does in support of its proposed construction of "tapered opening" and "tapered post." Because the court has found that the language of the claims is clear and needs no construction, it declines to define this phrase. FVC, in fact, concedes no construction of the phrase is necessary in its reply. (Def.'s Reply at 25.)

5. "Operatively Connected"

FVC has withdrawn its request that the court interpret this term.

6. "Interconnecting"

The term "interconnecting" appears in claims 18, 19, 21, and 22 of the '084 patent. In each instance, it appears as part of the "rotational limiting means" limitation discussed infra. Specifically, the claims recite a "rotational limiting means *interconnecting* said base member and said stud member...." FN77

FN77. '084 Patent, col. 11:46-47.

i. FVC's Construction

FVC argues that "interconnecting" should be construed as "mutually joined by having internal interaction between the parts." FN78 In support, it cites the specification's description of the rotational limiting means. That description, discussed more fully infra, does not use any form of the word "interconnect." Instead, it describes the "interaction" between two rotational stop means, which connect the stud member to the base opening-"first rotational stop member 48 interacts with second rotational stop member 50 to limit the amount base member 14 can rotate relative to stud member 16." FN79 FVC does not explain why this description supports its proposed construction of "interconnecting." FN80

FN78. Def.'s Brief at 43.

FN79. '084 Patent, col. 4:38-40.

FN80. Def.'s Brief at 44.

FVC next relies heavily on the dictionary definition of "interconnecting." Webster's Ninth New Collegiate Dictionary defines the verb "interconnect" as "to connect with one another" or "to be or become mutually connected." FN81 The adjective "interconnected" is defined as "mutually joined or related," or "having internal connections between the parts or elements." FN82 It is from this definition that FVC draws its construction requiring "internal interaction between the parts." FN83

FN81. WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 630 (1985).

FN82. Id.

FN83. FVC also describes the way in which the rotational limiting means purportedly operate in the accused product. It asserts that the "pins" in the accused product do not "interconnect," but contact an internal surface of the "collar" without coming into contact with each other, and argues that the term must be construed to clarify that the accused product does not interconnect in the way that the '084 patent contemplates.

ii. B-K's Proposed Construction

B-K argues that the term does not require construction and that FVC seeks to read limitations into the term that nowhere appear in the claims or the specification.

iii. The Court's Construction

The claims claim "[a] rotational limiting means interconnecting said base member and said stud member." FN84 As is evident from the plain language of the claims, FVC's assertion that the first and second stop mechanisms "interconnect" is incorrect. Rather, it is the stud member and the base member that are interconnected by the rotational limiting means. The stop mechanisms, by contrast, "interact" to prevent rotation, a topic discussed infra.

FN84. See, e.g., '084 Patent, col. 11:45-46.

"Interconnecting" is not used in an unusual or specialized way in the '084 patent. Instead, it is given its common and ordinary meaning, which is known equally to persons of skill in the art and lay jurors.FN85 As noted, FVC cites Webster's alternative definition of the adjective "interconnected" as "having internal connections." As used in the claims, however, "interconnecting" is a transitive verb rather than an adjective.FN86 Webster's defines the transitive verb form of "interconnect" as "to connect with one another." FN87 This definition is in accord with other dictionaries.FN88 None of these definitions suggests any internal interaction between the parts. The ordinary meaning of "interconnecting" is thus "connecting with one another."

FN85. At oral argument, FVC suggested that "interconnecting" be construed in accord with the specific structure identified in the specification, and appeared to request that the court include "interconnecting" in its construction of the means plus function term "rotational limiting means." FVC argued that, because the rotational stop members "intersect" inside the base member, the term interconnecting must be limited to "intersecting with one another." (FVC's Slides Presented in Support of Oral Argument ("FVC's Slides") at 14). This newly proposed construction is problematic in several respects. First, as discussed more fully infra, the court does not agree that the interaction between the stop members need be "intersecting." More fundamentally, the proposed construction is at odds with the overall meaning of the claim. The rotational limiting means interconnects the base member and the stud member, i.e., it "connects the base member and stud member with one another." (See, e.g., '084 Patent, col. 11:45-46) Under FVC's construction, however, the rotational limiting means would "intersect the base member and the stud member."

FVC's argument is not that the base member and the stud member intersect, but rather that the first stop member and the second stop member intersect. The language of the claims is clear, however, that whatever the structure of the rotational limiting means, it performs the additional function of interconnecting the base member to the stud member. FVC's efforts to import the limitation that the stop members "intersect" is not proper construction of the term "interconnecting." If the stop members "intersect," that limitation is appropriately made part of the construction of rotational limiting means, discussed infra.

FVC suggested at oral argument that absent adoption of its construction of interconnecting, claims including the term would be indefinite. It contended that the remainder of the claim language makes clear that the stud member fits inside the base member, and that the device cannot function unless the stop members "intersect" and, in the process, interconnect. The crux of FVC's argument is that "the rotational stop means don't really interconnect anything. They intersect each other." (Transcript of *Markman* Hearing at 37.) The court disagrees. The rotational limiting means is *comprised of* two stops that interact to limit rotation. Any construction of rotational limiting means, therefore, must include not only the stops but the method of their interaction. It is that combination that interconnects the base member and the stud member.

In any event, because it was presented for the first time at oral argument and has not been explained in any detail, the court cannot evaluate the merits of FVC's indefiniteness argument.

FN86. A transitive verb "express[es] an action which passes over to an object" or "tak[es] a direct object to complete the sense." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989). By contrast, an intransitive verb "express[es] action which does not pass over to an object" or "[does] not tak[e] a direct object." *Id*. For example, in the sentence: Jane is eating an apple, the verb "eat" is used as a transitive verb because the subject, Jane, acts upon an object, the apple. On the other hand, in the sentence: Jane eats, the verb "eat" is intransitive because no object is required to complete the thought. Interconnect can be used as both a transitive and intransitive verb. For example, "it all interconnects" is intransitive while "rotational limiting means interconnecting said base member and said stud member" is transitive.

FN87. WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 630 (1985).

FN88. The Oxford English Dictionary defines the transitive verb form as: "to connect each with the other." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989). The online dictionary,

Dictionary.com defines the transitive form of "interconnect" as "to connect reciprocally." Dictionary.com (http://dictionary.reference.com/browse/interconnect) (last viewed Jan. 23, 2008).

This definition is consistent with both the language of the claims and the specification. The plain language of the claims indicates that the "rotational limiting means connect[s][the] base member and [the] stud member [with one another]." While other claim limitations indicate that the stud member connects with the base member by fitting inside an opening in the base, "interconnecting," standing alone, does not require an internal connection. FN89

FN89. FVC's proposal that "interconnecting" be construed as an "internal interaction between the parts" suggests that an internal portion of the stud member would have to connect with an internal portion of the base member. In the preferred embodiment, the stud member connects to an internal portion of the base member, but the base member comes into contact with an external portion of the stud member. FVC's construction would thus improperly exclude the preferred embodiment. See Primos, Inc. v. Hunter's Specialties, Inc., 451 F.3d 841, 848 (Fed.Cir.2006) ("we also should not normally interpret a claim term to exclude a preferred embodiment," citing Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1341 (Fed.Cir.1999)).

At oral argument, FVC asserted that, as it uses the term, "internal connection" means only that the connection is internal to the device as a whole. It is true that the stud member fits inside the base member such that the interaction between the two occurs inside the base member-and thus inside the device. The court nonetheless disagrees that "internal connection between the parts" means only that the connection is internal to the device as a whole.
Nor does that portion of the specification cited by FVC require an internal connection. It states merely that the "first rotational stop member interacts with second rotational stop member." FN90 On its face, this does not require an "internal connection."

FN90. '084 Patent, col. 4:40-41.

For all of these reasons, the court construes "interconnecting" according to its common meaning as "connecting with one another."

C. Means-Plus Function Terms

1. "First locking means

This term appears in claims 3, 5, 7, 12, 15, 18, 19, 21, 22, 23, 24, and 26 of the '084 patent. In each claim it is one of many elements that comprise the adjustable mount for a light fixture. The parties agree that the function of the "first locking means" is "locking said support member to said base member."

i. FVC's Proposed Structure

FVC contends that the corresponding structure for "locking" the base member to the support member is not limited to the screw described in the specification, but includes the remainder of the structure that provides resistance and keeps the support member in place so that an individual may successfully adjust and lock the light without assistance. Specifically, it asserts that the corresponding structure is "the tapered post of the

base member in a compression fit with the tapered opening of the support member, with a locking screw passing through the support member and screwed into a threaded opening through the base member, with an O-ring located between the support member and base member, for locking the support member to the base member." FN91

FN91. Def.'s Brief at 11.

FVC draws this structure from multiple references in the specification. The specification states that "[i]f properly sized and configured, tapered opening and tapered post will provide an internal compression fit that creates a positive lock when the user pivots the support member to aim the light emanating from the light fixture." FN92 FVC argues that achieving a "positive lock" is key to the invention because it allows the individual aiming the light to let go of the light without the angle of the light changing, and thus that the corresponding structure must result in a "compression fit." It draws its reference to a locking screw from the specification's statement that "to lock the light in the desired vertical angle, a first locking mechanism, such as a locking screw 22, can be used." FN93 Finally, it includes reference to an O-ring because it contends that the second sealing means functions to maintain the lock by "plac[ing] a pressure loading on the threads of locking screw 36 such that vibrations will not cause locking screw 36 to loosen, as often happens with most other knuckle connectors." FN94

FN92. '084 Patent, col. 3:64-4:4.

FN93. Id., col. 4:5-7.

FN94. Id., col. 4:13-16. As discussed infra, FVC argues that the structure of the second sealing means is limited to an O-ring; it thus refers to an O-ring between the base member and the support member. However denominated, it is clear that FVC contends that the necessary structure of the first locking means includes the structure corresponding to a separate means plus function term-second sealing member.

ii. B-K's Proposed Construction

B-K argues that the specification clearly discloses the structure that accomplishes the task of locking the base member to the support member. FN95 The only structural element that is necessary to lock the two elements together is the "first locking mechanism" described in the specification-in other words a "locking screw." Thus, B-K suggests that the additional structures proposed by FVC may indirectly contribute to making it possible to achieve the lock, but they are not "necessary" structures for the purposes of means plus function analysis.

FN95. Indeed, the specification explicitly speaks to a "first locking mechanism." Id., col. 4:6.

iii. The Court's Structure

The court's task in construing a means plus function limitation is to identify the structure necessary to perform the function that is disclosed in the specification. See Wenger Mfg., Inc. v. Coating Machinery

Systems, Inc., 239 F.3d 1225, 1233 (Fed.Cir.2001) ("Under s. 112, para. 6, a court may not import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function"). The parties agree that the "first locking mechanism," or locking screw, is one element of the structure that locks the base member to the support member,FN96 but dispute whether any other structure is necessary to perform the claimed function. FVC contends that, in addition to the locking screw, the tapered opening/post connection and the sealing means are also necessary to perform the locking function.

FN96. The specification describes a "first locking mechanism" or screw that "lock[s] ... the vertical angle." The parties agree that this is equivalent to locking the base member to the support member, a conclusion that is supported by Figure 3. This drawing shows that in the preferred embodiment, the locking screw travels through the tapered post in the base member and connects with the support member. Thus, the base member and support member are connected both by interaction between the tapered post and tapered opening and by the locking screw. The vertical angle of the fixture is set by rotating the support member with respect to the base member. When the vertical angle is "locked," the support and base member are held together in such a way that the angle will not change and rotation is no longer possible.

Turning first to the tapered opening/post, the specification describes that "if properly sized and configured, tapered opening 28 and tapered post 34 will provide an internal compression fit that creates a positive lock when the user pivots support member 12 ... such that support member 12 (and therefore light fixture 18) will stay in place even when the user releases his or her grip on light fixture 18." FN97 The specification makes clear, however, that the tapered post/opening interaction allows the support member to pivot with respect to the base member.FN98 This indicates that the connection between the two members is not "locked" in the same manner that is by the locking screw. Stated differently, if "locking" is equivalent to setting the vertical angle, the tapered opening/tapered post interaction cannot be said to lock the base member to the support member because that interaction is designed to allow *adjustment* of the vertical angle. FVC argues that the tapered opening/tapered post structure holds the fixture in place while the user releases her grip and uses the screw to lock the angle in place. It notes that what distinguishes the ' 084 patent from the prior art is the fact that a single user can set and lock the angle of the light. FVC asserts that "set screws have been used to secure two parts together for at least a hundred years," and thus a locking means that used only a set screw would clearly be invalid as obvious.FN99 Even if this is true, there is no requirement that each individual limitation of a patented invention be an advance over the prior art. See Clearstream Wastewater Systems, Inc. v. Hydro-Action, Inc., 206 F.3d 1440, 1446 (Fed.Cir.2000) ("Thus, it was error for the district court to conclude that the means limitations for the aerating system could only cover new elements of the preferred embodiment," citing Micro Chemical, 194 F.3d at 1250); *id*. (the general rule is "that combination claims can consist of combinations of old elements as well as new elements").

FN97. '084 Patent, col. 3:65-4:4.

FN98. See id., col. 3:59-64 ("Tapered opening 28 and tapered post 34 can be sized and configured so that when support member 12 is installed on base member 14, support member 12 can be manually pivoted relative to base member 14")

FN99. Def.'s Brief at 6.

While the '084 patent may constitute an advance over the prior art because it offers a mount that is adjustable by one person, that does not mean that each element of the invention must assist in achieving the improvement. Other limitations, such as the first and second resistance means, can do so, FN100 and be patentable when combined with known technology or mechanisms such as a locking screw. See id. Although the interaction between the tapered post and tapered opening may make it easier for an individual to lock the angle of the light, it is not structure that is necessary to perform the locking function. To include the tapered opening and tapered post in the structure corresponding to the locking function would thus be to "incorporat[e] structure from the written description beyond that necessary to perform the claimed function." *MicroChemical,* Inc. v. Great Plains Chemical Co., Inc., 194 F.3d 1250, 1258 (Fed.Cir.1999).

FN100. The parties agree that the interaction between the tapered opening and the tapered post comprises part of the "first resistance means." (See Def.'s Brief at 15 (noting that both parties include the tapered post and tapered opening in the structure that corresponds to the first resistance means).) The parties do not agree, however, that the tapered opening and tapered post are also part of the "first locking means." There is no prohibition against one structure performing multiple functions. See Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc., 248 F.3d 1303, 1313 (Fed.Cir.2001) (It is a truism that "a structure may perform two functions and that a function may be performed by two structures"). Thus, the interaction between the tapered post and tapered opening may serve both a resistance and locking function. That it *may* perform a locking function, however, does not require that it *does*.

FVC also asserts that the second sealing means (i.e. the seal on the tip of the stud member) is necessary to lock the base member to the support member because it prevents vibrations from loosening the screw. The specification, however, reveals that it is the screw that achieves the lock,FN101 and that the sealing means helps merely to preserve the lock. It states that the sealing means "places a pressure loading on the threads of *locking screw* 36 such that vibrations will not cause *locking screw* 36 to loosen." FN102 The function contemplated by the means-plus-function term being construed does not require that the lock be preserved.FN103 The only function that the structure must perform is achieving the lock in the first instance. Thus, while the second sealing means may assist in preserving the lock achieved by the screw, it is not necessary to perform the claimed function.

FN101. Lock means "to trap or fix firmly or irrevocably; to fix in position." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989).

FN102. '084 Patent, col. 4:13-15.

FN103. While the sealing means may help prevent the screw from loosening, the specification does not claim that the lock will be permanent. Indeed, the light is adjustable, and the design contemplates that the angle will be locked and unlocked on multiple occasions. Thus, the specification does not contemplate that a "lock" is a permanent condition. Thus, a structure which affects the duration of the lock is separate from a structure that achieves the lock itself.

In sum, the only structure disclosed in the specification that is necessary to "lock[ ] said support member to said base member" is the "locking screw." This conclusion is reinforced by the fact that the specification clearly identifies the "locking screw" as the "first locking mechanism." The words "means" and "mechanism" have similar meanings. See *Mass. Inst. of Tech. And Elec. for* Imaging, Inc. v. Abacus Software, 462 F.3d 1344, 1354 (Fed.Cir.2006) ("At least one dictionary definition equates mechanism with means," citing THE RANDOM HOUSE WEBSTER'S UNABRIDGED DICTIONARY 1193 def. 2 (2d ed.1998) (defining "mechanism" as "the agency or means by which an effect is produced or a purpose is accomplished")). By equating the "locking screw" and the "first locking mechanism," the patentee clearly identified the structure associated with the "first locking means." Biomedino, LLC v. Waters Technologies Corp., 490 F.3d 946, 948 (Fed.Cir.2007) (observing that the patentee explicitly "indicate[d] in the specification what structure constitutes the means").

In addition to identifying the "first locking mechanism" as a "locking screw," the specification explains how the screw locks the support member to the base member. It states: "Tapered opening 28 can have a second screw receiving socket 70, shown in FIG. 4, for receiving locking screw." FN104 Figure 3 depicts the screw passing through the base member into the tapered opening of the support member.FN105 Because the stated function of the first locking means is to lock the support member to the base member, it must connect the two elements together in some way. The only method of connection disclosed in the specification is that the screw connects to the support member through the tapered opening. The court thus adopts the following modification of B-K's proposed construction: a screw that passes through the base member and into the tapered opening of the support member and equivalents thereof.FN106

FN104. '084 Patents, col. 5:21-23.

FN105. In identifying corresponding structure for a means plus function term, the court may look to the drawings as well as the written specification. See Freeman v. Gerber Products Co., 120 Fed.Appx. 322, 327 (Fed.Cir.2005) ("Most importantly, none of these cases states that the patent drawings may not be consulted in determining whether there is adequate disclosure of structure for performing a function recited in a means-plus-function claim. On the contrary, our cases make it clear that patent drawings may be consulted" (citing cases)); see also Ferguson v. Beauregard v. Mega Sys., L.L.C., 350 F.3d 1327, 1338 (Fed.Cir.2003) (the meaning of a claim term may be determined by reviewing a variety of sources, including "the claims themselves; dictionaries and treatises; and the written description, the drawings, and the prosecution history"); *Teleflex,* 299 F.3d at 1324 ("The words used in the claims are interpreted in light of the intrinsic evidence of record, including the written description, the drawings, and the prosecution history, if any").

FN106. FVC argues that B-K is estopped from claiming "equivalents thereof" in the construction of its means plus function claims because the inventor rewrote dependent claims as independent claims when seeking reissue of the "8 patent, and cancelled independent claims. (Def.'s Brief at 8-9.) Section 112 para. 6 provides that a "claim will be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." See also Kwik Products, Inc. v. National Express, Inc., 179 Fed. Appx. 34, 38 (Fed.Cir.2006) ("A claim using the means-plus-function format will cover only the corresponding structure disclosed in the written description, *as well as that structure's equivalents*" (emphasis added) (citing Personalized Media Commc'n, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 703 (Fed.Cir.1998)). Citing Honeywell Intern. Inc. v. Hamilton Sundstrand Corp., 370 F.3d 1131, 1141 (Fed.Cir.2004), FVC argues that most of the asserted claims, which were dependent in the original "8

patent, were rewritten during reissue proceedings as independent claims. It contends as a result that B-K disavowed equivalents of the structure described in the specification. *Honeywell,* of course, addresses the doctrine of prosecution history estoppel, not prosecution disclaimer. See *id*. Assuming without deciding that the rule it articulates applies in the context of construing a means plus function claim, however, the court cannot agree that it precludes B-K from claiming that the means plus function claims of the '084 patent cover the structure disclosed in the specification and all equivalents thereof. FVC has made no showing that any "equivalents" would fall within the territory surrendered by the decision to cancel independent claims and rewrite dependent claims as independent, i.e., that they would not include all the limitations of the formerly dependent, now independent, claims. Absent such a showing, the *Honeywell* rule does not apply.

2. "Second locking means"

This limitation also appears in claims 3, 5, 7, 12, 15, 18, 19, 21, 22, 24, and 26. The parties agree that the function of the second locking means is "locking said base member to said stud member." FN107 They also agree on the portion of the specification that describes the corresponding structure, i.e., "in the preferred embodiment, second locking mechanism is a set screw 58 going through base member 14, as shown in Fig.3 and operatively connecting to stud member 16." FN108 Once again, however, the parties disagree regarding how much of the structure disclosed is necessary to perform the function.

FN107. Def.'s Brief at 13; Pl.'s Brief at 11.

FN108. '084 Patent, col. 5:2-5.

i. FVC's Proposed Structure

FVC argues that the structure necessary to lock the base member to the stud member is a set screw passing through the base member that "operatively connects" to the stud member. It therefore proposes that the court define the corresponding structure as "a set screw threaded through the base member and binding against the stud member to lock the base member to the stud member, and equivalents thereof." FN109 As is evident, FVC equates "operatively connecting" with a screw that is threaded through the base member so that it binds against the stud member. None of the language in the specification requires that the screw be threaded or bind against the stud member. FVC cites Figure 3, however, which appears to show a screw with threads passing through the base member and touching the stud member.FN110 It argues that a person of ordinary skill in the art would have recognized that all screws are threaded and that a "set screw" functions by passing through an outer object and being tightened against an inner object to prevent it from moving. FN111

FN109. Def.'s Brief at 14. As support for its proposed construction, FVC references the accused product and asserts that it differs from the ' 084 patent because the "set screw" in the accused device does not pass through the base member, and connects the two elements in a different fashion. The court declines to address the merits of this infringement argument in construing the patent claims. It considers the information only to the extent that it provides context for *why* the "second locking means" term requires construction.

FN110. Def.'s Reply at 8.

FN111. Id. at 8, n. 4; see Declaration of Irene Yang in Support of Defendant's Reply Claim Construction Brief ("Yang Decl."), Exh. 1 (Wikipedia statement that a "set screw passes through a threaded hole in the outer object and is tightened against the inner object to prevent it from moving relative to the outer object").

ii. B-K's Proposed Structure

B-K argues that the only structure that is necessary to lock the base and support members together is a screw. Thus, B-K's proposes the court find that the corresponding structure is "a screw for locking said base member to said stud member and equivalents thereof ." FN112 B-K argues that, by attempting to insert the further limitations of "threading" and "binding," FVC goes beyond the structure necessary to perform the stated function, and seeks to have the court engage in a premature evaluation of equivalents.FN113

FN112. Pl.'s Brief at 11.

FN113. Pl.'s Reply at 5 ("Plaintiff agrees that a finder of fact may ultimately need to decide whether a screw which applies frictional locking directly to the stud member is the equivalent of a screw which applies frictional locking through a 'collar' or a 'sleeve.' But that determination is not an issue for claim construction").

iii. The Court's Structure

As with "first locking means," the specification identifies the structure that the patentee intended to perform the function of locking the base member to the stud member. In this instance, the structure is "a set screw 58 going through base member 14 as shown in FIG. 3, and operatively connected to stud member 16." FN114 The question is whether this structure is sufficiently specific or whether further definition of a "set screw" and "operatively connected" is required.

FN114. '084 Patent, col. 5:2-5.

A set screw is "a screw that enables two contiguous parts to be brought into and held in their correct relative position." FN115 This definition is consistent with the structure disclosed in the specification. B-K is correct that none of the language in the written specification requires that the "set screw" be threaded or that it frictionally bind against the stud member. Figure 3, however, discloses a cross section of a screw that appears to be "threaded." FN116 From this image the court concludes that in the preferred embodiment, the set screw, like most screws, is threaded. FVC argues that it is only when the screw is frictionally bound against the stud member that it can perform its function. This may be true, but the specification does not address this limitation. It is clear from Figure 3 that the screw interacts with the base member, but the drawing does not sufficiently disclose whether that interaction is frictional or some other form of binding.FN117 "While [the] corresponding structure ... must include all structure that actually performs the recited function," it "need not include all things necessary to enable the claimed invention to work." Default Proof Credit Card System, Inc. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1298 (Fed.Cir.2005) (citing Cardiac Pacemakers, Inc. v. St. Jude Med., Inc., 296 F.3d 1106, 1119 (Fed.Cir.2002)). Thus, once the

overall structure that performs the claimed function is identified, the court need not identify the internal components or characteristics of that structure that enable it to perform the function. See Raytheon Co. v. McData Corp., CV 03-013 TJW, 2004 WL 952284, (E.D.Tex. Feb.10, 2004) ("Usually, once a court is able to identify an overall structure that performs the claimed function, there is no need to delve deeper and identify the internal components of that structure that, individually or collectively, enable the overall structure to perform the claimed function"). Here, the specification clearly states that the structure that performs the function of locking the base member to the stud member is a "set screw." This is a sufficient disclosure of structure, and the specification need not detail the way in which the screw operates. For this reason, the court agrees with B-K that the "frictional binding" limitation, which is not disclosed in the specification, does not form part of the necessary structure.

FN115. OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989).

FN116. Threaded means having "the spiral edge winding round the shank of a screw." See OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989) (definition of "thread"). Figure 3 discloses a threaded set screw 58. ('084 Patent, Fig. 3.)

FN117. Patent, Fig. 3. The specification also states that "base member 14 can have a set screw opening 72, shown in FIG. 3, for receiving set screw 58 that is utilized to fixedly connect base member 14 to stud member 16." (Id., col. 5:23-26). This statement likewise offers no concrete information regarding the manner in which the set screw interacts with the base member.

B-K's proposal, however, does not accurately reflect the structure disclosed in the specification. B-K proposes that the structure be identified only as a "screw." The specification, by contrast, discloses a "set screw going through the base member and operatively connecting to stud member." The position of the screw relative to the other structural elements is crucial to understanding the manner in which a lock is achieved. Moreover, as noted, the term "set screw" has a precise definition that is not fully reflected in B-K's proposal. Finally, B-K's proposed construction fails to address the term "operatively connected." Neither party proposes any construction of this term. The Federal Circuit has held that "[operatively connected] is a general descriptive term frequently used in patent drafting to reflect a functional relationship between claimed components." Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111, 1118 (Fed.Cir.2004); see Cross Medical Products, Inc. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1306 (Fed.Cir.2005) ("As to "operatively," the term is often used descriptively in patent drafting to mean 'effectively' in describing the functional relationship between claimed components"). It appears that the phrase is being used in this way in the '084 patent. To say that the "set screw" operatively connects to the stud member is to say that it connects in such a way as to achieve the claimed function. To clarify this, the court will construes the term "operatively connecting" using its lay meaning as suggested by the Federal Circuit: "connecting in such a way [as] to produce the desired effect." Cf. Catalina Marketing Intern., Inc. v. Coolsavings.com, Inc., 115 Fed. Appx. 84, 89 (Fed.Cir.2004) (Unpub.Disp.) (Stating that the plain meaning of "operatively connected" is "joined or linked together to produce the designed effect," while adding a limitation specific to the patent-in-suit that the connection occur "within the terminal").

Because the structure associated with the second locking means is clearly identified in the specification, the court adopts the language of the specification (with the addition of the word "threaded") and construes

"second locking means" as "a threaded set screw going through the base member and connecting to the stud member in such a way as to achieve the claimed function and equivalents thereof." FN118

FN118. At oral argument, FVC requested that the court change "connecting to the stud member" to "coming into contact with the stud member." This appears to be a further attempt to require as part of the construction that the set screw "bind against" the stud member. As the court has noted, the term set screw, standing alone, provides sufficient structure to perform the claimed function. The court will not read specifics of the connection that are not disclosed in the written specification or clearly depicted in the drawings into the clams. Furthermore, as FVC itself acknowledged, the difference between "connecting with" and "coming into contact with" is not significant.

3. "First resistance means"

Claims 15 and 22 of the '084 patent use the term "first resistance means" but do not describe the structure associated with it. Claims 3, 12, 18, 19, and 21 not only use the term but disclose the structure associated with it. The parties agree that the function of the "first resistance means" is "limiting free pivotal movement of said base member relative to said support member ." FN119 They also agree that the structure disclosed in the specification for performing this function is the interaction between the tapered post and the tapered opening. Their disagreement concerns the specificity with which the post and opening must be described.

FN119. Def.'s Brief at 15;

i. FVC's Proposed Structure

FVC proposes that the court find that the corresponding structure is "a tapered post on the base member sized and shaped to be complementary to and fit in the tapered opening in the support member such that the tapered post member provides frictional rotational resistance for limiting free pivotal movement of the base member relative to the support member, and equivalents thereof." FN120 As can be seen, under FVC's definition, (1) the post must be located on the base member; (2) the opening must be located on the support member; (3) the post must be sized and configured to fit the tapered opening; and (4) when connected, the post and the opening must provide frictional rotational resistance that limits the free pivotal movement of the base member.

FN120. Def.'s Brief at 15.

In support of its proposal, FVC cites the summary of the invention section of the specification. It asserts that there, the patentee "unequivocally" stated that it was necessary for the invention to be "infinitely adjustable in the vertical and rotational planes and ... provide frictional resistance to movement in those directions in order to allow one person to make those adjustments." FN121 The summary of the invention section states: "[T]he present invention provides a knuckle joint that provides frictional resistance to movement in order [to] allow one person to adjustably set the lighting angle." FN122

FN121. Id. at 17.

FN122. '084 Patent, col. 2:15-17.

FVC next cites the specification's description of a "mechanism to limit the amount of free pivotal movement for [the] support member." FN123 It states:

FN123. Id., col. 3:52-53. As with the previous two terms, this language is roughly equivalent to the term in the claims themselves: "a first resistance means for limiting free pivotal movement of said base member relative to said support member." In this instance "a mechanism" replaces the words "a first resistance means."

"The preferred embodiment of the present invention includes support member 12 with a tapered opening 28 in support side 30, which abuts against base side 32 on base member 14. Extending outward from base side 32 is a tapered post 34 that is sized and configured to tightly fit inside tapered opening 28. Tapered opening 28 and tapered post 34 can be sized and configured so that when support member 12 is installed on base member 14, support member 12 can be manually pivoted relative to base member 14 yet will not freely pivot, even with the additional weight of light fixture 18 attached to support member 12. If properly sized and configured, tapered opening 28 and tapered post 34 will provide an internal compression fit that creates a positive lock when the user pivots support member 12 to aim the light emanating from light fixture 18 such that support member 12 (and therefore light fixture 18) will stay in place even when user releases his or her grip on the light fixture 18 or support member 12." FN124
FN124. Id., col. 3:55-4:4.

It is from this passage that FVC draws the proposed structural limitations that the post be attached to the base member, the opening be attached to the support member and the two be configured to fit inside each other. The further "frictional rotation" limitation is drawn from the summary of the invention.

ii. B-K's Proposed Structure

B-K proposes the court find that the corresponding structure is "a tapered opening and a tapered projection received by the opening for limiting free pivotal movement of the base member relative to the support member." FN125 It draws its construction from the same portion of the specification as FVC, but proposes that the court not specify the member to which the post and the opening are attached; not describe the way in which the post and opening fit together; not describe frictional interaction; and redefine "post" as a "projection." FN126

FN125. Pl.'s Brief at 11-12.

FN126. Id. at 12 (citing the same portion of the specification cited by FVC).

B-K asserts that the court should define "post" as a "projection" because the specification mandates the *relative* size, orientation and location of the post and the opening as opposed to their absolute size. B-K suggests that "post" may have an absolute size connotation that will cause later confusion.FN127 Finally, it

argues that the post and opening are the only structure necessary to perform the claimed function, and that FVC's additional limitations on the structure should not be adopted by the court. The court addresses these in turn below.

FN127. Pl.'s Reply at 6.

iii. The Court's Structure

The first limitation that FVC seeks to add to B-K's proposal of a tapered post received by a tapered opening is a specification that the post is attached to the base member while the opening is attached to the support member. The specification explicitly states that the tapered post "extends outwards" from the base side while the tapered opening is "in" the support side. The relative locations of the post and opening directly affect how the post and opening function to limit the pivotal movement of the base member vis-a-vis the support member. Specifying those locations, therefore, is part of the structure necessary to perform the claimed function.FN128

FN128. It is possible the same function could be achieved if the post were attached to the support member and the opening were in the base member. This is not, however, the structure disclosed in the specification.

Contrary to B-K's suggestion that it is sufficient to state that the opening "receives" the post, FVC also argues that it is necessary to describe the nature of the fit between the opening and the post. The court agrees. The claimed function is *limiting* the free pivotal movement of the base member relative to the support member. It is unclear, if the opening merely received the post, how movement would be limited. As noted, while the structure need not describe in detail the elements of the structure that allows it to perform the claimed function, it must recite all of the elements that perform that function. Here, the relative size of the post and opening are vital to limiting pivotal movement. The specification describes this relative size, stating that the tapered post "is sized and configured to tightly fit inside [the] tapered opening." FN129 This adequately describes the manner in which the opening receives the post so as to limit pivotal movement.FN130

FN129. '084 Patent, col. 3:58-59.

FN130. As noted, the court need not detail how the "tight fit" operates. See Toro Co. v. Textron, Inc., 502 F.Supp.2d 904, 912 (D.Minn.2007) ("This Court takes *Micro Chemical* to mean that the 'corresponding structure' for a means-plus-function limitation should not be defined to include every structural detail recited in the written description"). Indeed, the court may not "incorporate structure from the written description beyond that necessary to perform the claimed function." Micro Chemical, 194 F.3d at 1258.

The court next addresses FVC's argument that the structure must provide "frictional rotational resistance." As noted, FVC argues that this requirement is found in the summary of the invention. The court agrees with respect to the requirement that the resistance be "frictional." The summary of the invention states that "the present invention provides a knuckle joint that provides frictional resistance to movement ..." FN131 This statement is not limited to the preferred embodiment, but broadly describes the invention as a whole. See

Gillette Co., 405 F.3d at 1379; Microsoft Corp., 357 F.3d at 1346-48. The specification, moreover, repeatedly requires that the resistance provided be "frictional." Later in the summary of the invention, for example, the patentee states that "[a] tapered post on the base side is sized and configured to fit within a tapered opening in the support side and provide some degree of *frictional* resistance to movement ...." FN132 The court thus concludes that it is necessary that the resistance provided by the interaction between the tapered post and tapered opening be frictional.FN133

FN131. '084 Patent, col. 2:15-16.

FN132. Id., col. 2:34-36 (emphasis added).

FN133. The court's requirement that the resistance be "frictional" is in harmony with the prosecution history. In distinguishing the '084 patent from Kelly, B-K argued that the "first resistance means comprises a tapered opening in said support member and a tapered post in said base member, said tapered opening sized and configured to receive said tapered post and allow *frictional* pivoting of said tapered post therein. The cited references do not disclose, teach or suggest a tapered post or a tapered opening which allows 'frictional pivoting' of the tapered post in the opening." (Response to Protest at 4-5.) Thus, B-K explicitly argued that the '084 patent was distinguishable over the prior art because the post and opening allowed "frictional" pivoting.

It does not follow, however, that this frictional resistance need be "frictional *rotational* resistance" as proposed by FVC. FVC cites nothing in the claims, the specification or the prosecution history that suggests that the frictional resistance is limited to "rotation." Consequently, the court declines to adopt this aspect of FVC's proposed construction.

Finally, the court addresses B-K's contention that "post" be defined as a "projection" to avoid confusion over the "relative dimensions of a 'post.' " FN134 As noted, a post is "a strong piece of timber, metal, or the like, set upright as a support." FN135 This common definition does not limit the size of a post. B-K advocated adoption of the term's common meaning in construing the term "tapered post," and provides no persuasive argument as to why "post" should be defined differently in describing the structure corresponding to the "first resistance means."

FN134. Pl.'s Brief at 6.

FN135. Dictionary.com (http://dictionary.reference.com/browse/post) (last viewed on January 24, 2008).

The court thus concludes that the necessary structure is a tapered post on the base member and a tapered opening on the support member that are sized and configured to fit tightly together and create frictional resistance. This is consistent with claims 3, 12, 18, 19, and 21, which describe the structure of the "first resistance means" as "a tapered opening in said support member and a tapered post in said base member, said tapered opening sized and configured to receive tapered post and allow frictional pivoting of said tapered post therein." FN136 See Phillips, 415 F.3d at 1314 ("[b]ecause claim terms are normally used

consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims"); see Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed.Cir.2001) ("a claim term should be construed consistently with its appearance in other places in the same claim or in other claims of the same patent"); CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1159 (Fed.Cir.1997) ("we are obliged to construe the term "elasticity" consistently throughout the claims"). The court therefore finds that the corresponding structure is "a tapered opening in the support member and a tapered post in the base member, with the tapered opening sized and configured to receive the tapered post and allow frictional pivoting of the tapered post in the tapered opening and equivalents thereof." FN137

FN136. '084 Patent, col. 61-67.

FN137. FVC also requests that the court construe the term "first resistance means for limiting free pivotal movement" as it appears in claims 3, 12, 18, 19, and 21. (Def.'s Brief at 33.) It asserts that the term should be construed identically to its proposed construction in the means plus function claim. The court declines to construe the term to include limitations that are already included in the language of the claims.

4. "Second resistance means"

As with the first resistance means, claim 5 claims a second resistance means as well as specific structural limitations related to it, i.e., "said second resistance means comprises an inner wall in said base opening, said inner wall sized and configured to frictionally receive upper end seal and allow frictional rotation of said base member relative to said stud member." FN138 The term also appears in claim 21; claim 21 claims a second resistance means in which the inner wall of the base opening is sized and configured to receive the upper end of the stud member rather than an upper end seal.FN139 Claims 12, 18, 19 and 22, however, are means plus function claims that do not describe the structure corresponding to the second resistance means.

FN138. '084 Patent, col. 7:37-42.

FN139. Id., col. 13:20.

i. FVC's Proposed Structure

FVC acknowledges that the claimed function is "limiting free rotational movement of said base member relative to said stud member ." It argues, however, that the specification further defines the function as "limiting free rotation of base member relative to the stud member to allow the user to set the rotational angle he or she desires for the light emanating from the light fixture." FN140 Although not cited, the court infers that FVC relies on the specification's statement that the upper end of the stud member and the third sealing member "should be sized and configured such that the frictional resistance created within base member 14 is sufficient to prevent unwanted rotation of base member 14 (and therefore light fixture 18) to allow the user to set the rotational angle he or she desires for the light emanating from lamp 22." FN141 This additional statement of function is unnecessary. The claim states that the claimed function is "limiting free rotational movement." The additional language describes *why* rotation is limited, i.e., to allow the user to set the angle of the light, but does not itself describe the function.

FN140. Def.'s Brief at 20.

FN141. '084 Patent, col. 4:58-64.

FVC identifies the structure corresponding to the function as "frictional contact between the outer surface of the stud member and the inner wall of the base opening in the base member, in conjunction with contact between inner wall of the base opening and the O-ring which encircles the upper end of the stud member, for limiting free rotation of the base member relative to the stud member." FN142 This proposal incorporates two separate structures: (1) frictional contact between the outer surface of the stud member and the inner wall of the base opening and (2) contact between the inner wall of the base opening and the O-ring on the upper end of the stud member.

FN142. Def.'s Reply at 12. FVC initially proposed that the words "and equivalents thereof" be used at the end of the construction. It now argues that B-K surrendered all equivalents by rewriting this claim as an independent claim. As noted, the court finds this argument unpersuasive.

FVC draws its proposal from the specification, which states:

"Base opening 44 has an inner wall 54 which interacts with upper end 52 of stud member 16 when adjustable light mount 10 is assembled to limit the free rotation of base member 14. The outer diameter of upper end 52 should be sized and configured to interact with inner wall 54 so that it limits the free rotation of base member 14. To provide for further frictional limitation and seal the upper end 52 of stud member 16 can be provided with a third sealing member 56 to seal the base member 14 to stud member 16 connection." FN143

FN143. '084 Patent, col. 4:44-63.

Based on this language and the prosecution history, FVC concludes that the "second resistance means" includes *both* interaction between the upper end of the stud member and the base opening *and* the sealing member. During prosecution, B-K argued that Kelly did not include the second resistance means described in the '084 patent. It asserted that in Kelly, the pole corresponding to the upper end of the stud member stopped short of the tapered sides of the bore corresponding to the base opening. Because of this, it contended, "pole 27[was] not frictionally received in base portion 39 because pole 27 has a circular cross section and base opening 39 has a square cross section." FN144 FVC asserts that B-K thus expressly argued that the ' 084 patent was distinct from Kelly because there was frictional interaction between the stud member and the base opening.

FN144. Response to Protest at 7.

FVC also cites the declaration of Kim Lighting's Kira. During the prior litigation between B-K and Kim, Kira described the "second resistance means" in B-K's invention as the "friction fit between the upper end of the stud and the inner wall of the base," FN145 and distinguished the Coronado 720 on the basis that the

rotational resistance in that device was achieved only by the O-ring on the upper end of the stud member. Kira maintained that, without that O-ring, "the upper end of the stud member is not sized and configured to provide a friction fit with the inner wall of the base member." FN146 Because B-K submitted this declaration to the patent examiner in prosecuting the reissue application, FVC argues that the distinction Kira drew between the Coronado 720 and B-K's invention estops B-K from arguing that the second resistance means can be achieved only by the sealing means.

FN145. Kira Decl., para. 16.

FN146. Id., para. 17.

Finally, FVC argues that the "third sealing means," which provides "further frictional limitation," should be limited to an O-ring. FVC does not cite any portion of the claims, the specification or the prosecution history which limits the sealing means to an O-ring. The specification states that "[a]s with the other sealing members, third sealing member 56 can be a high temperature silicone O-ring that encircles upper end 52 of stud member." FN147 It does not require that it be an O-ring, however.

FN147. '084 Patent, col. 4:53-55.

ii. B-K's Proposed Structure

In its opening brief, B-K argued that the only structure necessary to limit free rotational movement was the third sealing means. It thus proposed the court find that the corresponding structure was "a seal for limiting free rotational movement of the base member relative to the stud member and equivalents thereof." FN148 In its reply, B-K "candidly" admitted that "[u]pon further review, the ' 084 patent discloses two possible configurations for limiting free rotational movement of the base member relative to the stud member." FN149 As evidence of this, B-K cited claim 5, which describes the second resistance means as the seal on the upper end of the stud member, and claim 21, which describes it as the "inner wall sized and configured to frictionally receive [the] upper end of [the] stud member," and makes no mention of a seal.

FN148. Pl.'s Brief at 12-13.

FN149. Pl.'s Reply at 8-9.

B-K thus argues that there are two possible structures corresponding to the claimed function disclosed in the specification and the claims. As a result, it contends, the court should define the structure as "an inner wall in the base opening configured to frictionally receive the upper end seal or the upper end of the stud member." FN150

FN150. Id. at 9.

iii. The Court's Structure

The parties' proposals differ in two respects. First, B-K suggests that the structure is the interaction between the inner wall and the upper end of the stud member *or* the interaction between the inner wall and the sealing means. FVC, by contrast, asserts that both elements are necessary. Second, the parties disagree as to whether the third sealing means must be an O-ring.

The Federal Circuit has repeatedly held that, where the specification discloses more than one structure that performs a claimed function, the claim must generally be read to include all of the disclosed structures. See, e.g., Linear Technology Corp. v. Impala Linear Corp., 379 F.3d 1311, 1322 (Fed.Cir.2004) (" 'Proper application of s. 112 para. 6 generally reads the claim element to embrace distinct and alternative described structures for performing the claimed function,' " quoting Creo Prods., Inc. v. Presstek, Inc., 305 F.3d 1337, 1346 (Fed.Cir.2002)); Serrano v. Tellular Corp., 111 F.3d 1578, 1583 (Fed.Cir.1997) ("Disclosed structure includes that which is described in a patent specification, including any alternative structures identified").

In *Serrano,* the court construed the term "determination means." It found that the preferred embodiment disclosed in the specification performed the claimed function through "discrete logic circuitry." Serrano, 111 F.3d at 1583. It noted, however, that the specification also contemplated that the function could be performed by a microprocessor operating under software control. *Id.* As a result, the court construed the term to "permit structure that includes digit analysis or use of a time-out feature, being implemented in discrete logic *or* with a microprocessor operating under software control, and equivalents of such structures." *Id.* (emphasis added). If the specification discloses alternative structures that can each perform the claimed function, therefore, the claim term must be construed to include both alternatives separately, i.e., using the disjunctive "or" proposed by B-K rather than the conjunctive "in conjunction with" proposed by FVC.

The question is whether B-K correctly asserts that the specification and prosecution history reveal two separate structures that can perform the claimed function. As noted, the specification provides that, in the preferred embodiment, "the outer diameter of upper end 52 *should* be sized and configured to frictionally interact with inner wall 54 so that it limits the free rotation of base member 14." FN151 The word "should" indicates that the preferred embodiment "must" or "ought" to include this feature.FN152 The specification then states "to provide *further* frictional limitation and seal the upper end 52 the stud member 16 can be provided with a third sealing member 56." FN153 The use of the word "further" indicates that the third sealing member does not, by itself, perform the function of limiting the free rotation of the base member. Instead, it provides additional frictional limitation. The specification, therefore, does not describe two alternative structures for limiting rotation, but rather a primary structure (the interaction between the top of the stud member and the inner wall) and a secondary, supporting structure (the third resistance means).

FN151. '084 Patent, col. 4:47-49 (emphasis added).

FN152. Dictionary.com (http: // dictionary.reference.com/browse/should) (last viewed Jan. 23, 2008) ("should" means "must; ought (used to indicate duty, propriety or expediency)").

FN153. '084 Patent, col. 4:49-52 (emphasis added).

This does not end the inquiry, however. As B-K notes, the patent claims suggest that limiting the free rotational movement of the base member relative to the stud member is a function that can be performed independently by either the seal or the upper end of the stud member. Claim 5, which describes the structure of the second resistance means it claims, refers to an upper end seal. Claim 21, by contrast, makes no mention of a seal, and states that the upper end of the stud member provides frictional resistance. In contrast to the complementary functioning of the structures in the preferred embodiment, claims 5 and 21 indicate that both the upper end of the stud member and the seal can independently perform the claimed function.FN154 As nothing in the preferred embodiment suggests that the structures cannot function independently, the court concludes that the claims and specification as a whole compel the conclusion that either the seal or the upper end of the stud member can be the structure that performs the claimed function. See Serrano, 111 F.3d at 1583 (identifying a structure not included in the preferred embodiment as an alternative structure for a means plus function claim).

FN154. At oral argument, FVC contended that the claim 5 recites both structures and thus that the court should utilize the conjunctive "and" to describe the structure. Claim 5 describes a second resistance means comprising "an inner wall in said base opening, said inner wall sized and configured to frictionally receive said upper end seal and allow frictional rotation of said base member relative to said stud member." ('084 Patent, col. 7:38-42.) FVC maintains that the claim should be read as claiming both (1) an inner wall sized and configured to receive an upper end seal, and (2) an inner wall sized and configured to allow frictional rotation of said base member relative to said stud member. It asserts that the "frictional rotation" of the second element is accomplished by the upper end of the base member, demanding the conclusion that claim 5 includes both structures.

This reading is at odds with the plain meaning of the claims. Grammatically, FVC is correct that the "and" in claim 5 indicates that the size and configuration of the inner wall must be such that it can both receive the upper end seal and allow frictional rotation. On one hand, then, the inner wall fit must be tight enough to "frictionally receive" the upper end seal. On the other, it must be loose enough to allow for rotation. Properly understood, the claim's use of "and" refers to the conjunctive requirement that the inner wall both receive and allow frictional rotation. It does *not* require the conclusion that the seal and the upper end are both required to achieve these functions.

Nothing in claim 5 suggests that the "frictional rotation" is accomplished by any structure other than the interaction between the inner wall and upper end seal. Indeed, the plain language of claim 5 indicates that the inner wall is sized and configured to interact with the upper end seal rather than the upper end of the stud member. As noted, the language of claims 5 and 21 is identical except that "upper end of said stud member" is substituted for "upper end seal." Reading claim 5 as FVC proposes would render claim 21 redundant. Claim 21 would claim an inner wall sized and configured to frictionally receive the upper end of the stud member *and* to allow frictional rotation of that upper end inside the inner wall. Consequently, the court cannot accept FVC's argument in this regard.
FVC argues that this conclusion is contrary to B-K's representations during prosecution. As noted, B-K distinguished the present invention from Kelly on the basis that Kelly did not disclose a "second resistance means." FN155 The critical distinction B-K drew between Kelly and the patented invention, however, was not the particular structure of the second resistance means claimed in the ' 084 patent, but the fact that Kelly disclosed *no second resistance means at all*.FN156 FVC contends that, by submitting the Kira declaration to the patent examiner, B-K adopted Kira's representation that the Coronado 720 used *only* an O-ring to

achieve rotational resistance. Were this true, the "second resistance means" of the ' 084 patent might be limited to the combination of the upper end of the stud member and the seal, as such an interpretation would be required to distinguish over the Coronado 720. Any disclaimer of a particular interpretation of a claim, however, must be " 'both clear and unmistakable' to one of ordinary skill in the art." Elbex Video, Ltd. v. Sensormatic Electronics Corp., 508 F.3d 1366, 1371 (Fed.Cir.2007) (quoting Omega Engineering, 334 F.3d at 1323). While B-K dismissed its litigation against Kim to apply for a reissue patent, FVC has adduced no evidence that B-K disclaimed any subject matter as a result of that litigation or adopted any portion of Kira's declaration during reissue proceedings.FN157 Kira's declaration is, in effect, a description of the prior art; unless B-K made a clear and unmistakable statement distinguishing its invention from that prior art, there is no prosecution disclaimer. Consequently, the prosecution history of the ' 084 patent does not require a finding that the upper end of the stud member and the seal in combination be deemed the corresponding structure.

FN155. Response to Protest at 5.

FN156. To distinguish Kelly and show that it did not teach frictional resistance, B-K described the manner in which the pole (corresponding to the upper end of the stud member) connected to the bore (corresponding to the base opening). (See Response to Protest at 7.) It did not describe the structure responsible for the frictional resistance in the '084 patent or disclaim either of the two structures described therein.

FN157. Pl.'s Reply at 10.

Finally, the court finds FVC's argument that the third sealing means must be an O-ring inconsistent with its acknowledgment that that the corresponding structure for the third sealing means is "a seal for sealing the connection between the said base member and said stud member and equivalents thereof." FN158 Since FVC concedes that the "seal" in the second resistance means is the third sealing member, its assertion that the seal must be an O-ring contradicts its agreement that the third sealing means is merely a "seal." Absent some explanation of this inconsistency, the court declines to finds that the structure is limited in this manner.FN159

FN158. Def.'s Brief at 25.

FN159. In contrast to FVC's position, the specification provides that the "third sealing member 56 *can* be a high temperature silicone O-ring that encircles upper end 52 of stud member...." ('084 Patent, col. 4:54-55.)

The court thus finds that the corresponding structure for "limiting [the] free rotational movement of said base member relative to said stud member" is "an inner wall in the base opening sized and configured to frictionally receive the upper end seal or the upper end of the stud member and equivalents thereof." FN160

FN160. As can be seen, this structure corresponds closely to the language of claims 5 and 21. The only difference is that the structure is stated in the alternative. FVC argues that the "second resistance means" in claims 5 and 21 should be construed identically to the "second resistance means" in the means plus function

claims. (Def.'s Brief at 37-38 (arguing that the court should apply the construction for the term in claims 12, 18, 19, and 22 to claims 5 and 21).) The court disagrees, as such a construction would *broaden* the structure contemplated by those claims. Each of claims 5 and 21 claims one of the two possible structures of the second resistance means, while the means plus function claims claim both. The court thus declines to construe the term as it occurs in claims 5 and 21 because each of those claims specifically states the structure.

FVC also argues that the phrase "inner wall sized and configured to frictionally receive [the] upper end seal and allow frictional rotation of said base member relative to said stud member" should be construed separately. (Def.'s Brief at 39.) It asserts that the phrase appears in both claims 5 and 21, and that it means "the inner wall of the opening in the base member is complementary in shape to the stud member and is sized relative to the stud member to allow frictionally resisted rotation of the base member relative to the stud member." (Id.) Although claim 5 claims an "upper end seal," claim 21 claims only the upper end of the stud member. FVC contends that the dimensions of the inner wall of claim 5 require clarification because it must be sized and configured to interact frictionally with the stud member. (Id.) The claim language requires that the upper end seal be "frictionally received" by the inner wall in some manner and that the interaction allow "frictional rotation" of the base member relative to the stud member. These independent limitations render FVC's proposed construction redundant. The only possible reason for construing this term would be to read into claim 5 the additional limitation that the upper end pf the stud member must frictionally interact with the base member-a result that is at variance with the plain language of the claim.

5. "First sealing means"

This means plus function term appears in claims 7, 8, 15, and 22 of the ' 084 patent. The parties agree that the function of the first sealing means is "sealing the connection between said support member and the light fixture." FN161

FN161. Def.'s Brief at 23; Pl.'s Brief at 13.

i. FVC's Proposed Structure

FVC argues that B-K limited the first sealing means to "an O-ring sandwiched between the upper surface of the support member and the light fixture for sealing the connection between the support member and the light fixture and equivalents thereof." FN162 It contends that during prosecution, B-K explicitly limited the first sealing means to the O-rings described in the preferred embodiment.FN163 In response to FVC's protest, B-K stated that "Kelly does not include any sealing means between pole 27 and casting 33.... Regarding Chapman, Pike and Harrell the applicants point out that none of these references teach, suggest or disclose including O-rings or any other sealing means." FN164 FVC argues that these statements limited the first sealing means to an O-ring.

FN162. Def.'s Brief at 23.

FN163. The specification repeatedly cites O-rings as one structure that can perform the sealing functions described in the patent. The summary of the invention states, for example, that "sealing members, *such as O-rings,* are utilized to seal the connection of the various members to each other and to the fixture housing." ('084 Patent, col. 2:30-34; see also id., col. 3:43-44 ("a first sealing member, such as a high temperature O-ring 25"); id., col. 4:10-12 ("the preferred embodiment of the present invention utilizes a high temperature

silicone O-ring as second sealing member"); id., col. 4:53-55 ("as with the other sealing members, third sealing member 56 can be a high temperature silicone O-ring"); id., col. 5:13 ("Fourth sealing member 64, such as an O-ring").

FN164. Response to Protest at 8-10.

ii. B-K's Proposed Structure

B-K argues that the structure of the first sealing means is not limited to an O-ring. It proposes the court find that the structure is "a seal for sealing the connection between said support member and the light fixture and equivalents thereof." FN165

FN165. Def.'s Brief at 13. This construction is essentially identical to the parties' agreed construction of "second sealing means," "third sealing means," and "fourth sealing means." For each of those terms, the parties agree that the structure is a "seal for sealing the connection" between the relevant structural elements of the invention. (Def.'s Brief at 24-25.)

iii. The Court's Construction

As noted, to disclaim a particular claim interpretation during prosecution, the patentee must disavow that interpretation in clear and unmistakable terms that a person skilled in the art will understand. See Elbex, 508 F.3d at 1371 ("the disavowal must 'be both clear and unmistakable' to one of ordinary skill in the art"). Although FVC urges that B-K limited the present invention to O-rings, the prosecution history does not support this conclusion.

The statement on which FVC relies addressed claim 8 of the "8 patent, which explicitly stated that the first, second, third and fourth sealing means "are O-rings." FN166 Thus, B-K was distinguishing a claim that explicitly provided for O-rings from Kelly and other prior art references. Moreover, in making the distinction, B-K noted not only that Kelly and the other prior art patents did not disclose O-rings, but that they did not disclose any sealing means at all.FN167 No aspect of B-K's statement suggests that it limited itself to O-rings.

FN166. Response to Protest at 8 (quoting claim 8 of the '984 patent). Claim 8 of the '084 patent contains identical language, claiming "the adjustable mount according to claim 7, wherein said first sealing means, and second sealing means, said third sealing means and said fourth sealing means are O-rings." ('084 Patent, col. 8:21-24.)

FN167. See Response to Protest at 8-10.

Moreover, although the preferred embodiment uses O-rings to perform the sealing function, the specification explicitly states that "sealing members, *such as O-rings* are utilized." FN168 The parties agree that all other "sealing means" disclosed are a "seal for sealing the connection." FN169 Because a person skilled in the art would understand this description of the structure, and because B-K did not limit the structure to O-rings

during prosecution, the court adopts B-K's construction of the first sealing means as "a seal for sealing the connection between said support member and the light fixture and equivalents thereof."

FN168. '084 Patent, col. 2:30-31.

FN169. FVC hedges on this agreement in reply, stating that "the parties agree on the proposed construction of [these] terms, insofar as [they are] not likely to be [ ] disputed limitation[s] on summary judgment or at trial." (Def.'s Reply at 15-16.) The fact that the parties agreed on the proposed corresponding structure for other sealing means merely indicates that construction of the term is not contested; it does not demonstrate that no construction is required. As a result, FVC cannot assert that other sealing means is a "seal for sealing" and simultaneously propose that the first sealing means be limited to O-rings without providing some reasoned explanation of the difference.

6. "Rotational limiting means"

This means plus function term appears in claims 18, 19, 21, and 22. In each, the term is followed by language explaining that the purpose of limiting rotation is "to prevent damage to said electrical wires." FN170 The parties agree that the claimed function is "limiting [the] rotation of said base member relative to said stud member." FN171 They also agree on the language in the specification that identifies the "rotational limiting mechanism":

FN170. See, e.g., '084 Patent, col. 11:48-49.

FN171. Pl.'s Brief at 15-16; Def.'s Brief at 27-28. FVC includes the phrase "to prevent damage to said electrical wires" in its proposed construction. (Def.'s Brief at 28.) B-K argues that this additional language is unnecessary. (Pl.'s Reply at 13 n. 5.) The function of the rotational limiting means is to limit the rotation of the base member relative to the stud member. The purpose of doing so is stated in the claims, and is not part of the function itself. Consequently, the court declines to adopt FVC's additional language.

"A rotational limiting mechanism is necessary to prevent base member 14 from rotating more than 360 degrees to avoid twisting and, ultimately, breaking or otherwise damaging the electrical wiring. In the preferred embodiment, shown in FIGs. 1 and 6, the rotational limiting mechanism includes first rotational stop member 48 inside base opening 44 of base member 14 and second rotational stop member 50 at the upper end 52 of stud member 16. First rotational stop member 48 interacts with second rotational stop member 50 to limit the amount base member 14 can rotate relative to stud member 16." FN172
FN172. Id., col. 4:33-43.

They disagree, however, on the proper description of the structure corresponding to the rotational limiting means.

i. FVC's Proposed Structure

In its opening brief, FVC proposed that the corresponding structure be described as "a first rotational stop

inside the base opening of the base member and a second rotational stop at the upper end of the stud member that intersect each other for limiting the rotation of the base member relative to the stud member to prevent damage to the electrical wires and equivalents thereof." FN173 In its reply, FVC substituted "first pin" and "second pin" for "first rotational stop" and "second rotational stop." FN174 FVC cites no language in the specification in support of this substitution, but asserts it is necessary to "avoid creating ambiguity or redundancy by using the word 'stops'." FN175

FN173. Def.'s Brief at 27.

FN174. Def.'s Reply at 18 (stating that the necessary structure is "the pin extending through the base member into the base opening that intersects with a similar pin extending from the upper end of the stud member").

FN175. Def.'s Reply at 18 n. 10.

FVC's original description of the structure deviated from the language of the specification in three ways. It eliminated the word "member" from "rotational stop member." It added, presumably for stylistic reasons, the article "the" before "base member" and "stud member." Most significantly, it interpreted "first rotational stop member 48 interacts with second rotational stop member 50 to limit the amount base member 14 can rotate relative to stud member 16" to mean that the rotational stop members "intersect each other for limiting the rotation of the base member relative to the stud member." FVC provided no supporting argument for defining of the "interaction" of the stop members as "intersection."

FVC asserts that B-K limited the corresponding structure to that described in the preferred embodiment during prosecution. Distinguishing Kelly, B-K stated that "Kelly does not disclose, teach or suggest including rotational limiting means." FN176 Distinguishing Yeh, it asserted that the structure in Yeh identified by FVC in its protest was "used to hold wall 45 to member 46 and is not used to limit the rotation of annular wall 45 or member 46." FN177

FN176. Response to Protest at 10.

FN177. Id.

ii. B-K's Proposed Structure

Citing the same portion of the specification as FVC, B-K argues that the corresponding structure is "stops for limiting rotation of said base member relative to said stud member and equivalents thereof." FN178 B-K argues that the relative location of the stops is explained by the language of the claims, which state that the rotational limiting means "interconnect[s] said base member and said stud member," FN179 and therefore that describing their placement is superfluous. It also argues generally that the "additional limitations in defendants' proposed construction are unnecessary and potentially confusing to a jury." FN180

FN178. Pl.'s Reply at 12-13. In B-K's opening brief, it included the additional language "to prevent damage to the electrical wires." (Pl.'s Brief at 15-16.) As noted, this additional language does not describe the function the structure performs, but the reason for performing it.

FN179. Def.'s Reply at 13.

FN180. Id.

iii. The Court's Structure

The court begins its search for the corresponding structure by looking to the specification. It states that "[i]n the preferred embodiment ... the rotational limiting mechanism includes" a first rotational stop member inside the base opening of the base member and a second rotational stop member at the upper end of the stud member that interact to limit the amount of base member can rotate relative to the stud member.FN181 FVC's attempt to limit this clear description of the structure is unsupported and therefore fails. Nothing in the specification or the drawings suggests that the rotational stop members interact by "intersecting." It is true that the two members must interact somehow to stop full rotation, but that interaction need not be an "intersection." FN182 Similarly, nothing in the specification suggests that the rotational limiting mechanisms are limited to "pins." FN183 The court thus declines to adopt these aspects of FVC's proposed construction.

FN181. See '084 Patent, col. 4:33-43.

FN182. The Oxford English Dictionary and Dictionary.com define "to intersect" as "to cross." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989); Dictionary.com (http://dictionary.reference.com/browse/intersect) (last viewed on January 24, 2008). Common uses of the word "intersect" in the Federal Circuit are: (1) geometrical: "a minor axis which intersects with the major axis," Rosco, Inc. v. Mirror Lite Co., 304 F.3d 1373, 1379 (Fed.Cir.2002); (2) spatial: "the anticipated path of a robot, for example, is first compared with the perimeter of the root bubble. If the two do not intersect, the procedure terminates because collision avoidance is necessarily established," In re Warmerdam, 33 F.3d 1354, 1356 (Fed.Cir.1994); and (3) physical: "the light beams intersect and therefore are not spaced apart as required by the patent," Carroll Touch, Inc. v. Electro Mechanical Systems, Inc., 15 F.3d 1573, 1577 (Fed.Cir.1993). In all of these uses, "intersect" means to cross, but does not imply physical contact or any stopping function. It does not appear from the drawings that the two stop mechanisms "cross." While the *paths* of the stops might be said to intersect, the stops themselves come into direct contact such that the stops do not cross each other. A two dimensional view of the stops coming into contact (from the right angle) might reveal what appears to be a cross. Nonetheless, a full view of the interaction reveals that the critical element is a "crossing" of the stops but contact between the stops that prevents further rotation. As a consequence, the court cannot accept FVC's argument that interaction is intersection.

FVC cites the Declaration of Monte Matts in support of its proposed construction. Matts is the engineering manager at the Vision3 Lighting Division of FVC. Matts proffers what he describes as "reasonably accurate" renderings of the '084 patent that he created using SolidWorks, a computer-aided design program.

(Matts Decl., para. 1.) Exhibit 12 depicts the two stop members as thin cylindrical structures (perhaps "pins"). Where the two structures touch, they prevent full 360 degree rotation of the base member relative to the stud member. This depiction, which provides significantly more detail than found in the patent specification, may be an accurate representation of the commercial embodiment of the '084 patent. Nothing in Matts' declaration suggests special familiarity with the patent itself, however, that would justify use of his illustration in lieu of (or as explanation for) the language and drawings of the specification.

At oral argument, FVC referenced Matts' illustrations and asserted they clearly showed that the "pins" "intersected" to prevent full rotation. While this may or may not accurately describe Matts' illustration, the illustration exceeds what is found in the patent. The written specification nowhere mentions "pins" and nowhere describes "intersection." Instead, it discloses "stops" that "interact." While the patent drawings are consistent with Matts' illustrations, they are significantly less specific. For instance, Figure 6 might disclose a pin, but could also disclose a ridge or some other structure designed to interact with the second stop.

FVC contended at the hearing that Matts' illustrations depicted the only way the invention could function. In the absence of any admissible proof of this assertion, the court cannot accept it as true. The court is bound to seek the corresponding structure in the specification and it has done so.
FN183. The word "pin" has many meanings. Most relevant to the usage proposed by FVC, a pin can be "a short length of wood, metal or plastic, often tapering or pointed at one end, used for fastening or holding parts together, for hanging something upon, for plugging a hole, etc.; a peg." OXFORD ENGLISH DICTIONARY ONLINE 2ND EDITION (1989). By limiting the structure to "pins," FVC apparently intends to suggest that there are two pegs-or protrusions-extending outward from the upper end of the stud member and the base opening that come into contact with each other. This does not necessarily correspond with the patent drawings. While Figure 1 depicts some sort of protrusion from the upper end of the stud member, Figure 6 could depict either a pin-like protrusion or a ridge (with a rectangular cross section) inside the base opening, either of which would stop the base member from rotating by coming into parallel contact with the protrusion on the stud member. (See '084 Patent, Figs. 1, 6.) This interpretation is corroborated by the written description found in the specification, which states that the first rotational stop member is "inside [the] base opening ." (Id., col. 4:38.)

The court likewise declines to adopt B-K's description of the corresponding structure on the basis that it is overbroad. The court disagrees with B-K that "the language of the claims ... provides the location of the stops." FN184 The fact that the stops "interconnect[ ] said base member and said stud member" does not indicate whether or how the stops are attached to those elements. Because the claim does not disclose these details, it is appropriate to include them in the recitation of the structure. Additionally, the specification makes clear that it is not the stops themselves that limit rotation, but rather the interaction between them that performs that function. FN185 For this reason, B-K's suggestion that it is the "stops" that perform the function is inaccurate.

FN184. Pl.'s Reply at 13.

FN185. The court does not rely on the prosecution history in rejecting B-K's proposed construction. B-K's response to FVC's protest asserted that neither Kelly nor Yeh claimed *any* rotational limitation means, and

distinguished the present invention on the basis that it did claim a rotational limitation means. (See Response to Protest at 10.) B-K did *not* disclaim any specific structure performing the function.

The corresponding structure is clearly and completely described in the specification. Rather than narrow or broaden that structure, the court will adopt the specification's description of the structure and add "equivalents thereof". See Symbol Technologies, Inc. v. Opticon, Inc., 935 F.2d 1569, 1575 (Fed.Cir.1991) ("the statutory provision prevents an overly broad claim construction by requiring reference to the specification, and at the same time precludes an overly narrow construction that would restrict coverage solely to those means expressly disclosed in the specification"). Thus, the corresponding structure is "a first rotational stop member inside the base opening of the base member and a second rotational stop member at the upper end of the stud member, with the first rotational stop member interacting with the second rotational stop member, and equivalents thereof." FN186

FN186. For stylistic reasons, the court has inserted the articles "the", "a", and "an" where appropriate.

7. Undisputed Structures

The parties agree on the corresponding structure of three further means plus function terms.

i. Second Sealing Means

The term "second sealing means [disposed between said support member and said base member] for sealing the connection of said base member to said support member" appears in claims 7, 8, 15, and 22. The parties agree that the corresponding structure is "a seal for sealing the connection of said base member to said support member and equivalents thereof." FN187

FN187. Def.'s Reply at 24.

ii. Third Sealing Means

The term "third sealing means [on said upper end of said stud member] for sealing the connection between said base member and said stud member" appears in claims 7, 8, 15, and 22. The parties agree that the corresponding structure is "a seal for sealing the connection between said base member and said stud member and equivalents thereof." FN188

FN188. *Id*. at 25.

iii. Fourth Sealing Means

The term "fourth sealing means [on said lower end of said stud member] for sealing the connection between said stud member and said source of electrical power" appears in claims 7, 8, 15, and 22. The parties agree that the corresponding structure is "a seal for sealing the connection between said stud member and said source of electrical power and equivalents thereof." FN189

FN189. *Id*.

III. CONCLUSION

For the reasons stated, the court construes the claim terms in dispute as follows:

-> *Slot:* a narrow opening or groove

-> *Stud Member:* the part for structurally coupling the claimed apparatus to a power source, such as a junction box

-> *Rotationally Interacting Therewith:* allowing frictional rotation relative to the base member

-> *Tapered Opening & Tapered Post:* no construction needed

-> *Interconnecting:* connecting with one another

-> *Means Plus Function Terms:*

* *First Locking Means:* a screw that passes through the base member and into the tapered opening of the support member and equivalents thereof

* *Second Locking Means:* a threaded set screw going through the base member and connecting to the stud member in such a way as to achieve the claimed function and equivalents thereof

* *First Resistance Means:* a tapered opening in the support member and a tapered post in the base member, with the tapered opening sized and configured to receive the tapered post and allow frictional pivoting of the tapered post in the tapered opening and equivalents thereof

* *Second Resistance Means:* an inner wall in the base opening sized and configured to frictionally receive the upper end seal or the upper end of the stud member and equivalents thereof

* *Rotational Limiting Means:* a first rotational stop member inside the base opening of the base member and a second rotational stop member at the upper end of the stud member, with the first rotational stop member interacting with the second rotational stop member and equivalents thereof

* *First Sealing Means:* a seal for sealing the connection between said support member and the light fixture and equivalents thereof

* *Second Sealing Means:* a seal for sealing the connection of said base member to said support member and equivalents thereof

* *Third Sealing Means:* a seal for sealing the connection between said base member and said stud member and equivalents thereof

* *Fourth Sealing Means:* a seal for sealing the connection between said stud member and said source of

electrical power and equivalents thereof.

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