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deploy, similar to a flip-top cellular phone. Such ramps are very stable when stowed or deployed, because gravity holds the flippable portion of the ramp in place. When the ramp is flipped between these two positions, gravity first pulls the ramp towards its starting position, making the flipping hard to start. Midway through the flip, the ramp becomes momentarily balanced, before tipping past its center of gravity and being pulled towards its final, post-flip position.

The invention at issue makes flipping the ramp easier, by providing a "counterbalance" force that pushes against gravity. See '433 Patent col. 1:40-53; 2:7-10; 10:15-47; 12:65-13:8. The counterbalance force is provided by a spring or springs. These springs are rigged so that when the ramp is vertical, balanced at its center of gravity, they do not push the ramp in either direction. *Id.* In contrast, as the ramp tips towards a horizontal position – stowed or deployed – the springs become compressed and push back against the force of gravity. *Id.*

The ramp counterbalance invention is claimed in a family of four patents assigned to Lift-U: a parent, United States Patent No. 7,681,272 ("the '272 patent"), and three continuations, United States Patent Nos. 7,533,432 ("the '432 patent"), 7,533,433 ("the '433 patent"), and 7,533,434 ("the '434 patent") (collectively, the "patents-in-suit"). These patents share a common specification. This specification describes an embodiment in which each spring is held between two spring fittings with a rigid rod extending through the spring's center (forming a "spring assembly"). See '433 Patent col. 11:16-54. Each end of the rigid rod is attached to one end of a drive chain. See id. col. 11:16-22. Drive chain segments and the spring assemblies are linked in a series to form an "endless loop," and the ramp is attached to this loop, so that movement of the ramp moves the loop. See id. col. 11:11-15; 12:23-41. A rigid paddle structure sticks into the path of the endless loop. See id. col. 12:1-4. The drive chain slides through a hole in this structure, but the spring fitting cannot. See id. col. 12:3-10. When the spring fitting catches against this immobile "end stop" (a "restraint"), the spring begins compressing, creating a backwards force away from the end stop. See id. col. 12:41-65. This backwards force pushes against the drive chain and against the forces of gravity pulling the ramp. See id. col. 12:54-65. Because the drive chain is narrow, it does not push against the spring directly, and the force from the spring does not

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push back directly against the drive chain. Instead, the actual compressing of the spring towards the restraint is done by a wider "cylindrical bushing" (a "biasing element") attached to the drive chain. See id. col. 11:34-46; 12:41-53. Certain claims, including claims 10 and 17 of the '433 Patent, achieve the same effect by permanently fixing one spring end to the restraint (rather than to the spring fitting), while leaving the biasing element free until it moves into contact with the free end of the spring and initiates compression. See id. col. 19:14-32; 20:11-32.

Lift-U filed for reexamination of the patents-in-suit, after emergence of a prior art reference, the Wittwer Patent, which raised a substantial new question of patentability. See, e.g., Non-Infringement Mot., ECF No. 59, Ex. 11 (Request for Reexamination of the '433 Patent). Each patent was amended during reexamination, and the USPTO issued a Certificate of Reexamination for each patent. See Lift-U Claim Construction Br., ECF No. 56, Exs. I-L (Ex Parte Reexamination Certificates for the Patents in Suit).

In a separate order, the Court adopted Lift-U's proposed construction of the disputed terms. Defendants conceded at the September 19, 2011 technology tutorial that their motion for summary judgment of non-infringement would be rendered moot if the Court adopted Lift-U's proposed constructions. Accordingly, Defendants' motion for summary judgment of non-infringement is DENIED as MOOT.

II. Legal Standard

A. Summary Judgment

Rule 56 of the Federal Rules of Civil Procedure provides that summary judgment as to "all or any part" of a claim "shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(b), (c). Material facts are those that may affect the outcome of the case. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 248 (1986). A dispute as to a material fact is "genuine" if the evidence is such that "a reasonable jury could return a verdict for the nonmoving party." See id. "[I]n ruling on a motion for summary judgment, the judge must view

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the evidence presented through the prism of the substantive evidentiary burden." *Id.* at 254. The question is "whether a jury could reasonably find either that the [moving party] proved his case by the quality and quantity of evidence required by the governing law or that he did not." *Id.* "[A]ll justifiable inferences must be drawn in [the nonmovant's] favor." *See United Steelworkers of Am. v. Phelps Dodge Corp.*, 865 F.2d 1539, 1542 (9th Cir. 1989) (en banc) (citing *Liberty Lobby*, 477 U.S. at 255).

The moving party bears the initial responsibility for informing the district court of the basis for its motion and identifying those portions of the pleadings, depositions, interrogatory answers, admissions and affidavits, if any, that it contends demonstrate the absence of a genuine issue of material fact. *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). A party opposing a properly supported motion for summary judgment "may not rest upon the mere allegations or denials of [that] party's pleading, but . . . must set forth specific facts showing that there is a genuine issue for trial." *See* Fed. R. Civ. P. 56(e); *see also Liberty Lobby*, 477 U.S. at 250. The opposing party need not show the issue will be resolved conclusively in its favor. *See Liberty Lobby*, 477 U.S. at 248–49. All that is necessary is submission of sufficient evidence to create a material factual dispute, thereby requiring a jury or judge to resolve the parties' differing versions at trial. *See id*.

B. Invalidity

Patents are presumed to be valid. 35 U.S.C. § 282 (2006). Accordingly, to prevail on an invalidity defense to infringement, an accused infringer must prove that the asserted claims of the patent are invalid by clear and convincing evidence. *SIBIA Neuroscis.*, *Inc. v. Cadus Pharm*. *Corp.*, 225 F.3d 1349, 1355 (Fed. Cir. 2000).

Patent claims are invalid if they lack sufficient written description or if the written specification does not enable one skilled in the art to practice the claimed invention without undue experimentation. 35 U.S.C. § 112 ¶ 1. The requirements of sufficient written description and enablement are distinct. *Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F. 3d 1336, 1351 (Fed. Cir. 2010) (en banc).

1. Written Description.

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"[T]he test for sufficiency [of written description] is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." Id. "An applicant complies with the written description requirement by describing the invention, with all its claimed limitations, not [by describing] that which makes [the invention] obvious." Regents of Univ. of Cal. v. Eli Lilly & Co., 119 F.3d 1559, 1566 (Fed. Cir. 1997). However, "it is unnecessary to spell out every detail of the invention in the specification; only enough must be included to convince a person of skill in the art that the inventor possessed the invention." LizardTech, Inc. v. Earth Res. Mapping, Inc., 424 F. 3d 1336, 1345 (Fed. Cir. 2005). "The written description requirement does not demand either examples or an actual reduction to practice"; however, even actual reduction to practice cannot satisfy the written description requirement if the specification fails to demonstrate possession of the claimed subject matter. Ariad, 598 F.3d at 1352. The adequacy of disclosure depends upon "the state of the art and the nature and breadth of' the description of the patented invention. See Hynix Semiconductor Inc. v. Rambus Inc., 645 F.3d 1336, 1352 (2011). The adequacy of written description is a question of fact. See Martek Bioscis. Corp. v. Nutrinova, Inc., 579 F.3d 1363, 1369 (Fed. Cir. 2009).

2. Enablement.

Enablement requires that "one skilled in the art, after reading the specification, could practice the claimed invention without undue experimentation." *See Auto. Techs. Int'l, Inc. v. BMW of N. Am., Inc.*, 501 F.3d 1274, 1282 (Fed. Cir. 2007). Among the factors a court may consider in determining the need for undue experimentation are, "(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims." *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). In contrast to written description, the adequacy of enablement is a question of law, although like claim constructions, enablement findings may have factual underpinnings. *Martek Bioscis. Corp.*, 579 F.3d at 1378.

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III. Discussion

As a preliminary matter, the Court addresses Lift-U's argument that Defendants' invalidity motion is not ripe because it is not contingent on claim construction per the Court's February 9, 2011 order and because expert discovery has not been completed. Plaintiff's Invalidity Opp'n, ECF No. 63, at 1-2 (Invalidity Opp'n). The Court finds that claim construction is dispositive of the issue of invalidity. Therefore, the Court's February 9, 2011 order authorizing "summary judgment motions on issues for which claim construction will be dispositive" authorized Defendants' invalidity motion. The Court also disagrees that pending expert discovery somehow makes this motion not ripe. Lift-U does not suggest what type of evidence might emerge to support its opposition. Moreover, Lift-U was able to submit the declaration of its inventor, David Johnson, as an attachment to its opposition to Defendants' invalidity motion. Thus, Lift-U had the opportunity to address the issues raised in Defendants' invalidity motion in this declaration. Accordingly, the Court finds that Defendants' invalidity motion is ripe for a decision on the merits.

Defendants argue that claims 10, 11, 13, 14, 16-18, and 20 of the '433 Patent are invalid for lack of sufficient written description and for lack of enablement. Because, as explained below, the Court finds these claims invalid for lack of sufficient written description, it need not reach Defendants' arguments that the '433 Patent is invalid for lack of enablement. *See Ariad*, 598 F.3d at 1351 (noting that enablement and written description are distinct requirements).

A. Written Description

In its separate claim construction order, the Court construed "spring" and "compression spring" to include gas springs. In addition, the Court construed "endless loop," "coupler," "force transmission element," and "line" such that the spring can be offset from the endless loop / coupler / force transmission element / line ("offset spring"). Thus, as construed by the Court, the patent claims an invention that includes gas springs or offset springs. Defendants argue that the written

¹ In its Claim Construction Order, the Court found that Lift-U had not unambiguously disclaimed gas springs when it distinguished prior art references that used gas struts that did not provide a counterbalancing force. *See* Claim Construction Order 7-8.

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description in the '433 Patent would not convey to those skilled in the art that the inventor had possession of a design of the invention that included gas springs or offset springs.

1. Gas Springs.

The parties dispute whether the following paragraph in the specification conveys possession of gas springs:

It should be understood that various known spring configurations providing linear or non-linear reactive force can be included in the counterbalance assembly 100 without departing from the spirit and scope of the present invention. In addition, alternate systems can be used to provide a resistive force, such as pneumatic systems, hydraulic systems, and other systems known in the art.

'433 Patent col. 13:25-31 (emphasis added). The issue is whether the disclosure of "pneumatic systems" in the specification is sufficient to convey to those skilled in the art that the "compression springs" described in the specification, see, e.g., id. col. 12:45-47, included gas springs, and that the inventor had possession of a design of the invention that used gas springs.

Defendants submit a declaration of their retained expert, Fred Smith, asserting that persons having ordinary skill in the art understand pneumatic systems to be active systems that pump gas to provide resistive force, but not passive resistance systems like gas springs. See Invalidity Mot. 12 (citing Ex. 3 (Smith Decl.) ¶ 13). Smith analogizes "pneumatic systems" to "hydraulic systems" which he asserts are incapable of storing energy because fluids cannot be compressed. See id.

Lift-U, on the other hand, submits a declaration from one of the patent's inventors, David Johnson, asserting that pneumatic systems are a broad class of systems that include active systems, such as those described in paragraph 13 of the Smith Declaration, and passive systems, which include gas springs. See Johnson Decl. in Support of Opp'n to Invalidity Mot., ECF No. 64 (Johnson Decl.) ¶ 4.E. Mr. Johnson stated that "[o]ne type of 'pneumatic system' that is well known to mechanical engineers is a pneumatic spring (alternatively referred to as a 'gas spring')." Id. Mr. Johnson testified that a "spring is a very well defined mechanical element" that mechanical engineers "study . . . in school" and learn about how "[springs] store energy" and "provide a force in response to deflection." Allen Decl. in Support of Lift-U's Claim Construction Br. Ex. P

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(Johnson Depo.), at 210:12-15. He also testified that when a gas spring is compressed, "the energy is stored and you can recover that energy if you let [the gas spring] expand." *Id.* at 139:23-140:2.

The Court finds that the parties' experts' dueling testimony creates a material factual dispute as to whether the use of "pneumatic system" and "compression spring" in the 2007 specification² disclosed to persons of ordinary skill in the art that the inventors had invented counterbalances that use gas springs. Moreover, Mr. Johnson's conclusion that the specification sufficiently describes a gas spring is further supported by Defendants' own engineers' description of certain "compression springs" as "pneumatic" in their international patent application. Johnson Decl., Ex. C. (Int'l Patent App. No. WO 2009/134975), at R001978 ¶ 8. This description contradicts the declaration of Defendants' expert, Mr. Smith, which stated that pneumatic systems do not include compression springs. See Invalidity Mot. 12 (citing Ex. 3 (Smith Decl.) ¶ 13). As Mr. Johnson testified, "pneumatic springs" are alternatively referred to as "gas springs" and can be compressed. See Johnson Decl. in Support of Opp'n to Invalidity Mot., ECF No. 64 (Johnson Decl.) ¶ 4.E. Thus, although Defendants' international patent application post-dates Lift-U's patent applications by two years, Defendants' engineers' understanding that the term "compression spring" includes pneumatic springs or gas springs is consistent with what Mr. Johnson testified mechanical engineers learn in school.

Construing the evidence in the light most favorable to Lift-U, a reasonable jury could find that the '433 Patent's disclosure of "pneumatic [resistance] systems" conveys to those skilled in the art that the inventor had possession of a design using gas springs at the time of the invention. Therefore, the Court cannot grant summary judgment of invalidity of any claim solely on the ground that the claim encompasses a "gas spring."

2. Offset Springs.

Defendants argue that the written description of the '433 Patent also does not convey to those skilled in the art that the inventors possessed designs with springs offset from the endless

² The record before the Court includes only the specification as originally filed and currently shared by the patents-in-suit. The parties failed to provide the claims as initially submitted with the specification to the United States Patent and Trademark Office.

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loop at the time of the invention. See Invalidity Mot. at 16. Lift-U counters that if the written description discloses gas springs, then it necessarily discloses offset spring designs because one of ordinary skill in the art would know that to practice the invention using a gas spring would require offsetting the gas spring from the endless loop.

The Court agrees with Defendants that the written description does not adequately disclose offset spring designs. The specification makes no reference to the possibility of designs with offset springs. Id. at 17. Furthermore, all of Lift-U's evidence discloses only springs in line with the endless loop. Lift-U's brief recognized that the preferred embodiment of the invention "depicted in the Patents' figures and described in detail in the Patents' common specification . . . contains coiled wire compression springs wrapped around a rod that is connected in line with the endless loop of the chain." Lift-U Br. at 4 (emphasis added). One of the inventors of the patent admitted that, as designed, the spring is "wrapped around a rod that's part of the endless loop." See Invalidity Mot., Ex. 6 (Morris Dep. 28:21-29:3) (emphasis added).

Moreover, Defendants have submitted expert evidence that a person having ordinary skill in the art would not understand the written description to indicate that the inventors possessed a design in which a gas spring is offset from the endless loop. See Smith Decl. ¶ 14-16. Defendants' expert, Mr. Smith, stated that "if the spring is moved off the centerline of the loop, it puts a moment in the chain that one of ordinary skill in the art would have to resist. The patents, however, disclose a force in line with the loop and do not disclose how to account for the off-line moment of [sic] spring." Id. at 16. The Court finds that the absence of any disclosure of offset spring designs, coupled with Defendants' expert evidence, constitute clear and convincing evidence of lack of written description.

Lift-U has failed to submit any evidence to rebut Defendants' evidence and raise an issue of material fact. Lift-U argues that an offset spring design would be obvious and would not require undue experimentation. Invalidity Opp'n 5-6. However, obviousness is not the standard for adequate written description; neither is the ability to practice the claimed embodiment without undue experimentation. See ICU Med., Inc. v. Alaris Med. Sys., Inc., 558 F. 3d 1368, 1379 (Fed.

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Cir. 2009) (citing Regents of Univ. of Cal., 119 F.3d at 1566); Ariad, 598 F.3d at 1352. Although undue experimentation is the standard for finding invalidity due to lack of enablement, "the test for sufficiency [of written description] is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date." Ariad, 598 F.3d at 1351.

Lift-U further argues that by disclosing a gas spring, the specification disclosed an offset spring because the gas spring necessarily would have to be offset from the endless loop in order to practice the invention using a gas spring rather than a coiled wire spring. The Court is not persuaded. As Lift-U's own expert, Mr. Johnson, stated, gas springs do not necessarily need to be offset from the endless loop to practice the invention. Mr. Johnson explained that the preferred embodiment could easily be modified by a person having ordinary skill in the art to incorporate a gas spring by reshaping the guide rod into a tube "so that it goes around the gas spring," leaving the spring in line with endless loop. See Johnson Decl. ¶ 4.F.

Thus, even though the specification provides a written description sufficient to convey to one skilled in the art that the inventor possessed a design of the invention using an in-line gas spring, Lift-U has pointed to no evidence from the original claims, the specification, or the prior art, that would convey to one skilled in the art that the inventor possessed any design using an offset spring.

This deficiency is not remedied by the fact that mechanical engineering is a predictable art in which inventions may be enabled with relative ease. At oral argument, Lift-U admitted that enablement and written description are not entirely equivalent. Lift-U argued, however, that a showing of enablement is sufficient to satisfy the written description requirement for an invention in the predictable arts, citing Ariad, 598 F.3d at 1351 ("[T]he level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology."). In support of its position, Lift-U pointed to dicta explaining that "[p]erhaps there is little difference in some fields between describing an invention and enabling one to make and use it" and that "written description and

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enablement often rise and fall together." *Id.* at 1352. These dicta stand for nothing more than the unremarkable proposition that in some cases, particularly in predictable arts, the written description and enablement requirements will often both be met. The Federal Circuit made clear, however, that "requiring a written description of the invention plays a vital role in curtailing claims that do not require undue experimentation to make and use, and thus satisfy enablement, but that have not been invented, and thus cannot be described." *Id.* Here, there is *no* description of offset springs, and Lift-U has pointed to *no* evidence that would convey to persons having ordinary skill in the art that Lift-U had actually invented offset spring counterbalances as of the '433 Patent's filing date.

Under the claim construction adopted by the Court, the claims at issue in Defendants' motion for invalidity, claims 10, 11, 13, 14, 16-18, and 20 of the '433 Patent, encompass counterbalances with springs offset from the endless loop. Given that Defendants have submitted clear and convincing evidence that the specification would be insufficient to convey to those skilled in the art that Lift-U had possession of offset spring designs at the time of the invention, and Lift-U has failed to submit any evidence to rebut Defendants' evidence, there is no genuine issue of material fact as to the invalidity of these claims. Accordingly, the Court GRANTS Defendants' motion for summary judgment of invalidity.

IV. Conclusion

For the foregoing reasons, the Court DENIES Defendants' motion for summary judgment of non-infringement and GRANTS Defendants' motion for summary judgment of invalidity.

IT IS SO ORDERED.

Dated: October 28, 2011

LUCY H. KOH United States District Judge

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