In the United States Court of Federal Claims

No. 13-575C Filed: June 4, 2015

AAR MANUFACTURING, INC., and * Apparatus Claims; WEATHERHAVEN RESOURCES, * Claim Construction;

LTD., * Corresponding Structure;

* Function;

Plaintiffs, * Extrinsic Evidence;

* Intrinsic Evidence:

v. * Means-Plus-Function Limitation,

* 35 U.S.C. § 112, ¶ 6;

THE UNITED STATES, * 28 U.S.C. § 1498(a);

35 U.S.C. § 100(d);

Defendant. * 35 U.S.C. § 281;

MEMORANDUM OPINION AND ORDER CONSTRUING CERTAIN CLAIMS OF UNITED STATES PATENT NO. 5,761,854.

BRADEN, Judge.

To facilitate review of this Memorandum Opinion and Order construing certain claims of United States Patent No. 5,761,854, the court has provided the following outline:

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* * *

I. THE PATENT AT ISSUE.¹

On June 9, 1998, a patent on a "Collapsible Portable Containerized Shelter" was issued as U.S. Patent No. 5,761,854 ("the '854 patent"). Compl. ¶ 7. The '854 patent was assigned to Weatherhaven Resources, Ltd. ("Weatherhaven"). Compl. ¶ 7. AAR Manufacturing, Inc. ("AAR") is an exclusive licensee of the '854 patent in the United States. Compl. ¶ 8.

II. PROCEDURAL HISTORY.

On August 13, 2013, AAR and Weatherhaven (collectively, "Plaintiffs") filed a Complaint in the United States Court of Federal Claims, alleging that the United States ("the Government") infringed the '854 patent. On January 10, 2014, the Government filed an Answer.

On May 20, 2014, Plaintiffs filed an Opening Claim Construction Brief ("Pl. Br."). On June 3, 2014, the Government filed a Response. On June 12, 2014, the Government filed an Unopposed Motion To Amend/Correct its Response ("Gov't Resp.") that the court granted that same day. On June 17, 2014, Plaintiffs filed a Reply ("Pl. Reply"). That same day, Plaintiffs also filed a Joint Submission Of Claim Terms And Constructions.

On July 10, 2014, the Government filed an Unopposed Motion For Protective Order that the court granted on July 14, 2014. On July 16, 2014, Plaintiffs filed a Revised Joint Submission Of Claim Terms And Constructions.

On July 24, 2014, Plaintiffs filed a Supplemental Brief On The Law Of Double Inclusion In Claim Construction. On August 4, 2014, the Government filed a Supplemental Brief On The Law Of Double Inclusion In Claim Construction.

III. DISCUSSION.

A. Jurisdiction.

The United States Court of Federal Claims has jurisdiction to adjudicate claims that allege "an invention described in and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or

¹ The facts cited and discussed herein were derived from exhibits admitted by the court as relevant evidence for the purposes of claim construction. *See* Plaintiffs' August 13, 2013 Complaint; Plaintiffs' May 20, 2014 Claim Construction Exhibits A–I; the Government's June 3, 2014 Response Exhibits 1–2; and Plaintiffs' June 17, 2014 Reply Exhibits A–B.

manufacture the same . . . [seeking] recovery of . . . reasonable and entire compensation for such use and manufacture." 28 U.S.C. § 1498(a).

The August 13, 2013 Complaint properly invokes the court's jurisdiction, under 28 U.S.C. § 1498(a), authorizing the United States Court of Federal Claims to adjudicate claims of patent infringement against the Government and award monetary damages, where appropriate.

B. Standing.

Federal trial courts have been advised to "decide standing questions at the outset of a case. That order of decision (first jurisdiction then the merits) helps better to restrict the use of the federal courts to those adversarial disputes that Article III defines as the federal judiciary's business." *Steel Co. v. Citizens for a Better Env't*, 523 U.S. 83, 111 (1998) (Breyer, J., concurring). The party invoking federal jurisdiction has the burden of proof to satisfy the constitutional requirements of Article III standing. *See FW/PBS, Inc. v. Dallas*, 493 U.S. 215, 231 (1990) (holding that the burden is on the party seeking to exercise jurisdiction to clearly allege facts sufficient to establish jurisdiction).

"A patentee shall have remedy by civil action for infringement of his patent." 35 U.S.C. § 281; see also 35 U.S.C. § 100(d) ("The word 'patentee' includes not only the patentee to whom the patent was issued but also the successors in title to the patentee."); Paradise Creations, Inc. v. UV Sales, Inc., 315 F.3d 1304, 1308 (Fed. Cir. 2003) ("[T]his court has determined that in order to assert standing for patent infringement, the plaintiff must demonstrate that it held enforceable title to the patent at the inception of the lawsuit.") (emphasis in original). The standard set forth by the United States Supreme Court over a century ago in Waterman v. MacKenzie, 138 U.S. 252 (1891) still governs:

There can be no doubt that he is "the party interested, either as patentee, assignee, or grantee," and as such entitled to maintain an action at law to recover damages for an infringement; and it cannot have been the intention of [C]ongress that a suit in equity against an infringer to obtain an injunction and an account of profits, in which the court is authorized to award damages, when necessary to fully compensate the plaintiff, and has the same power to treble the damages as in an action at law, should not be brought by the same person.

Id. at 260–61 (1891) (internal citations omitted).

The August 13, 2013 Complaint alleges that: 1) the '854 patent was issued by assignment to Weatherhaven; 2) AAR has an exclusive license in the United States under the '854 patent and has the right to enforce it; 3) Guild Associates, Inc. ("Guild") has been manufacturing Collapsible Portable Containerized Shelters for the United States military with its authorization; 4) Guild's shelters, such as its Mobile Integrated Remains Collection System ("MIRCS"), embody the inventions covered by the '854 patent; and 5) Guild does not have a license from Weatherhaven or a lawful right to practice the inventions covered by the '854 patent.

These factual allegations state a claim that is plausible on its face and alleges more than the mere possibility of potential liability. *See Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) ("[A] complaint must contain sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face.""). Thus, Plaintiffs have standing.

C. Controlling Precedent Concerning Construction Of Patent Claims.

In *Markman v. Westview Instruments, Inc.* ("*Markman III*"), 517 U.S. 370 (1996), the United States Supreme Court unanimously affirmed the *en banc* decision of the United States Court of Appeals for the Federal Circuit in *Markman v. Westview Instruments, Inc.* ("*Markman II*"), 52 F.3d 967 (Fed. Cir. 1995) (*en banc*), holding that the meaning and scope of a patent's claims are issues of law to be determined by the federal trial judge. 517 U.S. at 978–79. The significance of *Markman III*, however, was the United States Supreme Court's expressed deference to the appellate court's analysis for conducting claim construction. *See Markman III*, 517 U.S. at 390 ("It was just for the sake of such desirable uniformity that Congress created the [United States] Court of Appeals for the Federal Circuit as an exclusive appellate court for patent cases, H.R. Rep. No. 97–312, at 20–23 (1981), observing that increased uniformity would 'strengthen the United States patent system in such a way as to foster technological growth and industrial innovation.' *Id.* at 20."). The court now turns to that analysis.

1. The Federal Trial Judge Should First Examine Intrinsic Evidence.

The United States Court of Appeals for the Federal Circuit has instructed federal trial judges first to examine "intrinsic evidence," because it is the "most significant source of the legally operative meaning of disputed claim language." *Vitronics Corp. v. Conceptronic Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Intrinsic evidence is the "claim language, the written description, and, if introduced, the prosecution history." *Phonometrics, Inc. v. N. Telecom Inc.*, 133 F.3d 1459, 1464 (Fed. Cir. 1998). In conducting this examination, the trial judge must determine, as a threshold matter, whether there is ambiguity in any claim term requiring construction. *See Vitronics*, 90 F.3d at 1582 (directing the trial judge to "look to the words of the claims themselves, both asserted and nonasserted, to define the scope of the patented invention").

a. The Person Of Ordinary Skill In The Art.

The federal trial judge is required to examine patent claim terms and phrases "through the viewing glass of a person skilled in the art." *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1298 (Fed. Cir. 2003); *see also Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*) ("The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim construction."); *see also Hockerson-Halberstadt, Inc. v. Avia Grp. Int'l, Inc.*, 222 F.3d 951, 955 (Fed. Cir. 2000) (holding that the court gives claim terms "their ordinary and accustomed meaning as understood by one of ordinary skill in the art."). The parties agree that a person of ordinary skill in the art is someone with working knowledge of the intermodal shipping industry. 6/24/14 TR 18–19, 38. Therefore, the court will examine the patent claim terms as someone with working knowledge of the intermodal shipping industry.

b. The Specification.

As a matter of law, the specification is the "written description of the invention." 35 U.S.C. § 112, ¶ 1. For this reason, claims must "be read in view of the specification, of which they are a part." *Phillips*, 415 F.3d at 1315 (internal citations omitted). The specification is "always highly relevant to the claim construction analysis. Usually, it is the single best guide to the meaning of the disputed term." *Id.* (internal citations omitted). The specification is accorded deference in claim construction, because it is the patentee's statement to the public describing the invention. *See Honeywell Int'l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) ("[T]he public is entitled to take the patentee at his word[.]").

The specification is particularly important in two circumstances. The first is where the specification includes a "special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess." *Phillips*, 415 F.3d at 1316; *see also Edwards Lifesciences LLC v. Cook, Inc.*, 582 F.3d 1322, 1329 (Fed. Cir. 2009) (stating where two terms are used interchangeably, it "is akin to a definition equating the two"). Specifically,

"a patentee can act as his own lexicographer to specifically define terms of a claim contrary to their ordinary meaning"[;] the written description in such a case must clearly redefine a claim term "so as to put a reasonable competitor or one reasonably skilled in the art on notice that the patentee intended to so redefine that claim term."

Elekta Instrument S.A. v. O.U.R. Scientific Int'l, Inc., 214 F.3d 1302, 1307 (Fed. Cir. 2000) (quoting Process Control Corp. v. HydReclaim Corp., 190 F.3d 1350, 1357 (Fed. Cir. 1999)); see also Vitronics, 90 F.3d at 1582 (holding that, in ascertaining the scope of the patent, deference should be afforded claims as defined by their "customary meaning," with the caveat that the law affords patentees the right to serve as "lexicographers," if a special or unique definition is clearly stated in the specifications or prosecution history).

The second circumstance is where the specification "may reveal an internal disclaimer, or disavowal, of claim scope by the inventor." *Phillips*, 415 F.3d at 1316; *see also Edwards Lifesciences*, 582 F.3d at 1329–30 (holding that where a specification uses a term only in a specific context, that term should not be construed to have a broader scope). The inventor's intent with respect to the claims "must be clear" to overcome their customary meaning. *Voda v. Cordis Corp.*, 536 F.3d 1311, 1320 (Fed. Cir. 2008) (internal citations omitted).

Where the claim language is ambiguous, the "specification, including the inventors' statutorily-required written description of the invention[] is the primary source for determining claim meaning." *Astrazeneca AB v. Mutual Pharm. Co.*, 384 F.3d 1333, 1336 (Fed. Cir. 2004); *see also id.* at 1337 ("Most courts have simply stated that the specification is to be used to explain the claims; . . . the patent is an integrated document, with the claims 'pointing out and distinctly claiming,' 35 U.S.C. § 112, the invention described in the rest of the specification and the goal of claim construction is to determine what an ordinary artisan would deem the invention claimed by the patent, taking the claims together with the rest of the specification.") (internal quotation marks and citations omitted). Of course, the utility of the specification still depends on whether the

"written description of the invention [is] . . . clear and complete enough to enable those of ordinary skill in the art to make and use it." *Vitronics*, 90 F.3d at 1582.

Three additional rules of construction must be considered. First, federal trial judges have been advised not to construe a claim to exclude the preferred and only embodiment disclosed in a specification, because "such an interpretation is rarely, if ever, correct." Vitronics, 90 F.3d at 1583. Second, when more than one embodiment is present, as a matter of law, the court "do[es] not interpret claim terms in a way that excludes disclosed examples in the specification." Verizon Servs. Corp. v. Vonage Holding Corp., 503 F.3d 1295, 1305 (Fed. Cir. 2007); see also Phillips, 415 F.3d at 1323 (recognizing that the embodiments in a patent often are examples meant to teach a person of ordinary skill in the art how to make and use the invention, but should not be construed to limit the invention only to a specific embodiment). But, where an interpretation of a term contradictory to its ordinary meaning would be required to cover all of the embodiments, and the applicant was not acting as his own lexicographer, such language can be interpreted to claim less than all of the embodiments. See Helmsderfer v. Bobrick Washroom Equip., Inc., 527 F.3d 1379, 1383 (Fed. Cir. 2008) (holding that, even if "totally" would have covered all embodiments, "partially" could not include "totally," unless the applicant had acted as his own lexicographer); see also Baran v. Med. Device Tech., Inc., 616 F.3d 1309, 1315-16 (Fed. Cir. 2010) (holding that, if a term is used in the specification to differentiate two different embodiments and it is used in the claims to describe the invention, it is proper to construe the claims to cover only one of the two embodiments, because the differentiation concedes coverage of one of the embodiments).

Third, although the specification is important in discerning the meaning of the claims, federal trial judges must not "import" or graft limitations from the specification into the claim. See Am. Piledriving Equip., Inc. v. Geoquip, Inc., 637 F.3d 1324, 1331 (Fed. Cir. 2011) (reaffirming that "the role of a [federal trial judge] in construing claims is not to redefine claim recitations or to read limitations into the claim to obviate factual questions of infringement and validity but rather to give meaning to the limitations actually contained in the claims, informed by the written description, the prosecution history[,] if in evidence, and any relevant extrinsic evidence"); see also Kara Tech. Inc. v. Stamps.com Inc., 582 F.3d 1341, 1348 (Fed. Cir. 2009) ("The patentee is entitled to the full scope of his claims, and we will not limit him to his preferred embodiment or import a limitation from the specification into the claims."); SciMed Life Sys. Inc. v. Advanced Cardiovascular Sys. Inc., 242 F.3d 1337, 1340 (Fed. Cir. 2001) (reading a limitation from the specification into a claim is "one of the cardinal sins of patent law"); Intervet Am., Inc. v. Kee-Vet Labs., Inc., 887 F.2d 1050, 1053 (Fed. Cir. 1989) (holding that "[federal trial judges] cannot alter what the patentee has chosen to claim as his invention, that limitations appearing in the specification will not be read into claims, and that interpreting what is meant by a word in a claim is not to be confused with adding an extraneous limitation appearing in the specification, which is improper") (internal quotation marks omitted).

c. The Prosecution History.

In addition, "the prosecution history 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." *Phillips*, 415 F.3d at 1317; *see also Digital Biometrics, Inc. v. Identix, Inc.*, 149 F.3d 1335,

1344 (Fed. Cir. 1998) (observing that the prosecution history "may contain contemporaneous exchanges between the patent applicant and the [United States Patent and Trademark Office] about what the claims mean").

Under certain circumstances, the prosecution history can even trump the specification. *See Graham v. John Deere Co.*, 383 U.S. 1, 22 (1966) (holding that claims narrowed to obtain issuance over prior art during prosecution may not subsequently be interpreted by the specification to cover what was disclaimed before the United States Patent and Trademark Office); *see also Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733–34 (2002) ("When . . . the patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory compromised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent."). Therefore, prosecution history may preclude "a patentee from regaining, through litigation, coverage of subject matter relinquished during prosecution of the application of the patent." *Wang Labs v. Mitsubishi Elecs. Am., Inc.*, 103 F.3d 1571, 1577–78 (Fed. Cir. 1997), *cert. denied*, 522 U.S. 818 (1997). In sum, regardless of whether an examiner agreed with an applicant's statements during prosecution, any argument made "may lead to a disavowal of the claim scope[.]" *Seachange Int'l, Inc. v. C-Cor Inc.*, 413 F.3d 1361, 1374 (Fed. Cir. 2005); *see also Microsoft Corp. v. Multi-Tech Sys.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (same).

2. The Federal Trial Judge May Examine Extrinsic Evidence, But Only In Limited Circumstances.

As the United States Supreme Court recently acknowledged, "In some cases . . . the [federal trial] court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period." *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). But, if the court's consideration of the intrinsic evidence resolves any ambiguity about the meaning of a patent claim, as a matter of law, it is improper for the judge to rely on extrinsic evidence, *i.e.*, evidence outside of the patent record, such as expert and inventor testimony, dictionaries, learned treatises, and articles. *See Vitronics*, 90 F.3d at 1584 (allowing extrinsic evidence "to help the court come to the proper understanding of the claims," but not to contradict intrinsic evidence or vary the scope of the claims). The United States Court of Appeals for the Federal Circuit, however, clarified in *Key Pharm. v. Hercon Lab. Corp*, 161 F.3d 709 (Fed. Cir. 1998):

This court has made strong cautionary statements on the proper *use* of extrinsic evidence, which might be misread by some members of the bar as restricting a trial court's ability to *hear* such evidence. We intend no such thing. To the contrary, trial courts generally can hear expert testimony for background and education on the technology implicated by the presented claim construction issues, and trial courts have broad discretion in this regard.

Furthermore, a trial court is quite correct in hearing and relying on expert testimony on an ultimate claim construction question in cases in which the intrinsic evidence (i.e., the patent and its file history—the "patent record") does not answer the question.

What is disapproved of is an attempt to use extrinsic evidence to arrive at a claim construction that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.

Id. at 716 (citations omitted) (emphasis in original); *see also Zodiac Pool Care, Inc. v. Hoffinger Indus., Inc.*, 206 F.3d 1408, 1414 (Fed. Cir. 2000) (cautioning federal trial judges "to turn[] to extrinsic evidence only when the intrinsic evidence is insufficient to establish the clear meaning of the asserted claim").

IV. THE COURT'S CONSTRUCTION OF CERTAIN PATENT CLAIMS REQUESTED BY THE PARTIES.

A. United States Patent No. 5,761,854.

The parties have requested that the court construe certain terms in claims 1, 2, 3, 10, and 16 of the '854 patent. All of these asserted claims are apparatus claims.² Claims 1 and 16 are independent claims,³ whereas claims 2, 3, and 10 depend on claim 1.⁴ '854 patent, col. 5, ll. 14–54, col. 6, ll. 9–10, 27–59.

1. The Independent Claims.

a. Claim 1.

Claim 1 of the '854 patent describes:

A portable, collapsible shelter comprising:

a) a rigid, hollow container having opposed ends, opposed vertical sides, and a horizontal top and bottom, said ends, sides, top and bottom being secured to form a rigid container having the external dimensions and corner fitting locations which satisfy the standards for ISO Series 1 freight containers;

² "Apparatus" claims "cover what a device *is*, not what a device *does*." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990) (emphasis in original).

³ An "independent claim" is "a claim that does not refer back to or depend on another claim." U.S. PATENT & TRADEMARK OFFICE, *Glossary*, http://www.uspto.gov/main/glossary/index.html (last viewed May 18, 2015).

⁴ A "dependent claim" incorporates by reference a previous claim and includes all of the limitations of the claims on which they depend. *See* U.S. PATENT & TRADEMARK OFFICE, *Glossary*.

- b) at least one of said vertical sides comprising a pivoting wall portion hingedly connected to said vertical side along the lower edge of said pivoting wall portion to pivot between a closed vertical position and an open horizontal position, said pivoting wall portion having an outer edge, and whereby an opening is formed in said vertical side circumscribed by edges of said vertical side when said pivoting wall portion is in the horizontal position;
- c) means associated with said container and with said pivoting wall portion for releasably securing said pivoting wall portion in said vertical position;
- d) means adapted to support said pivoting wall portion for releasably maintaining said pivoting wall portion in said horizontal position;
- e) a flexible cover secured to said outer edge of said pivoting wall portion and secured to said container around said opening formed when said pivoting wall portion is in said lowered horizontal position, and adapted to be extended above said pivoting wall portion while said pivoting wall portion is in said lowered horizontal position; and
- f) means extending outwardly from said vertical side and above said pivoting wall portion when said pivoting wall portion is in said lowered horizontal position for supporting said fabric cover above said pivoting wall portion while said pivoting wall portion is in said lowered horizontal position.

'854 patent, col. 5, ll. 14–49.

b. Claim 16.

Claim 16 of the '854 patent describes:

A portable, collapsible shelter comprising:

- a rigid, hollow container having opposed ends, opposed vertical sides, and a horizontal top and bottom, said ends, sides, top and bottom being secured to form a rigid container having the external dimensions and corner fitting locations which satisfy the standards for ISO Series 1 freight containers;
- b) at least one of said vertical sides comprising a pivoting wall portion hingedly connected to said vertical side along the lower edge of said pivoting wall portion to pivot between a closed vertical position and an open horizontal position, said pivoting wall portion having an outer edge, and whereby an opening is formed in said vertical side circumscribed by edges of said container when said pivoting wall portion is in the horizontal position;

- c) means associated with said container and with said pivoting wall portion for releasably securing said pivoting wall portion in said vertical position;
- d) means adapted to support said pivoting wall portion for releasably maintaining said pivoting wall portion in said horizontal position;
- e) a flexible fabric cover secured to said outer edge of said pivoting wall portion and secured to said container around said opening formed when said pivoting wall portion is in said lowered horizontal position, and adapted to be supported above said pivoting wall portion when said pivoting wall portion is in said lowered horizontal position, thereby forming an enclosed space above said pivoting wall portion open to the interior of said container when said pivoting wall portion is lowered to the horizontal position.

'854 patent, col. 6, ll. 28–59.

2. The Dependent Claims.

a. Claim 2.

Claim 2 of the '854 patent describes:

The shelter of claim 1 wherein said means for releasably maintaining said pivoting wall portion in said horizontal position comprises levelling means.

'854 patent, col. 5, ll. 50–52.

b. Claim 3.

Claim 3 of the '854 patent describes:

The shelter of claim 2 wherein said levelling means comprises a jack.

'854 patent, col. 5, ll. 53–54.

c. Claim 10.

Claim 10 of the '854 patent describes:

The shelter of claim 2 wherein said levelling means comprises wood blocks.

'854 patent, col. 6, ll. 9–10.

3. Construction Of The Disputed Terms.

a. "Hollow."

The parties propose the following competing constructions of the term "hollow" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed	The Government's Proposed
	Construction	Construction
"hollow" (Claims 1(a) and 16(a))	ordinary meaning)	"empty, having no permanent structure within the container"
	In the alternative, "having a hole, cavity, or empty space within"	

The parties disagree as to whether the term "hollow" should be construed in light of its plain and ordinary meaning or whether a "hollow" container may have inner permanent structures.

i) Plaintiffs' Proposed Construction.

Plaintiffs propose that the term "hollow" does not require construction, because "[n]othing in the specification or prosecution history supports a finding that the term 'hollow' should be construed outside of the ordinary and plain meaning." Pl. Br. at 12. Both the figures and the specification show a claimed structure with a space within. Pl. Br. at 12–13. The prosecution history, however, does not define the term. Pl. Br. at 13.

In the alternative, Plaintiffs propose that "hollow" be construed as "having a hole, cavity, or empty space within," because that is how one of ordinary skill in the art would understand that term. Pl. Br. at 13. The Government impermissibly adds a limitation of having "no permanent structure" to the claim, even though that limitation is not stated in the specification or the prosecution history. Pl. Br. at 13–14. Plaintiffs add that Webster's Ninth New Collegiate Dictionary (1985 ed.) ("Webster's") at 576, contemporaneous with the filing date of the '854 patent, defines "hollow" (adj.) as "having a cavity within." Pl. Br. at 13. This definition also states that "hollow" is derived from "hole" (n.), which is defined as "an area where something is missing" and "a cavity, depression, or hollowed-out place." Pl. Br. at 13 (citing Webster's at 575).

ii) The Government's Proposed Construction.

The Government responds that Plaintiffs' proposed construction of "hollow" "is ambiguous and would render the term 'hollow' meaningless, since any structure that had any cavity within it . . . would still be hollow." Gov't Resp. at 18. Instead, the court should construe "hollow" to mean "empty, having no permanent structure within the container" for four reasons. Gov't Resp. at 16.

First, the invention claimed in the '854 patent was designed to solve a problem in the prior art of "requir[ing] a specialized crew" to combine multiple heavy, prefabricated shelter structures to attain the desired amount of space. Gov't Resp. at 17. Some of these prior art shelter structures were divided internally into permanent, prefabricated cells. Gov't Resp. at 17 (citing U.S. Patent No. 4,599,829 (July 15, 1986) ("the '829 patent")). Any shelter with permanent internal structures cannot be covered by the '854 patent, because otherwise, the claimed invention would "exacerbate the problems" that it was designed to solve. Gov't Resp. at 17–18 (citing *LizardTech*, *Inc. v. Earth Res. Mapping*, *Inc.* 424 F.3d 1336, 1343–44 (Fed. Cir. 2005) ("[I]t would be peculiar for the claims to cover [a] prior art [feature] that suffers from precisely the same problems that the specification focuses on solving.")).

Second, construing "hollow" to permit the container to have any permanent structures within it would "run counter to [the] purpose [of the invention]." Gov't Resp. at 18. The preamble to each independent claim also identifies the "intended use of the claimed subject matter [to be] a portable, collapsible shelter." Gov't Resp. at 18. And, the specification states that the claimed container must be capable of being "expanded . . . to increase the available floor space." Gov't Resp. at 18. A "permanent structure" within the shelter "would physically interfere with and limit the intended uses of the shelter." Gov't Resp. at 18.

Third, Plaintiffs' proposed construction of "hollow" is "ambiguous⁵ and unsupported by the specification," because it would permit "any structure that had any cavity within it, even if it were packed with permanent fixtures," to be hollow. Gov't Resp. at 18. Plaintiffs' construction fails to identify what item must have a "hole, cavity, or empty space" and instead argues that to be "hollow," the "the *entire* space within the container must consist of an empty cavity." Gov't Resp. at 19 (emphasis in original). The Government concedes that the specification allows for "plumbing, mechanical and electrical systems [that] can be pre-installed in the floor or walls or elsewhere in the container." '854 patent, col. 3, ll. 10–12. But, these subsystems do not defeat its proposed construction of "hollow," because "the container [would] still [be] essentially empty with some minor wiring or mechanical systems." Gov't Resp. at 19.

Fourth, the specification uses the term "hollow" to describe the claimed container's side walls as having "hollow rectangular steel panels filled with rigid insulation foam." '854 patent, col. 5, ll. 6–7. As such, the panel must be "empty, having no permanent structure within," so that it can be filled with insulation foam. Gov't Resp. at 20. Therefore, "hollow" means "empty, having no permanent structure within the container," because the insulation would not work properly if it could not "fill the entirety of the space between the steel panels." Gov't Resp. at 20.

⁵ The Government appears to argue that adopting Plaintiffs' construction would leave the term "hollow" indefinite in violation of 35 U.S.C. § 112. *See Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014) (holding that claims are indefinite if they "fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention"). The court does not need to address the Government's indefiniteness argument, because the term "hollow" can be construed "with reasonable certainty." *Id.*

iii) The Court's Resolution.

Plaintiffs' proposed construction is overbroad, because it would cover any empty space, regardless of size. Gov't Resp. at 18. The preamble to each claim at issue demonstrates that the intended use of the invention is as "[a] portable, collapsible *shelter*." '854 patent, col. 5, l. 14, col. 6, l. 27 (emphasis added). The specification also identifies the prior art as portable shelters and discusses prior solutions to the problem of insufficient space within them. '854 patent, col. 1, ll. 17–50. For this reason, Plaintiffs stated at the June 24, 2014 *Markman* hearing that "the novel feature is using a single container to create a single *shelter*." 6/24/14 TR 10 (emphasis added). Therefore, "hollow" means that the "hole, cavity, or empty space within" must be of sufficient size to allow the container to function as a shelter.

The Government's proposed construction fares no better. First, the '854 patent attempts to solve the problem in the prior art that "special equipment and tradesmen are required on site to unload" and install heavy, prefabricated structures. '854 patent, col. 1, ll. 25–27. The Government equates "permanent structures" with "prefabricated structures" and concludes that, in the context of the '854 patent, a "hollow" container cannot contain permanent structures. Gov't Resp. at 17. There is no language in the claims, the specification, or the prosecution history requiring "permanent structures" to be equivalent to "prefabricated" structures. The patent does not use the word "permanent" anywhere and uses the word "prefabricated" only in reference to prior art.

Assuming, *arguendo*, that "permanent structures" and "prefabricated structures" are equivalent, neither the specification nor the prosecution history specifies that the patentee must exclude containers with *internal* permanent structures from the scope of the claims. In identifying the problem in the prior art, the '854 patent uses the word "prefabricated" to refer to shelters, not to other internal components. '854 patent, col. 1, ll. 25, 36. When faced with a rejection for indefiniteness under 35 U.S.C. § 112 during prosecution, the patentee submitted "a copy of International Standard ISO 668: 1988 'Series 1 freight containers" ("ISO standard") to indicate that the claimed structure in the '854 patent complied with the ISO standard dimensions. Pl. Br. Ex. C at 6. The word "permanent" describes containers, not internal components. The '829 patent, as prior art, also does not use the word "permanent." Therefore, the Government's argument that "hollow" must mean "having no permanent structure within" improperly adds a limitation to the claims.

Second, the Government asserts that allowing a permanent structure within the container would interfere with the container's purpose, *i.e.*, to serve as a shelter. Gov't Resp. at 18. But, the Government does not explain how adding a permanent structure inside the container would contravene this purpose. Even if the space within the container were divided by a permanent structure, *e.g.*, into two cells, it could be used as described so long as the remaining empty space was sufficient for the container to act as a shelter. Therefore, the Government construction seeks to add a limitation to the claims.

Third, the Government contends that, to be hollow, "the *entire* space within the container must consist of an empty cavity." Gov't Resp. at 19 (emphasis in original). But, the claims, specification, and prosecution history of the '854 patent do not support this limitation. The specification describes the side walls of the container as having "hollow rectangular steel panels filled with rigid insulation foam." '854 patent, col. 5, ll. 6–7. And, the specification states that

the container can have "[p]lumbing, mechanical, and electrical systems . . . pre-installed in the floor or walls *or elsewhere* in the container." '854 patent, col. 3, ll. 10–12 (emphasis added). The Government contends that these systems are not permanent structures, because the patent uses the word "structure' interchangeably with the words 'shelter' and 'building." Gov't Resp. at 20 (citing '854 patent col. 1 ll. 12–19). The court, however, finds that these words show that the patentee did not intend for "hollow" containers to exclude permanent internal structures, and therefore, the Government's argument would impermissibly import limitations into the claim.

For these reasons, given the problems with both proposed constructions, the court has determined that, after reading the entire specification and claims of the '854 patent, a person with working knowledge of the intermodal shipping industry would understand the term "hollow" to mean "having a hole, cavity, or empty space within sufficient to serve its purpose, as a shelter."

b. "Container."

The parties propose the following competing constructions of the term "container" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed Construction	The Government's Proposed Construction
"container" (Claims 1(a) and 16(a) & (b))	No construction necessary (plain and ordinary meaning) In the alternative, "a structure that can be used to hold something"	"the rigid enclosed structure formed by the joining of the opposed ends, opposed vertical sides, and horizontal top and bottom. It is capable of functioning as an ISO Series 1 freight container"

The parties disagree as to whether "container" should be given its plain and ordinary meaning. If construction is required, the parties disagree as to whether the term "container" should be construed separately from the other limitations in the claim or whether the construction should include those limitations.

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that "container" does not require construction, because it has a plain and ordinary meaning to one of ordinary skill in the art. Pl. Br. at 16 ("Nothing in the specification or prosecution history supports" deviating from that meaning in construing the term "container."). In

⁶ The Government tries to explain this language away by arguing that even with these systems present, the container is "essentially empty." Gov't Resp. at 19. But, this contradicts the Government's assertion that the word "hollow" requires that a container be *entirely* empty. Gov't Resp. at 19.

⁷ The Government's argument contradicts its argument that "structures" refer to *internal* components of shelters, such as pre-fabricated cells. Gov't Resp. at 17–18.

the alternative, the court should construe "container" to mean "a structure that can be used to hold something." Pl. Br. at 16. Although "container" is not explicitly defined in the specification, the words "container" and "structure" are used interchangeably throughout the '854 patent. Pl. Br. at 16. In addition, during prosecution, the patentee included a copy of the ISO standard that defines a "freight container" as "an 'article of transport equipment . . . specifically designed to facilitate the carriage of goods by one or more modes of transport [and] so designed as to be easy to fill and empty." Pl. Br. at 16–17 (omissions and modifications in original). In addition, "container" was defined at the time the patent issued as "one that contains [or] a receptacle or flexible covering for the shipment of goods." WEBSTER's at 282. The dictionary defines "contain" as "to hold together, hold in, contain, . . . to keep within limits" and "to have within, hold." WEBSTER's at 282.

ii) The Government's Proposed Construction And Plaintiffs' Reply.

The Government responds that Plaintiffs' proposed construction ignores the claim language, specification, and prosecution history of the '854 patent. The text surrounding the claim provides the context in which a term should be construed, as it depicts "the interrelationship between the components" of the "container" and describes how a "container" is formed. Gov't Resp. at 21–22.

The court should construe "container" to mean "the rigid enclosed structure formed by the joining of the opposed ends, opposed vertical sides, and horizontal top and bottom" that "is capable of functioning as an ISO Series 1 freight container." Gov't Resp. at 21. The claim language explicitly defines "container" as "a structure that is formed by securing the ends, sides, top, and bottom" and that must meet the dimensional requirements of "the ISO standard." Gov't Resp. at 22.

Specifically, the "container" must be enclosed, because "[n]othing in the specification suggests that this joinder would somehow result in a structure that is open," and claim 16 refers to a fabric cover that forms "an enclosed space above [the] pivoting wall portion . . . when said pivoting wall portion is lowered to [the] horizontal position." Gov't Resp. at 22–23 (citing '854 patent, col. 6, ll. 56–60). Because the "container" must be "hollow" and must be "formed by joining the sides, top, bottom, ends, [which] are all described as . . . preferably steel panels," the "container" must be enclosed. 6/24/14 TR 31.

Plaintiffs reply that the term "container" should be construed broadly, because the rest of the claim includes limitations that would be superfluous, if the term "container" included them. Pl. Reply at 6. The Government's limitation of being "enclosed" is not found anywhere in the '854 patent. Pl. Reply at 7–8. Moreover, the ISO standard for freight containers does not require that compliant containers be enclosed. Pl. Reply at 8. In support, Plaintiffs cite examples of two containers with openings that nonetheless meet the ISO standard. Pl. Reply at 8; Pl. Reply Exs. A–B.

iii) The Court's Resolution.

Claims 1 and 16 of the '854 patent include several references to the "container," and in two descriptions, refer to the standard for ISO Series 1 freight containers. '854 patent, col. 5, ll. 18–

20, col. 6, ll. 32–33. The specification refers to "shipping containers" when discussing prior art. '854 patent, col. 1, ll. 36–41, 56–58. The prosecution history also supports the construction that "container" refers to structures used to ship goods, because during the prosecution of the '854 patent, the patentee submitted a copy of the ISO standard to the USPTO that defined "freight containers." Pl. Br. Ex. C at 9–15 (ISO standard for Series 1 freight containers).

Because the intrinsic evidence shows that "container" refers to a standardized shipping industry structure, reliance on extrinsic evidence is unnecessary. *See Phillips*, 415 F.3d at 1317–18 (Extrinsic evidence is "less significant than the intrinsic record in determining 'the legally operative meaning of claim language," because "extrinsic publications may not be written by or for skilled artisans and therefore may not reflect the understanding of a skilled artisan in the field of the patent.").

The Government's proposed construction of "container" is too narrow and imports limitations not contained within the claim. The Government argues that it is construing "container" in context of its surrounding language. Gov't Resp. at 22. Providing the context for a term, however, is not the same as defining the term. *See Phillips*, 415 F.3d at 1314 (finding that because the term "baffles" was immediately preceded by the word "steel," this context "strongly implie[d] that the term 'baffles' [did] not inherently mean objects made of steel"). Context aids in defining a term; it is not the definition. Thus, the limitations present in the surrounding claim language do not define "container."

Claim 1 requires the "container" to be rigid, hollow, and formed by opposed ends, opposed sides, a horizontal top, a horizontal bottom secured together in such a way that the container's external dimensions and corner fitting locations satisfy the standards for ISO Series 1 freight containers. '854 patent, col. 5, ll. 15–20. Therefore, a structure that lacks any one of these characteristics would not infringe claim 1. *See In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir. 1983) ("A claim must be read in accordance with the precepts of English grammar."). Just because the ends, sides, top, and bottom *form* the container does not mean the ends, sides, top, and bottom *are* the container. For example, although an automobile is formed by joining together the doors, windows, seats, transmission, engine, etc., that is not the definition of an automobile. The key phrase is "formed by" that describes the physical relationship between components. The USPTO Examiner initially rejected the '854 patent application, because it did not describe the claimed physical components and relationships of the "container." Gov't Ex. 2 at A64. In response, the patentee amended the claims to describe how the container was formed. Gov't Resp. at 23.

It is improper to import limitations into the definition of the term "container" at the claim construction stage. If the court were to construe the term "container" as inherently including those additional limitations, the rest of the claim language would be superfluous, contrary to the established principle that requires claims to be "interpreted with an eye toward giving effect to all terms in the claim." *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006); *see also Phillips*, 415 F.3d at 1314, 1324 (finding that in a claim referring to "steel baffles," although the "term 'baffles' [did] not inherently mean objects made of steel," the surrounding text "impose[d]

three clear requirements [for infringement purposes] with respect to the baffles," one of which is that they "must be made of steel").

The Government's proposed construction also imports a limitation into the claim that it does not contain. Neither the claims nor the specification contain any evidence to support the limitation that the claimed container structure must be enclosed. The '854 patent uses the word "enclosed" in reference to the fabric cover that can be extended over the side of the container when that side is in a lowered horizontal position, forming "an enclosed space above said pivoting [side] wall[.]" '854 patent, col. 6, ll. 50–57. The word "enclosed" is never used in reference to the container. Although the question of enclosure may have a bearing on infringement, "the role of a district court in construing claims is not . . . to read limitations into the claims to obviate factual questions of infringement and validity but rather to give meaning to the limitations actually contained in the claims[.]" *Am. Piledriving Equip.*, 637 F.3d at 1331.

But, the prosecution history of the '854 patent supports the Government's proposed construction. Claim 1 was amended to include a requirement that the container be formed by securing the "said ends, sides, top, and bottom in order to overcome a prior rejection by the examiner due to a lack of "interrelation between the parts." Gov't Resp. at 22. This confirms that the patentee intended to limit the scope of the patent only to ISO Series 1 freight containers. In fact, in remarks accompanying the amendment of claim 1, the patentee distinguished its invention from the prior art by highlighting that the prior art shelters lack "the characteristics of an ISO container." Gov't Resp. at 23 (citing Gov't Ex. 2 at A123 (10/5/95 Patent Application Amendment)). Therefore, the prior art does not "teach, [nor] contemplate, that a single ISO container can be adapted to provide an expanded living area." Gov't Resp. at 23–24. Thus, the '854 patent concerns only container shelters that meet the ISO Series 1 freight container standard.

For these reasons, the court has determined that, after reading the entire specification and the claims of the '854 patent, a person with working knowledge of the intermodal shipping industry would understand the term "container" to mean "a structure capable of holding goods during intermodal transport that meets the ISO Series 1 standard."

c. "Ends."

The parties propose the following competing constructions of "ends" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed	The Government's Proposed
	Construction	Construction

"ends"	No construction necessary	"external vertical walls that are
(Claims 1(a) and 16(a))	(plain and ordinary meaning)	joined to the opposed vertical sides
		and horizontal top and bottom to
	In the alternative,	form a rigid enclosed structure"
	"lengthwise boundaries of	
	the container"	

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that the court does not need to construe "ends," because it has a plain and ordinary meaning to one of ordinary skill in the art. Pl. Br. at 20. In the alternative, the court should construe "ends" to mean "lengthwise boundaries of the container," because that is how one of ordinary skill in the art would understand that term. Pl. Br. at 20–21. "Ends" is not explicitly defined in the specification. Pl. Br. at 21. Although the specification does describe some preferred embodiments of "ends," the term should not be so limited, because there is nothing more in the claims or the specification that requires such a limitation. Pl. Br. at 21. Plaintiffs also offer the dictionary definition of "end": "the part of an area that lies at the boundary"; "a point that marks the extent of something"; "the point where something ceases to exist"; and "extreme or last part lengthwise." WEBSTER'S at 410.

In addition, the Government impermissibly duplicates the surrounding claim language and adds a limitation that the container be "enclosed." Pl. Reply at 8–9. The Government incorrectly requires "ends" to be "vertical walls," thereby limiting the term to the preferred embodiments disclosed in the specification. Pl. Reply at 9. Nothing in the specification or prosecution history shows any intent by the patentee to limit "ends" to these embodiments. Pl. Reply at 9. "Ends" is a "common term . . . [without any] scientific or technical meaning," *e.g.*, the ends of a section of pipe or the end of a Styrofoam cup, neither of which require the ends to be "walls" or "enclosed." 6/24/14 TR 37–38. Moreover, Plaintiffs' proposed definition is not indefinite, because "one of skill in the art would understand what the lengthwise boundaries of the container are." Pl. Reply at 10.

ii) The Government's Proposed Construction.

The Government asks the court to construe "ends" as the "external vertical walls that are joined to the opposed vertical sides and horizontal top and bottom to form a rigid enclosed structure." Gov't Resp. at 24. The specification describes the "ends" as having "surfaces" and provides several preferred embodiments, such as "[e]nd walls" and "end panels." Gov't Resp. at 24–25. And, the prosecution history conflicts with Plaintiffs' proposed construction, because the limitation that the ends must be "opposed" was made in response to the initial rejection by the USPTO. Gov't Resp. at 25. Therefore, "ends cannot be construed to mean merely the lengthwise boundaries of the container." Gov't Resp. at 25. Finally, Plaintiffs' extrinsic dictionary definitions are indefinite, attempt to "expand the definition of 'ends' beyond the art of shipping containers," and would not help one of ordinary skill in the art to implement the claimed invention. Gov't Resp. at 25–26.

iii) The Court's Resolution.

Plaintiffs' proposed construction is overbroad and fails to read "ends" in the context of the entire claim. "Ends" cannot be the "lengthwise boundar[ies] of the container," as Plaintiffs contend, because both claims 1(a) and 16(a) require the "said [i.e., 'opposed'] ends, sides, top and bottom [to be] secured to form a rigid container[.]" '854 patent, col. 5, ll. 16–18, col. 6, ll. 29–31 (emphasis added). If "ends" were lengthwise terminal points of the sides and top of the container, i.e., points in space, then they could not be secured to the sides and top of the container, as the claim requires. The specification describes the claimed container as having "pivoting side walls 12, roof 14, and ends 16, all of which surfaces may be insulated. '854 patent, col. 2, ll. 65–67 (emphasis added). Therefore, "ends" must be separate, physical structures capable of being secured to form the terminal boundaries of the container.

Plaintiffs' extrinsic dictionary definitions also contradict the meaning of the term "ends" discussed in the intrinsic record. *See Phillips*, 415 F.3d at 1318 (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998) (holding that the court should not rely on extrinsic evidence "that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent") (internal quotations omitted).

The Government's proposed construction improperly imports limitations into the claim. The Government argues that "ends" must be "vertical walls." Gov't Resp. at 24. Although the specification describes the preferred embodiment as "[e]nd walls" and as "end panels," '854 patent, col. 3, 1. 15, col. 4, 1. 47, the claims do not prescribe the form or function of the "ends," e.g., "walls" or "panels." The patentee provided an example of the best mode for carrying out the claimed invention. '854 patent col. 2, 1. 45—col. 5, 1. 12. But, "the claims and the embodiments in the specification [are not required] to be strictly coextensive." *Phillips*, 415 F.3d at 1323; see also Renishaw PLC, 158 F.3d at 1249 ("Where a specification does not require a limitation, that limitation should not be read from the specification into the claims.") (internal citations and quotation marks omitted).

For these reasons, the court has determined that, after reading the entire specification and the claims of the '854 patent, a person with working knowledge of the intermodal shipping industry would understand the term "ends" to mean "separate, physical structures that are capable of being secured to the sides and top of the container, to form the lengthwise terminal boundaries of the container."

d. "External dimensions."

The parties propose the following competing constructions of the term "external dimensions" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed	The Government's Proposed
	Construction	Construction
"external dimensions" (Claims 1(a) and 16(a))	No construction necessary (plain and ordinary meaning) In the alternative, "outer measurements"	"the dimensions of the rigid enclosed structure formed by joining the opposed ends, opposed vertical sides, and a horizontal top and bottom. These dimensions must satisfy the standards for ISO Series 1 freight containers"

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that the court does not need to construe "external dimensions," because the term has a plain and ordinary meaning. Pl. Br. at 23. In the alternative, "external dimensions" should be construed as "outer measurements," because that is how a person with working knowledge of the intermodal shipping industry would understand that term. Pl. Br. at 24. Although the specification does not explicitly define "external dimensions", it is used "in conjunction with listing various length, width and height measurements," and the ISO standard uses "external dimensions" with the length, width, and height of ISO Series 1 freight containers. Pl. Br. at 24. In addition, the dictionary defines "external" as "an outer part" and "dimension" as "to measure out." WEBSTER'S at 355, 440.

ii) The Government's Proposed Construction.

The Government responds that "external dimensions" should be construed as "the dimensions of the rigid enclosed structure formed by joining the opposed ends, opposed vertical sides, and a horizontal top and bottom. These dimensions must satisfy the standards for ISO Series 1 freight containers." Gov't Resp. at 26. Plaintiffs' proposed construction impermissibly "separate[s] the external dimensions of the container from the requirement that the container of the patent must satisfy the standards for an ISO Series 1 freight container." Gov't Resp. at 27. It is necessary to measure these dimensions, so "the walls [must] define the outermost boundaries of the container . . . [and] have the ISO standard dimensions." Gov't Resp. at 27; see also 6/24/14 TR 61–62.

iii) The Court's Resolution.

The ISO standard describes "corner fitting locations" in a separate section from "external dimensions," and the length, width, and height measurements between corner fittings are listed in a separate table that specifies the overall external length, width, and height measurements of the container. Pl. Br. Ex. C at 12–13, 15. But, both the figure in the ISO standard and the table specifying the measurements between the individual corner fittings refer to the "external length of the container," the "external width of the container," and the "overall height." Pl. Br. Ex. C at 14–15. Therefore, the container is measured from the outer boundaries of individual corner fittings. The ISO standard defines the points from which "external dimensions" are measured. 6/24/14 TR 62 ("The question is really how you measure, where does the tape go.").

The Government's proposed construction is indefinite, because it uses the word "dimensions" to define "external dimensions." Gov't Resp. at 26. This does not clarify how one with working knowledge of intermodal shipping would understand the term. The Government also recognized that "[t]hese dimensions must satisfy the standards for ISO Series 1 freight containers." Gov't Resp. at 26. But, the claim contains the limitation that the external dimensions must satisfy the ISO standards, '854 patent, col. 5, l. 20, so there is no need to read that limitation into the term "external dimensions." *See Am. Piledriving Equip.*, 637 F.3d at 1331 ("[T]he role of a [trial] court in construing claims is not . . . to read limitations into the claims to obviate factual questions of infringement and validity[.]").

"External dimensions" has a plain and ordinary meaning, *i.e.*, the "outer length, width, and height measurements of the container structure." The ISO standard provided by the patentee in response to the non-final rejection by the USPTO defines "internal dimensions," but it does not define "external dimensions." Pl. Br. Ex. C at 11. It does, however, provide a table of "external dimensions [and] permissible tolerances" that specifies the lengths, widths, and heights for Series 1 freight containers. Pl. Br. Ex. C at 13. That table refers to "overall height" to advise the shipper of jurisdictional height limits. Pl. Br. Ex. C at 13. Thus, the prosecution history supports finding that a person with working knowledge of intermodal shipping would understand "external dimensions" by that definition.

For these reasons, the court has determined that, after reading the entire specification and the claims of the '854 patent, a person with working knowledge of the intermodal shipping industry would understand the term "external dimensions" to mean the "outer length, width, and height measurements of the container structure."

e. "Corner fitting locations."

The parties propose the following competing constructions of the term "corner fitting locations" for the court's consideration:

'854 Patent			
Term(s)	Plaintiffs' Proposed	The Government's Proposed	
	Construction	Construction	
"corner fitting	No construction necessary (plain	"those of the rigid enclosed	
locations"	and ordinary meaning)	structure that is formed by joining	
(Claims 1(a) and 16(a))		the opposed ends, opposed vertical	
	In the alternative, "locations on	sides, and horizontal top and	
	the container having structure	bottom. These locations must	
	that permits handling"	correspond to the corner fitting	
		locations for ISO Series 1 freight containers."	

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that the court does not need to construe the term "corner fitting locations," because it has a plain and ordinary meaning. Pl. Br. at 27. In the alternative, "corner fitting

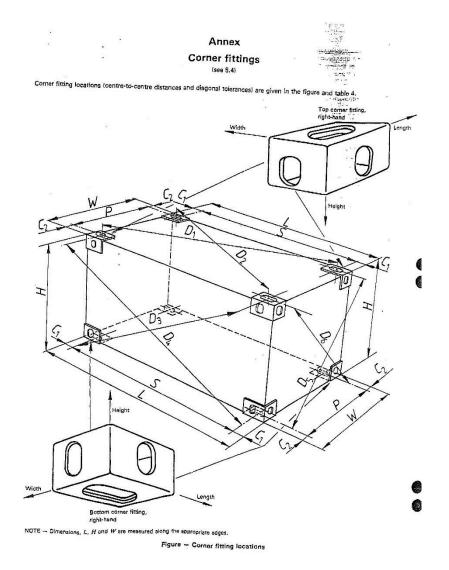
locations" should be construed to mean "locations on the container having structure that permits handling." Pl. Br. at 27. Although the specification does not explicitly define this term, it describes the function of a corner fitting: to "provide reinforcement of the [container] structure [d]uring shipping." '854 patent, col. 3, ll. 7–8. In addition, the ISO standard requires a Series 1 freight container to be "fitted with devices permitting its ready handling." Pl. Br. Ex. C at 11.

ii) The Government's Proposed Construction.

The Government responds that Plaintiffs' proposed construction "incorrectly tries to separate the corner fitting locations of the container from the requirement that the container must satisfy the standards for an ISO Series 1 freight container." Gov't Resp. at 30. The proper construction must include a limitation that the corner fitting locations meet the ISO standard, because during prosecution, the "applicants disclaimed any interpretation that 'corner fitting locations' means any configuration other than those of an ISO Series 1 freight container." Gov't Resp. at 30.

iii) The Court's Resolution.

Plaintiffs' construction is overbroad, because it refers to a location on the container of any structure, as long as that structure enables handling of the container. For example, a container may include structures "to receive the forks of a fork lift vehicle." '854 patent, col. 3, l. 9. The claim language, however, specifies that "corner fittings locations" must satisfy the ISO standard that requires corner fittings to be located at the outer corners of the container to provide points from which the external dimensions of the container can be measured. '854 patent, col. 5, ll. 17–20.



The Government's proposed construction, however, is circular, because it implicitly includes the term "container," thereby defining "corner fitting locations" as where corner fittings are placed. The Government also improperly imports two limitations into the claim: the ISO standard for Series 1 shipping containers; and that the claimed container must be "enclosed." Gov't Resp. at 26.

For these reasons, because of the problems with both parties' proposed constructions, the court has determined that, after reading the entire specification, prosecution history, and the claims of the '854 patent, one with working knowledge of the intermodal shipping industry would understand the term "corner fitting locations" to mean "the juncture where the ends, sides, top, and bottom of the container join and permit the placement of corner fittings."

f. "An opening is formed in said vertical side circumscribed by edges of said vertical side."

The parties propose the following competing constructions of the phrase "an opening is formed in said vertical side circumscribed by edges of said vertical side" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed	The Government's Proposed
	Construction	Construction
"an opening is formed in said vertical side		"section of the pivoting side wall pivots from the vertical position to
circumscribed by edges of said vertical	In the alternative, "an opening is	the horizontal position thereby leaving an opening in the vertical
side" (Claim 1(b))	opening being surrounded by	side of the container. Said opening is surrounded by edges of the vertical side."

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that the court does not need to construe "an opening is formed in said vertical side circumscribed by edges of said vertical side," because it has a plain and ordinary meaning. Pl. Br. at 29. In the alternative, this phrase should be construed as "an opening is defined in the vertical side, the opening being surrounded by edges of the vertical side," because that is how a person of ordinary skill in the art would understand it. Pl. Br. at 29. The specification supports this construction, as it makes clear that the "opening" is in the side wall. Pl. Br. at 29–30 (citing '854 patent, col. 5, ll. 8–10). The Government's proposed construction "introduces new and ambiguous language," because the words "pivoting side wall" do not appear in the claims. Pl. Br. at 30. If "pivoting side wall" refers to the "pivoting wall portion," the Government needlessly restates language from the claim. Pl. Br. at 30.

The Government also improperly imports preferred embodiments into the claims requiring the openings described in claims 1(b) and 16(b) to be distinct. Pl. Reply at 11. "[N]othing in the intrinsic evidence shows an intent by the Applicant to limit the pivoting structure of either claim[s] 1 or 16 to a specific size or relationship to other components." Pl. Reply at 11.

ii) The Government's Proposed Construction.

The Government responds that "an opening is formed in said vertical side circumscribed by edges of said vertical side" should be construed to mean a "section of the pivoting side wall pivots from the vertical position to the horizontal position thereby leaving an opening in the vertical side of the container. Said opening is surrounded by edges of the vertical side." Gov't Resp. at 33–34. The reference to a "pivoting side wall" indicates "a pivoting wall portion hingedly connected to said vertical side along the lower edge of said pivoting wall portion[.]" '854 patent, col. 5, ll. 21–23; *see also* Gov't Resp. at 32 (quoting '854 patent, col. 2, ll. 65–66) ("[P]ivoting side walls' does appear in the patent specification[, which states that] . . . 'container 10 has rigid

sides 11 from which are cut out *pivoting side walls* 12.") (emphasis in original). Therefore, this construction is necessary to distinguish "opening" in claim 1 from "opening" in claim 16(b): "Simply put, claim 1 covers an expandable container in which a portion of a side wall pivots downward, whereas claim 16 covers an expandable container in which the entire side wall pivots down." Gov't Resp. at 33.

iii) The Court's Resolution.

The text preceding "an opening is formed in said vertical side circumscribed by edges of said vertical side" in claim 1(b) describes a section of "at least one of said [container's] sides comprising a pivoting wall portion" that "pivot[s] between a closed vertical position and an open horizontal position[.]" '854 patent, col. 5, ll. 21–25. The text following this phrase states that an opening is created "when said pivoting wall portion is in the [open] horizontal position." '854 patent, col. 5, ll. 28–29. Therefore, claim 1(b) requires an opening to occur when a portion of the container's side pivots down. As such, the Government's proposal imports limitations already present in the claim.

The Government's concern that openings described in claim 1(b) and 16(b) be distinct, however, is valid. "The doctrine of claim differentiation creates a presumption that each claim in a patent has a different scope," the difference being "significant to the extent that the absence of such difference in meaning and scope would make a claim superfluous." *Free Motion Fitness, Inc. v. Cybex Int'l, Inc.*, 423 F.3d 1343, 1351 (Fed. Cir. 2005) (internal quotations and alterations omitted). Claim 16(b) is broader in scope than claim 1(b), because claim 16(b) requires the opening to be circumscribed by the edges of the entire container, not just the edges of the side. '854 patent, col. 6, ll. 40–42. Thus, any opening covered by claim 1(b) also would be covered by claim 16(b), but not vice-versa. Intrinsic evidence demonstrates that claim 1(b) limits the opening formed by the pivoting section in relationship to the side of the container, *i.e.*, the opening is made by lowering only a partial section of the container's vertical side. If both types of openings were the same, claim 16(b) would violate the doctrine of claim differentiation.

For these reasons, the court has determined that, after reading the entire specification, prosecution history, and the claims of the '854 patent, a person with working knowledge of the intermodal shipping industry would understand "an opening is formed in said vertical side circumscribed by edges of said vertical side" to mean "an opening is created by lowering only a partial section of the container's vertical side, so that the opening is surrounded by the edges of the vertical side."

g. "An opening is formed in said vertical side circumscribed by edges of said container."

The parties propose the following competing constructions of the term "an opening is formed in said vertical side circumscribed by edges of said container" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed	The Government's Proposed
	Construction	Construction

"an opening is formed in said vertical side circumscribed by edges of said container" (Claim 16(b))	and ordinary meaning) In the alternative, "an opening is defined in the vertical side, the opening being surrounded by	"the entire pivoting side wall pivots from the vertical position to the horizontal position thereby leaving an opening in the vertical side of the container. Said opening is surrounded by edges of the container."
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i) Plaintiffs' Proposed Construction.

Plaintiffs argue that the phrase "an opening is formed in said vertical side circumscribed by edges of said container" does not require construction, but if it does, should be construed to mean "an opening is defined in the vertical side, the opening being surrounded by edges of said container." Pl. Br. at 31–32. The Government's proposed construction, requiring the opening to be formed by the lowering of the "entire pivoting side wall," is ambiguous and not supported by intrinsic evidence. Pl. Br. at 32.

ii) The Government's Proposed Construction.

The Government proposes that the phrase "an opening is formed in said vertical side circumscribed by edges of said container" should be construed to mean "the entire pivoting side wall pivots from the vertical position to the horizontal position thereby leaving an opening in the vertical side of the container. Said opening is surrounded by edges of the container." Gov't Resp. at 34. This is so, because the specification "discloses an embodiment of the invention wherein the container 'has side walls 112 which pivot downwardly as a *complete side wall unit*[.]" Gov't Resp. at 34 (quoting '854 patent, col. 4, ll. 37–39) (emphasis in original).

iii) The Court's Resolution.

As previously discussed, the opening described in claim 16(b) is different than claim 1(b), because the opening is circumscribed by the edges of the container, instead of the edges of the side. Thus, an opening may be created by lowering a portion of the side and still meet that limitation.

The Government's proposed construction improperly limits the claim to an embodiment described in the specification. It is settled law that limitations from the preferred embodiment described in the specification should not be imported into the claims. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d at 1369 ("We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification."). Because the claim language requires only that the edges of the container circumscribe the opening, the proper construction of this phrase should include openings that lower both the container's entire side and a portion of the side.

For these reasons, the court has determined that, after reading the entire specification, prosecution history, and the claims of the '854 patent, one with working knowledge of the intermodal shipping industry would understand the term "an opening is formed in said vertical

side circumscribed by edges of said container" to mean "an opening is created by the lowering of the side wall of the container or any portion thereof."

h. "Levelling means."

The parties propose the following competing constructions of the term "levelling means" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed	The Government's Proposed
	Construction	Construction
"levelling means"	"structure to substantially	"one or more leveling jacks, wood or
(Claims 2, 3, and 10)	maintain in a horizontal position"	timber blocking or suitable
		equivalent of the described
		structure "

The parties disagree whether this term is written in the means-plus-function form and subject to 35 U.S.C. \S 112, \P 6^8 and whether it should be limited to the corresponding structures disclosed in the specification.

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that the means-plus-function presumption for the term "levelling means" is rebutted, because the claim does not "recite a function for the levelling means to perform," and "the term 'levelling' designates sufficient structure to skilled artisans[.]" Pl. Br. at 36 (internal quotations and alterations omitted); *TecSec, Inc. v. Int'l Bus. Mach. Corp.*, 731 F.3d 1336, 1347 (Fed. Cir. 2013) ("The use of the term 'means' triggers a rebuttable presumption that § 112, ¶ 6 applies."). In addition, because dependent claims 3 and 10 narrow the term "levelling means" to comprise a jack and wood blocks, respectively, the broader claim 2 cannot include these limitations. Pl. Br. at 36–37. In the alternative, if "levelling means" is written in means-plus-function form, the corresponding structures should be "level support, which can include one or more levelling jacks, wood or timber blockings or the like, or suitable equivalents[.]" Pl. Br. at 37.

ii) The Government's Proposed Construction.

The Government argues that the term "levelling means" specifies a function and that the '854 patent identifies corresponding structures. Gov't Br. at 39.9 "The function of 'levelling

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

35 U.S.C. § 112, ¶ 6 (2006).

⁸ Section 112 provides:

⁹ The Government cites 35 U.S.C. §112(f), instead of 35 U.S.C. §112, ¶ 6, even though the

means' is 'releasably maintaining said pivoting wall portion in said horizontal position'" or "simply 'levelling." Gov't Br. at 39. The structures corresponding to this function are "levelling jacks 46, and wood or timber blocking." Gov't Br. at 39; '854 patent col. 3 ll. 48–49. In addition, because "levelling" describes a function and not a specific structure, finding that this term is not written in the means-plus-function form would render the claim indefinite. Gov't Br. at 40.

iii) The Court's Resolution.

The court agrees with the Government that "levelling" describes a function, not a structure. The specification identifies the corresponding structures: leveling jacks, wood or timber blocking, or suitable equivalents. '854 patent, col. 3, ll. 48–49.

For this reason, the court has determined that, after reading the entire specification, prosecution history, and the claims of the '854 patent, one with working knowledge of the intermodal shipping industry would understand the term "levelling means" to be: written in a means-plus-function form under \S 112, \P 6; and limited to the disclosure of the corresponding structures in the specification—one or more leveling jacks, wood or timber blocking, or suitable equivalents.

i. "Means adapted to support said pivoting wall portion for releasably maintaining" and "means for releasably maintaining."

The parties propose the following competing constructions of the phrases "means adapted to support said pivoting wall portion for releasably maintaining" and "means for releasably maintaining" for the court's consideration:

'854 Patent		
Term(s)	Plaintiffs' Proposed Construction	The Government's Proposed Construction

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^{&#}x27;854 patent was issued prior to the effective date of the amendments to this section. *See* Pub. L. 112–29, 125 Stat. 284–341 (2011).

"means adapted to support said pivoting wall portion for	This phrase is written in 35 U.S.C. §112, ¶ 6 form.	This phrase is written in 35 U.S.C. §112, ¶ 6 form.
releasably maintaining" (Claims 1(d) and 16(d))	Function: maintaining the pivoting wall portion in the horizontal position such that it can be released therefrom	Function: maintaining the pivoting wall portion in the horizontal position such that it can be released therefrom
"means for releasably maintaining" (Claim 2)	Structure: a support for the pivoting wall portion	Structure: a support for the pivoting wall portion
	The support can include: - Leveling jack(s) or jack(s) - Wood/timber blocking or the like - Levelling means - Suitable equivalent of the described structure	The support can include: - Leveling jack(s) or jack(s) - Wood/timber blocking or the like - Suitable equivalent of the described structure

The parties agree that this phrase is a means-plus-function claim and that the function described is "maintaining the pivoting wall portion in the horizontal position such that it can be released therefrom." Pl. Br. at 33–34; *see also* Gov't Br. at 37. The parties also substantially agree on most of the corresponding structures. Pl. Br. at 34; Gov't Br. at 37. The dispute is whether "levelling means" is a corresponding structure.

i) Plaintiffs' Proposed Construction.

Plaintiffs argue that "levelling means" is a structure included in the specification, because claim 2 discloses that "said means for releasably maintaining said pivoting wall portion in said horizontal position comprises *levelling means*." Pl. Br. at 35 (emphasis in original). Claims 3 and 10 depend on claim 2 and identify specific embodiments of "levelling means." Pl. Br. at 35. Because these dependent claims are narrower and contain embodiments as limitations, "levelling means" is different from these embodiments and is a corresponding structure. Pl. Br. at 35.

ii) The Government's Proposed Construction.

The Government responds that "levelling means" is not a corresponding structure for the disclosed function of "maintaining the pivoting wall portion in the horizontal position such that it can be released therefrom." Gov't Br. at 38. "[I]ncluding 'levelling means' as a corresponding structure would negate [\S 112, \P 6] by including a functional limitation as a structure." Gov't Br. at 38 (emphasis omitted). Therefore, the court should exclude "levelling means" from the corresponding structures for this term.

iii) The Court's Resolution.

As previously discussed, "levelling means" is a means-plus-function term. Therefore, it is not a corresponding structure to the function of "maintaining the pivoting wall portion in the horizontal position such that it can be released therefrom." The term "levelling means" is limited

to the disclosed corresponding structures: one or more leveling jacks, wood or timber blocking, or suitable equivalents. The same structures that correspond to "levelling means" are included in the parties' proposed constructions for the terms "means adapted to support said pivoting wall portion for releasably maintaining" and "means for releasably maintaining."

For these reasons, the court has determined that, after reading the entire specification, prosecution history, and the claims of the '854 patent, one with working knowledge of the intermodal shipping industry would understand that the terms "means adapted to support said pivoting wall portion for releasably maintaining" and "means for releasably maintaining" to be: written in a means-plus-function form under $\S 112$, $\P 6$; and limited to the disclosure of the corresponding structures in the specification—leveling jacks, wood or timber blocking, or suitable equivalents.

V. CONCLUSION.

For the reasons discussed herein, the court has determined that the disputed claims are to be construed pursuant to this Memorandum Opinion And Order Construing Certain Claims of United States Patent No. 5,761,854.

IT IS SO ORDERED.

/s/ Susan G. Braden
SUSAN G. BRADEN
Judge

COURT APPENDIX: THE TERMS OF CERTAIN PATENT CLAIMS AGREED BY THE PARTIES

The parties agree to the following constructions with respect to United States Patent No. 5,761,854.

'854 Patent	
Term(s)	Parties' Proposed Construction
"flexible cover" (Claim 1(e))	"a cover that is capable of being flexed" and
and	"a fabric cover that is capable of being flexed"
"flexible fabric cover" (Claim 16(e))	

'854 Patent		
Term(s)	Parties' Proposed Construction	
"flexible cover secured to said outer edge of said pivoting wall portion and secured to said container around said opening formed when said pivoting wall portion is in said lowered horizontal position" (Claim 1(e)) and	"flexible cover is coupled to an outer edge of the pivoting wall portion and coupled to the container around the opening" and "flexible fabric cover is coupled to an outer edge of the pivoting wall portion and coupled to the container around the opening"	
"flexible fabric cover secured to said outer edge of said pivoting wall portion and secured to said container around said opening formed when said pivoting wall portion is in said lowered horizontal position" (Claim 16(e))		
"means associated with said container and with said pivoting wall portion for releasably securing" (Claims 1(c) and 16(c))	This term is written in 35 U.S.C. §112, ¶ 6 form. Function: Securing the pivoting wall portion in the vertical position such that it can be released therefrom	
"means for releasably securing" (Claims 11 and 12)	Structure: Latching mechanism that is located inside or outside the container The latching mechanism can include: - a nut and bolt arrangement - an alignment pin - a pivoting handle - anti-racking locks - latch - suitable equivalent of the described structure	
"latching means" (Claim 12)	"latch"	

'854 Patent		
Term(s)	Parties' Proposed Construction	
"means extending outwardly from said vertical side and	This term is written in 35 U.S.C. §112, ¶ 6 form.	
above said pivoting wall portion when said pivoting wall portion is in said lowered horizontal position for supporting said fabric cover above said pivoting wall portion while said pivoting wall portion is in said lowered horizontal position" (Claim 1(f))	Function: Supporting the fabric cover above the pivoting wall portion while the pivoting wall portion is in the horizontal position Structure: A support for the flexible cover, and its equivalents The support can include: - Rigid or semi-rigid frame, beams or	
"means for supporting" (Claims 6 and 15)	 Rigid or semi-rigid frame, beams or frame members Made of metal or other suitable means such as plastic, graphite, or fiberglass. May take the shape of an arc or other appropriate shape Suitable equivalent of the described structure 	
"means for raising and lowering said pivoting wall portion" (Claims 4 and 5)	This term is written in 35 U.S.C. §112, ¶ 6 form. Function: Raising and lowering of the pivoting wall portion Structure: The following structures: - Wire ropes run over pulleys and down to winches - Cable and winch - Suitable equivalent of the described structure	
"winching means" (Claim 5)	"winch"	